

BUTTERFIELD SPECIFIC PLAN PROJECT ADDENDUM

CITY OF BANNING

LSA

December 2016

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TABLE OF CONTENTS

1.0	INTRODUCTION	1-1
1.1	PROJECT INTRODUCTION AND BACKGROUND	1-1
1.1.1	Preparation of Addendum	1-2
1.1.2	Evaluation of Environmental Impacts.....	1-3
1.2	PREVIOUS PROJECT APPROVALS	1-4
1.3	POTENTIAL FUTURE PERMIT/APPROVALS IDENTIFIED	1-4
1.4	FINDINGS OF THIS ADDENDUM	1-5
1.5	FORMAT OF ADDENDUM.....	1-6
1.5.1	Chapter 1.0: Introduction	1-6
1.5.2	Chapter 2.0: Project Description	1-6
1.5.3	Chapter 3.0: Comparative Evaluation of Environmental Impacts.....	1-6
1.6	EXISTING DOCUMENTS TO BE INCORPORATED BY REFERENCE	1-6
1.7	CONTACT PERSONS.....	1-7
2.0	PROJECT DESCRIPTION	2-1
2.1	PROJECT HISTORY	2-1
2.1.1	Previous 2012 Butterfield Specific Plan Project Characteristics.....	2-2
2.1.2	2012 Specific Plan Project Design Features.....	2-4
2.2	PROJECT SITE LOCATION AND SETTING	2-15
2.3	DISCRETIONARY ACTIONS	2-15
2.4	POTENTIAL FUTURE PERMIT/APPROVALS IDENTIFIED	2-15
2.5	PROPOSED PROJECT OVERVIEW	2-21
2.5.1	Project Objectives	2-21
2.6	PROJECT CHARACTERISTICS AND SUMMARY OF PROJECT CHANGES	2-23
2.6.1	Proposed Project Design Features.....	2-27
3.0	COMPARATIVE EVALUATION OF ENVIRONMENTAL IMPACTS	3-1
3.1	EFFECTS FOUND NOT TO BE SIGNIFICANT	3-2
3.2	AESTHETICS, LIGHT, AND GLARE	3-3
3.2.1	Existing Environmental Setting.....	3-3
3.2.2	Specific Plan EIR	3-3
3.2.3	Analysis of Project Changes	3-12
3.2.4	Findings Related to Aesthetics.....	3-15
3.2.5	Project Design Features.....	3-15
3.2.6	Mitigation Measures.....	3-16
3.2.7	Mitigation Measures No Longer Applicable.....	3-16
3.3	AGRICULTURE AND FORESTRY RESOURCES.....	3-17
3.3.1	Existing Environmental Setting.....	3-17
3.3.2	Specific Plan EIR	3-17
3.3.3	Analysis of Project Changes	3-19
3.3.4	Findings Related to Agriculture and Forestry Resources.....	3-20
3.3.5	Project Design Features.....	3-21
3.3.6	Mitigation Measures.....	3-21
3.3.7	Mitigation Measures No Longer Applicable.....	3-21
3.4	AIR QUALITY	3-23
3.4.1	Existing Environmental Setting.....	3-23

	3.4.2	Specific Plan EIR	3-23
	3.4.3	Analysis of Project Changes	3-32
	3.4.4	Findings Related to Air Quality	3-44
	3.4.5	Project Design Features.....	3-45
	3.4.6	Mitigation Measures.....	3-45
	3.4.7	Mitigation Measures No Longer Applicable.....	3-47
3.5		BIOLOGICAL RESOURCES	3-49
	3.5.1	Existing Environmental Setting.....	3-49
	3.5.2	Specific Plan EIR	3-50
	3.5.3	Analysis of Project Changes	3-56
	3.5.4	Findings Related to Biological Resources.....	3-58
	3.5.5	Project Design Features.....	3-59
	3.5.6	Mitigation Measures.....	3-60
	3.5.7	Mitigation Measures No Longer Applicable.....	3-60
3.6		GLOBAL CLIMATE CHANGE	3-61
	3.6.1	Existing Environmental Setting.....	3-61
	3.6.2	Specific Plan EIR	3-61
	3.6.3	Analysis of Project Changes	3-66
	3.6.4	Findings Related to Global Climate Change	3-71
	3.6.5	Project Design Features.....	3-72
	3.6.6	Mitigation Measures.....	3-72
	3.6.7	Mitigation Measures No Longer Applicable.....	3-73
3.7		CULTURAL RESOURCES.....	3-75
	3.7.1	Existing Environmental Setting.....	3-75
	3.7.2	Specific Plan EIR	3-77
	3.7.3	Analysis of Project Changes	3-82
	3.7.4	Findings Related to Cultural Resources	3-83
	3.7.5	Project Design Features.....	3-84
	3.7.6	Mitigation Measures.....	3-84
	3.7.7	Mitigation Measures No Longer Applicable.....	3-84
3.8		GEOLOGY, SOILS, AND SEISMICITY.....	3-85
	3.8.1	Existing Environmental Setting.....	3-85
	3.8.2	Specific Plan EIR	3-88
	3.8.3	Analysis of Project Changes	3-94
	3.8.4	Findings Related to Geology and Soils	3-96
	3.8.5	Project Design Features.....	3-97
	3.8.6	Mitigation Measures.....	3-97
	3.8.7	Mitigation Measures No Longer Applicable.....	3-97
3.9		HAZARDS AND HAZARDOUS MATERIALS	3-99
	3.9.1	Existing Environmental Setting.....	3-99
	3.9.2	Specific Plan EIR	3-100
	3.9.3	Analysis of Project Changes	3-115
	3.9.4	Findings Related to Hazards and Hazardous Materials.....	3-117
	3.9.5	Project Design Features.....	3-118
	3.9.6	Mitigation Measures.....	3-118
	3.9.7	Mitigation Measures No Longer Applicable.....	3-118
3.10		HYDROLOGY AND WATER QUALITY	3-119

3.10.1	Existing Environmental Setting	3-119
3.10.2	Specific Plan EIR.....	3-120
3.10.3	Analysis of Project Changes	3-126
3.10.4	Findings Related to Hydrology and Water Quality	3-128
3.10.5	Project Design Features	3-129
3.10.6	Mitigation Measures	3-130
3.10.7	Mitigation Measures No Longer Applicable	3-130
3.11	LAND USE AND PLANNING	3-131
3.11.1	Existing Environmental Setting	3-131
3.11.2	Specific Plan EIR.....	3-131
3.11.3	Analysis of Project Changes	3-133
3.11.4	Findings Related to Land Use and Planning.....	3-134
3.11.5	Project Design Features	3-135
3.11.6	Mitigation Measures	3-135
3.11.7	Mitigation Measures No Longer Applicable	3-135
3.12	NOISE	3-137
3.12.1	Existing Environmental Setting	3-137
3.12.2	Specific Plan EIR.....	3-138
3.12.3	Analysis of Project Changes	3-144
3.12.4	Findings Related to Noise.....	3-149
	No New Significant Effects Requiring Major EIR Revisions.....	3-149
3.12.5	Project Design Features	3-149
3.12.6	Mitigation Measures	3-150
3.12.7	Mitigation Measures No Longer Applicable	3-150
3.13	PUBLIC SERVICES AND UTILITIES	3-151
3.13.1	Existing Environmental Setting	3-151
3.13.2	Specific Plan EIR.....	3-155
3.13.3	Analysis of Project Changes	3-165
3.13.4	Findings Related to Public Services	3-172
3.13.5	Project Design Features	3-173
3.13.6	Mitigation Measures	3-174
3.13.7	Mitigation Measures No Longer Applicable	3-174
3.14	TRANSPORTATION/TRAFFIC.....	3-175
3.14.1	Existing Environmental Setting	3-175
3.14.2	Specific Plan EIR.....	3-176
3.14.3	Analysis of Project Changes	3-182
3.14.4	Findings Related to Traffic and Circulation	3-189
3.14.5	Project Design Features	3-189
3.14.6	Mitigation Measures	3-189
3.14.7	Mitigation Measures No Longer Applicable	3-191
3.15	WATER SUPPLY	3-199
3.15.1	Existing Environmental Setting	3-199
3.15.2	Specific Plan EIR.....	3-199
3.15.3	Analysis of Project Changes	3-204
3.15.4	Findings Related to Water Supply	3-205
3.15.5	Project Design Features	3-206
3.15.6	Mitigation Measures	3-207

3.15.7	Mitigation Measures No Longer Applicable	3-207
3.16	FINDINGS OF THIS ADDENDUM	3-209

FIGURES

Figure 2.1: Project Location	2-17
Figure 2.2: Surrounding Land Uses.....	2-19
Figure 2.3: Proposed Land Use Plan	2-25

TABLES

Table 2.A: Comparative Land Use Summary: 2012 Butterfield Specific Plan and 2016 Proposed Project.....	2-28
Table 3.A.1: 2012 Specific Plan Project Phase 1 Construction Activity - Mitigated Emissions (lbs/day).....	3-34
Table 3.A.2: Proposed Project Phase 1 Construction Activity - Mitigated Emissions (lbs/day)	3-35
Table 3.B.1: 2012 Specific Plan Phase 2 Construction Activity Mitigated Emissions (lbs/day)	3-36
Table 3.B.2: Proposed Project Phase 2 Construction Activity Mitigated Emissions (lbs/day)	3-36
Table 3.C.1: 2012 Specific Plan Phase 3 Construction Activity Mitigated Emissions (lbs/day)	3-37
Table 3.C.2: Proposed Project Phase 3 Construction Activity Mitigated Emissions (lbs/day)	3-38
Table 3.D.1: 2012 Specific Plan Phase 4 Construction Activity Mitigated Emissions (lbs/day).....	3-38
Table 3.D.2: Proposed Project Phase 4 Construction Activity Mitigated Emissions (lbs/day).....	3-39
Table 3.E.1: 2012 Specific Plan Phase 5 Construction Activity Mitigated Emissions (lbs/day)	3-39
Table 3.E.2: Proposed Project Phase 5 Construction Activity Mitigated Emissions (lbs/day)	3-40
Table 3.F: Operational Activity Emissions (lbs/day)	3-41
Table 3.G.1: Project Noise Impacts: Comparison of General Plan Build-out Traffic Noise Levels: With Previously Approved Specific Plan and With Proposed Project	3-146
Table 3.G.2: Cumulative Noise Impacts: Comparison of General Plan Build-out Traffic Noise Levels: With Previously Approved Specific Plan and With Proposed Project	3-147
Table 3.H: Estimated Electricity Usage.	3-170
Table 3.I: Project Trip Generation Comparison.....	3-183
Table 3.J: General Plan Build-out With Improvements Comparison.....	3-186
Table 3.K: Projected Gross Potable and Non-Potable Water Use for the Proposed Project	3-204

APPENDICES

- A: AIR QUALITY MEMORANDUM
- B: NOISE MEMORANDUM
- C: TRAFFIC IMPACT ANALYSIS REPORT

1.0 INTRODUCTION

1.1 PROJECT INTRODUCTION AND BACKGROUND

This Addendum has been prepared to analyze the environmental effects of the revised Butterfield Specific Plan. The Project site is located in the City of Banning (City) and consists of 1,522 undeveloped acres owned by Pardee Homes and an additional 21-acre lot owned by the Highland Springs County Club Owner's Association.

The existing Project site was previously proposed for development under the Butterfield Specific Plan (Specific Plan). The Specific Plan proposed the development of a master planned community consisting up to 5,387 dwelling units, a golf course and open space, parks and additional open space, two schools, an existing substation, a fire station, and backbone roadways, among other components.

The City, as Lead Agency, prepared an Environmental Impact Report (EIR) for the Specific Plan Project in 2012 (SCH No. 2007091149). The Specific Plan EIR found the following significant unavoidable impacts would remain after implementation of mitigation measures prescribed in the EIR: Aesthetics (Project and Cumulative); Air Quality (Project and Cumulative); Climate Change (Cumulative); Noise (Cumulative); and Traffic and Circulation (Project and Cumulative). The City Council certified the EIR on March 27, 2012, adopted the Mitigation Monitoring and Reporting Program (MMRP), and approved the 2012 Specific Plan Project.

Following the City's approval of the Specific Plan and its associated Final EIR, the Highland Springs Resort (Resort) and the Cherry Valley Acres and Neighbors and Cherry Valley Environmental Planning Group (CVAN) challenged the legality of the certified EIR in April 2012, which was heard by the Riverside County Superior Court. Ultimately, the City, Pardee, and the Petitioners (Highland Springs Resort and CVAN) reached a settlement agreement in 2014.

The currently proposed modified Project (referred to as the "Project" or "Proposed Project") reflects the changes required as a result of the settlement agreement and is a less intense development, includes fewer residential units and includes the removal of several roadway extensions. In addition, the Proposed Project would reduce the number of residential units from 5,387 dwelling units to 4,862 dwelling units (a total of 525 fewer units). The proposed golf course in Planning Areas (PAs) 35 and 39 would be eliminated under the Proposed Project and would be replaced with a recreational area to include parks, open space, and other uses permitted under the 2012 Specific Plan Project.

The required changes to the 2012 Specific Plan Project require additional environmental review under the California Environmental Quality Act (CEQA). While the 2012 Specific Plan Project is no longer proposed to be developed at the same intensity, the Specific Plan EIR remains the valid and certified CEQA documentation for future development on the site, and is used to determine whether future development falls within the size and type of uses analyzed in the Specific Plan EIR.

Pursuant to the provisions of CEQA and the *State CEQA Guidelines*, the City is the Lead Agency charged with the responsibility of deciding whether to approve the Project. As part of its decision-

making process, the City is required to review and consider potential environmental effects that could result from construction and operation of the Proposed Project.

1.1.1 Preparation of Addendum

The City's review of the Proposed Project and other related project components is limited to examining environmental effects associated with differences between the Proposed Project and the 2012 Specific Plan Project as analyzed in the Specific Plan EIR. Pursuant to CEQA and the *State CEQA Guidelines*, the City has prepared this Addendum to provide decision-makers with a factual basis for evaluating the specific environmental impacts associated with the Proposed Project and to determine whether there are changes in circumstances or new information of substantial importance that would require preparation of a subsequent or supplemental EIR.

According to Section 21166 of CEQA and Section 15162 of the *State CEQA Guidelines*, a subsequent EIR is not required for the proposed changes unless the City determines on the basis of substantial evidence that one or more of the following conditions are met:

1. Substantial changes are proposed in the Project that require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in severity of previously identified significant effects;
2. Substantial changes have occurred with respect to the circumstances under which the Project is undertaken that will require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with exercise of reasonable diligence at the time the previous EIR was certified, shows any of the following:
 - The Project will have one or more significant effects not discussed in the previous EIR;
 - Significant effects previously examined will be substantially more severe than identified in the previous EIR;
 - Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the Project, but the Project proponent declines to adopt the mitigation measures or alternatives; or
 - Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the Project proponent declines to adopt the mitigation measures or alternatives.

Under *State CEQA Guidelines*, Section 15163, if any of the conditions noted above are present but only minor additions or changes would be necessary to make the previous EIR adequate to apply to the Project in the changed situation, a supplemental EIR may be prepared.

This Addendum reviews changes to the 2012 Specific Plan Project via the Proposed Project and to existing conditions that have occurred since the Specific Plan EIR was certified, and compares environmental effects of development of the Proposed Project with those previously disclosed in the

Specific Plan EIR. It also reviews new information of substantial importance that was not known and could not have been known with exercise of reasonable diligence at the time the Specific Plan EIR was certified and evaluates whether there are new or more severe significant environmental effects associated with changes in circumstances under which project development is being undertaken. It further examines whether, as a result of any changes or any new information, a subsequent or supplemental EIR may be required. This examination includes an analysis of provisions of Section 21166 of CEQA and Section 15162 of the *State CEQA Guidelines* and their applicability to the Project.

Section 15164 of the *State CEQA Guidelines* states that an Addendum to an EIR shall be prepared “if some changes or additions are necessary, but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.” Thus, if none of the above conditions are met, the City may not require preparation of a subsequent or supplemental EIR. Rather, the City can decide that no further environmental documentation is necessary or can require that an Addendum be prepared.

Based upon review of the facts as presented in the analysis contained in this document, the City finds that an Addendum to the Specific Plan EIR is the appropriate document in compliance with CEQA. The rationale and the facts for this finding are provided in the body of this Addendum.

1.1.2 Evaluation of Environmental Impacts

This Addendum compares the environmental effects of the Project, as revised, with those disclosed in the Specific Plan EIR to review whether any conditions set forth in Section 15162 of the *State CEQA Guidelines* requiring preparation of a subsequent or supplemental EIR are met. Potential environmental effects of the Project are addressed for each of the following areas:

- Aesthetics, Light, and Glare
- Agricultural Resources
- Air Quality
- Biological Resources
- Climate Change
- Cultural and Historic Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services and Utilities
- Transportation and Traffic
- Water Supply

In 2012, the City determined that the 2012 Specific Plan Project would require the preparation of an EIR. These impacts are discussed briefly in Chapter 1.0, Executive Summary, in the Impact Summary Table of the Specific Plan EIR. The Proposed Project does not necessitate a change in these determinations as the existing site conditions and nature of the Project have not substantially changed from those analyzed in the Specific Plan EIR.

1.2 PREVIOUS PROJECT APPROVALS

In May 2012, the City certified the Specific Plan EIR and approved the 2012 Specific Plan Project, including the following actions:

- Final EIR Certification
- General Plan Amendment
- Zone Change
- Specific Plan Amendment (*amended and restated*)
- Amended Development Agreement

1.3 POTENTIAL FUTURE PERMIT/APPROVALS IDENTIFIED

The following potential future permits/approvals required for the 2012 Specific Plan Project were also identified in the Specific Plan EIR:

- Tentative Tract Maps
- Design Review (site plans)
- Improvement Plans
- Rough Grading Plans
- Streambed Alteration Agreement
- 404 Permit
- National Pollution Discharge Elimination System (NPDES) NPDES Permit, 401 Certification, Storm Water Pollution Prevention Plan (SWPPP), and other water quality permits
- Conditional Letter of Map Revision (CLOMR)
- Encroachment Permits/Easements
- Community Facilities District (CFD)
- Utility Line Relocation California
- Building Plans/Permits
- Grading and Infrastructure Plans/Permits
- Flood Control Facility Review/Acceptance

- Certificates of Occupancy
- Conditional Use Permit(s)
- Annexation, Sphere of Influence (SOI) Amendment, General Plan Amendment (GPA) (PA 43B)
- Individual Waste Discharge Requirements (WDR) for discharge of recycled water, Water Recycling Requirements, Master Recycling Permit
- Storage Agreement
- Use of State Water Project Facilities

1.4 FINDINGS OF THIS ADDENDUM

The City is the Lead Agency for the Proposed Project. The City has determined that analyses of project environmental effects are best provided through use of an Addendum and that none of the conditions set forth in Public Resource Code Section 21166 or Section 15162 of the *State CEQA Guidelines* requiring preparation of a subsequent or supplemental EIR have been met.

1. There are no substantial changes to the 2012 Specific Plan Project that would require major revisions of the Specific Plan EIR due to new significant environmental effects or a substantial increase in severity of impacts identified in the Specific Plan EIR;
2. Substantial changes have not occurred in the circumstances under which the Project is being undertaken that will require major revisions to the Specific Plan EIR to disclose new significant environmental effects or that would result in a substantial increase in severity of impacts identified in the Specific Plan EIR; and
3. There is no new information of substantial importance that was not known at the time the Specific Plan EIR was certified, indicating any of the following:
 - The Project will have one or more new significant effects not discussed in the certified Specific Plan EIR;
 - There are impacts determined to be significant in the Specific Plan EIR that would be substantially more severe;
 - There are additional mitigation measures or alternatives to the Project that would substantially reduce one or more significant effects identified in the Specific Plan EIR; and
 - There are additional mitigation measures or alternatives rejected by the Project proponent that are considerably different from those analyzed in the Specific Plan EIR that would substantially reduce a significant impact identified in that EIR.

The complete evaluation of potential environmental effects of the Project, including rationale and facts supporting the City's findings, is contained in Chapter 3.0 of this Addendum.

1.5 FORMAT OF ADDENDUM

This Addendum has been organized into three chapters, as described in the sections below.

1.5.1 Chapter 1.0: Introduction

Chapter 1.0 includes a description of the introduction and purpose of the Addendum, previous environmental documentation, project approvals, findings of the Addendum, and existing documents to be incorporated by reference.

1.5.2 Chapter 2.0: Project Description

Chapter 2.0 describes the location and setting of the site, the necessary City discretionary actions to implement the Project, and an overview of the Project. Those project components that have the potential to have a physical effect on the environment are addressed in Chapter 3.0 of this Addendum.

1.5.3 Chapter 3.0: Comparative Evaluation of Environmental Impacts

Chapter 3.0 contains the environmental analyses of the Proposed Project's impacts compared to the impacts analyzed in the Specific Plan EIR. This comparative analysis has been undertaken pursuant to provisions of CEQA to provide the City of Banning decision-makers with a factual basis for determining whether the Proposed Project, changes in circumstances, or new information since the Specific Plan EIR was certified would require additional environmental review or preparation of a subsequent or supplemental EIR. Chapter 3.0 also contains findings for each environmental topic to determine whether conditions set forth in Public Resource Code Section 21166 or Section 15162 of the *State CEQA Guidelines* requiring preparation of a subsequent or supplemental EIR have been met.

1.6 EXISTING DOCUMENTS TO BE INCORPORATED BY REFERENCE

As permitted in Section 15150 of the *State CEQA Guidelines*, this Addendum has referenced several technical studies, analyses, and reports. Information from the documents that has been incorporated by reference has been briefly summarized in the appropriate section(s) of this Addendum. Documents incorporated by reference are available for review at the City of Banning, Community Development Department, located at 99 East Ramsey Street, Banning, CA 92220. Contact Brian Guillot, at (951) 922-3125 for additional information.

Documents incorporated by reference include, but are not limited to:

- Butterfield Specific Plan Draft Environmental Impact Report, 2011 (State Clearinghouse [SCH] No. 2007091149)
- City of Banning General Plan and EIR, 2006 (SCH No. 2005011039)
- Deutsch Specific Plan EIR, 1993 (SCH No. 90020698)

1.7 CONTACT PERSONS

The Lead Agency for the Addendum for the Proposed Project is the City of Banning. Questions regarding preparation of this Addendum, its assumptions, or its conclusions should be referred to:

Brian Guillot
City of Banning, Community Development Department
99 East Ramsey Street
Banning, California 92220
Phone: (951) 922-3125

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2.0 PROJECT DESCRIPTION

2.1 PROJECT HISTORY

The Butterfield Specific Plan Environmental Impact Report (Specific Plan EIR) was certified by the City of Banning (City) on March 27, 2012. The City passed, approved, and adopted an amendment to the Deutsch Specific Plan (the former Specific Plan guiding land use on the Project site), the development agreement for the Butterfield Specific Plan (Specific Plan), and conditions of approval for the Specific Plan in April 2012, subsequent to certifying the Specific Plan EIR one month earlier. The development entitlements granted in the Development Agreement between the City and Pardee allowed for the development of a master planned community consisting of up to 5,387 dwelling units, a golf course and open space, parks and additional open space, two schools, an existing substation, a fire station, and backbone roadways, among other components.

Following the City's approval of the 2012 Specific Plan Project and its associated EIR, the Highland Springs Resort (Resort) and Cherry Valley Acres and Neighbors and Cherry Valley Environmental Planning Group (CVAN) challenged the legality of the Specific Plan EIR in April 2012, which was heard by the Riverside County Superior Court. Ultimately, the City, Pardee, and the Petitioners (Resort and CVAN) reached a settlement agreement in 2014, which among other things, required the following:

- Request the City to remove the proposed extensions of Brookside Avenue and Cherry Valley Boulevard from the General Plan.
- Reserve Planning Areas (PAs) 60 and 61 in an open space condition (as described further in the Settlement Agreement) rather than the development of 412 dwelling units.
- Grant a revocable license for hiking, walking, and non-motorized bicycle use and the transport of equipment to the eastern portion of the site.
- Relocate the Veteran's tree to a prominent location within the Project site.
- Fund or construct all project-related infrastructure and facilities to allow for the Project's use of non-potable water supplies when the City makes non-potable water available.
- Eliminate the proposed golf course in PAs 35 and 39 and replace the golf course with a recreational area to include parks, open space, and other uses permitted under the 2012 Specific Plan Project.
- Reduce the number of residential units from 5,387 dwelling units to 4,862 dwelling units.
- Install ultra-low flow toilets and Energy Star efficiency standard developer-installed appliances throughout the Project, as well as installation of solar voltaic systems (or equivalent) for certain multifamily residential developments and electric car-charging stations in certain areas.
- Request a ride-sharing lot from the City and any applicable transportation agencies before 1,000 dwelling units are built.

2.1.1 Previous 2012 Butterfield Specific Plan Project Characteristics

This section summarizes the Specific Plan and highlights features of the 2012 Butterfield Specific Plan Project. Changes to the 2012 Butterfield Specific Plan Project, and the summary below, are provided in Section 2.5, Project Characteristics and Summary of Project Changes, of this Addendum.

On-site Development Components. The 2012 Specific Plan Project proposed residential, recreational (golf course), parks, open space, educational, and commercial uses similar to those proposed by the previously adopted Deutsch Specific Plan. The 2012 Specific Plan Project area totaled 1,543 acres with a potential maximum of 5,387 dwelling units and a gross density of 3.5 dwelling units/acre (du/ac) over the entire Project site (residential densities vary from 3 du/ac to 18 du/ac throughout the residential Planning Areas). Approximately 937.4 acres, or approximately 60.8 percent of the total land area of the 2012 Specific Plan, was planned for residential development. The 2012 Specific Plan Project allowed for a residential overlay allowing alternative residential uses within certain Planning Areas. These alternatives included clustered housing (development of clustered single-family homes in medium-density residential areas), active adult housing, and mixed-use commercial/residential uses within specific Planning Areas.

The 2012 Specific Plan Project proposed 36.0 acres of commercial uses in two Planning Areas, comprising 2.3 percent of the Specific Plan. Commercial uses proposed as part of the 2012 Specific Plan Project included conventional retail shops, services, retail stores, community and religious centers, health, and fitness centers, art studios and theaters, and assisted living facilities. The 2012 Specific Plan Project also allowed for an overlay allowing residential uses within portions of specified commercial Planning Areas. The Draft EIR analyzed the “worst-case” scenario of 88.3 acres (5.7 percent) of the Specific Plan for general commercial and use. If the Project Applicant opted to implement the Commercial Overlay within PAs 3, 4, 5, 26, or 27, it would require an additional discretionary approval in the form of a Conditional Use Permit (CUP) and/or Planned Unit Development (PUD).

Two approximately 11-acre elementary school sites are provided within Planning Areas 20 and 68 of the Specific Plan. The first is located in PA 20, is 11.7 acres in size, and would be within the Beaumont Unified School District; and the second is located in PA 68, is 11.3 acres in size, and would be within the Banning Unified School District. The Specific Plan provided for residential overlays permitting medium-density residential uses on both school sites in the event that one or both of the schools were not developed.

In addition, the 2012 Specific Plan Project also allows for the development of a 1.6-acre fire station site in the southern portion of PA 60, which is otherwise designated for low-density residential development.

The 2012 Specific Plan Project allows for the creation of 24 park PAs, ranging in size from 0.4 acre to 16.4 acres. The Specific Plan also allows for open space areas within several PAs. Within these open space areas, trails would provide linkages between residential uses and surrounding open space areas. In addition, the 2012 Specific Plan Project proposed a 30.4-acre multi-use basin in PA 71, which would be designed to detain flows from Smith Creek (located on the Project site) and to provide water storage for irrigation and other needs. The 2012 Specific Plan Project also proposed a

254-acre public golf course and clubhouse located in PAs 35 and 39. These uses total approximately 428.8 acres.

The 2012 Specific Plan Project includes a planned backbone circulation system that would extend through the Project site to provide efficient internal circulation and appropriate linkages to the City's existing external circulation system. The 2012 Specific Plan Project also includes the development of the following on-site infrastructure, including storm drainage including groundwater recharge, water, sanitary sewer, recycled water, and dry utilities (electricity, and natural gas, etc.). Proposed off-site infrastructure improvements include circulation, water supply and distribution, recycled water, drainage, and sewer system improvements.

The 2012 Specific Plan Project would be developed in five primary phases over an estimated 30-year implementation period, assuming an average construction of 180 dwelling units per year. Associated infrastructure would be constructed incrementally to match the needs of development as it occurs. Mass grading of the site would take place in approximately four phases, combining development Phases 1 and 2 in the first mass-grading phase. The development sequence is subject to change over time to respond to various factors including the cyclical nature of the housing market and other variations in demand. Individual Phases may overlap or be developed concurrently.

Infrastructure Improvements. Implementation of the 2012 Specific Plan Project required the development of on- and off-site infrastructure including drainage facilities, storm drain, water, sanitary sewer, reclaimed water subsurface pipelines, and dry utilities (e.g., electricity, natural gas, and communications).

- **Electricity.** As part of the Specific Plan, approximately 2,700 linear feet of the existing 115 kilovolt (kV) aboveground transmission line currently located on the site would be relocated within the site to accommodate a new transmission line alignment. The relocated transmission line would be reconstructed aboveground.
- **Natural Gas.** The Specific Plan would also replace the existing 30-inch diameter high-pressure natural gas transmission line, which currently traverses the southern portion of the site from east to west, with a residential grade pipe. The natural gas line easement and pipeline would be realigned under portions of the site that are targeted for roadways or open space to ensure the easement remains within public right-of-way or within open space.
- **Drainage System.** The Specific Plan includes a backbone drainage system that would direct first-flush storm or nuisance flows from developing areas toward water quality features (such as detention/water quality basins) that would treat runoff before it enters existing drainages. The Specific Plan would realign Smith Creek within the site to accommodate the proposed basin and features that would be constructed where Smith Creek enters and exits the site and along its length. The proposed drainage system included as part of the Specific Plan also includes the groundwater recharge areas and detention basins. While the majority of the Specific Plan's drainage components would be constructed on the site, the Specific Plan would construct off-site drainage improvements, involving off-site grading and construction of debris/desilting basins.
- **Water.** To meet the demand for potable water, the Specific Plan includes three to four aboveground steel water storage tanks with a total storage capacity of 3.5 million gallons. In addition, the Specific Plan includes three pump stations, on-site water distribution pipelines, and

an off-site potable water pipeline within adjacent streets to connect the site to the City's existing water distribution system.

A groundwater recharge system is also proposed to help replenish groundwater supplies in the Beaumont groundwater basin, from which the City draws a portion of its water supply. This system would be, in part, facilitated by extending the City's State Water Project (SWP) pipeline from the Nobel Creek Spreading Grounds to the proposed north basin through the Brookside Avenue right-of-way. It is important to note that the City may construct this as part of another project; however, impacts associated with the construction of this pipeline were addressed within the Specific Plan EIR.

- **Wastewater.** The Specific Plan would convey wastewater through an on-site sewer pipeline and an off-site sewer main. Due to the Specific Plan's increased demand for wastewater treatment facilities, the Specific Plan proposed the construction of an optional or alternative on-site satellite wastewater treatment plan. If constructed, this plant would receive water from the site, and off-site locations treating wastewater to applicable tertiary standards and would pump the recycled water through an on-site recycled water distribution system. The wastewater treatment process would be confined within a fully enclosed building. Biosolids and a portion of the unused partially treated water would be pumped into a new off-site sewer line to be built in Wilson Street and Highlight Home Road or Omar Street as part of the Specific Plan. This line would convey discharge to an existing City sewer trunk line at Ramsey and Omar Streets, where it would ultimately be conveyed to the City's existing wastewater treatment plan for further treatment and disposal.

2.1.2 2012 Specific Plan Project Design Features

The following Design Features were incorporated into the Specific Plan to either avoid, reduce, offset, or otherwise minimize identified potential adverse impacts of the Specific Plan or to serve as "betterments" providing a significant benefit to the community and/or to the physical environment. References to tables, figures, impacts, and mitigation described in the following PDFs are found in the Specific Plan Draft EIR.

Aesthetics/Light and Glare.

1. The 2012 Specific Plan Project has been redesigned from the currently approved Deutsch Specific Plan to retain the northern steeper slopes in natural open space. In addition, in response to initial public scoping and discussions with adjacent residents, the Applicant further designed the Land Use Plan to create higher minimum average residential lot sizes in those portions of the Project (PAs 50, 51, 52, 60 and 61) along the east and north side of Highland Home Road.
2. Mass graded areas will be revegetated at the completion of the mass grading process, pursuant to the City's *Municipal Code* and the Specific Plan. The vegetation will restore the non-native grassland that currently covers the site in those areas that are not immediately developed. Cattle grazing will continue on the site in various areas as the project develops, allowing the site to retain its rural feel well into the development process.
3. Title 17 of the City's *Municipal Code (Zoning Code)* includes development and landscape standards that deal generally with contour grading, preservation of natural open space and scenic

vistas, lighting, setbacks, walls, fences and hedges, and under-grounding of utilities, etc. Landscape design guidelines provide general direction but are not site-specific or exhaustive. The Butterfield Specific Plan contains grading standards and landscape guidelines that both incorporate and exceed the City's Code design standards by providing detailed plans and standards for landscape plant palettes, architectural guidelines (including colors and materials), streetscape enhancements, park treatments, and perimeter and interior fencing, etc. These guidelines will provide for a well-designed, visually compatible development with enhanced streetscapes and landscaped medians, numerous parks, well-designed slope landscape and edge treatments, enhanced perimeter walls, and other features that will significantly enhance the overall appearance of the project.

4. Common area landscape, including enhanced streetscape, parks, and fuel modification zones will be maintained by a Homeowners Association (HOA) or by a Landscape and Lighting Maintenance District (LLMD) that could be formed as part of the project financing, to ensure a uniform level and high standard of maintenance to maintain the long-term appearance of the community.
5. The project includes realignment, reconstruction, and revegetation of Smith Creek to restore its natural appearance, as well as provision of extensive greenbelt and landscaped groundwater recharge areas within the golf course open space area, creating a positive aesthetic improvement.
6. The aboveground water storage reservoirs will be finished with an earth-toned, matte finish intended to allow the reservoirs to blend into the surrounding hillside areas. The reservoir areas will be further screened by the installation of perimeter landscaping.
7. The optional wastewater treatment facilities would be located at the intersection of Highland Home Road and Wilson Street; refer to Exhibit 3.0-3, *Land Use Plan*. All treatment processes would be contained within an enclosed structure that incorporates residential design features including roofing materials, surrounded by a decorative masonry wall and landscaping to screen the facility. The 1-million gallon storage reservoir would be a maximum of 26 in height, similar to the height of a residential structure and would have a matte, earth-tone exterior finish and landscape screening to allow the reservoir to blend into the surrounding neighborhood. The treatment plant would observe a building setback of 20 feet for all property lines.
8. The project grading plan reflects the requirements of Municipal Code Section 17.08.240(P) by incorporating contour grading in hillside areas designed to blend the project's manufactured slopes with existing natural terrain as required by Specific Plan Section 3.3.2, *Grading Plan Development Standards*.
9. The golf course open space will provide a view corridor to preserve vistas of the San Bernardino Mountain ridgelines and foothills to the north and east and vistas of the San Jacinto Mountains to the south. Open space and parks sited throughout the project will provide scenic viewpoints.
10. The design and development guidelines include specific requirements and restrictions regarding site lighting including:
 - Architectural lighting and landscape accents shall be aesthetically pleasing and non-obtrusive.
 - Shielded lights shall be utilized throughout the community to reduce light glare in compliance with the City's Municipal Code requirements.
 - All lighting shall be designed and located to reduce power consumption to its lowest practical level, direct light rays toward the unit and be compatible with the lighting on adjacent units.

- Streetlights shall conform to the overall project theme and City standards. On local streets, streetlights shall be located only at street intersections, knuckles, and cul-de-sacs and would not be located at mid-block to reduce nighttime light and glare impacts.
- All exterior lighting for identification, pools, water features, and landscaping shall be subdued and indirect to prevent spillover onto adjacent lots and streets as required by City ordinance.
- Exposed bulbs, spotlights, and reflectors are prohibited.

Agricultural Resources.

1. The phased development of the site will allow small-scale temporary grazing use to continue during a portion of the implementation phase of the project.

Air Quality.

1. The project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall property, leaving approximately 40 percent (over 500 acres) of the site in its current condition until such time the remaining phases begin to develop. This phased development will reduce the overall area being disturbed at any one time, and will reduce the overall annual grading emissions.
2. Project design features incorporate applicable recommendations from the Attorney General and the California Air Resources Board (ARB) Scoping Plan, as discussed in Section 4.5, *Climate Change*, of the Specific Plan EIR. These measures will not only reduce greenhouse gas (GHG) emissions, but will also reduce criteria pollutant emissions of the project.
3. The project's water supply sources are focused first on local supplies, which will reduce reliance upon imported water, thereby reducing air emissions associated with pumping and delivering the water to the site.

Biological Resources.

1. The project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall property, leaving approximately 40 percent (over 500 acres) of the site in its current native condition until such time the remaining phases begin to develop. This phased development will create an interim condition of reduced biological resource impact.
2. The proposed project has been planned to avoid all significant indirect impacts associated with drainage, toxics, lighting, noise, barriers, invasive species and brush management that could potentially occur on the site. Mitigation measures and best management practices (BMPs) will be implemented in compliance with Multiple Species Habitat Conservation Plan (MSHCP) Wildlands/Urban Interface policies, thus reducing all indirect impacts on the site to a level that is less than significant; refer to Section 3.0, *Development Plan*, and 4.0, *Design Guidelines*, and the analysis and mitigation measures contained in Sections 4.9 (*Hydrology and Water Quality*), 4.8

(*Hazards and Hazardous Materials*), 4.1 (*Aesthetics, Light, and Glare*), 4.11 (*Noise*), and the Biological Resources Section of the EIR.

3. The project includes approximately 428.8 acres of open space, including a 253.9-acre golf course open space through which Smith Creek flows in addition to approximately 66.5 acres of active recreation, 70.1 acres of passive landscaped and natural open space (56.3 acres in the northeast corner of the project), and 38.3 acres of drainage channel and basin areas as described in the 2012 Specific Plan Project Description. The golf course open space will incorporate native plant materials into its plant palette, particularly in those areas occupied by the Smith Creek alignment, for mitigation of biological impacts occasioned by the realignment of Smith Creek. The plant palette and revegetation associated with Smith Creek is designed to replicate natural conditions and to preserve and enhance biological values. Basin areas will be vegetated and the landscaping of active recreational areas will increase the availability of plant cover and trees on the site, providing habitat for birds and forage for birds of prey.
4. The project incorporates drainage and water quality features that would maintain water quality within the Smith Creek and Pershing Channel drainages and preserve/enhance downstream water quality within the Smith Creek drainage, indirectly protecting the biological resources and functions of the drainage.
5. Project implementation would result in enhanced vegetative cover on the site, including trees and shrubs that could enhance the availability of nesting sites for migratory birds in the project area as compared to the current nearly treeless condition of the Project Site.
6. Following the initial Phase I mass grading of the Project Site, the site will be reseeded and cattle-grazing activities will be allowed to continue in areas prior to future development, which will preserve in an interim condition of the grassland areas that provide foraging habitat for birds of prey and vegetative cover for native species currently using the site.

Climate Change.

1. The project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall property, leaving approximately 40 percent (over 500 acres) of the site in its current native condition until such time the remaining phases begin to develop. This phased development will reduce the overall area being disturbed at any one time, and will reduce the overall annual grading emissions.
2. Project design features incorporate applicable recommendations from the Attorney General and the ARB Scoping Plan, as discussed in Impact 4.5-4 below.
3. The project's water supply sources are focused first on local supplies, which will reduce reliance upon imported water, thereby reducing GHG emissions associated with energy required for pumping and delivering the water to the site.
4. Tables 4.5-3 and 4.5-4¹ (of the Specific Plan EIR) identify Design Features that will reduce greenhouse gas emissions, as well as criteria pollutant emissions.

¹ Refer to Section 4.5 of the Specific Plan EIR for Tables 4.5-3 and 4.5-4.

Cultural and Historic Resources.

1. The project has been redesigned from the previously approved Deutsch Specific Plan, which proposed grading the entire Specific Plan property. As such, the preservation of the northeastern portion of the site in permanent open space will reduce the potential for disturbance of previously unidentified paleontological and archaeological resources.

Geology, Soils, and Seismicity.

1. The project has been redesigned from the previously approved Deutsch Specific Plan, which proposed grading the entire Specific Plan property. The redesigned Specific Plan and associated tract maps avoid grading the more steep northern portions of the site, and also have incorporated a setback area to ensure that structures are not placed on the identified fault traces within the Alquist-Priolo Zone identified on the site.
2. In the ultimate condition, the developed site would result in substantially reduced wind and runoff-induced erosion.
3. The project incorporates appropriate setbacks from the Alquist-Priolo zone established for Strand A and assumed for Strand B of the Banning fault.
4. The project would adhere to all of the seismic requirements incorporated into the 2010 California Residential Code and the 2010 California Building Code (or most current building code) and the requirements and standards contained in the applicable chapters of the City of Banning Municipal Code.
5. The project would include the implementation and maintenance of BMPs to reduce or avoid soil loss due to wind and water erosion.
6. Prior to development of any upstream areas of the site, the potential for conveyance of debris originating in the off-site watershed would be accounted for in the design of on-site drainage facilities.
7. The Specific Plan requires that each phase of the development include an erosion control plan, consistent with the requirements of Municipal Code Chapter 18.

Hazards and Hazardous Materials.

1. The project proposes the lower residential density of the project with larger lots in the northern portion of the site to allow incorporation of fuel modification zones into lots abutting wildland areas and to allow for better compatibility with the existing land form. Maintenance of fuel modification/management zones will be the responsibility of individual homeowners on private property; however, a maintenance easement will be recorded over fuel modification zones located within these private lots that will permit either the Master HOA, the LLMD, or other appropriate maintenance agency/entity approved by the City of Banning, to enter into the property to ensure adequate and uniform maintenance. Portions of fuel modification zones on private lots located outside of the lot fence line will be maintained directly by the HOA or the LLMD while those portions of fuel modification zones on private lots located inside the fence line will be maintained by the homeowner but will be inspected by the LLMD or the HOA, which will each have the

ability to enter into the private lot if necessary to ensure appropriate maintenance of the fuel modification zone if the homeowner fails to provide that maintenance.

2. School sites have been relocated in consultation with the local school districts, in part to ensure adequate separation from existing Southern California Edison (SCE) power lines and the Southern California Gas (SoCalGas) 30-inch high pressure gas line. To the extent that this location may change as the project develops, other potential school sites would observe the same required setbacks from the SCE transmission lines and the SoCalGas high- pressure gas line.
3. Portions of the SoCalGas pipeline will be relocated to ensure that the entirety of the pipeline is located within paved streets or within the golf course. No homes will have frontage on the streets where the pipeline will be located, and proposed homes will be further buffered by parkway setbacks, block walls, rear yard setbacks and the golf course to reduce risk in the event of a leak or other upset. Existing pipeline will be replaced with residential grade pipeline by SoCalGas per California Public Utility Commission (CPUC) requirements.
4. The Alternative On-Site Satellite Wastewater Treatment Plant will store all potentially hazardous materials (primarily chlorine) in a separate building with appropriate safeguards as required by law and will provide appropriate signage and inventory control as required by the Fire Department so as to reduce any potential risk of upset.
5. The project will include the construction of a 1.6-million gallon water storage reservoir, a 1.4-million gallon water storage reservoir, a 0.5-million gallon water storage reservoir, a 1-million gallon recycled water storage reservoir and a multi-use basin, which can store water for groundwater recharge. The reservoir sizes are approximate. Three of the water storage reservoirs would be located in the north/northeastern portion of the site, and the multi-use basin would be located in the northwestern portion of the site where Smith Creek enters the property. These reservoirs will provide sources of water available for both structure and wildfire response, as well as potable and irrigation use.

Hydrology and Water Quality.

1. The project shall conform to all of the requirements imposed by the Riverside County Flood Control and Water Conservation District Hydrology Manual, the requirements of the City of Banning's adopted Storm Water Ordinance (Title 13 of the Municipal Code), the requirements of the Whitewater River Watershed Stormwater Management Plan, and the National Pollutant Discharge Elimination System (NPDES) General Construction Permit.
2. The project has incorporated a comprehensive drainage, water quality, groundwater recharge and biological resource mitigation program into the site, consisting of the surface drainage system, water quality basins, North Basin, realigned Smith Creek, recharge basins, and Smith Creek culvert improvements. This will reduce stormwater runoff volume and velocity, improve stormwater runoff water quality during storm events and low-flow irrigation volumes, improve groundwater recharge, and create biological resource habitat. Key system features are summarized in Section 3, the Draft Butterfield Specific Plan, draft Tentative Tract Maps (TTMs) on file at the City, and are briefly summarized below.¹

¹ Summary is included in Chapter 3.0, Project Description, of the Specific Plan EIR.

Land Use and Planning.

1. To be more compatible with the existing residential development, the project has designated Planning Area 50 as Low Density Residential, with an average lot size of 7,500 square feet. Furthermore, starting at the back of the closest existing off-site residential lots located south of PA 50, there will be approximately 390 feet (ft) of open space (SCE easement) between the back of these lots and the southern boundary of PA 50.
2. The approved Deutsch Specific Plan included 351 acres of residential land use in Planning Area 1 and 31 acres of park in Planning Area 2.¹ The 2012 Butterfield Specific Plan Project provides 209.2 acres of residential (PAs 50, 51, 52, 60, and 61), 71.8 acres of open space (PAs 67, 69, 73, 74, and 75), 11.3 acres of school site use (PA 68), and 4.2 acres for existing utility (PA 70). This comparison generally covers the same area.

Noise.

1. The project is proposed to be developed in Phases, which include four mass grading phases and five development phases. The initial Phase IA grading would be limited to the area necessary to achieve a balanced site and proper drainage, leaving approximately 40 percent of the site in its natural condition until the later phases of project development, thereby reducing the noise impacts associated with mass grading during the interim implementation phase.
2. The project has been redesigned from the currently approved Deutsch Specific Plan, to retain the northern steeper slopes in natural open space. In addition, in response to initial public scoping and discussions with adjacent residents, the Applicant designed the Land Use Plan to create low-density residential with higher minimum average lot sizes with substantial separation between proposed Project development areas east of Highland Home Road and existing residential areas east of Highland Home Road to the south, reducing potential noise impacts from construction in this area.
3. The project will be constructed in compliance with all applicable provisions of Chapter 8.44 (Noise) of the City's Municipal Code including, to the extent feasible, observing time limitations on construction noise that exceeds Base Ambient Noise Levels pursuant to statute.
4. All residential structures built on the site shall incorporate design measures to ensure that interior noise levels for residential development do not exceed 45 A-weighted decibels (dBA), in accordance with Title 25 (California Noise Insulation Standards) and the City's Municipal Code.
5. All development on the site shall comply with State Code requirements for unit-to-unit airborne sound isolation, both laterally and vertically, and for vertical impact sound isolation in multifamily residential construction.
6. During the preparation of construction drawings for project-specific development, the exact acoustical specifications for window glass in buildings with unshielded first and second floor windows shall be determined, pursuant to the requirements of the City's General Plan and the City's Municipal Code.

¹ Refer to the Butterfield Specific Plan, Exhibit 1.3, Specific Plan Comparison.

Public Services and Utilities.

1. In addition to paying over \$7 million in potential City fire facility impact fees, the project proposes to reserve and/or dedicate a site for the construction of a new fire station within the site, currently illustrated in the southeast corner of PA 60, though subject to a location change based on the City's preference. Reservation of the fire station site would aid towards substantially improving fire services within and beyond the project area and placing additional resources in closer proximity to wildland areas, helping to reduce the risk associated with wildfire for the entire community.
2. The project will include the construction of three aboveground potable water storage tanks with a total storage capacity of approximately 3.5 million gallons, the installation of pump stations, and the installation of water mains, laterals, and hydrants sufficient to provide minimum fire flow at required pressure to all portions of the project, as well as operational and emergency flows.
3. The project will include the construction of an approximate 14-acre multi-use basin within the 30.4-acre PA 71 to detain upstream flows and provide water storage for irrigation and other needs, including emergency water supplies in the event of fire.
4. All homes within the project constructed as of 2011 will include in-house fire protection sprinkler systems per new State regulations, which the City will enforce through its building and occupancy permit process.
5. Prior to approval of any final tract map, the Applicant shall submit a Fire Response Plan consistent with City Municipal Code and Fire Department regulations to insure full compliance with building codes, fuel modification requirements, provision of irrigation, adequacy of water supply and pressure, and adequacy of access and lighting, etc.
6. The project will be developed in phases over a period of up approximately 30 years, which would allow the City Fire and Police Departments time to respond to any need for additional facilities, equipment and/or officers that might be required to serve the project area, as funding becomes available. The project will be paying over \$4 million in dedicated Police Facility Fees, in addition to all other fees assessed and project contributions toward General Fund revenue through property tax and sales tax.
7. The majority of the residential development within the project consists of traditional single-family homes having frontage on public streets. This type of development provides "eyes on the street," which is the essence of defensible space design, as required by the City's General Plan.
8. Based on meetings with City police officials, the Applicant modified Specific Plan design guidelines and sited school facilities to provide dual vehicle access into and out of all development areas, landscaping along project perimeter walls to deter graffiti, and has located schools and parks so that they would have adequate street frontage to facilitate police surveillance.
9. In addition to paying prevailing school impact fees at the time of building permit issuance, the Specific Plan addresses the need for additional school facilities created by its development by setting aside two 11+ acre school sites (i.e., in PA 68 for Banning Unified School District and PA 20 for Beaumont Unified School District) to increase available school facilities.

10. The project will be developed in phases over a period of up to 30 years, which would allow the San Gorgonio Hospital ample time to respond to any need for additional facilities that could be triggered by project development, as funding becomes available.
11. The project includes park, open space and recreational uses that total approximately 428.8 acres or approximately 27.8 percent of the project footprint. Developed park acreage may be credited toward part, or all, of the project's required parkland fees, which are estimated to be in excess of \$10 million.
12. The project would offer two elementary school sites for dedication to the Banning and Beaumont Unified School Districts. These sites, totaling 23 acres, would be located in PA 20 and PA 68. If constructed, both sites could potentially provide joint use of playground/field facilities for neighborhood recreational uses pursuant with the school districts.
13. The project will include 19 neighborhood mini-parks in PAs 22–34, 62, 64, 65–67, and 72 that would include combinations of play equipment, play areas, sport courts, shade structures, picnic areas, passive turf play areas, sand boxes, benches, and basic related amenities.
14. The project will include neighborhood recreation parks in PAs 21 and 63, ranging in size from 3 to 4 acres, to serve the active and passive recreational needs of residents. The parks would be centrally located and would be accessible through a pedestrian system of walkways and paths.
15. The project plans to provide 41 acres of larger community parks with sports facilities within portions of the project's 430 ft wide SCE easement, specifically in PAs 36, 37, and 38. These parks are intended to be used for fields and sports courts, playgrounds, trails, and off-street parking and can be accessed via pedestrian walkways or public streets.
16. The project would include open space and potentially an 18-hole golf course and clubhouse in the 253.9-acre area that includes PAs 35 and 39, located through the central portion of the project area. Though privately owned, the golf course would be open to the public 7 days per week with the potential for nighttime driving range hours.
17. The project would include the construction and/or extension of trails within and adjacent to open space PAs 19, 50–52, 60–61, 68, 69, 73, 74, and 75, and within the natural open space area located on the northeastern portion of the site. These trails will provide connections between the residential communities and the natural open space areas within and adjacent to the project.
18. The project would also include a 30.4-acre multiuse basin in PA 71, where Smith Creek enters the site. This basin could also serve as a recreational amenity for viewing, hiking, fishing, and/or picnicking.
19. The project's parks, trails and open space areas would be maintained by an LLMD or other similar entity for use by the project residents and would not impact the City's General Fund. The project golf course will be specifically open to the general public for a use fee and owned, operated, and maintained by a private operator.
20. Homes within the project have the option to participate in Pardee Home's "Living Smart" program, which meets or exceeds local, State, and national standards for green home building, including the incorporation of features and options that reduce energy demand and promote use of alternative energy sources and non-motorized transportation (refer to Section 4.5, *Climate Change*, of the Specific Plan EIR).

21. The “Sunset (Deutsch) Substation,” called for in the City’s 10-Year Electricity Master Plan and as allowed for in PA 70 of the Specific Plan, has already been completed by the City (2009) on the 4.2 acres located within this PA. The substation facilitates interconnection with SCE’s transmission lines and provides for the distribution of electricity to the project and other sites in the City’s northwest area.
22. As part of the City’s standard plan check review and tract map development process, the Applicant will make appropriate provision for telecommunication services.
23. The project has been designed to provide an optional satellite wastewater treatment facility, on-site (southern portion of PA 70), should connection and extensions to the City’s existing wastewater treatment plant be less desirable. This provides the opportunity to divert wastewater from the City’s existing plant, and maximize use of recycled water.
24. The project has been designed to maximize use of recycled water, through provision of a comprehensive on-site recycled water system pursuant to City requirements. In addition, as noted above, the project includes options to either utilize an on-site water treatment plant to deliver recycled water to the site (and thereby diverting wastewater from the City’s treatment plant), or deliver recycled water from the City’s plant should recycled water be available from the existing plant in the future.
25. The optional on-site treatment plant also creates the opportunity to divert additional wastewater flows generated by other (off-site) existing or future uses, to further reduce flows of wastewater to the City’s treatment plant, allowing its new capacity to support additional development, and further maximize use of recycled water in compliance with the City’s General Plan Goals and Policies. These recycled water options are addressed in further detail in Section 4.14, *Water Supply*, of the Specific Plan EIR.
26. Project homes will be constructed with “standard” and “optional” features pursuant to Pardee Home’s “Living Smart” Program, which includes encouraging, among other things, material conservation and the use of recycled or sustainable resources in new homes.
27. All construction on the site would comply with the solid waste diversion mandate contained in the 2010 California Green Code, which includes provisions requiring the diversion of a minimum of 50 percent of all construction waste.

Traffic and Transportation.

1. The project proposes non-vehicular circulation facilities that will include bicycle lanes, trails, pathways, and sidewalks that promote alternative non-vehicular modes of transportation.
2. The project proposes mixed-use commercial, recreational, and school facilities within the Specific Plan, which will reduce vehicle trips to the adjacent City and regional street system.
3. The project incorporates substantial circulation system improvements into the Specific Plan, including the Highland Home Road extension, retention of a local frontage street to serve existing residences along existing Highland Home Road adjacent to the project, and allowance for ultimate right-of-way required for adjacent City streets.
4. The project has provided for secondary and emergency access, at the request of City staff, within PAs 2, 3, 4, 5, 6, 7, 8, 9, and 11.

5. The Butterfield Specific Plan will allow and provide for the use of electric Low Speed Vehicles (LSVs) or Neighborhood Electric Vehicles (NEVs) on all internal Project streets. The Butterfield Specific Plan proposes roadway cross sections that provide striped dual NEV and bike lanes on the right side of all proposed Collector Streets.
6. City of Banning Pass Transit and Riverside County Transit Agencies shall be consulted, in conjunction with Project development, to coordinate the potential for expanded transit/bus service and vanpools, and to discuss and implement potential transit turnout locations within the project area.

Water Supply.

Groundwater Recharge Facilities.

1. The project proposes an on-site groundwater recharge system that could assist the City in replenishing the Beaumont Basin located beneath the site. The proposed system would have the capacity to recharge the basin with a portion of the City's SWP allocation from the Pass Agency. If approved and permitted, potential surplus recycled water generated by the Project, if available, could be used for recharge purposes. The recharge system would be facilitated in part by extending a pipeline from the existing SWP pipeline at the Pass Agency Little San Gorgonio Creek Spreading Grounds to the proposed north basin in PA 71 via Brookside Avenue (refer to Section 3.6.3, *Off-Site Project-Related Infrastructure*).¹

Water Distribution Facilities.

1. The project proposes three to four aboveground steel water storage tanks for potable water. The project proposes three potential pump station locations and in-tract water pipelines, which would connect to the City's existing system at Highland Home Road and Wilson Street as well as "C" Street and Wilson Street. In addition, the project would also provide opportunities for three potential interconnects (with additional pump stations) with the Beaumont-Cherry Valley Water District along Highland Springs Avenue.

Recycled Water.

1. Recycled water, as it is available, will be used to irrigate the golf course and the common landscaped areas of the project in order to reduce the demand for domestic (potable) water. The City has completed plans and prepared environmental analysis for a 1.5 mgd upgrade, referred to as the Phase I project, of the City's main treatment plant that will produce and supply recycled water. Funding for the Phase I project has been identified and the upgrade should be completed by year 2015 (see Appendix J, *Water Supply Assessment*, Section 6.4, for further detail).² In addition to on-site infrastructure, the recycled water system for the project would require connecting and pumping recycled water from the City's wastewater

¹ Refer to this section of Chapter 3.0, Project Description, of the Specific Plan EIR.

² Refer to Appendix J of the Specific Plan EIR.

treatment plant through planned City pipelines to the site. The project also includes the option of constructing an on-site “satellite” wastewater treatment plant to be owned and operated by the City of Banning.

2.2 PROJECT SITE LOCATION AND SETTING

The City of Banning is located in the County of Riverside, within the San Geronio Pass. The Project site consists of 20 existing legal lots, covering 1,522 acres, owned by Pardee Homes and an additional 21-acre lot owned by the Highland Springs County Club Owner’s Association. The Project site is generally located north of the Interstate 10 (I-10) Freeway within the northwestern portion of the City of Banning adjacent to the City of Beaumont and unincorporated areas of the County of Riverside. The Project site is surrounded by unincorporated Riverside County and portions of the San Bernardino Mountains to the north and northeast, Highland Home Road, and the Banning Bench to the east, the City of Beaumont and existing residential to the east and south, Wilson Street to the south, and Highland Springs Avenue and the City of Beaumont to the west. Specifically, the Project site is located north of Wilson Street, east of Highland Springs Road, west of Highland Home Road, north and northwest of the present terminus of Highland Home Road, and south of an unincorporated portion of Riverside County, generally north of the extended alignment of Brookside Avenue into the San Bernardino Mountain foothills (refer to Figure 2.1, Project Location, and Figure 2.2, Surrounding Land Uses). Regional access to the Project site is via I-10, located south of the Project site.

2.3 DISCRETIONARY ACTIONS

Discretionary approvals required for the Proposed Project and currently being reviewed for approval by the Lead Agency include the following:

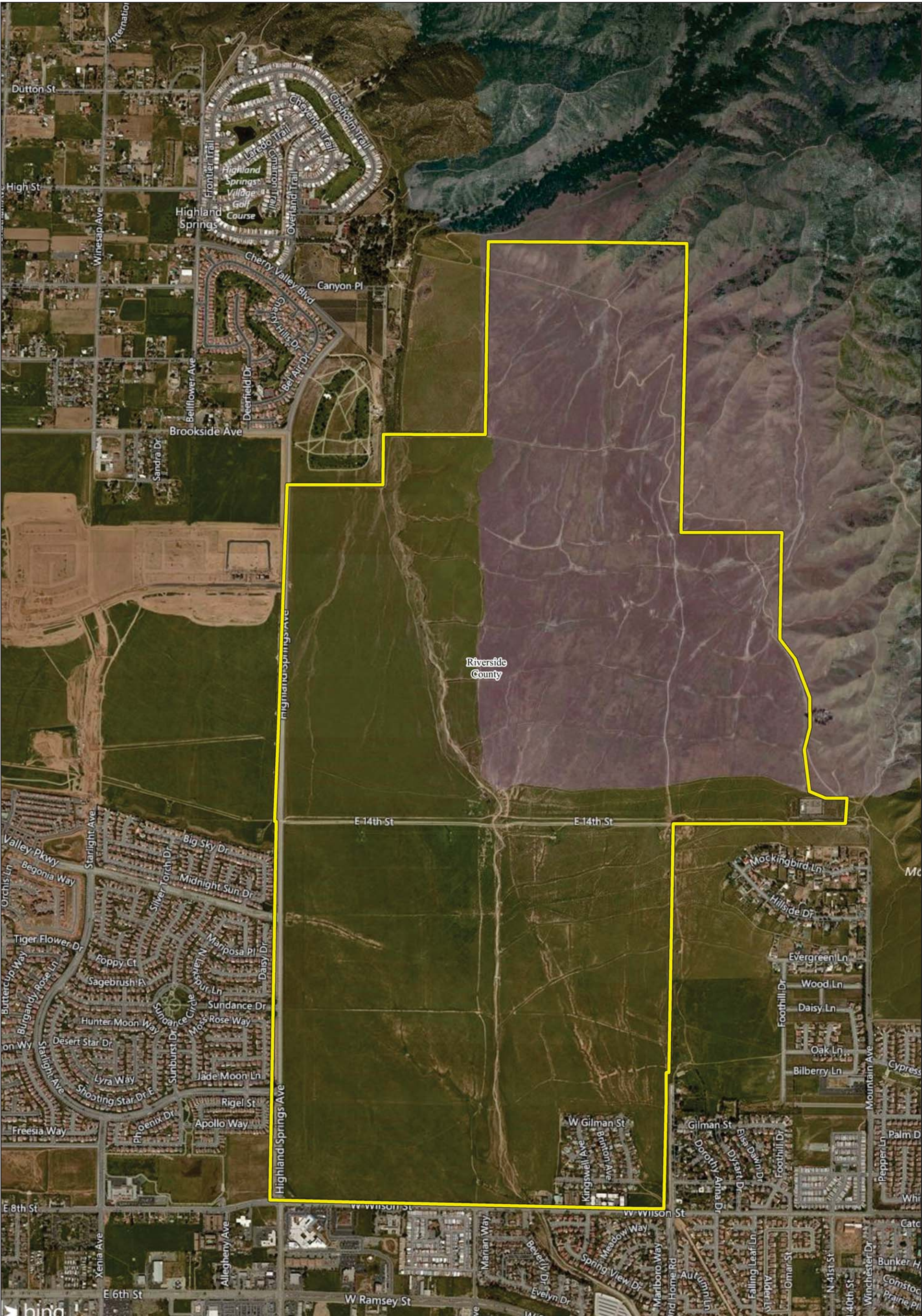
1. Approval of this Addendum to the Specific Plan EIR to address potential environmental effects as a result of changes made since the original City Council approval and EIR certification in March 2012;
2. Approval of the GPA to modify the Circulation Element of the City’s General Plan to reflect the removal of the proposed extensions of Brookside Avenue and Cherry Valley Boulevard; and
3. Approval of the Minor Modification to the Butterfield Specific Plan to implement the settlement agreement.

2.4 POTENTIAL FUTURE PERMIT/APPROVALS IDENTIFIED

Similar to the 2012 Specific Plan Project, the following potential future permits/approvals required for the Proposed Project:

- Tentative Tract Maps
- Design Review (site plans)
- Improvement Plans
- Rough Grading Plans

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LEGEND

 Butterfield Specific Plan Area

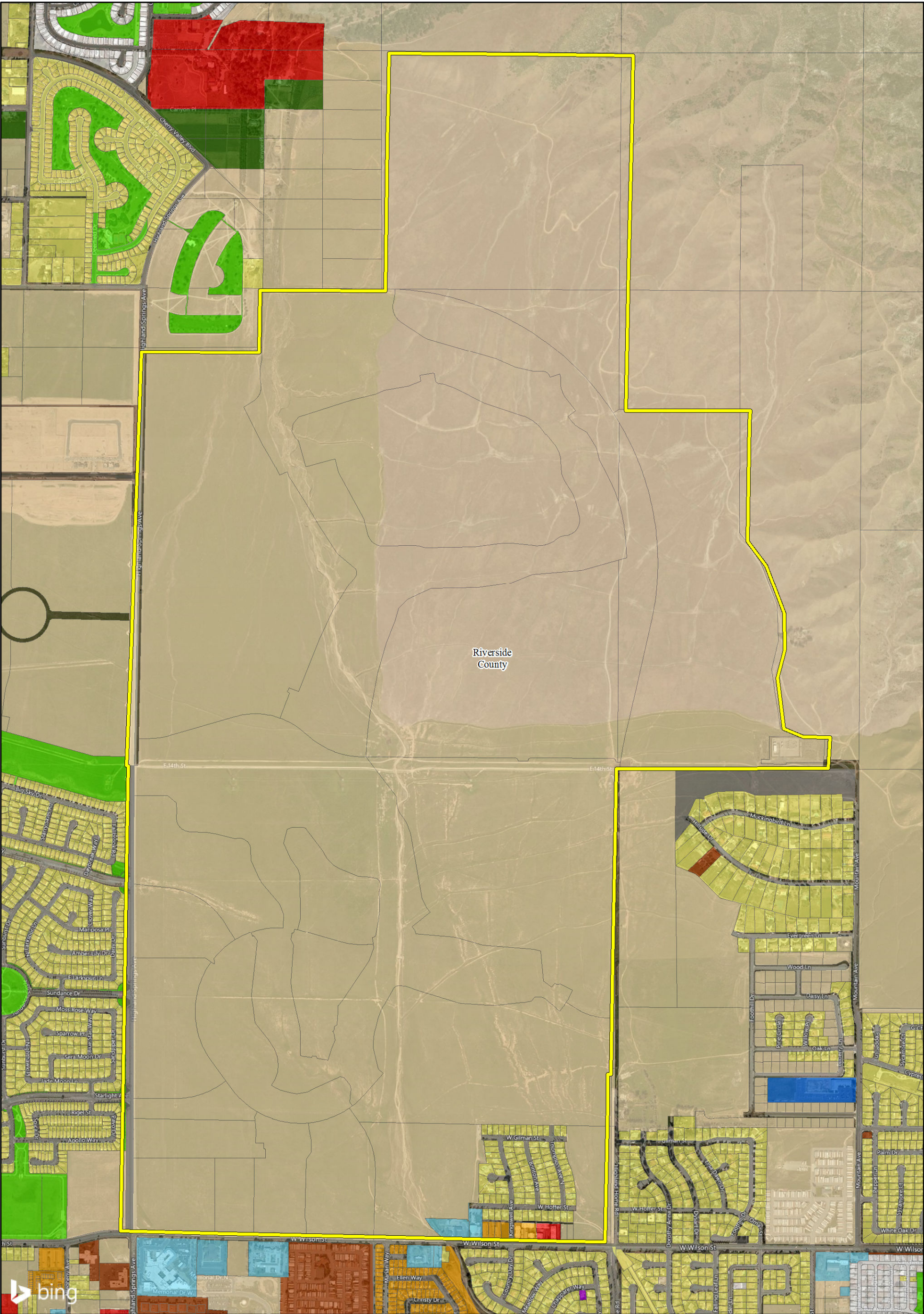
 0 625 1250 FEET

SOURCE: Bing Maps (2014)

FIGURE 2.1

Revised Butterfield Specific Plan
Project Location

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LEGEND

Butterfield Specific Plan

Existing Land Use

Single Family Residential

Multi-Family Residential

Mobile Homes and Trailer Parks

General Office

Commercial and Services

Facilities

Education

Industrial

Transportation, Communications, and Utilities

Open Space and Recreation

Agriculture

Vacant

Under Construction

FIGURE 2.2

Pardee Homes - Butterfield Specific Plan

Existing Land Use

SOURCE: Bing (2014); SCAG (2012)
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- Streambed Alteration Agreement
- 404 Permit
- NPDES Permit, 401 Certification, SWPPP, and other water quality permits
- CLOMR
- Encroachment Permits/Easements
- CFD
- Utility Line Relocation California
- Building Plans/Permits
- Grading and Infrastructure Plans/Permits
- Flood Control Facility Review/Acceptance
- Certificates of Occupancy
- CUPs
- Annexation, SOI Amendment, GPA
- Individual WDR for discharge of recycled water, Water Recycling Requirements, Master Recycling Permit
- Storage Agreement
- Use of State Water Project Facilities

2.5 PROPOSED PROJECT OVERVIEW

2.5.1 Project Objectives

The Proposed Project would result in the construction and implementation of a Specific Plan that would be consistent with the following goals and objectives established for the 2012 Specific Plan Project, which have been slightly updated to reflect adoption of the Butterfield Specific Plan, as modified, and subsequent Settlement Agreement:

- **Master Planned Community:** Design and implement the development of a creatively designed master planned community that expresses and embodies the City's vision of its future as articulated in the fundamental land use principals, policies, and objectives of the City's General Plan.
- **Proposed Specific Plan per the Settlement Agreement:** Revise the previously approved 2012 Specific Plan Project to reflect the Settlement Agreement, thereby implementing a master planned community based on current and projected market conditions while maintaining the Plan's underlying concept of comprehensive and cohesive development planning that allows for the appropriate physical and economic development of the property.
- **Provide a Quality, Livable Community:** Provide a quality, livable community through the implementation of a Specific Plan that will ensure a consistent quality of design, allow for the provision and maintenance of community amenities, and create a collection of cohesive, well-

defined neighborhoods that provide residents with a clear sense of place and identity within the diverse fabric of the larger community.

- **Provide a Wide Range of Housing Opportunities:** Provide a range of high quality housing opportunities by developing a diverse range of housing types available at a variety of price points, responsive to market demand, varying lifestyles, and the developing economic profile of the community.
- **Promote Sustainability:** Promote the concept of sustainable community development by implementing green building practices in the selection of construction materials, the recycling of construction waste, and the use of energy and water efficient-building practices.
- **Incorporate Water and Energy Efficiency:** Incorporate energy and water-efficient design and technology into the homes, commercial buildings, and landscape of the Butterfield development;
- **Conserve Water Resources:** Conserve water resources and reduce demand for potable water within the Specific Plan area by maximizing the use of recycled water wherever appropriate, including the potential development of on-site recycled water treatment capacity, if needed.
- **Increase Employment Opportunities:** Increase local job opportunities through the approximate 30-year build out.
- **Ease of Navigation:** Create a community that is easy to navigate through careful use of landscape, signage, and entry design based on the Specific Plan's design objectives.
- **Recreational Amenities:** Provide recreational amenities, which will serve the needs of neighborhood residents and others in the City of Banning as well as nearby communities.
- **Safe and Efficient Circulation:** Provide a safe and efficient roadway network, linking all internal elements of the planned community with the surrounding area.
- **Encourage Alternative Transportation:** Encourage alternative transportation choices through the creation of a walkable community with well-defined pedestrian linkages between neighborhoods, amenities, schools, and commercial uses, the provision of bike paths, the creation of LSV/NEV linkages, and the development of multi-purpose trails.
- **Promote Community Security:** Promote community security and safety through appropriate outdoor lighting, the incorporation of "defensible space" concepts in the design of multifamily developments, and by encouraging community involvement through the area's master HOA.
- **Address Drainage and Water Quality Issues:** Provide adequate drainage, flood control and water quality improvements, which satisfy applicable local, State and federal criteria while respecting and enhancing/preserving natural drainage functions and features.
- **Ensure Provision of Public Services:** Ensure provision of adequate public services, utilities, and infrastructure in a timely manner as development occurs.
- **School Facilities:** Ensure provision of adequate education facilities within the planned community, pursuant to applicable School District and State requirements.

2.6 PROJECT CHARACTERISTICS AND SUMMARY OF PROJECT CHANGES

The implementation of the above Settlement Agreement conditions listed in Section 2.1, Project History, requires changes to the roadway system to ensure that Highland Home Road would never connect to either Brookside Avenue or Cherry Valley Boulevard in the future. By redirecting the circulation elements, nearly all of the planning areas were affected both in size and shape, as they were re-planned around the new roadway systems. However, the changes are consistent with the overall vision and uses that were outlined and described in the 2012 Specific Plan Project and Settlement Agreement and the changes are a result of, and are intended to, implement the Settlement Agreement. Under the Settlement Agreement, the private golf course was removed from PAs 35 and 39. Currently, access to the new public open space has been planned through each of the residential planning areas. This has resulted in recreation and active park spaces being relocated to better accommodate both active and passive park uses. Low-density, medium-density, and high-density residential uses are consistent with the original plan. Commercial acreage and school sites remain consistent with the original plan. Based on recent conversations with Beaumont Unified School District, what was originally planned as a 12-acre site will now be a 14-acre school site. This Proposed Land Plan (Figure 2.3) adapts well to and implements the mandated changes and will serve as the foundation for future approvals.

As outlined in the Butterfield Specific Plan, Section 6.1.2, Minor Adjustments and Modifications, a Minor Modification is required when modifications to the Specific Plan would qualify for processing under a Substantial Conformance application instead of a Specific Plan Amendment. The following modifications qualify for a Minor Modification pursuant to the Specific Plan, and have been identified below for purposes of the Proposed Project's Minor Modification request:

- Changes in the location of infrastructure and public facilities (such as internal roads, or drainage facilities, etc.), subject to the review and approval of the Public Works Director.
- Minor change in roadway alignment and grade, subject to the review and approval of the Public Works Director.
- In lieu of the originally planned golf course within PA 35, PA 35 will now consist of open space with active and passive recreational uses, such as walking or biking trails, parks, and native type vegetation landscaping.
- The Neighborhood Mini Parks and Neighborhood Recreation Park (PAs 21–34 and 62–72) may be relocated in their respective areas, including into PA 35.
- If determined preferable to locate additional stormwater detention facilities at the south end of the Specific Plan Area along Smith Creek, these facilities may be located in PA 9. The boundaries of PAs 7, 8, 12, and 13 may be expanded into PA 35 to offset any proposed residential area displaced in PA 9.
- Additional minor modifications similar to those listed above and determined minor by the Community Development Director, which are in keeping with the intent of the Butterfield Specific Plan.

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NOT TO SCALE

SOURCE: Michael Baker International

I:\TPO1501\G\Proposed Land Use.cdr (9/8/2016)

FIGURE 2.3

Revised Butterfield Specific Plan
Proposed Land Use Plan

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The GPA and Minor Modification implement and identify the changes contemplated and required by the Settlement Agreement. In addition to evaluating the changes required under the Settlement Agreement noted above, the Addendum evaluates the following additional changes:

- Adjustment of the remaining planning areas and backbone street system in the Specific Plan to accommodate the Settlement Agreement changes.
- Adjustment of the land use mix as reflected in the attached Comparative Land Use Summary, per the Settlement Agreement changes:
 - Reduction in the overall residential area
 - Increase in the overall open space area
- Realignment of the previously proposed “B” Street through the Specific Plan area as an easterly extension of Oak Valley Parkway to Highland Home Road. This realignment was determined to be necessary to accommodate the upgrading of the SoCalGas transmission line through the Specific Plan area and maintain it in a roadway area for maintenance and safety purposes. This line will be upgraded to current standards, but not increased in size. The original alignment for the gas line was through the golf course open space with limited public access, but given the elimination of the course to public open space, the need to keep the 30-inch gas main line in a roadway is a more desirable and safe alternative.
- Adjustment of planning areas and backbone street system in the southern half of Specific Plan to accommodate realignment of Oak Valley Parkway/”B” Street for the gas line.

2.6.1 Proposed Project Design Features

In addition to the Project Design Features (PDFs) included as part of the 2012 Specific Plan Project that have been updated to reflect new acreages and Project refinements, the Proposed Project would include the following four new PDFs related to transportation and traffic.

1. Constructing Highland Springs Avenue as a 4-lane roadway (easterly half section only) according to City’s General Plan designation between 8th Street-Wilson Street and Brookside Avenue. This would also include constructing single left-turn lanes at signalized intersections on Highland Springs Avenue within the above mentioned limits.
2. Highland Springs Avenue/Brookside Avenue - Addition of a dedicated right-turn lane with overlap phasing.
3. Highland Springs Avenue/16th Street-Cougar Way – Addition of a second southbound left turn lane, a northbound right-turn lane with overlap phasing, two westbound left-turn lanes, and one westbound right-turn with overlap phasing.
4. Highland Home Road/F Street – Installation of a traffic signal and addition of a northbound left-turn lane.

All other DPS described in Section 2.1.1, Previous 2012 Butterfield Specific Plan Project Characteristics, remain the same (as applicable) except as expressly provided herein and will be carried forward as part of the Proposed Project.

A summary of the changes between the 2012 Specific Plan Project and the Proposed Project is provided in Table 2.A, Comparative Land Use Summary: 2012 Butterfield Specific Plan and 2016 Proposed Project, below.

Table 2.A: Comparative Land Use Summary: 2012 Butterfield Specific Plan and 2016 Proposed Project

Land Use	2012 Butterfield SP	2016 Modified SP	2012 Butterfield SP	2016 Modified SP
	Gross Acres (% of Total)	Gross Acres	Dwelling Units	Dwelling Units
Residential:				
Low Density: 0-5du/ac (LDR)	539.2 (35.0 %)	487.9 (31.9 %)	2,222	2,201
Medium Density: 0-10 du/ac (MDR)	324.4 (21.0 %)	335.8 (22.0 %)	1,960	2,095
High Density: 11-18 du/ac (HDR)	73.8 (4.8 %)	38.4 (2.5 %)	1,205	566
Residential Total	937.4 (60.8 %)	862.1	5,387	4,862
Open Space:				
Golf Course/Drainage	253.9 (16.5 %)	0		
Parks	66.5 (4.3 %)	78.4 (5.1 %)	-	-
Central, Natural/Landscape/Easement	108.4 (7.0 %)	418.1 (27.4 %)	-	-
Open Space Total	428.8 (27.8 %)	496.5 (32.5 %)	-	-
Other:				
Commercial/Office ¹	36.0 (2.3 %)	36.7 (2.4 %)	-	-
Schools ²	23.0 (1.5 %)	27.1 (1.8 %)	-	-
Utility Substation	4.2 (0.3 %)	4.2 (0.3 %)	-	-
Fire Station ³	1.6 (0.1 %)	1.6 (0.1 %)	-	-
Backbone Roads	113.6 (7.4 %)	101.0 (6.7 %)	-	-
Other Subtotals	176.8 (11.4 %)	169.0 (11.1 %)	-	-
SPECIFIC PLAN TOTALS				
	1,543.0 (100 %)	1,527.6⁴ (100 %)	5,387	4,862

Notes:

¹ Within the Butterfield Specific Plan, alternate Residential use or mixed use of the Commercial sites is provided for PA 17 at up to 4.5 du/ac (LDR) and PA 18 at up to 10 du/ac (MDR), as long as the overall dwelling units total for the Specific Plan does not exceed 4,862 du.

² Alternate Residential use of school sites at up to 10 du/ac is provided for within the Butterfield Specific Plan as long as the overall dwelling units total for the Specific Plan does not exceed 4,862 du.

³ A fire station site is designated as a permitted use in any of the Residential, Open Space, Commercial or School Planning Areas, Except PAs 36, 37, 38, 39, 69, 73, 74, and 75 in the Butterfield Specific Plan. The 1.6-acre fire station site area has been included in the totals for the open space acreage.

⁴ The Proposed Project total area is smaller because previous PA 43B was eliminated, which was outside City limits and outside Pardee ownership.

City = City of Banning

du/ac = dwelling units per acre

PA = Planning Areas

SP = Specific Plan

3.0 COMPARATIVE EVALUATION OF ENVIRONMENTAL IMPACTS

The following pages contain an analysis of the potential impacts of the Proposed Project. The potential impacts of the Proposed Project are compared to potential impacts identified for the 2012 Specific Plan Project in the Specific Plan EIR that was certified by the City of Banning (City) on March 27, 2012. As explained in Chapter 1.0, this comparative analysis has been undertaken pursuant to the California Environmental Quality Act (CEQA) and to provide the City decision-makers with a factual basis for determining whether changes to the 2012 Specific Plan Project, changes in circumstances, or new information since the certification of the Specific Plan EIR require additional environmental review or preparation of a subsequent or supplemental EIR. The basis for each finding is explained in the analysis that follows.

3.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

In the course of evaluating impacts of the 2012 Specific Plan Project, the following effects were found not to be significant in the Specific Plan EIR:

- **Agricultural and Forestry Resources**-conflicts with existing zoning for or the rezoning of forest land *and* the loss of forest land or conversion of forest land to a non-forest use.
- **Biological Resources**-interference with the movement of any native resident or migratory fish or wildlife species or with established migratory wildlife corridors and conflicts with local policies or ordinance protecting biological resources, such as a tree preservation policy or ordinance.
- **Geology, Soils, and Seismicity**-development on soils incapable of supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.
- **Hazards and Hazardous Materials**-result in safety hazards for people residing or working in the project area due to development located within two miles of a public or private airport.
- **Mineral Resources**-result in the loss of a known mineral resource and the loss of availability of a locally important mineral resource recovery site.
- **Noise**- result in the exposure of people residing or working in the project area to excessive noise levels related to development located within two miles of a public or private airport.
- **Population and Housing**-displace substantial numbers of people, necessitating the replacement of housing elsewhere.

Because the Project site has remained generally unchanged since the certification of the Specific Plan EIR and because the Proposed Project represents minor modifications to the 2012 Specific Plan Project, these impacts are not evaluated further in this Addendum, with the exception of impacts related to conflicts with a tree ordinance or policy, as such impacts are applicable to modifications and project components included as part of the Proposed Project.

3.2 AESTHETICS, LIGHT, AND GLARE

3.2.1 Existing Environmental Setting

There have been no major changes to the existing setting of the Project site with respect to aesthetics, light, and glare, since the 2012 Specific Plan EIR was prepared. As such, please see Section 4.1 of the Specific Plan EIR for a summary of the existing environmental setting related to Aesthetics, Light, and Glare. The analysis contained in Section 3.1 is based on information compiled from aerial photographs, ground-level photographs of the site and surrounding areas, and site surveys conducted by RBF Consulting personnel in April 2007 and September 18, 2010, as well as the *City of Banning Comprehensive General Plan* (January 2006) and the *City of Banning Comprehensive General Plan EIR*, prepared by Terra Nova Planning & Research, Inc. (June 2005), and the Draft Butterfield Specific Plan and its technical appendices.

The Project site is an approximate 1,543-acre undeveloped parcel located in the City of Banning. The Project site is characterized by open space and highly disturbed grassland. There is a single oak tree located along the northwestern edge of the Project site.

Topography on the site ranges from relatively flat to steep foothill terrain. Elevation on the site ranges from 2,560 feet (ft) above mean sea level (amsl) to 3,400 ft amsl, with the elevation gradually increasing over three quarters of the site before rising quickly to its highest elevation on the northern and northeastern portions of the site. The Project site is bisected from east to west by two Southern California Edison (SCE) easements (both easements total 400 ft).

The predominant scenic vista visible from the Project site is the peaks and ridgelines of the San Bernardino Mountains and its foothills. Scenic vistas of Mt. San Jacinto, located south of the site, are also visible from the Project site. Existing urban/suburban development along Wilson Street (which forms the southern boundary of site) is also visible within the immediate vicinity of the Project site.

In its existing and undeveloped condition, the Project site does not generate light or glare. However, nighttime illumination is currently generated by roadway systems and land uses surrounding the Project site. Existing light sources in the immediate vicinity include streetlights, parking lot lighting, interior illumination from residential uses, business signage, security lighting, and vehicle headlights. There are no sources of glare in the vicinity of the Project site, as surrounding buildings have been developed with non-reflective materials.

3.2.2 Specific Plan EIR

Please refer to Section 4.1 of the Specific Plan EIR for analyses of the potential effects of the Proposed Project related to Aesthetics, Light, and Glare.

The Specific Plan EIR concluded that the following impacts related to aesthetics would be less than significant with mitigation incorporated, with the exception of impacts with respect to light and glare, which would remain significant and unavoidable even with implementation of applicable mitigation measures.

Threshold: *Have a substantial adverse effect on a scenic vista?*

OR

Threshold: *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

Impact: Scenic Vistas and Scenic Highways-Less than Significant with Mitigation Incorporated.

As described in the Specific Plan EIR, the most prominent scenic vista in the vicinity of the Project site is the view of the ridgelines and peaks of the San Bernardino Mountains. The Project site was determined to not be visible from Interstate 10 (I-10) westbound due to foreground berms and landscaping and to be only intermittently visible from eastbound lanes. The section of the I-10 that traverses the area of the site is not designated as a State Scenic Highway, but is designated as an “Eligible” scenic corridor. The site was determined to be visible in the distant background from State Route 243 (SR-243), a designated scenic highway that terminates south of I-10.

Construction Impacts. The Specific Plan EIR determined that the visual character of the site would be dramatically altered during project construction because construction of the 2012 Specific Plan Project called for the mass grading of the site in four phases and subsequent rough grading of individual tracts followed by the vertical construction of homes and other facilities. Despite the significant change in visual character during construction of the 2012 Specific Plan Project, impacts to scenic vistas during project construction were determined to be less than significant because these activities would not impair views of the San Bernardino Mountains or the San Jacinto Mountains. Furthermore, the Specific Plan EIR determined that impacts to scenic vistas would be less than significant during project construction because the 2012 Specific Plan Project would be required to comply with the City’s grading requirements, which require the revegetation and/or reseeded of exposed soils in the graded area with native plants at the earliest possible time. In addition, the 2012 Specific Plan Project was required to comply with Mitigation Measure AES-1, which requires that development or revegetation occur within 3 months of mass grading or clearing activities and requires preparation of a Revegetation Plan.

Mitigation Measure AES-1: Development or revegetation shall be initiated within three months following initiation of mass grading or clearing activities, where feasible, so as to limit the time graded surfaces remain in their exposed state, consistent with the Specific Plan’s approved landscape design guidelines and landscape plans and the provisions of Title 18.15.020 of the City of Banning’s (City) *Municipal Code*. A Revegetation Plan, addressing interim revegetation during construction and for future development areas prior to build out, shall be submitted for City review and approval as part of each grading permit application.

Construction of the 2012 Specific Plan Project would have required the use and storage of heavy construction equipment and vehicles that may have been visible off-site. As such, the 2012 Specific Plan Project was also required to comply with Mitigation Measure AES-5, which requires the Applicant to identify construction staging areas and a 500 ft setback of the staging area from the nearest residences and the implementation of staging (where feasible), to further minimize impacts to scenic vistas during project construction.

Mitigation Measure AES-5: Rough Grading Plans, including a sheet detailing the location of the construction staging, shall be approved by the City Engineer, prior to grading permit issuance. The sheet pertaining to the construction staging shall include the following provisions:

- The construction equipment and supply staging areas shall be at least 500 feet from the nearest residence off site. Staging areas shall be screened where feasible.
- During construction and grading, the construction contractor shall keep the site clear of all trash, weeds, and debris. Compliance with this measure is subject to periodic City inspections.
- The grading contractor shall minimize creation of large stockpiles of soil (in terms of height) to minimize visual impacts pursuant to the provisions of the grading and/or stockpile permit issued by the City Engineer pursuant to the provisions of the City's Municipal Code, Section 18.09, Grading Permit Requirements, and the requirements of the City Engineer.
- All temporary security lighting shall be designed and located so as to avoid intrusive effects on adjacent properties. Proper lighting techniques to direct light on site and away from other properties shall be required to reduce light and glare impacts (including directional lighting away from reflective surfaces, use of non-reflective glass, low-intensity lighting, use of lighting baffles, and use of appropriate types of lighting fixtures).

In addition to the planned development on the 1,543-acre undeveloped parcel, the 2012 Specific Plan Project included the construction of off-site infrastructure improvements including drainage, water, wastewater, and recycled water conveyance systems (pipelines and pump stations) which would be constructed in and around the City. Because the proposed on- and off-site pipelines would be located underground, the Specific Plan EIR determined that no long-term impacts to scenic vistas would occur as a result of their construction. Drainage improvements at the Smith Creek would have been revegetated and mitigated in accordance with the 2012 Specific Plan Project's biological resource permits. The optional sewer lift station to be located at the intersection of Ramsey Street and Omar Street would have limited visibility from the I-10 and would be enclosed and screened.

Long-Term Impacts. Visual impacts of urban development in the lower elevations of the San Bernardino Mountains foothills were considered in the City's 2005 General Plan EIR and were ultimately determined to be less than significant with implementation of mitigation. Because the 2012 Specific Plan Project would have required an amendment to the previously approved Deutsch Specific Plan and would have been located in an area long planned for urban development, the Specific Plan EIR determined that impacts to a scenic vista would also be less

than significant. Mitigation Measure AES-4 was prescribed in the Specific Plan EIR to further reduce the 2012 Specific Plan Project's long-term visual impacts by requiring the Applicant to maintain perimeter walls, fencing, irrigation, and landscape in a satisfactory condition at all times. Therefore, although implementation of the 2012 Specific Plan Project would alter the appearance of the site, the Specific Plan EIR determined that the Project would not degrade the visual quality of the site and would not result in a barrier to the designation of the I-10 corridor as a State scenic highway.

Mitigation Measure AES-4: The Project developer and its successor(s), in interest inclusive of the Homeowners Association or Landscape Lighting and Maintenance District, if any, shall maintain perimeter walls, fencing, irrigation, and landscape in a satisfactory condition at all times. Parkways and other landscape features visible from the public right-of-way shall be maintained free of weeds and trash, and graffiti shall be promptly removed.

As part of the 2012 Specific Plan Project, the satellite water treatment facility would have collected and redirected wastewater flows from the Project site and neighboring properties and would have been screened by a 6 ft decorative masonry wall and landscaping. The tallest structure, a 1-million-gallon water storage tank, would have been 36 ft in height, similar to the maximum height of a residential structure and would have been set back 20 ft from the property line. The height of this structure would have been too low for it to be visible from eastbound I-10, and would not have obstructed long-range views of the mountain ridgelines to the north and south of the facility.

The sewer lift station included as part of the 2012 Specific Plan Project would be one story in height and would be located on a less than 1 acre vacant lot in a commercial area. The subsurface force main from the lift station to the site would be installed within existing rights-of-way. The Specific Plan EIR determined that neither of these facilities would result in a long-term impact on visual resources or scenic vistas.

As previously discussed, implementation of the 2012 Specific Plan Project would have included three aboveground water storage reservoirs. These three reservoirs would be located throughout the site, with Reservoir 3 being located at the highest elevation (3,205 amsl) of the three reservoirs¹, making it visible to the surrounding community and/or the eastbound I-10 corridor. A typical reservoir of this type would be 36 ft in height with a 110 ft diameter. As required by the Specific Plan EIR, PDF 7, requires the exterior of the reservoirs to be painted with a matte-finish, earth-toned coating to allow for them to blend into the surrounding hillside and be further screened by perimeter and slope landscape to reduce the plant's long-term impacts on scenic vistas to a less than significant level.

The Specific Plan EIR determined there would be no long-term visual impacts associated with off-site subsurface pipelines and the relocated power line. Specifically, impacts associated with the relocated power line were determined to be negligible because existing hillside contours and mature windrows in and around the site block views of the power line. Development associated

¹ Peak elevations on the site are approximately 3,400 amsl.

with implementation of the 2012 Specific Plan Project were determined to further reduce visual impacts from the relocated power line, as such development would further obscure views of the transmission line.

The Project site contains a single oak tree, which is considered a scenic resource. As such, the Specific Plan EIR determined that impacts to this resource would be potentially significant without the implementation of Mitigation Measure AES-6, which requires the Applicant to design plans to preserve the existing oak tree along Highland Springs Avenue. The subsequent Settlement Agreement required that the Veteran's Tree be relocated to a prominent location within the Project site. Therefore, Mitigation Measure AES-6 is still applicable as the Veteran's Tree will be relocated or replaced if preservation in place is not feasible.

Mitigation Measure AES-6: As part of the final design, improvement plan, and grading plan review and approval process, the Applicant shall design plans to preserve the existing oak tree along Highland Springs Avenue (or in the event preservation is not feasible, relocate or replace at suitable size in a prominent location on the site).

With implementation of PDFs and Mitigation Measures AES-1, AES-4, AES-5, and AES-6, as well as compliance with the City's grading requirements and landscaping standards, the Specific Plan EIR determined that the 2012 Specific Plan Project's impacts with respect to scenic vistas and scenic resources would be less than significant.

Threshold: *Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?*

Impact: Visual Character. Less than Significant with Mitigation Incorporated.

Construction Impacts. Implementation of the 2012 Specific Plan Project would have occurred in phases over a 30-year period. As previously discussed, the 2012 Specific Plan Project would have included mass grading on the site in four phases. During the construction phase, exposed, graded surfaces, construction debris, construction equipment, and heavy truck traffic would have been visible on the site, which could have resulted in a temporary degradation of the aesthetic qualities and visual character of the Project site. As such, the Specific Plan EIR determined that Mitigation Measures AES-2, AES-3, and AES-5, in addition to applicable provisions of the City's Municipal Code and compliance with the 2012 Specific Plan Project's grading standards, would be required to reduce impacts to the visual quality of the site during construction of the 2012 Specific Plan Project. Specifically, Mitigation Measure AES-2 requires that all slopes be protected and maintained to control erosion and reduce visual impacts associated with slope grading, Mitigation Measure AES-3 requires that the Applicant and its successors maintain the site free of debris, and Mitigation Measure AES-5 requires the preparation of grading plans requiring that construction equipment and supply staging areas be at least 500 ft from the nearest off-site residence and that staging areas be screened where feasible. Furthermore, the 2012 Specific Plan Project called for the gradual installation of permanent landscaping, which the Specific Plan EIR determined would provide further visual relief. Accordingly, visual impacts to the visual character and quality of the

site during project construction were determined to be less than significant with mitigation incorporated.

Construction of the proposed off-site drainage improvements associated with the 2012 Specific Plan Project included off-site excavation, grading, construction of inlet structures, construction of a multi-use basin, realignment of Smith Creek on the site, and channel improvements to the Smith Creek drainage south of the culvert beneath Wilson Street. Short-term visual effects associated with construction of the proposed on- and off-site improvements were determined to be less than significant.

Mitigation Measure AES-2: The faces of all slopes shall be prepared, protected and maintained to control erosion and to reduce the visual impacts of slope grading. Slopes in excess of ten feet in height shall be graded pursuant to City Code requirements. Devices or procedures for erosion protections shall be installed as prescribed by State law and regulations and Title 18 of the City's *Municipal Code* and shall be maintained in operable condition by the developer during the duration of the activity for which the grading permit was issued. The use of plastic sheeting for erosion control shall be avoided except where required in emergency conditions to prevent land slippage. Preferred means of erosion and sediment control on slopes and pads shall include hydromulching, placement of straw bales and wind fencing, and the use of straw blankets and similar devices.

Mitigation Measure AES-3: The Project developer shall maintain the site free of debris, which shall be promptly removed from the site when found at least once per quarter and at least daily during construction, and the Project developer shall monitor the site at least once per quarter and at least daily during construction to protect the site from illegal dumping.

Mitigation Measure AES-5: Rough Grading Plans, including a sheet detailing the location of the construction staging, shall be approved by the City Engineer, prior to grading permit issuance. The sheet pertaining to the construction staging shall include the following provisions:

- The construction equipment and supply staging areas shall be at least 500 feet from the nearest residence off site. Staging areas shall be screened where feasible.
- During construction and grading, the construction contractor shall keep the site clear of all trash, weeds, and debris. Compliance with this measure is subject to periodic City inspections.
- The grading contractor shall minimize creation of large stockpiles of soil (in terms of height) to minimize visual

impacts pursuant to the provisions of the grading and/or stockpile permit issued by the City Engineer pursuant to the provisions of the City's Municipal Code, Section 18.09, Grading Permit Requirements, and the requirements of the City Engineer.

- All temporary security lighting shall be designed and located so as to avoid intrusive effects on adjacent properties. Proper lighting techniques to direct light on site and away from other properties shall be required to reduce light and glare impacts (including directional lighting away from reflective surfaces, use of non-reflective glass, low-intensity lighting, use of lighting baffles, and use of appropriate types of lighting fixtures).

Long-Term Impacts. Implementation of the 2012 Specific Plan Project would have developed the currently vacant Project site with a residential, institutional, commercial, and recreational development. The visual character of the Project site would have been permanently altered as a result of this development; however, the Specific Plan EIR determined that while the Project would alter the visual character of the site, it would not be degraded. In particular, the Specific Plan EIR determined that the 2012 Specific Plan Project was consistent with on-site landforms and would not result in the obstruction of views of ridgelines and foothills. Furthermore, landscaping included as part of the 2012 Specific Plan Project would have been implemented in such a way as to blend into the natural environment and serve as a buffer between the proposed uses and native habitat.

The 2012 Specific Plan Project would have also included easement areas, which would have reduced potential impacts of development on existing residences located near the Project site. Additionally, the Specific Plan EIR determined that the provision of open space on nearly 27 percent of the site, as included as part of the 2012 Specific Plan Project, would substantially enhance the internal appearance of the site and would have further reduced impacts on the visual character of the site and surrounding area.

The Specific Plan EIR determined that the optional on-site wastewater treatment plant would result in a less than significant visual impact as this facility would be designed pursuant to Specific Plan Design Guidelines. Similarly, the Specific Plan EIR determined that the 2012 Specific Plan Project would have resulted in less than significant or negligible visual impacts with respect to the proposed off-site infrastructure improvements, and the relocated 115 kV transmission line.

The installation of on-site drainage facilities and the realignment of Smith Creek on the site would have been followed by revegetation of the drainage and related facilities, thereby minimizing visual impacts to a less than significant level. The Specific Plan EIR also determined that impacts related to the aboveground storage tanks would be less than significant, because such facilities would be required to be designed to be consistent with the surrounding environment (pursuant to PDF 7).

For these reasons, and for the reasons described above, the Specific Plan EIR determined that while the 2012 Specific Plan Project would alter the existing visual character and quality of the site, the 2012 Specific Plan Project would enhance the visual character and quality of the site and surrounding area.

Threshold: *Would the proposed project create a new source of substantial light or glare, which would adversely affect day and nighttime views in the area?*

Impact: Light and Glare. Significant and Unavoidable Impact.

The Specific Plan EIR identified a significant and unavoidable impact pertaining to light and glare.

Construction Impacts. Short-term construction activities associated with implementation of the 2012 Specific Plan Project would have included nighttime security lighting, which could have affected adjacent residential uses in the Project vicinity. Accordingly, the Specific Plan EIR required that staging areas be located a minimum of 500 ft from the residential uses and that all temporary security lighting be designed and located so as to avoid intrusive effects on adjacent properties (Mitigation Measure AES-5), and required compliance with the City's lighting ordinance to reduce impacts during construction phases of the 2012 Specific Plan Project. The Specific Plan EIR also determined that screening of construction areas in areas proposed for off-site improvements would be required to reduce temporary impacts related to nighttime lighting. In addition, the Specific Plan EIR required the implementation of Mitigation Measure AES-7, which requires the Applicant to prepare and submit architectural plans consistent with the City's lighting standards. With implementation of Mitigation Measures AES-5 and AES-7 and adherence with the City's lighting control provisions, temporary impacts with respect to light and glare were determined to be less than significant.

Mitigation Measure AES-5:

Rough Grading Plans, including a sheet detailing the location of the construction staging, shall be approved by the City Engineer, prior to grading permit issuance. The sheet pertaining to the construction staging shall include the following provisions:

- The construction equipment and supply staging areas shall be at least 500 feet from the nearest residence off site. Staging areas shall be screened where feasible.
- During construction and grading, the construction contractor shall keep the site clear of all trash, weeds, and debris. Compliance with this measure is subject to periodic City inspections.
- The grading contractor shall minimize creation of large stockpiles of soil (in terms of height) to minimize visual impacts pursuant to the provisions of the grading and/or stockpile permit issued by the City Engineer pursuant to the provisions of the City's Municipal Code, Section

18.09, Grading Permit Requirements, and the requirements of the City Engineer.

- All temporary security lighting shall be designed and located so as to avoid intrusive effects on adjacent properties. Proper lighting techniques to direct light on site and away from other properties shall be required to reduce light and glare impacts (including directional lighting away from reflective surfaces, use of non-reflective glass, low-intensity lighting, use of lighting baffles, and use of appropriate types of lighting fixtures).

Mitigation Measure AES-7: Prior to issuance of building permits, architectural plans, including detailed lighting specifications, shall be submitted for the review and approval by the City of Banning Community Development Director. The specifications shall be consistent with lighting standards included in the Specific Plan and shall meet or exceed the lighting standards contained in the City's *Municipal Code*. The lighting plans must demonstrate the following to the satisfaction of the City of Banning Community Development Director:

- Use of low-sodium lamps of 4,050 lumens, or less where feasible, to provide for adequate public safety and security;
- A lighting standard that is shielded to direct illumination downward and to limit casting light and glare on adjacent properties;
- Exterior lighting, including streetlights, landscape lighting, parking lot lighting, and lighting of the interior of parks and trails shall be sufficient to establish a sense of well-being for the pedestrian and sufficient to facilitate recognition of persons at a reasonable distance. Type (lighting standard) and placement of lighting shall be to the satisfaction of the Police Department and Department of Public Works and shall be consistent with the requirements of the City's most current lighting ordinance and the standards of the Specific Plan;
- A minimum of one foot-candle at ground level overlap provided in all exterior doorways and vehicle parking areas, and on outdoor pedestrian walkways presented on a photometric plan; and
- Outdoor light fixtures that are not covered by the Specific Plan's lighting standards shall be subject to the City's *Municipal Code*.

Long-Term Impacts. New development proposed as part of the 2012 Specific Plan Project would have introduced new light sources that could result in glare, light pollution, and light trespass. Because the Project site was undeveloped and vacant, the introduction of lighting proposed as part of the 2012 Specific Plan Project would result in the implementation of substantial new sources of light and security lighting and safety lighting for the proposed uses. These new sources of light would be most visible from development to be located along adjacent roadways. All developed areas and trails would have 24-hour security lighting and all recreational areas would have lighting up to 10:00 p.m., per the City's Municipal Code. The proposed commercial areas may also have 24-hour lighting.

Implementation of the 2012 Specific Plan Project includes a number of measures (e.g., including design guidelines and PDFs) aimed at reducing impacts with respect to light and glare. Street and sign lighting would be oriented and confined within the site to prevent spill over into adjacent properties. The Specific Plan EIR also determined that implementation of Mitigation Measures AES-5 and AES-7 would be required to reduce potentially significant light and glare impacts. While implementation of Mitigation Measures AES-5 and AES-7 would partially reduce residual light and glare impacts, such impacts were determined to remain significant and unavoidable.

Cumulative Impacts. Significant and Unavoidable Impact. The Specific Plan EIR determined that the 2012 Specific Plan Project would have contributed to the ongoing development of vacant land through the creation of a new residential community. However, development envisioned under the 2012 Specific Plan EIR would have been consistent with buildout of the City's General Plan, which itself was determined to result in less than significant impacts related to scenic vistas and visual character with adherence to current City standards, mitigation measures outlined in the General Plan EIR and Specific Plan EIR, and the design guidelines contained in the Specific Plan.

Given the size and scale of the 2012 Specific Plan Project relative to future anticipated development in the City, the Specific Plan EIR determined that the 2012 Specific Plan Project would have resulted in a cumulatively significant unavoidable impact with respect to light and glare despite the implementation of applicable mitigation measures.

3.2.3 Analysis of Project Changes

Scenic Vistas and Scenic Highways. Grading associated with Project implementation would be similar to grading proposed under the 2012 Specific Plan Project, as would off-site backbone and off-site infrastructure improvements. Therefore, construction impacts to scenic vistas under the Proposed Project would be consistent with the findings of the Specific Plan EIR.

Similar to the 2012 Specific Plan Project, the Proposed Project would also include an on-site satellite wastewater treatment facility and above-ground water storage reservoirs. Buildings included as part of the Proposed Project would not be taller or more densely developed than the previous 2012 Specific Plan Project, and would therefore be consistent with the findings of the Specific Plan EIR and not have any greater impacts on the scenic vistas. Under the Proposed Project, the existing 115 kV lines located on the site would no longer be undergrounded, as proposed under the 2012 Specific Plan Project because there is no longer development proposed in this area. Therefore, these electrical lines would remain in views on and off the Project site following Project implementation; there would be no change from existing conditions. However, because of the reduction in units and because the

Proposed Project would maintain the same building heights as proposed under the 2012 Specific Plan Project, the Project would be generally consistent with the findings of the Specific Plan EIR. The Proposed Project would result in less than significant impacts to views of the nearby ridgelines of the San Bernardino. Mitigation Measures AES-1 through AES-6 would remain applicable to the Proposed Project. Therefore, the Proposed Project would not result in any new significant environmental effects to scenic vistas or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Scenic Resources. The Proposed Project is located on the same Project site evaluated in the Specific Plan EIR and is not within or near a State scenic highway, but is visible in the distant background from State Route 243 (SR-243), a designated scenic highway that terminates south of I-10. Although the Proposed Project would develop the currently vacant Project site with a large-scale residential project, the Project site is located in an area long planned for urban development. Furthermore, mitigation measures outlined in the Specific Plan EIR with respect to aesthetics (AES-1 through AES-6) would remain applicable to the Proposed Project and would ensure that Project implementation would not degrade the visual quality of the site and would not result in a barrier to the designation of the I-10 corridor as a State scenic highway.

The Proposed Project includes the relocation of the “Veteran’s Tree” elsewhere on the Project site. While the Veteran’s Tree is not officially designated a scenic resource and is not located within a scenic highway, the relocation of the Veteran’s Tree elsewhere on site would ensure that Project implementation would result in a less than significant impact related to the loss of this tree. The relocation of the Veteran’s Tree would also be required to ensure compliance with Mitigation Measure AES-6 outlined in the Specific Plan EIR. Therefore, the Proposed Project would not result in any new significant environmental effects to the degradation of scenic resources or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Visual Character. Grading associated with Project implementation would be similar to grading proposed under the 2012 Specific Plan Project, as would off-site backbone and off-site infrastructure improvements. Therefore, construction impacts related to the visual character of the site under the Proposed Project would be consistent with the findings of the Specific Plan EIR.

The visual character of the Proposed Project site has generally remained unchanged since the certification of the Specific Plan EIR. Implementation of the Proposed Project would improve the visual character of the Proposed Project site as compared to the 2012 Specific Plan Project analyzed in the Specific Plan EIR as it would include more open space and trails and would reduce overall development on the Project site. Therefore, the Proposed Project would not result in any new significant environmental effects related to the visual character of the site or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Light and Glare. Short-term construction activities associated with the Proposed Project would be similar to those included as part of the 2012 Specific Plan Project. Security lighting associated with construction activities would be required to be located away from nearby residential uses to the extent feasible so as to avoid potential impacts on adjacent properties, similar to construction activities occurring under the 2012 Specific Plan Project. Therefore, construction impacts related to

light and glare under the Proposed Project would be consistent with the findings of the Specific Plan EIR.

The Proposed Project is a less intense development that includes 525 fewer residential units and the removal of the golf course. Because of the reduction in units and associated lighting, the Proposed Project would result in fewer impacts related to light and glare, particularly in those areas along Wilson Street and Highland Springs Avenue where existing residences and other sensitive receptors are located, as compared to impacts identified in the Specific Plan analyzed in the Specific Plan EIR. The Specific Plan EIR assessed light and glare impacts based on the changes to the existing condition, which is a vacant, undeveloped site. Similarly, because the site conditions have not changed since the time the Specific Plan EIR was prepared, the Proposed Project would likewise introduce new light and glare impacts on adjacent land uses but the impacts would be less than those identified in the Specific Plan EIR. However, because the Proposed Project would result in a 3.2 percent reduction in residential development and a 1.2 percent reduction in non-residential development (i.e., commercial/office, educational, utility, fire station, and roadway improvements), there would be a reduction in the amount of light and glare resulting from new development. The light and glare impacts would be less than those identified in the Specific Plan EIR. The areas no longer proposed for development under the Proposed Project would be identified as open space.

Based on the revised Land Use Plan (Figure 2.3), the extension of Highland Home Road to Brookside Avenue has been removed and PAs 60 and 61 (412 Low Density Residential units) have also been removed, with open space in their place. Therefore, there would be a significant reduction in light and glare in the northern portion of the Proposed Project.

While open space uses would include 24-hour security lighting, lighting associated with open space uses would be significantly reduced as compared to operational and security lighting for the previously proposed residential and non-residential development. Despite the reduction in lighting included as part of the Proposed Project, Mitigation Measure AES-7 would remain applicable to the Proposed Project. Therefore, due to the reduction in the Proposed Project intensity, the Proposed Project would not result in any new significant effects or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR. Overall, light and glare impacts would remain significant and unavoidable due to the development of a currently undeveloped site, as identified in the Specific Plan EIR. Therefore, the Proposed Project would not result in any new significant environmental effects related to light and glare or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. The cumulative study area for aesthetic impacts analyzed in the Specific Plan EIR and this Addendum is limited to the immediate adjacent area within view of the Project site and with views of the Project site. The Proposed Project would be consistent with the findings of the Specific Plan EIR and would result in a less than significant visual impact. The Proposed Project is part of the City's larger effort to develop projects on vacant land throughout the City. Accordingly, the City's General Plan and its corresponding EIR have accounted for the Proposed Project and have prescribed applicable mitigation measures (which have since been incorporated in the City's Municipal Code), with which the Proposed Project would be required to comply. Therefore, compliance with City standards, mitigation measures imposed under the 2012 Specific Plan Project, and the Specific Plan's design guidelines, would ensure that implementation of the Proposed Project

would result in a less than significant cumulative impact related to scenic vistas, scenic resources and visual character.

Despite the fact that the Proposed Project would result in a less than significant cumulative impact with respect to scenic vistas, scenic resources and visual character, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would result in a significant cumulative impact on the visual environment with respect to light and glare, as the current Project site is undeveloped and does not include existing sources of light or glare. The Proposed Project would comply with applicable lighting provisions of the City's Municipal Code and Mitigation Measures AES-5 and AES-7; however, similar to the 2012 Specific Plan Project, the proposed improvements would introduce new sources of light and glare on the site that would be cumulatively significant. Therefore, the Proposed Project would not result in any new cumulatively significant environmental effects related to aesthetics or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.2.4 Findings Related to Aesthetics

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are any substantial changes in circumstances pertaining to Aesthetics that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Aesthetics requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Aesthetics identified and considered in the Specific Plan EIR.

3.2.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (also listed in Section 2.1.2 of this Addendum) remain applicable to the aesthetics analysis for the Proposed Project.

3.2.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, no changes to the mitigation measures found in the Specific Plan EIR are required. Mitigation Measures AES-1 through AES-7 remain applicable to the Proposed Project.

3.2.7 Mitigation Measures No Longer Applicable

All aesthetics mitigation measures identified in the Specific Plan EIR would remain applicable to the Proposed Project.

3.3 AGRICULTURE AND FORESTRY RESOURCES

3.3.1 Existing Environmental Setting

There have been no major changes to the existing setting of the Project site with respect to agricultural and forestry resources since the Specific Plan EIR was prepared. As such, please refer to Section 4.2 of the Specific Plan EIR for a summary of the existing environmental setting for Agricultural Resources. The analysis contained in Section 4.2 is based on information compiled from site photographs and visits, the City of Banning General Plan and EIR, the most currently available reports from the California Department of Finance, California Department of Conservation, Riverside County Agricultural Production Report (2008), and the Riverside County General Plan and General Plan EIR.

The Project site has been used for intermittent dry and irrigated farming and livestock grazing. The Deutsch Specific Plan EIR indicates that irrigation on the site ceased in 1981, while cultivation ceased completely around 1988. Following their acquisition of the property, Pardee Homes has allowed the use of the site for small scale, occasional cattle grazing under a private lease agreement with a local rancher.

Soils on the site consist of various types of sandy loam, which are considered prime agricultural soils by the State Department of Conservation. In addition, the 120 acres located in the southwestern corner of the site were considered prime farmland by the State Department of Conservation in 1981, when the area was irrigated and actively cultivated. According to the County of Riverside, sites which are comprised of soils classified as Prime and of Statewide Importance, but which are not irrigated, could be classified as Farmland of Local Importance by both the County of Riverside and the State Department of Conservation.

As described further in the Deutsch Specific Plan EIR (1992), the entire Project site was once under a Williamson Act Contract. As of 1992, approximately 924 acres of land on the site remained under a Williamson Act Contract. The Deutsch Specific Plan EIR also noted that a Notice of Non-renewal was issued for this acreage in 1987 and that the land was removed from its Agricultural Preserve status in 1997. Of the 628 acres within the Project site, approximately 200 acres of land had been removed from the Williamson Act Contract in the late 1970s and an additional 428 acres were removed from the contract in 1985. As of 2011, none of the Project site was under the existence of Agricultural Preserve Contracts nor were there any agricultural cases pending or listed for the site. The State Department of Conservation also did not identify any portion of the site as containing farmland of Prime or Statewide importance in 2011.

3.3.2 Specific Plan EIR

Please see Section 4.2 of the Specific Plan EIR for analyses of potential effects of the 2012 Specific Plan Project related to agricultural resources.

The Specific Plan EIR concluded that the following impacts to agricultural resources would be less than significant.

Threshold: *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

Impact: Conversion of Farmland. Less than Significant Impact. As described in the Specific Plan EIR, the Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. However, implementation of the 2012 Specific Plan Project would have resulted in the conversion of 1,500 acres of State-designated “Farmland of Local Importance” to non-agricultural uses. The Specific Plan EIR determined that soils on the site remained suitable for dry farming and a portion of the site located in the northeastern corner of the site could be irrigated again and used for that purpose. The use of the site for farming was determined to be inconsistent with the City’s General Plan Land Use and Zoning Map, which at the time the Butterfield Specific Plan EIR was prepared, designated the site as the Deutsch Specific Plan. The Deutsch Specific Plan did not propose agricultural uses on the site. The Project site was not currently utilized for agricultural purposes at the time the Specific Plan EIR was being prepared. As such, the Specific Plan EIR determined that implementation of the 2012 Specific Plan Project would result in less than significant impacts related to the conversion of farmland.

Threshold: *Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?*

Impact: Conflict with Existing Zoning or Williamson Act Contracts. Less than Significant Impact. The Williamson Act was established to encourage the conservation of farmland and certain open space uses by way of lower property taxes to landowners of such property. As described in the Specific Plan EIR, none of the parcels comprising the Project site were subject to a Williamson Act Contract at the time the Specific Plan EIR was being prepared, and impacts were determined to be less than significant.

Threshold: *Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

Impact: Other Environmental Changes. Less than Significant Impact. As described in the Specific Plan EIR, the Project site was not zoned for, and did not contain, any forest land or timberland uses. In addition, the Project site was not utilized for agricultural purposes or forest land at the time the Specific Plan EIR was being prepared. Furthermore, there was no forest land or timberland within the vicinity of the Project site. While the 2012 Specific Plan Project would have converted land designated as Farmland of Local Importance to a non-agricultural use, the site has not supported agricultural uses, apart from the occasional livestock grazing, since 1988. However, consistent with Right to Farm principles, all real estate transactions for residential and nonresidential uses included as part of the 2012 Specific Plan Project would have included disclosure forms indicating the historic and intended continued small scale, temporary livestock grazing, so as not to hinder ongoing grazing activities on the site. While the Specific Plan EIR did not prescribe mitigation to reduce impacts related to agricultural resources, the Specific Plan EIR did recommend

implementation of Betterment AGRI-1 to ensure impacts to agricultural resources remain less than significant.

AGRI-1 (Betterment): As part of the required real estate disclosure process, the Project shall be conditioned to include a disclosure for all property purchases and leases, noting the historic and intended ongoing intermittent livestock grazing, with the intent to avoid or minimize future actions that would limit or preclude ongoing grazing on the Project site. Said real estate disclosures shall be reviewed and approved by the Community Development Director as part of any residential or non-residential site plan approval, and/or prior to any building permit issuance.

For the reasons stated above, the Specific Plan EIR determined that implementation of the 2012 Specific Plan Project would result in less than significant impacts related to conflicts with existing zoning of forest land and impacts related to the conversion of farmland or forest land to non-farmland or non-forest uses.

Cumulative Impacts Less than Significant Impact. The geographic setting for cumulative agricultural impacts is Riverside County. As described in the Specific Plan EIR, the 2012 Specific Plan Project would have resulted in a less than significant cumulative impact to agricultural resources despite converting 1,500 acres of Farmland of Local Importance because the site has been planned for urban development since the 1980s. Furthermore, there were no applicable Williamson Act Contracts regulating the Project site and no agricultural activities on the site, with the exception of a small-scale temporary use for livestock grazing that had an incremental impact on the regional agricultural economy. Therefore, the Specific Plan EIR determined that the loss of the Project site as potential farmland would be less than cumulatively significant.

3.3.3 Analysis of Project Changes

Conversion of Farmland. The Proposed Project is located on the same Project site as addressed in the Specific Plan EIR, and as such, the site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The 1,500 acres that are designated as Farmland of Local Importance have remained unused for agricultural purposes. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant effects or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Conflict with Existing Zoning or Williamson Act Contracts. The Proposed Project is located on the same Project site as addressed in the Specific Plan EIR, does not involve changes in agricultural uses, and is not subject to a Williamson Act Contract. Because the site is not subject to a Williamson Act Contract and because the site is not zoned for agricultural uses, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant effects or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR. Therefore, the Proposed Project would not result in any new significant

environmental effects related to conflicts with existing zoning or Williamson Act Contracts or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Other Environmental Changes. The Proposed Project is located on the same Project site as addressed in the Specific Plan EIR, which is not zoned for, and does not contain, agricultural or forest land. While the Proposed Project would convert land designated as Farmland of Local Importance to a non-agricultural use, the site has not supported agricultural uses, apart from the occasional livestock grazing since 1988. Similar to the 2012 Specific Plan Project, the proposed Project would require all real estate transactions for residential and nonresidential transactions included as part of the Project to include disclosure forms indicating the historic and intended continued small scale, temporary livestock grazing, so as not to hinder ongoing grazing activities on the site. Therefore, because the Proposed Project is located on the same Project site as addressed in the Specific Plan EIR, the Proposed Project would be consistent with the findings of the Specific Plan EIR regarding impacts to forestland, timberland and the conversion of farmland to non-agricultural use and would not result in any new significant effects or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. The Proposed Project is located on the same Project site as addressed in the Specific Plan EIR and the geographic setting for cumulative agricultural impacts is Riverside County. The Proposed Project would result in a less than significant cumulative impacts to agricultural resources despite converting 1,500 acres of Farmland of Local Importance because the site has been planned for urban development since the 1980s. Furthermore, there are no applicable Williamson Act Contracts regulating the Project site and there are no agricultural activities on the site. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and cumulative impacts with respect to agricultural resources would be less than significant.

3.3.4 Findings Related to Agriculture and Forestry Resources

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project requires a major change to the Specific Plan EIR. The proposed Project would not result in new significant environmental impacts to Agricultural Resources, nor is there a substantial increase in the severity of impacts described in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are any substantial changes in circumstances pertaining to Agricultural Resources that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. No significant unavoidable impacts related to Agricultural Resources were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Agricultural Resources requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Agricultural Resources identified and considered in the Specific Plan EIR.

3.3.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (also listed in Section 2.1.2 of this Addendum) remain applicable to the agricultural resources analysis for the Proposed Project.

3.3.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, no mitigation measures are required. While not required by the Specific Plan EIR to reduce impacts related to agricultural resources, Betterment Measure AGRI-1 would remain applicable to the Proposed Project.

3.3.7 Mitigation Measures No Longer Applicable

No agricultural resources mitigation measures were identified in the Specific Plan EIR and no additional mitigation measures are required.

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3.4 AIR QUALITY

3.4.1 Existing Environmental Setting

There have been no major changes to the existing setting of the Project site with respect to air quality since the Specific Plan EIR was prepared. Please refer to Section 4.3 of the Specific Plan EIR for a summary of the existing environmental setting for Air Quality. The air quality analysis in this section is based primarily on the *Air Quality and Greenhouse Gas Analysis Review*, (September 2016) prepared by LSA Associates, Inc. (LSA) (Appendix A).

The Project site is located within the City of Banning, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin includes all of Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. Air quality within the Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD has established an Air Quality Management Plan (AQMP) that contains policies and measures to achieve federal and State standards for improved air quality.

The Project site is currently vacant and consists of gently sloping lands periodically used for livestock. The existing vegetative cover on the site provides some protection from water and wind erosion; however, on-site soil conditions and wind patterns have resulted in occasional severe wind erosion across the site. The site is bordered by existing residential and other sensitive receptors on the southwest, south, and southeast property lines.

3.4.2 Specific Plan EIR

Please see Section 4.3 of the Specific Plan EIR for analyses of potential effects of the 2012 Specific Plan Project related to air quality.

The Specific Plan EIR concluded that the following air quality impacts would be less than significant with implementation of mitigation, with the exception of impacts related to construction-related emissions, regional operational emissions and AQMP consistency. These impacts were determined to remain significant and avoidable despite the implementation of mitigation measures.

Threshold: *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Impact: Air Quality Standards. Significant and Unavoidable Impact.

Short-Term Construction Impacts. The construction analysis in the Specific Plan EIR concluded the air quality impacts from construction emissions would exceed the established SCAQMD thresholds for particulate matter less than 2.5 microns in size (PM_{2.5}), particulate matter less than 10 microns in size (PM₁₀), reactive organic gases (ROG), carbon monoxide (CO), and nitrogen oxide (NO_x). The Specific Plan EIR determined that implementation of Mitigation Measures AQ-1 through AQ-7 would lessen construction-related impacts by requiring measures to reduce air pollutant emissions from construction activities. These measures require the maintenance of construction equipment, the use of non-polluting and non-toxic building

equipment, the minimization of fugitive dust, and the use of machine guided grading equipment. Mitigation Measure AQ-5 also requires the development of a Dust Management Plan prior to the issuance of grading permits to control fugitive dust throughout the five phases of construction over the course of the 2012 Specific Plan Project's 30-year construction period. In addition, grading activities would be required to comply with the City's Municipal Code and California Building Code regulations, which include adherence with SCAQMD Rule 403 and City's Grading Manual, devising a haul route plan, erosion and sediment plan, and slope analysis plan. The 2012 Specific Plan Project was also required to comply with interim erosion control measures (e.g., vegetation and soil stabilizers) to minimize wind-blown dust, as outlined in the Specific Plan. PDFs related to air quality would also be implemented to reduce construction-related emissions. However, even with implementation of Mitigation Measures AQ-1 through AQ-7, construction emissions were determined to exceed SCAQMD thresholds due to the magnitude of the proposed development.

Mitigation Measure AQ-1: Prior to issuance of any Grading Permit, the Director of Public Works and the City Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with the SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, in accordance with SCAQMD Rule 402, the Applicant shall implement dust suppression techniques to prevent fugitive dust from creating a nuisance off the site. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered at least twice daily to prevent excessive amounts of dust;
- On-site vehicle speed shall be limited to 15 miles per hour;
- All on-site roads shall be paved where feasible, watered as needed, or chemically stabilized;
- Visible dust beyond the property line that emanates from the Project shall be prevented to the maximum extent feasible;
- All material transported off the site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site;
- Track-out devices shall be used at all construction site access points;
- All delivery truck tires shall be watered down and/or scraped down prior to departing the job site; and
- Ground cover on disturbed areas shall be replaced quickly.

Mitigation Measure AQ-2: All trucks that are to haul excavated or graded material on the site shall comply with State Vehicle Code Section 23114

(Spilling Loads on Highways), with special attention to Sections 23114(b)(F), (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads. Prior to the issuance of grading permits, the Applicant shall coordinate with the appropriate City Engineer on hauling activities compliance.

Mitigation Measure AQ-3:

Prior to the issuance of building permits, the City Building Official shall confirm that construction plans and specifications include the following measures, which shall be implemented to reduce reactive organic gas (ROG) emissions resulting from application of architectural coatings:

- Contractors shall use high-pressure-low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent;
- Coatings and solvents with an ROG content lower than required under Rule 1113 shall be used;
- Construction and building materials that do not require painting shall be used to the extent feasible; and
- Pre-painted construction materials shall be used to the extent feasible.

Mitigation Measure AQ-4:

Prior to issuance of any Grading Permit, the Director of Public Works and the Building Official shall confirm that the Grading Plan, Building Plans and specifications stipulate that, in compliance with SCAQMD Rule 403, ozone precursor emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications, to the satisfaction of the City Engineer. A set of maintenance records shall be provided to the City before grading commences. The City Inspector shall be responsible for ensuring that contractors comply with this measure during construction.

Mitigation Measure AQ-5:

Prior to issuance of any Grading Permit, the grading plan shall indicate dust management measures for review and approval by the City Engineer, to identify viable dust control measures and include a monitoring plan to be implemented throughout the construction phases of the Specific Plan. In accordance with the Specific Plan and the City's *Municipal Code*, the dust management measures shall minimize wind-blown particles by including:

- a) All applicable mitigation measures identified in this EIR (related to dust control) and otherwise required by the City or by SCAQMD;

- b) An erosion and sediment control plan to minimize wind or waterborne transport of soil onto adjacent properties, streets, storm drains, or drainages; and
- c) A Revegetation Plan to address interim conditions between initial grading and final site development. The Revegetation Plan, although focused on the control of wind and water erosion, shall consider compatibility with fuel modification zone requirements, drought-tolerant landscape requirements, and potential ongoing livestock grazing. Special techniques such as wind fences shall also be considered, to minimize surface soil and dust during high wind events.

Mitigation Measure AQ-6: GPS-controlled “machine-guided grading”, or other equivalent grading techniques, shall be incorporated into the Project grading plans, subject to review and approval by the City Engineer. This technology will be utilized on mass grading activities where determined feasible, and shall be used where feasible on subsequent rough or fine grading activities.

Mitigation Measure AQ-7: The following measures shall be implemented during construction to substantially reduce nitrogen oxides (NO_x)-related emissions. They shall be included in the Grading Plan, Building Plans, and specifications.

- Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than 5 minutes, and shall ensure that all off-road equipment is compliant with the California Air Resources Board (ARB) in-use off-road diesel vehicle regulations and SCAQMD Rule 2449.
- The following note shall be included on all grading plans: “The City shall require construction contractors to utilize diesel powered construction equipment that meets EPA-certified Tier III emissions standards, or higher according to the following:

January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards at a minimum. In addition, all construction equipment shall be outfitted with best available control technology (BACT) devices certified by ARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.

Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by ARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.”

- A copy of each unit’s certified tier specification, BACT documentation, and ARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.
- Construction contractors are encouraged to apply for AQMD “SOON” funds. Incentives could be provided for those construction contractors who apply for AQMD “SOON” funds. The “SOON” program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: <http://www.aqmd.gov/tao/Implementation/SOONProgram.htm>.”
- The contractor and the Applicant, if the Applicant’s equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions, as required by SCAQMD Rules 431.1 and 431.2.
- Existing power sources (i.e., power poles) shall be used when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Construction parking shall be located on the site where possible and shall be configured to minimize traffic interference.
- Obstruction of through-traffic lanes shall be minimized by providing temporary traffic controls such as flag persons, cones, and/or signage during all phases of construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum.
- A traffic plan shall be developed to minimize traffic flow interference from construction activities. The plan shall specify the times during which construction activities would occur and particular times when travel lanes cannot be blocked (e.g., peak traffic periods as directed by the affected City Engineer). The plans shall provide details regarding the

placement of traffic control, warning devices, and detours. As a supplement to the traffic plan, the construction contractor shall coordinate with the affected agency to determine the need for a public information program that would inform area residents, employers, and business owners of the details concerning construction schedules and expected travel delays, detours, and blocking of turning movements lanes at intersections. The public information programs could utilize various media venues (e.g., newspaper, radio, television, telephone hot lines, or internet website, etc.) to disseminate information such as:

- o Overview of project information
- o Weekly updates on location of construction zones;
- o Identification of street(s) affected by construction;
- o Times when construction activities would occur and when traffic delays, and blockage of intersection turning movements can be expected; and
- o Identification of alternate routes that could be used to avoid construction delays.

Long-Term Impacts. The overall emissions from implementation of the 2012 Specific Plan Project were determined to exceed SCAQMD thresholds for PM_{2.5}, PM₁₀, ROG, CO, and NO_x, resulting in a significant and unavoidable impact.

Long-term air quality impacts would have been regional and not confined to the City limits. Development occurring under the 2012 Specific Plan Project was required to comply with SCAQMD regulations and permitting requirements, as well as Mitigation Measures GHG-1 and GHG-2 (refer to Specific Plan EIR, Global Climate Change). Mitigation Measure GHG-1 requires implementation of building and water efficiency features in new development to reduce area source emissions associated with energy demand. Mitigation Measure GHG-2 would promote renewable energy resources in the Specific Plan project area, such as allowing solar rooftops, allowing electric vehicle charging stations, and allowing hydrogen vehicle fueling stations on the site. However, even with implementation of these measures, emissions resulting from area sources were determined to be significant and unavoidable due to the magnitude of development associated with the 2012 Specific Plan Project.

Mobile sources would be the largest contributor to the annual average air pollutant levels associated with the 2012 Specific Plan Project, and would have exceeded the SCAQMD thresholds. The 2012 Specific Plan Project included a variety of uses on the site, which would have served to reduce vehicle miles traveled (VMT), thereby reducing mobile source air quality emissions. However, due to the magnitude of development under the Specific Plan, the Specific Plan EIR determined that mobile source air quality emissions would remain significant and unavoidable.

At the time the Specific Plan EIR was prepared, the carcinogenic risk from air toxics in the Basin was approximately 1,200 per million, based on average concentrations at fixed monitoring locations. However, the City is located in an area within the basin where concentrations are declining and conditions are continuing to improve. The closest portion of the Project site is more than 2,000 ft away from I-10 and the Southern Pacific Railroad (SPRR), both of which generate toxic compounds that contribute to the carcinogenic risk. Therefore, the Specific Plan EIR determined that the health risk impacts to the 2012 Specific Plan Project would be less than significant.

Threshold: *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Impact: Sensitive Receptors (CO Hotspots). Less than Significant Impact. Refer to the impact discussion related to the exceedance of air quality standards, above.

Carbon Monoxide (CO) emissions are a result of vehicle idling time, meteorological conditions, and traffic glow. CO concentrations near a congested roadway or intersection may reach unhealthy levels, which could adversely impact residents, school children, hospital patients, the elderly, and other sensitive receptors in the area. As determined in the Specific Plan EIR, the CO concentrations at the three most congested intersections following project implementation would be well below State and Federal standards. Therefore, impacts in regards to CO hotspots were determined to be less than significant.

Threshold: *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Impact: Air Quality Management Plan. Significant and Unavoidable Impact. As described in the Specific Plan EIR, the 2012 Specific Plan Project was determined to result in significant adverse air quality impacts related to conflicts with the 2012 SCAQMD AQMP or the Draft 2016 SCAQMD AQMP. Specifically, emissions resulting from the 2012 Specific Plan Project were determined to exceed the SCAQMD's thresholds for ROG, NO_x, CO, PM₁₀, and PM_{2.5}, resulting in a significant impact. The 2012 Specific Plan Project was determined to result in less than significant impacts with result to oxides of sulfur (SO_x) emissions exceedances. While the Specific Plan EIR identified mitigation measures and PDFs to reduce potential construction and operational emissions to the extent feasible, it was determined that emissions would remain significant and unavoidable.

The 2012 Specific Plan Project was determined to be consistent with the City's General Plan and with the previously approved Deutsch Specific Plan; however, given the scale of the 2012 Specific Plan Project, project-related emissions were determined to exacerbate the SCAQMD's regional efforts to bring the Basin into attainment. On a regional scale, the Project-related air quality emissions were determined to be within the forecasts presented in the 2007 AQMP. However, because the 2012 Specific Plan Project was determined to exceed each of the SCAQMD's regional thresholds of significance (with the exception of SO_x emissions), the 2012 Specific Plan Project was determined to result in a potentially significant long-term impact on the region's ability to meet State and Federal air quality standards. As such, the 2012 Specific Plan Project was determined to result in a significant unavoidable impact with respect to consistency with the 2012 or 2016 SCAQMD AQMP.

Threshold: *Would the project result in the creation of objectionable odors affecting a substantial number of people?*

Impact: Odors. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the 2012 Specific Plan Project was determined to result in less than significant impacts related to the creation of odors affecting a substantial number of people. Potential odors were determined to arise from construction equipment used on site and the potential satellite wastewater treatment plant included as part of the 2012 Specific Plan Project. As such, the Specific Plan EIR required implementation of Mitigation Measures AQ-7 and AQ-8. Mitigation Measure AQ-7 requires measures to reduce NO_x emissions during project constructions, which would in turn result in reduced odor impacts during project construction. Mitigation Measure AQ-8 requires a Conditional Use Permit (CUP) for operation of the proposed wastewater treatment plant, thereby ensuring that conditions to address odor impacts emanating from the wastewater treatment plant are incorporated during the CUP process. Implementation of Mitigation Measures AQ-7 and AQ-8 would reduce odor impacts associated with potential odors emanating from project construction and operation to a less than significant level.

Mitigation Measure AQ-7: The following measures shall be implemented during construction to substantially reduce nitrogen oxides (NO_x)-related emissions. They shall be included in the Grading Plan, Building Plans, and specifications.

- Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than 5 minutes, and shall ensure that all off-road equipment is compliant with the California Air Resources Board (ARB) in-use off-road diesel vehicle regulations and SCAQMD Rule 2449.
- The following note shall be included on all grading plans: “The City shall require construction contractors to utilize diesel powered construction equipment that meets EPA-certified Tier III emissions standards, or higher according to the following:

January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards at a minimum. In addition, all construction equipment shall be outfitted with best available control technology (BACT) devices certified by ARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.

Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by ARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be

achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.

- A copy of each unit's certified tier specification, BACT documentation, and ARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.
- Construction contractors are encouraged to apply for AQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for AQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: <http://www.aqmd.gov/tao/Implementation/SOONProgram.htm>.
- The contractor and the Applicant, if the Applicant's equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions, as required by SCAQMD Rules 431.1 and 431.2.
- Existing power sources (i.e., power poles) shall be used when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Construction parking shall be located on the site where possible and shall be configured to minimize traffic interference.
- Obstruction of through-traffic lanes shall be minimized by providing temporary traffic controls such as flag persons, cones, and/or signage during all phases of construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum.
- A traffic plan shall be developed to minimize traffic flow interference from construction activities. The plan shall specify the times during which construction activities would occur and particular times when travel lanes cannot be blocked (e.g., peak traffic periods as directed by the affected City Engineer). The plans shall provide details regarding the placement of traffic control, warning devices, and detours. As a supplement to the traffic plan, the construction contractor shall coordinate with the affected agency to determine the need for a public information program that would inform area residents, employers, and business owners of the details concerning construction schedules and expected travel delays, detours, and blocking of turning movements lanes at intersections. The public information programs could utilize various media venues (e.g., newspaper, radio, television, telephone hot lines, or internet website, etc.) to disseminate information such as:

- o Overview of project information
- o Weekly updates on location of construction zones;
- o Identification of street(s) affected by construction;
- o Times when construction activities would occur and when traffic delays, and blockage of intersection turning movements can be expected; and
- o Identification of alternate routes that could be used to avoid construction delays.

Mitigation Measure AQ-8: Construction and implementation of the wastewater treatment plant shall require a Conditional Use Permit to be approved by the City, as well as design review of the proposed site plan and building architecture, landscaping, and lighting.

Cumulative Impacts. Significant and Unavoidable Impact. Emissions associated with construction and operation of the 2012 Specific Plan Project were determined to exceed the SCAQMD thresholds, resulting in a significant air quality impact. Despite implementation of applicable mitigation measures and PDFs and adherence with applicable rules and regulations, the Project was determined to result in a significant unavoidable air quality impact.

3.4.3 Analysis of Project Changes

As part of the *Air Quality and Greenhouse Gas Review* prepared for the Proposed Project (Appendix A), LSA reviewed the proposed changes to the 2012 Specific Plan Project. The recommended methodology for quantifying air pollutant emissions from development projects has changed since the air quality analysis in the Specific Plan EIR was prepared. The Specific Plan EIR utilized the URBEMIS model recommended by SCAQMD at the time the Specific Plan EIR was prepared. Since publication and certification of the Specific Plan EIR in 2012, however, the SCAQMD has recommended using California Emissions Estimator Model (CalEEMod) to quantify air pollutant emissions for assessing potential air quality impacts in environmental documents prepared in SCAQMD's jurisdiction.

Construction Impact Methodology. LSA reviewed the proposed changes to the 2012 Specific Plan Project and estimated emissions from construction-related activities, residential, school, and park land uses area source emissions (including landscaping), and mobile sources associated with the Proposed Project. Emissions for construction-related activities were analyzed using a similar list of equipment as in the 2012 Specific Plan Project. The Specific Plan EIR stated that the development of the 2012 Specific Plan Project would occur within five phases, over approximately a 30-year time period. The 30-year construction schedule for the five phases was previously estimated to begin in year 2012. The construction schedule for the Proposed Project will remain unchanged exempt the start year would begin in 2017. This analysis utilized the lower traffic study trip generation rates based on the results of the *Traffic Impact Analysis (TIA)* (September 2016) prepared for the Proposed Project.

In addition to the changes in the Proposed Project, the recommended methodology for quantifying air pollutant emissions from development projects has changed since the air quality analysis in the 2012 Specific Plan EIR was prepared. The Specific Plan EIR utilized the URBEMIS model recommended by SCAQMD at the time the Specific Plan EIR was prepared. Therefore, as stated above, the CalEEMod model was used to prepare the updated analysis.

For the mass grading activity in the Specific Plan EIR, the URBEMIS model estimated a total of 825 acres disturbed. The Proposed Project assumed the same total grading area of 825 acres. The SCAQMD has modified the methods for calculating PM₁₀ fugitive dust from grading and site preparation in the CalEEMod model. The resultant construction PM₁₀ and PM_{2.5} emissions would be lower in the CalEEMod model than what is typically generated in the previous URBEMIS model used in the 2012 Specific Plan EIR. Conversely, the resultant NO_x emissions would be higher in the CalEEMod model than the URBEMIS model. Also, the mobile source emission factors currently used in the CalEEMod model (EMFAC2011) includes the Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. Therefore, the resultant operational criteria pollutant emissions are lower in the CalEEMod model than what is generated in the previous URBEMIS model used in the 2012 Specific Plan EIR.

Air Quality Standards.

Short-Term Construction Impacts. The same number and type of equipment that were listed in the Specific Plan EIR were also used in the construction analysis for the Proposed Project. Therefore, for modeling purposes, the maximum daily construction activities associated with the 2012 Specific Plan Project were assumed to be similar for the Proposed Project. For the mass grading activity, the Proposed Project assumed the same total grading area of 825 acres as used in the Specific Plan EIR analysis. Factors affecting the Proposed Project construction emissions include use of California Ultra-Low Sulfur Diesel fuel (15 parts per million sulfur maximum), as required by state regulation. In addition, the California Air Resources Board studied construction equipment load factors in 2009, finding that equipment is used 33 percent less than was assumed in the URBEMIS model. The 33 percent reduction in load factor for construction equipment is included in CalEEMod, which results in the lowering of construction emissions from those modeled with URBEMIS.

Based on the re-evaluation of potential air quality impacts prepared for the Proposed Project, all criteria pollutant emissions, except for NO_x and SO_x, during construction activities associated with the Proposed Project are shown to be lower than those reported in the Specific Plan EIR. In large part this is attributable to cleaner off-road engines and on-road vehicles, which are subject to increasingly strict regulatory requirements that were not accounted for in the URBEMIS model. In particular, the Proposed Project's grading activity volatile organic compounds (VOC),¹ PM₁₀ and PM_{2.5} emissions are substantially reduced. In addition, during the development of the CalEEMod model, SCAQMD staff worked with construction and building industries to conduct a construction site survey gathering accurate information to better estimate emissions from

¹ It should be noted that the Specific Plan EIR analyzed emissions in terms of ROG; however, for purposes of this analysis, ROG and VOC emissions are considered the same.

construction equipment based on their typical operations. The general trend in CalEEMod as compared to URBEMIS is the net increase in construction VOC, NO_x, CO and SO_x emissions. The increase in SO_x emission is due to better emission estimation techniques and would not cause SO_x emission previously identified in the Specific Plan EIR to be substantially more severe. The NO_x emissions that would occur during construction grading activity are estimated to be higher for the Proposed Project (i.e., 451 pounds/day) due to better NO_x emission estimation techniques; similar to the 2012 Specific Plan Project, these emissions would remain significantly above the SCAQMD significance threshold of 100 pounds per day. This construction-related NO_x emission increase found the Proposed Project would be consistent with findings in the Specific Plan EIR. In addition, due to the differences in the model calculation rates, CO emissions that would occur during construction grading activity are estimated to be slightly higher for the Proposed Project (i.e., 282 pounds/day) but would remain well below the SCAQMD significance threshold of 550 pounds/day and would not be substantially increased. The Proposed Project construction, architectural coating and paving activities generating NO_x, CO, PM₁₀ and PM_{2.5} emissions are substantially reduced and would now be lower than the SCAQMD significance thresholds. The VOC emissions that would occur during architectural coating activity are estimated to be lower for the Proposed Project (i.e., 248 pounds/day) but they would remain significantly above the SCAQMD significance threshold of 75 pounds/day, similar to the 2012 Specific Plan Project. Tables 3.A.1 and Table 3.A.2 present the comparison of Phase 1 construction emission analysis between the 2012 Specific Plan Project and the Proposed Project.

Table 3.A.1: 2012 Specific Plan Project Phase 1 Construction Activity - Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading Activity (2012)	43.97	319.87	188.54	0.01	110.80	34.64
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Grading, Trenching, and Paving (2013)	42.46	319.87	177.61	0.02	109.67	33.61
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Construction Building and Paving (2014)	25.36	62.38	570.98	0.90	10.47	7.18
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2015)	310.25	89.51	533.39	0.90	10.14	6.87
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from Butterfield Air Quality Impact Analysis in 2012 Specific Plan.

Note: URBEMIS2007 model was used in the Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

CO₂ = carbon dioxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 3.A.2: Proposed Project Phase 1 Construction Activity - Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading Activity (2017)	38.97	451.09	281.86	0.42	35.72	26.22
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Grading, Trenching, and Paving (2018)	34.19	388.16	248.02	0.41	32.77	23.50
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Construction Building and Paving (2019)	10.77	67.88	130.45	0.36	24.28	7.99
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2020)	248.50	76.55	151.87	0.42	28.70	9.59
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the *Air Quality Memorandum* (LSA September 2016) (Appendix A).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

CO₂ = carbon dioxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

In addition, three of the Specific Plan EIR project mitigation measures (MM AQ-1 and MM AQ-7) were applied in CalEEMod: watering three times per day, early paving of roadways, and using diesel particulate traps on all heavy equipment used during construction. As required under SCAQMD Rule 403 – Fugitive Dust Control Measures, these measures would have the effect of lowering the PM₁₀ and PM_{2.5} emissions even more, falling even further below the SCAQMD Significance Thresholds. As a result, the emissions that would occur during construction activity would be lower for the Proposed Project. Tables 3.B.1 and 3.B.2 present the comparison of Phase 2 construction emission analysis between the 2012 Specific Plan Project and Proposed Project.

Table 3.B.1: 2012 Specific Plan Phase 2 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Trenching and Building Activity (2016)	9.36	6.45	201.71	0.40	4.38	2.98
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Building (2017)	8.57	6.45	188.72	0.40	4.18	2.80
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2018)	189.86	6.45	176.63	0.40	4.01	2.63
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from Butterfield Air Quality Impact Analysis in 2012 Specific Plan EIR.

Note: URBEMIS2007 model was used in the 2012 Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 3.B.2: Proposed Project Phase 2 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Trenching and Building Activity (2021)	4.61	11.56	10.21	0.18	0.37	0.30
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Building (2022)	5.00	34.34	58.19	0.16	11.21	3.66
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2023)	262.95	34.34	58.19	0.16	11.21	3.66
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the Air Quality Memorandum (LSA September 2016) (Appendix A).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

All criteria pollutants except for VOC would now be lower than the SCAQMD Significance Threshold. The VOC emissions that would occur during architectural coating activity are estimated to be higher for the Proposed Project (i.e., 263 lbs/day) due to better VOC emission estimation techniques in CalEEMod and they would remain significantly above the SCAQMD significance threshold of 75 lbs/day. However, the VOC emissions would not result in a substantial increase when compared to the previous analysis because there is a calculation error in the CalEEMod model for architectural coating VOC emissions estimations for the recreational park land use. SCAQMD has acknowledged and stated that the CalEEMod model incorrectly assumed the total number of acres of parkland would be painted. The resultant VOC emissions are overestimated for the park land uses and should not be considered as a substantial increase. The NO_x and PM₁₀ emissions due to the trenching activities would not result in a substantial increase when compared to the previous analysis. Also, according to the Specific Plan EIR, several mitigation measures were proposed to reduce the construction-related VOC and other criteria pollutant emissions. These mitigation measures are applicable to the Proposed Project and no new mitigation is required.

Tables 3.C.1 and 3.C.2 present the comparison of Phase 3 construction emission analysis between the 2012 Specific Plan Project and the Proposed Project. The Proposed Project grading activity VOC, SO_x, PM₁₀ and PM_{2.5} emissions are substantially reduced. However, the NO_x emissions that would occur during construction grading activity are estimated to be higher for the Proposed Project (i.e., 231 lbs/day) due to better NO_x emission estimation techniques and they would remain significantly above the SCAQMD significance threshold of 100 pounds per day. This construction related NO_x emission increase would be consistent with findings of a significant impact in the 2012 Specific Plan.

Table 3.C.1: 2012 Specific Plan Phase 3 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading Activity (2019)	11.12	25.45	47.71	0.00	488.85	104.30
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	Yes	Yes
Grading, Trenching, Building, and Paving (2020)	22.48	3.31	183.41	0.48	4.33	2.72
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2021 - 2029)	89.45	6.81	136.30	0.48	4.15	2.56
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from Butterfield *Air Quality Impact Analysis* in 2012 Specific Plan EIR.

Note: URBEMIS2007 model was used in the 2012 Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 3.C.2: Proposed Project Phase 3 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading Activity (2024)	12.15	230.59	202.70	0.47	48.68	29.28
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Grading, Trenching, Building, and Paving (2025)	13.60	28.10	60.54	0.17	10.65	3.57
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2026 - 2034)	13.51	21.56	50.94	0.16	10.65	3.53
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the *Air Quality Memorandum* (LSA September 2016) (Appendix A).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Tables 3.D.1 and 3.D.2 present the comparison of Phase 4 construction emission analysis between the 2012 Specific Plan Project and Proposed Project. All criteria pollutants would be lower than the SCAQMD Significance Threshold.

Table 3.D.1: 2012 Specific Plan Phase 4 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading, Trenching, and Paving (2032)	6.24	6.78	32.51	0.11	109.14	24.02
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Paving (2033)	35.31	6.78	30.47	0.11	1.28	0.90
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2034)	68.99	0.04	1.00	0.01	0.04	0.02
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from *Butterfield Air Quality Impact Analysis* in 2012 Specific Plan EIR.

Note: URBEMIS2007 model was used in the 2012 Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 3.D.2: Proposed Project Phase 4 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading, Trenching, and Paving (2037)	7.56	39.08	91.28	0.28	22.96	11.69
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Paving (2038)	37.31	7.91	17.89	0.03	2.54	0.70
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2039)	36.10	0.76	1.79	0.01	0.37	0.10
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the *Air Quality Memorandum* (LSA September 2016) (Appendix A).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Tables 3.E.1 and 3.E.2 present the comparison of Phase 5 construction emission analysis between the 2012 Specific Plan Project and the Proposed Project. All criteria pollutants would be lower than the SCAQMD Significance Threshold.

Table 3.E.1: 2012 Specific Plan Phase 5 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading, Trenching, and Paving (2035)	6.24	21.51	32.51	0.10	109.96	24.20
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building (2036)	2.14	6.78	26.92	0.10	1.21	0.71
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2037)	74.31	6.78	26.92	0.10	1.21	0.71
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from *Butterfield Air Quality Impact Analysis* in 2012 Specific Plan EIR.

Note: URBEMIS2007 model was used in the 2012 Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 3.E.2: Proposed Project Phase 5 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading, Trenching, and Paving (2040)	8.24	32.92	101.88	0.30	22.69	11.40
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building (2041)	1.08	6.88	17.82	0.03	1.71	0.48
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2042)	44.06	6.88	17.82	0.03	1.71	0.48
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the *Air Quality Memorandum* (LSA September 2016) (Appendix A).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

As construction emissions would exceed SCAQMD thresholds, the Proposed Project (similar to the 2012 Specific Plan Project) would be consistent with the findings of the Specific Plan EIR, would not result in substantial increases when compared to the 2012 Specific Plan Project, and continue to result in significant and unavoidable construction-related emissions impact despite the implementation of mitigation. Therefore, the Proposed Project would not result in any new significant environmental effects related to short-term air pollutant emissions or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Long-Term Operational Impacts. All project-related operational criteria pollutant emissions for the Proposed Project are estimated to be lower than those reported in the Specific Plan EIR; see Table 3.F. Building energy efficiency regulations have required new buildings to be more efficient than the requirements in place for the Specific Plan EIR analysis, which reduces natural gas usage and the resulting pollutants during operation. Table 3.F presents the operational emissions for both the 2012 Specific Plan Project and the Proposed Project scenarios. Emissions for the Proposed Project would still exceed the applicable SCAQMD significance thresholds, except in the case of SO_x emissions. The projected VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions, while significantly reduced in the Proposed Project scenario based on CalEEMod, would still be above the significance threshold but are less than the 2012 Specific Plan Project.

Table 3.F: Operational Activity Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Specific Plan EIR	805.12	794.22	5,681.94	6.42	1,046.43	204.28
Proposed Project	366.65	387.17	2,059.88	7.70	512.91	147.08
SCAQMD Threshold	55	55	550	150	150	55
Is Threshold Exceeded?	Yes	Yes	Yes	No	Yes	Yes

Source: URBEMIS2007 model was used in the 2012 Specific Plan EIR. CalEEMod model was used in the Proposed Project.

Note: **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Under the Proposed Project, the emissions of VOC, NO_x, CO, PM₁₀, and PM_{2.5} are lower than previously estimated for the operational emissions. Overall, with a lower trip generation rate, the estimated criteria pollutant emissions for the Proposed Project are slightly lower than the emission for the 2012 Specific Plan Project, as identified in the Specific Plan EIR.

According to the Specific Plan EIR, several PDFs were proposed to reduce the operational-related criteria pollutant emissions. These PDFs are applicable to the Proposed Project and no new mitigation is required. As a result, similar to the 2012 Specific Plan Project, operation of the Proposed Project would have a significant and unavoidable impact on regional air quality. Therefore, the Proposed Project would not result in any new significant environmental effects related to operational air pollutant emissions or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Sensitive Receptors. The Proposed Project includes the removal of several roadway extensions, and would result in a reduction in 2,176 traffic trips as compared to the 2012 Specific Plan Project based on the reduction in residential dwelling units. Because of the reduction in traffic trips, air quality emissions would be incrementally less than the emissions for the 2012 Specific Plan Project analyzed in the Specific Plan EIR. Therefore, the Proposed Project would not result in any new significant environmental effects related to sensitive receptors or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Air Quality Management Plan. Despite the measures to be implemented as part of the 2012 Specific Plan Project, the Proposed Project contemplates substantially lower residential development and lower student enrollment intensity than was included in the adopted Butterfield Specific Plan (and by association, the City's General Plan). Therefore, since the 2012 Specific Plan Project would meet the growth projections for the Project site contained in the City's General Plan, it would be consistent with the projections in the SCAQMD's air quality management plan (AQMP), since general plans partially serve as the basis for the AQMP. However, as discussed in greater detail below, consistent

with the 2012 Specific Plan Project, the Proposed Project would result in construction and operational unavoidable significant impacts resulting from project-related air pollutant emissions. As such, implementation of the Proposed Project would not change the result found in the Specific Plan EIR, which is significant unavoidable impacts related to implementation of the SCAQMD significant threshold.

An evaluation of the 2012 Specific Plan Project's consistency with the applicable goals and policies of the Banning General Plan was addressed in the Specific Plan EIR. Because the Proposed Project would be required to implement CalGreen building standards in future residential and school construction projects, and would also employ a number of other sustainability features, all of which would serve to reduce air quality emissions and help achieve air quality goals, the Proposed Project would not result in conflicts with the applicable policies contained in the Banning General Plan, and therefore impacts in this regard would be considered less than significant. Therefore, the Proposed Project would not result in any new significant environmental effects related to a conflict with an AQMP or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Odors. Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents and diesel-powered on- and off-road equipment. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with SCAQMD Rules, no construction activities or materials are proposed which would create objectionable odors. Therefore, a less than significant impact would occur during construction of the Proposed Project and no mitigation measures would be required.

During construction, the Specific Plan EIR concluded that there may be localized instances when the characteristic diesel exhaust odor is noticeable from construction equipment and asphalt paving, but such transitory exposure is a brief nuisance and would not threaten regional air quality standards. Thus, adverse impact in terms of objectionable odors during construction would continue to be less than significant and impacts associated with the Proposed Project would be similar to those identified in the Specific Plan EIR.

Potential odors from construction equipment used on site and the potential satellite wastewater treatment plant would be similar to, or incrementally less (due to less construction) than those identified in the Specific Plan EIR. Therefore, the Proposed Project's odor impacts would be similar to the previous project and would not result in any new significant effects or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Operation of the wastewater treatment plant as part of the Proposed Project has the potential to result in odor impacts because of the nature of the activities at the proposed facility. However, the frequency with which the facility would expose the public to objectionable odors would be minimal based on the control measures planned in the design. All facilities would be covered to avoid uncontrolled odor release. Active odor control units would be located to manage gases from the wet and solids stream treatment processes. All processes and equipment would be housed (or otherwise contained) and ventilation controlled such that no objectionable odors would be discernible at the Project site boundaries. The odor control design for the facility would be such that no perceptible odors would be detected by nearby residences or other sensitive receptors. Additionally, disposal of

biosolids at landfill sites could also contribute to odors and increase air emissions at these end-use facilities. However, the City will only use sites that are properly permitted and that have mitigated all site-specific impacts. Furthermore, the wastewater treatment plant would obtain a Conditional Use Permit (CUP) to ensure that the wastewater treatment plant would not generate significant odors affecting nearby residents and users on the site. Therefore, this impact would be consistent with the findings of the Specific Plan EIR and would be less than significant. Therefore, the Proposed Project would not result in any new significant environmental effects related to odors or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

CO Hot Spots. Peak CO concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the Basin's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of the CO Attainment Plan and subsequent AQMP updates. According to the CO attainment demonstration in the 2003 AQMP, Wilshire Boulevard and Veteran Avenue is the most congested intersection in the Basin with daily traffic volumes of about 100,000 per day. Reflecting these results, the Basin has been designated as attainment for CO since 2007 and even very busy intersections do not result in exceedances of the CO standard. None of the intersections in the Project area have peak hour traffic volumes that exceed those at the intersections modeled in the 2003 AQMP nor do they have any geometric qualities that would result in higher concentrations than the intersections modeled by the SCAQMD.

The Specific Plan EIR indicated that total trip generation in the Project area would be 62,263 vehicle trips per day. As a result, the Specific Plan EIR determined CO concentrations to be less than 2.8 ppm (1-hour average) or 2.13 ppm (8-hour average), which would not exceed the thresholds of 20 ppm for 1-hour and 9 ppm for 8-hours CO concentrations. The revised TIA for the Proposed Project shows that the net trip generation for Proposed Project is forecast to be 60,087 vehicle trips per day. Thus, this comparison of 62,263 trips to 60,087 trips provides evidence that the Proposed Project would not contribute to the formation of CO hotspots and no further CO analysis is required. Based on the expected peak hour traffic volumes that would occur at Proposed Project buildout, and paralleling conclusions of the CO Attainment Plan and 2003 AQMP, significant concentrations of CO emissions would be less than significant under the Proposed Project. Nor would there be any reason unique to project area meteorology or other factors to conclude that the Project Study Area intersections would yield higher CO concentrations if modeled in detail. Therefore, Proposed Project would result in less than significant impacts with respect to CO hotspots. Therefore, the Proposed Project would not result in any new significant environmental effects related to CO hotspots or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Toxic Air Contaminants. Construction of the planning areas associated with the Proposed Project would be expected to result in up to 30 years construction emissions of TACs (i.e., DPM) and would be required to implement all mitigation measures of the Specific Plan EIR including Tier 4 engines with Level 3 diesel particulate filters. These emission control device would help reduce DPM exposures to local residences and school children. There will be no additional sources of TAC emissions associated with the proposed residential and school developments for the Butterfield Specific Plan as established under the Proposed Project. Therefore, the Proposed Project would not

result in any new significant environmental effects related to TACs or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. New development envisioned under the Proposed Project, combined with other anticipated development in the region, would contribute to a cumulative increase in regional air pollutant emissions. The cumulative study area for air quality is the Basin, and air quality conformance is overseen by the SCAQMD. Each project in the Basin is required to comply with SCAQMD rules and regulations. Other projects in the Basin are required to be consistent with the adopted AQMP. The Specific Plan EIR found that the 2012 Specific Plan Project's contribution of construction and operational emissions would have exceeded the SCAQMD thresholds despite implementation of mitigation measures and PDFs and conformance with applicable rules and regulations. As such, impacts were determined to be cumulatively significant. While the Proposed Project is smaller in scale than the 2012 Specific Plan Project, and with implementation of the same mitigation measures, the Proposed Project would also result in a cumulatively significant air quality impact due to the size and scale of the Project event with implementation of the same mitigation measures. The Proposed Project would not result in significant cumulative environmental impacts with respect to air quality. Therefore, the Proposed Project would not result in any new cumulatively significant environmental effects related to air quality or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.4.4 Findings Related to Air Quality

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the certified Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to Air Quality, nor is there a substantial increase in the severity of impacts described in the certified Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Air Quality that would require major changes to the Specific Plan EIR.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Air Quality requiring major revisions to the certified Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Air Quality identified and considered in the certified Specific Plan EIR.

3.4.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project remain applicable to the air quality analysis for the Proposed Project.

3.4.6 Mitigation Measures

In light of the proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, minor changes to the mitigation measures found in the Specific Plan EIR are required. These changes are shown in strikeout/underline below. Mitigation Measures AQ-1 through AQ-8 remain applicable to the Proposed Project.

Mitigation Measure AQ-7: The following measures shall be implemented during construction to substantially reduce nitrogen oxides (NO_x)-related emissions. They shall be included in the Grading Plan, Building Plans, and specifications.

- Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than 5 minutes, and shall ensure that all off-road equipment is compliant with the California Air Resources Board (ARB) in-use off-road diesel vehicle regulations and SCAQMD Rule 2449.
- The following note shall be included on all grading plans: “The City shall require construction contractors to utilize diesel powered construction equipment that meets EPA-certified Tier III emissions standards, or higher according to the following:

~~January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards at a minimum. In addition, all construction equipment shall be outfitted with best available control technology (BACT) devices certified by ARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.~~

~~Post January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by ARB. Any~~

emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.”

- A copy of each unit’s certified tier specification, BACT documentation, and ARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.
- Construction contractors are encouraged to apply for AQMD “SOON” funds. Incentives could be provided for those construction contractors who apply for AQMD “SOON” funds. The “SOON” program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: <http://www.aqmd.gov/tao/Implementation/SOONProgram.htm>.”
- The contractor and the Applicant, if the Applicant’s equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions, as required by SCAQMD Rules 431.1 and 431.2.
- Existing power sources (i.e., power poles) shall be used when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Construction parking shall be located on the site where possible and shall be configured to minimize traffic interference.
- Obstruction of through-traffic lanes shall be minimized by providing temporary traffic controls such as flag persons, cones, and/or signage during all phases of construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum.
- A traffic plan shall be developed to minimize traffic flow interference from construction activities. The plan shall specify the times during which construction activities would occur and particular times when travel lanes cannot be blocked (e.g., peak traffic periods as directed by the affected City Engineer). The plans shall provide details regarding the placement of traffic control, warning devices, and detours. As a supplement to the traffic plan, the construction contractor shall coordinate with the affected agency to determine the need for a public information program that would inform area residents, employers, and business owners of the details concerning construction schedules and expected travel delays, detours, and blocking of turning movements lanes at intersections. The public information programs could utilize various media venues (e.g., newspaper, radio, television, telephone hot lines, or internet website, etc.) to disseminate information such as:

- o Overview of project information
- o Weekly updates on location of construction zones;
- o Identification of street(s) affected by construction;
- o Times when construction activities would occur and when traffic delays, and blockage of intersection turning movements can be expected; and
- o Identification of alternate routes that could be used to avoid construction delays.

3.4.7 Mitigation Measures No Longer Applicable

All air quality mitigation measures identified in the Specific Plan EIR would remain applicable to the Proposed Project.

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3.5 BIOLOGICAL RESOURCES

3.5.1 Existing Environmental Setting

There have been no major changes to the existing setting of the Project site with respect to biological resource since the Specific Plan EIR was prepared. Please see Section 4.4 of the Specific Plan EIR for a summary of the existing environmental setting for Biological Resources. Data presented in Section 4.4 of the Specific Plan EIR was based on the following reports: *Biological Resources Assessment of the 1,543-Acre Butterfield Specific Plan Area* (Natural Resources Consultants, September 9, 2010), the *Burrowing Owl Survey* (Natural Resources Consultants, March 2007) and the *Jurisdictional Delineation of the 1,543-Acre Butterfield Specific Plan Development Project* (Glen Lukos Associates, August 31, 2010). Additional information was obtained from the following sources: the *Banning General Plan Updated Biological Report* (AMEC 2004), the *City of Banning Comprehensive General Plan Update* (2006) and *General Plan Update EIR* (2005) and the *Western Riverside Multi-Species Habitat Conservation Plan* (2003).

The Project site is largely dominated by sparse vegetation and non-native grasses. The site supports small scale, occasional cattle grazing (described further in Section 3.2, Agricultural Resources, of this Addendum). The topography of the site is primarily flat in the central and southern areas of the property, with low rolling hills and steeper hills located in the northern areas of the property. Elevation on the site ranges from approximately 3,400 ft amsl in the north to 2,560 ft amsl in the south.

Drainages. Three drainages are present on the Project site, including Smith Creek, its tributaries, and other minor drainage features. The Smith Creek drainage system occupies 27.9 acres of the Project site. Portions of Smith Creek's sandy wash are within the jurisdictional purview of the United States Army Corps of Engineers (USACE) and the California Department of Fish and Wildlife (CDFW). Specifically, a tributary drainage to Smith Creek contains approximately 0.2 acre of USACE jurisdictional area. Smith Creek is an ephemeral drainage, which flows in a north/south direction from the adjacent foothills north of the Project site.

Approximately 9.67 acres of the Project site are under the jurisdiction of the USACE, of which less than 0.01 acre consists of jurisdictional wetlands. All USACE jurisdictional waters on the Project site are ephemeral and considered to be Non-Relatively Permanent Waters. The USACE also retains jurisdiction over 0.15 acre in areas targeted for off-site improvements; none of this area includes wetlands. This area is an ephemeral, concrete-lined drainage known as the Pershing Channel, which is located along the west side of Highland Home Avenue along the southeastern boundary of the Project site.

In addition, the CDFW retains jurisdiction over 11.57 acres of the site, of which 0.38 acre is vegetated riparian habitat. The CDFW retains jurisdiction over 0.23 acre (of which 0.08 acre is vegetated riparian habitat) of the 200 ft portion of Smith Creek that extends off-site south to Wilson Street.

The Colorado River Basin Regional Water Quality Control Board (Regional Board) also retains jurisdiction over the site, specifically 10.14 acres (of which less than 0.01 acre is jurisdictional wetlands). The Regional Board also retains jurisdiction off the site, immediately south of the Wilson

Street culvert, where Smith Creek flows enter the site, totaling 0.15 acre (none of which is jurisdictional wetlands).

Special-Status Species. There are seven vegetation communities present on the Project site, including (1) non-native grassland used for cattle grazing (approximately 1,200 acres), (2) annual grasslands not used for grazing (approximately 51 acres), (3) mixed chaparral (approximately 12 acres), (4) disturbed coastal sage scrub (approximately 1 acre), (5) southern willow scrub (less than 0.4 acre), (6) sandy wash (approximately 28 acres), and (7) landscaping (approximately 5 acres). The site also includes an additional 226 acres of disturbed/developed vegetation communities]

Approximately 31 special-status plants, 9 sensitive vegetation communities, and 36 species of special-status wildlife have been recorded on the site. The Project site provides only marginally suitable habitat for special-status plant species due to the disturbed condition of the site and the historical agricultural and grazing activities on the site. The site does, however, include marginally suitable habitat for the burrowing owl (*Athene cunicularia*). The western burrowing owl is listed by the CDFW as a California Bird Species of Special Concern. Additionally, site-sensitive wildlife species, including double crested cormorant (*Phalacrocorax auritus*), northern harrier (*Circus cyaneus*), California horned lark (*Eremophila alpestris actia*, SC), loggerhead shrike (*Lanius ludovicianus*), coyote (*canis latrans*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), were observed on or flying over the site during surveys conducted at the time the Specific Plan EIR was prepared.

Off-Site Biology. Areas proposed for off-site improvements are characterized by non-native grasslands supporting agricultural (cattle grazing) uses, annual grassland, disturbed coastal sage, mule fat scrub, sandy wash, and disturbed/developed vegetation communities. Off-site agricultural uses primarily consist of cattle grazing, and accordingly, most areas targeted for improvements contain non-native grass species similar to those found on-site: mulefat, California buckwheat (*Eriogonum fasciculatum*), and Palmer's goldenbush (*Ericameria palmeri*) with openings of non-native grasses.

3.5.2 Specific Plan EIR

Please refer to Section 4.4 of the Specific Plan EIR for analysis of potential impacts related to Biological Resources.

The Specific Plan EIR concluded that the following biological impacts would be less than significant with implementation of mitigation measures.

Threshold: *Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS)?*

Impact: Sensitive Species and Habitats. Less than Significant Impact with Mitigation Incorporated. Implementation of the 2012 Specific Plan Project would result in the realignment and

reconstruction of the Smith Creek corridor and the development of the entire Project site. The realignment and reconstruction of Smith Creek was determined to result in an increased diversity and amount of native plants and other landscape vegetation along the creek banks and within the flow line.

Development of the Project site was determined to result in less than significant impacts to biological resources. As described in the Specific Plan EIR, 31 species of special-status plants, 9 sensitive vegetation communities, and 36 species of special-status wildlife have been recorded on or within the vicinity of the Project site. Despite the presence of these species on the Project site, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in less than significant impacts related to species identified as a candidate, sensitive, or special-status species with Mitigation Measures BIO-1 and BIO-2 incorporated. Mitigation Measure BIO-1 requires surveys for all suitable habitat for nesting birds prior to grading activities on the site, and Mitigation Measure BIO-2 requires a preconstruction clearing survey for burrowing owls prior to ground-disturbing activities.

Mitigation Measure BIO-1: Prior to the commencement of grading during the nesting season (approximately mid-February through mid-August), all suitable habitat shall be surveyed for the presence of nesting birds by a qualified biologist prior to site disturbance. Should any active nests be located, construction must comply with Migratory Bird Treaty Act requirements, including an adequate construction buffer around active nests or avoiding construction during the nesting season if an adequate buffer is infeasible.

Mitigation Measure BIO-2: A preconstruction clearance survey for burrowing owl will be performed within 30 days prior to ground disturbance in potentially suitable habitat within the site, pursuant to California Department of Fish and Wildlife (CDFW) protocols. The preconstruction survey will include a 300-foot buffer if between February 1 and August 31 (nesting season) and a 100-foot buffer if outside of this period. If owls are found within the survey area during the nesting season, construction activities would not occur within 300 feet of the occupied burrows until nesting is completed. A qualified biologist must confirm that the nesting effort has been completed prior to the removal of the work buffer restriction. If owls are found within the disturbance footprint outside of the February 1 through August 31 period, passive relocation (e.g., use of one-way doors and collapse of burrows) would occur. These surveys and mitigation for burrowing owl are consistent with Section 6.3.2, *Additional Survey Needs and Procedures* of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

Threshold: *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS?*

OR

Threshold: *Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Impact: Sensitive Natural Communities and Jurisdictional Impacts. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, implementation of the 2012 Specific Plan Project may have resulted in impacts associated with drainages under the jurisdiction of the USACE, the CDFW, and/or the Regional Board. At the time the Specific Plan EIR was prepared the site supported approximately 0.43 acre riparian/riverine habitat as defined by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), which was also within the jurisdiction of the CDFW and approximately 0.01 acre of jurisdictional wetland. The following summarizes the 2012 Specific Plan Project's jurisdictional impacts:

- Potential permanent impacts to USACE jurisdiction associated with the 2012 Specific Plan Project were determined to total 1.17 acres, of which 0.01 acre consisted of wetlands. Potential temporary impacts were determined to total 8.65 acres, none of which consisted of jurisdictional wetlands.
- Potential permanent impacts to CDFW jurisdiction associated with the 2012 Specific Plan Project were determined to total 2.47 acres, of which 0.41 acre consisted of wetlands. Potential temporary impacts were determined to total 0.02 acre of jurisdictional riparian area that would be restored as part of the 2012 Specific Plan Project. Of the total 2.47 acres, potential permanent impacts to off-site jurisdictional areas would have totaled 0.23 acre, of which 0.08 acre were vegetated riparian habitat.
- Potential impacts to isolated waters on the Project site were determined to be 0.40 acre in total, none of which consisted of wetlands.
- Potential impacts to Regional Board jurisdiction were determined to total 1.57 acres, of which 0.01 acre was jurisdictional wetland. Of the 1.57 total acres, permanent impacts to 0.15 acre off the site were identified, none of which consisted of jurisdictional wetlands. Potential temporary impacts to Regional Board jurisdiction on the Project site were determined to total 8.65 acres, none of which consisted of jurisdictional wetlands.

In order to minimize impacts to on- and off-site jurisdictional areas, the Specific Plan EIR required the implementation of Mitigation Measure BIO-3, which requires the Applicant to provide compensatory mitigation for the temporary disturbance to jurisdictional waters and wetlands. Mitigation Measure BIO-3, along with compliance with applicable permit/agreement conditions and mitigation measures imposed by permitting agencies, were determined to reduce impacts associated with the 2012 Specific Plan Project to a less than significant level.

Mitigation Measure BIO-3: The Applicant shall provide compensatory mitigation for the temporary disturbance to CDFW jurisdictional waters, which includes approximately 0.41 acre of vegetated riparian habitat, and the temporary disturbance to Regional Water Quality Control Board (RWQCB) and United States Army Corps of Engineers (USACE) jurisdiction, none of which consists of jurisdictional wetlands. The mitigation requirements will be determined through applicable regulatory permitting programs of the CDFW, the RWQCB, and the

USACE, and shall consist of minimum 1:1 mitigation primarily through on-site restoration within the Smith Creek drainage and other on-site areas, which will be performed concurrently with development of the golf course (Planning Areas [PAs] 35 and 39) or alternative uses within these PAs (the golf course/open space PAs include various combinations of parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas).

Migratory Wildlife-Nesting Birds. Although the Project site is located in an undeveloped area that could serve as a wildlife movement corridor, the Specific Plan EIR determined that the addition of vegetation and trees on site associated with implementation of the 2012 Specific Plan Project would provide additional habitat for migratory nesting birds and other species on the site. The Specific Plan EIR also determined that compliance with Mitigation Measure BIO-1, which requires adherence with applicable provisions in the Migratory Bird Treaty Act, would reduce potentially significant impacts associated with the interference of migratory birds to a less than significant level. Therefore, impacts related to the potential interference with migratory movements were determined to be less than significant.

Threshold: *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Impact: Tree Preservation. Less than Significant Impact. The Butterfield Specific Plan EIR determined that implementation of the 2012 Specific Plan Project would result in the implementation of enhanced vegetative cover on the site, including trees and shrubs as compared to the nearly treeless condition of the site. Therefore, the Specific Plan EIR determined that impacts related to conflicts with local policies and ordinances protecting biological resources would be less than significant.

Threshold: *Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

Impact: Habitat Conservation Plan or Natural Community Conservation Plan. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the Project site is located within an area regulated by the MSHCP, which among other things, establishes regulations protecting burrowing owl. As such, the Specific Plan EIR determined that the 2012 Specific Plan Project would be required to comply with Mitigation Measure BIO-2, which requires preconstruction surveys for this species within 30 days prior to grading activities on the site and the passive relocation of any burrowing owls found in the course of those surveys to reduce potential impacts to a less than significant level.

The Specific Plan EIR also determined that because the 2012 Specific Plan Project would result in permanent impacts to 0.41 acre of wetlands, the 2012 Specific Plan Project would be required to comply with Mitigation Measures BIO-3 and BIO-4. Mitigation Measure BIO-3 requires compliance

with the regulations administered by the USACE, the CDFW, and the Regional Water Quality Control Board (RWQCB). Mitigation Measure BIO-4 requires preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report and implementation of its conditions and mitigation measures. The Specific Plan EIR also found that construction activities would potentially impact biological resources, thereby requiring compliance with Mitigation Measure BIO-5. Mitigation Measure BIO-5 requires that construction areas be watered regularly to reduce dust impacts to adjacent wildlife and vegetation, the use of gravel bags or other methods to reduce in-stream impacts, the siting of construction equipment and staging areas away from sensitive habitat, the demarcation of jurisdictional areas to be disturbed during project construction, avoidance of placing equipment within the stream or sensitive habitats, the removal of weeds, and the proper disposal of waste and/or dirt outside of conservation areas or areas containing native habitat. With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, and BIO-5, the Specific Plan EIR determined that impacts to biological resources would be less than significant.

Mitigation Measure BIO-1: Prior to the commencement of grading during the nesting season (approximately mid-February through mid-August), all suitable habitat shall be surveyed for the presence of nesting birds by a qualified biologist prior to site disturbance. Should any active nests be located, construction must comply with Migratory Bird Treaty Act requirements, including an adequate construction buffer around active nests or avoiding construction during the nesting season if an adequate buffer is infeasible.

Mitigation Measure BIO-2: A preconstruction clearance survey for burrowing owl will be performed within 30 days prior to ground disturbance in potentially suitable habitat within the site, pursuant to CDFW protocols. The preconstruction survey will include a 300-foot buffer if between February 1 and August 31 (nesting season) and a 100-foot buffer if outside of this period. If owls are found within the survey area during the nesting season, construction activities would not occur within 300 feet of the occupied burrows until nesting is completed. A qualified biologist must confirm that the nesting effort has been completed prior to the removal of the work buffer restriction. If owls are found within the disturbance footprint outside of the February 1 through August 31 period, passive relocation (e.g., use of one-way doors and collapse of burrows) would occur. These surveys and mitigation for burrowing owl are consistent with Section 6.3.2, *Additional Survey Needs and Procedures* of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

Mitigation Measure BIO-3: The Applicant shall provide compensatory mitigation for the temporary disturbance to CDFW jurisdictional waters, which includes approximately 0.41 acre of vegetated riparian habitat, and the temporary disturbance to RWQCB and USACE jurisdiction, none of which consists of jurisdictional wetlands. The mitigation requirements will be determined through applicable regulatory permitting programs of the CDFW, the RWQCB, and the USACE,

and shall consist of minimum 1:1 mitigation primarily through on-site restoration within the Smith Creek drainage and other on-site areas, which will be performed concurrently with development of the golf course (Planning Areas [PAs] 35 and 39) or alternative uses within these PAs (the golf course/open space PAs include various combinations of parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas).

Mitigation Measure BIO-4: Prior to the issuance of the grading permits the developer shall complete and submit all required protocol and habitat assessment studies required to demonstrate compliance with the MSHCP. Specifically, a DBESP (Determination of Biologically Equivalent or Superior Preservation), following approval of all required permits from the CDFW and the USACE, shall be prepared, which shall be reviewed by the CDFW and the United States Fish and Wildlife Service (USFWS), and approved by City staff, in compliance with Section 6.1.2 of the MSHCP. The Applicant shall implement the approved DBESP as a condition of the issuance of a grading permit and comply with all biological mitigation measures contained within the DBESP.

Mitigation Measure BIO-5: The following mitigation shall be incorporated into the construction plans and specifications to minimize any potentially adverse construction impacts:

- Construction areas will be watered regularly to control dust and minimize impacts to adjacent vegetation and wildlife habitat.
- Short-term stream diversions would be accomplished by use of gravel bags or other methods that would result in minimal in-stream impacts. Short-term diversions will be evaluated through the riparian/riverine component of the MSHCP Consistency analysis (Section 6.1.2 of the Specific Plan EIR) (refer to Mitigation Measure BIO-4), which will require a DBESP analysis to be prepared. In addition, the 401, 404, and 1602 permitting processes will evaluate short-term impacts relative to stream diversions. All biological mitigation measures contained within the 401, 404 and 1602 approval conditions and the DBESP shall be implemented pursuant to Mitigation Measures BIO-3 and BIO-4, respectively, which typically require 1:1 on-site restoration. Any mitigation beyond the 1:1 restoration of the original stream would be mitigated on the site through negotiations with the CDFW, the RWQCB, and the USACE.
- Equipment storage, fueling and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.

- The limits of jurisdictional disturbance, including the upstream, downstream along Smith Creek and lateral extents that are tributaries to Smith Creek, would be clearly defined and marked in the field. Monitoring personnel will review the limits of disturbance prior to initiation of construction activities.
- During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the Project footprint would be avoided.
- Exotic, weedy plant species removed during construction would be properly handled to prevent sprouting or regrowth.
- Waste, dirt, rubble, or trash shall not be deposited in a conservation area or on native habitat.

Cumulative Impacts. Less than Significant Impact with Mitigation Incorporated. The Specific Plan EIR determined that implementation of the Specific Plan would result in less than significant cumulative impacts related to biological resources. Although the 2012 Specific Plan Project would result in the removal of approximately 1,500 acres of existing vegetation, which would contribute to the overall reduction of grassland (which can be used as live-in and/or foraging areas for sensitive species including the burrowing owl), this habitat is not considered sensitive and is widely available throughout the region. The loss of riparian/riverine and wetland habitat associated with implementation of the 2012 Specific Plan Project was determined to result in a less than significant impact with implementation of Mitigation Measure BIO-1 through BIO-5 and compliance with existing regulations and permit conditions. Therefore, the Specific Plan EIR determined that impacts to biological resources would not be cumulatively significant.

3.5.3 Analysis of Project Changes

Sensitive Species and Habitats. Similar to the Specific Plan Project, the Proposed Project would result in the realignment and reconstruction of the Smith Creek Corridor, which would also result in an increased diversity and amount of native plants and landscape vegetation along the creek banks and within the flow line.

The Proposed Project reduces intensity, includes 525 fewer residential units and includes approximately 67 additional acres of open space than the previously approved 2012 Specific Plan Project. The primary areas targeted for open space under the Proposed Project includes the area previously planned for the golf course and the northernmost portion of the Project Site, which was previously planned for residential development. The areas targeted for open space coincide with on-site jurisdictional areas and areas that have known biological resources. Mitigation Measures BIO-1 and BIO-2 would remain applicable to the Proposed Project. Due to the reduction in the Proposed Project intensity and increased open space included as part of the Project, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to sensitive species or habitats or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Sensitive Natural Communities and Jurisdictional Impacts. The Proposed Project would impact approximately the same amount of jurisdictional area as the 2012 Specific Plan Project; however, the Proposed Project reduces intensity, includes more open space than the 2012 Specific Plan Project, and would impact approximately the same amount, and no increase of jurisdictional areas as the 2012 Specific Plan Project; however, as allowed for in Mitigation Measure BIO-3, these improvements (primarily the restoration within Smith Creek) would now occur concurrently with development of the “alternative uses within these PAs.” Therefore, no changes to Mitigation Measure BIO-3 are required. Due to the reduction in the Proposed Project intensity, and because all proposed uses are located in the same locations and will impact approximately the same amount of jurisdictional area, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to sensitive natural communities and jurisdictional impacts or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Migratory Wildlife. The Proposed Project would be located on the same project site as the 2012 Specific Plan Project. Similarly, while the Project site is located in an undeveloped areas that could serve as a wildlife movement corridor, the addition of vegetation and trees on the site would provide additional habitat for nesting birds and other species on the site. Additionally, the Proposed Project reduces intensity and includes more open space than the 2012 Specific Plan Project, which would result in fewer impacts to open space areas and trees on the site that could potentially serve as wildlife movement corridors. Due to the reduction in the Proposed Project intensity, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant effects to wildlife corridors or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Tree Preservation. Trees in Banning are protected under Section 17.32.060 (Removal or Destruction of Trees) of the City of Banning’s *Municipal Code*, which regulates the removal of trees in the City. Implementation would involve the removal and relocation of any existing trees on site in areas proposed for development and would include the relocation of the “Veteran’s Tree” within the Project site, in accordance with the Settlement Agreement and subject to the City’s review and approval of the proposed location. The relocation of the Veteran’s Tree would occur simultaneously with the submittal of the plans for the road widening necessary for Highland Springs Avenue. Per the Settlement Agreement, the Applicant shall utilize a professional arborist for the relocation. If the Veteran’s Tree does not survive for at least 180 days after relocation and planting, the Applicant shall replace it with an oak tree contained in a minimum of a 60-inch box, using the services of a professional arborist. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant effects related to conflicts with a tree preservation policy or ordinance or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Habitat Conservation Plan or Natural Community Conservation Plans. The Proposed Project would be located on the same project site as the 2012 Specific Plan Project. The Project site is regulated by the MSHCP, which among other things, establishes regulations aimed at protecting the burrowing owl. Consequently, the Proposed Project would be required to comply with Mitigation

Measures BIO- 1 and BIO-2, which requires preconstruction burrowing owl surveys prior to grading activities on the site and the passive relocation of any burrowing owls found in the course of these surveys to reduce impacts to burrowing owls.

The Proposed Project reduces intensity and includes more open space than the previously approved project, and therefore would result in fewer impacts to species protected by the MSHCP, including the burrowing owl. Similar to the 2012 Specific Plan Project the Proposed Project would impact 0.41 acre of wetlands. As such, the Proposed Project would also adhere to Mitigation Measures BIO-3 through BIO-4, as required by the Specific Plan EIR.

While the Proposed Project includes an overall reduction in the Proposed Project intensity, and the disturbance of less habitat and acreage, the Proposed Project would also be required to comply with Mitigation Measure BIO-5 to minimize impacts to impacts to wildlife and vegetation on the site during Project construction.

Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant effects related to conflicts with the MSHCP or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. Potentially significant cumulative impacts resulting from the Proposed Project would result in similar impacts to the 2012 Specific Plan Project, but would reduce impacts incrementally due to the reduction in project intensity and increase in open space. However, despite the reduction in impacts associated with the Proposed Project, implementation of Mitigation Measures BIO-1 through BIO-5 would be required to reduce potential cumulative impacts to a less than significant level. With implementation of these measures, there would be no cumulatively significant impacts to biological resources.

Therefore, in consideration of all of the above, the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to biological resources or a substantial increase in the severity of previously identified significant effects or require new or substantially different mitigation measures.

3.5.4 Findings Related to Biological Resources

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to Biological Resources or a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Biological Resources that would require major

changes to the Specific Plan due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Certified 2008 EIR. No significant unavoidable impacts related to Biological Resources were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Biological Resources requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Biological Resources identified and considered in the Specific Plan EIR.

3.5.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project remain applicable to the biological resources analysis for the Proposed Project. PDF 3 has been modified to reflect the removal of the Project's golf course, per the Settlement Agreement. The change is shown in strikeout/underline below.

2. The Proposed Project has been planned to avoid all significant indirect impacts associated with drainage, toxics, lighting, noise, barriers, invasive species and brush management that could potentially occur on the Project site. Mitigation measures and best management practices (BMPs) will be implemented in compliance with MSHCP Wildlands/Urban Interface policies, thus reducing all indirect impacts on the Project site to a level that is less than significant; refer to Section 3.0, *Development Plan*, and 4.0, *Design Guidelines*, and the analysis and mitigation measures contained in Sections 4.9 (*Hydrology and Water Quality*), 4.8 (*Hazards and Hazardous Materials*), 4.1 (*Aesthetics, Light, and Glare*), and 4.11 (*Noise*), of the Specific Plan EIR and ~~the this section Biological Resources Section~~ of the EIR.
3. The Project includes approximately 418.1 ~~428.8~~ acres of open space and drainage areas, in addition to approximately 78.4 ~~66.5~~ acres of active recreation/park uses, ~~70.1 acres of passive landscaped and natural open space (56.3 acres in the northeast corner of the Project), and 38.3 acres of drainage channel and basin areas~~ as described in the Project Description. The plant palette and revegetation associated with Smith Creek is designed to replicate natural conditions and to preserve and enhance biological values. Basin areas will be vegetated and the landscaping of active recreational areas will increase the availability of plant cover and trees on the site, providing habitat for birds and forage for birds of prey.

3.5.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, minor changes to the mitigation measures found in the Specific Plan EIR are required. Mitigation Measures BIO-1 through BIO-5 remain applicable to the Proposed Project. These changes are shown in underline/strikeout below.

Mitigation Measure BIO-3: The Applicant shall provide compensatory mitigation for the temporary disturbance to CDFW jurisdictional waters, which includes approximately 0.41 acre of vegetated riparian habitat, and the temporary disturbance to RWQCB and USACE jurisdiction, none of which consists of jurisdictional wetlands. The mitigation requirements will be determined through applicable regulatory permitting programs of the CDFW, the RWQCB, and the USACE, and shall consist of minimum 1:1 mitigation primarily through on-site restoration within the Smith Creek drainage and other on-site areas, which will be performed concurrently with development of ~~the golf course (Planning Areas [PAs] 35 and 39)~~ or alternative uses within these Planning Areas 35 and 39 ~~(the golf course/open space PAs uses,~~ including various combinations of parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas).

3.5.7 Mitigation Measures No Longer Applicable

All biological resources mitigation measures identified in the Specific Plan EIR would remain applicable to the Proposed Project.

3.6 GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended time period. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures.

3.6.1 Existing Environmental Setting

There have been no major changes to the existing setting of the Project site with respect to global climate change since the Specific Plan EIR was prepared. Please refer to Section 4.5 of the Specific Plan EIR for a summary of the existing environmental setting for Global Climate Change. The analysis contained in Section 4.5 is based on information compiled from the *City of Banning General Plan* (January 2006), the *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance* (June 2005), the *City of Banning Municipal Code* (codified through January 2010), and Air Quality Data provided by the California Air Resources Board (ARB). Land use and traffic data are based on the proposed *Butterfield Specific Plan*, and the Project's *Traffic Impact Analysis*. These documents are included in Appendix B of the Specific Plan EIR. The Global Climate Change analysis in the following section is based primarily on the *Air Quality and Greenhouse Gas Analysis Review*, (September 2016) prepared by LSA Associates, Inc. (LSA) (Appendix A).

3.6.2 Specific Plan EIR

Please see Section 4.5 of the Specific Plan EIR for analyses of potential effects of the 2012 Specific Plan Project related to global climate change.

The Specific Plan EIR concluded that the following climate change impacts would be significant and avoidable despite the implementation of mitigation measures.

Threshold: *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Impact: GHG Emissions. Significant and Unavoidable Impact. As described in the Specific Plan EIR, a GHG analysis was also completed to estimate both the construction-related emissions and the annual operational emissions expected to occur after build-out of the 2012 Specific Plan Project. The analysis assumed that all emissions from the 2012 Specific Plan Project would be "new" since there is no current development or activity on the site. Short-term or one-time emissions would be associated with construction-related activities. Based on the build-out of the 2012 Specific Plan Project, the Specific Plan EIR estimated that 104,177 metric tons (MT) of CO₂e would be generated from project construction equipment and emitted over the course of the minimum construction period of 30 years. If these one-time emissions are annualized (assuming a 30-year development life), then the one-time emissions would contribute approximately 3,473 MT CO₂e emissions annually.

The business-as-usual (BAU) analysis was performed in the Specific Plan EIR to determine if the 2012 Specific Plan Project's GHG emissions would meet the AB32 Statewide reduction target in 2020, which equals a reduction of 28.3%. BAU is an estimate of the GHG emissions expected to occur if none of the foreseeable California's Scoping Plan measures were implemented. These measures are implemented at the state, regional, and local level. As reported in the Specific Plan EIR, the 2012 Specific Plan Project would result in approximately 161,118.99 MTCO₂eq/year of direct and indirect GHGs without reductions from Project design features. Mitigation Measure GHG-1 and GHG-2 were formulated in order to ensure such GHG Project design features were incorporated into the 2012 Specific Plan Project. Based on the reduction measures in Table 4.5-3 of the Specific Plan EIR, the proposed Specific Plan would reduce its GHG emissions 20.29 percent below the Business as Usual scenario, to 124,024.67 MTCO₂eq/year.

With the advent of legislation mandating GHG reductions from, for example, mobile sources and electricity generation, the way BAU emissions are estimated is not the same in the 2008 and 2014 Scoping Plans. The 2014 First Update to the Climate Change Scoping Plan calls for a 16 percent reduction from BAU, but the way BAU is defined in calculating the 16% goal incorporates legislation was not included in the 2008 Climate Change Scoping Plan BAU.

Therefore, as described in the Specific Plan EIR, implementation of the 2012 Specific Plan Project would result in significant adverse impacts related to the generation of GHG emissions due to the scale of the proposed development even with the implementation of Mitigation Measures GHG-1 through GHG-3, as listed below. These measures are intended to reduce emissions through green building practices, solid waste measures, and transportation and motor vehicle measures. In addition to Mitigation Measures GHG-1 through GHG-3, the 2012 Specific Plan Project would be required to include various design features that would reduce VMTs and promote efficiency and sustainability. Despite the implementation of all reasonable and feasible mitigation measures and PDFs aimed at reducing GHG emissions to the extent feasible, the Specific Plan was determined to result in a significant and unavoidable GHG impact.

Mitigation Measures GHG-1: Prior to the issuance of building permits, the following measures shall be reflected on applicable tract maps, building permits, improvement plans, landscape plans, and/or grading plans:

A) Green Building Practices

- 1) **Water Conservation** – All appliances such as showerheads, lavatory faucets and sink faucets shall comply with efficiency standards set forth in Title 20, California Administrative Code Section 1604(f). Title 24 of the California Administrative Code Section 1606(b) prohibits the installation of fixtures unless the manufacturer has certified to the California Energy Conservation compliance with the flow rate standards.
- 2) **Water Conservation** – Low-flush toilets shall be installed as specified in California State Health and Safety Code Section 17921.3 and the County Green Building Ordinance (as applicable in Riverside County).

- 3) **Water Conservation** – All common area irrigation areas shall be capable of being operated by a computerized irrigation system which includes an on-site weather station/evapotranspiration (ET) gage capable of reading current weather data and making automatic adjustments to independent run times for each irrigation valve based on changes in temperature, solar radiation, relative humidity, rain, and wind. In addition, the computerized irrigation system shall be equipped with flow sensing capabilities, thus automatically shutting down the irrigation system in the event of a mainline break or broken head. All common area irrigation controllers shall also include a rain-sensing automatic shutoff.
- 4) **Water Conservation** – Common-area landscaping shall emphasize drought-tolerant vegetation. Plants of similar water use shall be grouped to reduce over-irrigation of low-water-using plants. Those areas not designed with drought-tolerant vegetation shall be gauged to receive irrigation using the minimal requirements.
- 5) **Water Conservation** – Residential occupants shall be informed as to the benefits of low-water-using landscaping and sources of additional information related to water conservation.
- 6) **Water Conservation** – Community center or recreational facilities with a pool amenity shall be conditioned to provide and use a pool cover to reduce water evaporation and retain heat.
- 7) **Water Conservation** – Water conservation standards shall be as noted in the Tier 1 measures of the 2010 California Green Building Standards.
- 8) **Energy, Water, and Recycling** – The builder shall be conditioned to provide the following:
 - Energy-efficient appliances
 - Energy-efficient indoor lighting
 - Water-efficient smart controllers for landscaping
 - Water-efficient plumbing in all buildings
 - Integration of recycling into residential home design, creating areas in the home to promote recycling (additional trash cans in cabinets, etc.)
 - Energy Efficiency standards shall be as noted in the Tier 1 measures of the 2010 California Green Building Standards.

- 9) **Carbon Sequestration** – The builder shall plant an average of approximately 40 trees per landscaped acre (where landscaping is provided) as a means to capture (sequester) carbon dioxide emissions and to provide shade to the buildings, which can decrease the need for air conditioning.
- 10) **Green Education Program** - In order to increase awareness of green building practices and to promote water and energy conservation, the builder(s) will develop and implement a green educational program. The program will include but not necessarily be limited to a pamphlet that educates and promotes conservation practices that homeowners can implement, with specific guidance on landscaping with drought-tolerant plants, use of efficient irrigation systems, compact florescent lighting, and other measures that help lower greenhouse gas (GHG) emissions.
- 11) **Energy Efficient Outdoor Lighting** – Lighting for public streets, parking areas, and recreation areas shall utilize energy-efficient light and mechanical, computerized, or photo cell switching devices to reduce unnecessary energy usage.
- 12) **Energy Conservation** – Community center or recreational facilities with a pool amenity shall be conditioned to install energy-efficient pumps and motors, such as variable speed motors.

B) Solid Waste Measures

- 1) Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- 2) Shall comply with State model ordinance AB 1327, Chapter 18, California Solid Water Reuse and Recycling Access Act of 1991, which requires interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.

C) Transportation and Motor Vehicles

- 1) Limit idling time for commercial vehicles, including delivery and construction vehicles, pursuant to applicable SCAQMD and City requirements.
- 2) Promote ride-sharing programs (e.g., by designating a certain percentage of parking spaces for ride-sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles, and

providing a website or message board for coordinating rides). The actual percentage of potential ride-sharing vehicle spaces will be determined in coordination with the City Planning Director or designee based on square footage and use type (e.g., shopping center, office, or fitness center, etc.) prior to approval of a site plan within the commercial land use Planning Areas.

- 3) Provide adequate bicycle parking near non-residential building entrances to promote cyclist safety, security, and convenience. Provide facilities that encourage bicycle commuting (e.g., locked bicycle storage or covered or indoor bicycle parking).
- 4) All golf carts and Neighborhood Electric Vehicles (NEVs) shall be electrical powered only.

Mitigation Measure GHG-2: The Butterfield Specific Plan shall be conditioned to allow the following uses (as reflected on future tract maps and commercial site plans), to further promote renewable energy resources, including:

- Allowing rooftop solar on all structures, subject to City Municipal Code and related building permit provisions; allowing electric vehicle charging stations at all commercial, park, golf course, multifamily residential, and school areas, subject to a Conditional Use Permit; and allowing hydrogen vehicle fueling stations within the Commercial zone, subject to a Conditional Use Permit.

Mitigation Measure GHG-3: As part of future tract map, grading plan, site plan and/or improvement plan submittals, the Applicant shall identify bus stops along arterial streets, through consultation with the City Engineer and Banning Pass Transit, including stops on Highland Springs Road, Wilson Street, Highland Home Road, and F Street, as determined appropriate.

Threshold: *Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Impact: Conflict with Applicable Plan, Policy, or Regulation. Significant and Unavoidable Impact. There is no adopted plan, policy, or regulation currently regulating GHG emissions in the City; however, there are several applicable regional and State climate change and policy documents, such as Assembly Bill 32 (AB 32) and Senate Bill 375 (SB 375).

As described in the Specific Plan EIR, GHG emissions resulting from implementation of the 2012 Specific Plan Project would be consistent with local and regional growth emissions included in applicable climate change planning and policy documents, including AB 32 and SB 375; however,

measures implementing AB 32 and SB 375 require further action by other State and federal agencies and implementation and effectiveness of these measures is not assured. Therefore, the Specific Plan EIR determined that the 2012 Specific Plan Project's incremental contribution to climate change was determined to remain significant and unavoidable even with the implementation of Mitigation Measures GHG-1 through GHG-3.

Cumulative Impacts. Significant and Unavoidable Impact. Due to the size and scale of the 2012 Specific Plan Project, emissions associated with construction and operation of the 2012 Specific Plan Project were determined to be significant despite implementation of Mitigation Measures GHG-1 through GHG-3 and applicable PDFs. Therefore, the Specific Plan EIR determined that project-related contributions and cumulative development would cause GHG impacts to remain significant and unavoidable, and could potentially hinder the statewide reduction goals of AB 32.

3.6.3 Analysis of Project Changes

The following analysis is based primarily on the *Air Quality and Greenhouse Gas Analysis Review*, (September 2016) prepared by LSA Associates, Inc. (LSA) (Appendix A).

An updated GHG emissions inventory to determine both construction and operational GHG emissions was prepared for the Proposed Project by LSA using CalEEMod. The model employs widely accepted calculation methodologies for emission estimates combined with appropriate default data if site-specific information is not available. The model is able to estimate GHG emissions based on project-specific data or, where project-specific data are not available, based on default data specific for building types and regions. CalEEMod incorporates state-of-the-science methods for quantifying mitigation and PDFs not available in URBEMIS and has replaced URBEMIS, the model used in the Specific Plan EIR.

Greenhouse Gas Emission Thresholds of Significance. The City of Banning has not established local CEQA significance thresholds as described in Section 15064.7 of the State *CEQA Guidelines*. Therefore, significance determinations utilized in this section are from Appendix G of the State *CEQA Guidelines*. A significant impact will occur if implementation of the proposed Project will:

- **Threshold A:** generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- **Threshold B:** conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The following thresholds are considered in determining the significance of the Proposed Project impacts from GHG.

- *Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs (see Threshold A)?*
- *Would the Project conflict with the CARB Scoping Plan and regulations adopted for the purpose of reducing emissions of greenhouse gases (see Threshold B)?*

Threshold A: *Would the Project conflict with any applicable plan, policy or regulation of the City adopted for the purpose of reducing the emissions of greenhouse gases?*

Per the *Newhall Ranch* decision, a lead agency may assess the significance of GHG emissions by determining a project's consistency with a local GHG reduction plan or CAP that qualifies under Section 15183.5 of the CEQA Guidelines. The City of Banning does not have a local GHG reduction plan or CAP; however, they are a member of the Western Riverside Council of Government (WRCOG). The WRCOG Subregional Climate Action Plan serves to fulfill this role.

The City of Banning is one of the twelve cities in the western Riverside County, who has joined efforts to develop the WRCOG Subregional CAP. The CAP sets forth a sub-regional emissions reduction target, emissions reduction measures, and action steps to assist each community to demonstrate consistency with California's Global Warming Solutions Act of 2006 AB32).

The CAP identifies strategies for reducing GHG emissions and prioritizes the implementation of policies that enable the member cities to fulfill the requirements of AB 32. The CARB adopted the State's strategy for achieving AB 32 targets in its Scoping Plan in 2008. The Scoping Plan GHG reduction goal is to reduce statewide emissions to 1990 levels by 2020. The WRCOG Sub-regional CAP includes strategies that will achieve this target. The strategy will continue to provide reductions past 2020 and includes a roadmap for the City to achieve GHG emissions reductions through the year 2030 and year 2050. The CAP will enable the City to surpass its community-wide GHG emissions target for 2020, but more aggressive action by the City, the WRCOG sub-region, and the state is needed to reach the 2030 and 2050 targets. Using the strategies and policies outlined in the CAP, the City is on track with meeting its long-term GHG reduction goal until approximately 2026. After that point, a gap emerges between needed reductions and expected reductions. Additional action at the state and sub-regional level is critical to the City's ability to attain its long-term GHG targets. However, the City recognizes its vital role in closing the emissions reduction gap through more aggressive local action that is synergistic with state action. Nevertheless, numerous developments in policy, technology and markets must occur for the state to achieve an economy-wide 80% reduction in GHG emissions by the year 2050 from 1990 levels (WRCOG Subregional CAP 2016).

The 2016 Southern California Association of Government (SCAG) Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) would result in less than significant impacts with respect to its potential to conflict with AB 32 and or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs. However, in the event of a worst case scenario, e.g., responsible agency implementation activities do not achieve their respective GHG emission reduction goals to the appropriate level, the proposed 2016 Specific Plan Amendment may result in significant cumulative impacts. California's Sustainable Communities and Climate Protection Act, or Senate Bill (SB) 375, calls for the SCAG RTP to include an SCS that reduces GHG emissions from passenger vehicles by 8 percent per capita by 2020 and 13 percent per capita by 2035 compared to 2005, as set by the California Air Resources Board (ARB). SB 375 enhances the State's goals of Assembly Bill 32, the Global Warming Solutions Act of 2006. The SCS outlines the plan for integrating the transportation network and land use development strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management measures outlined in the RTP/SCS would benefit the City with more sustainable planning, integrating transportation and land use decisions to

allow residents to live closer to where they work and play, and to high-quality transit services. Implementation of SCAG Mitigation Measures outlined in the 2016 RTP/SCS and Project-Level Mitigation Measure MM-GHG-1 through MM-GHG-3 will help reduce project impacts related to the potential to conflict with AB 32 and or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs to the maximum extent practicable and feasible. However, similar to the Specific Plan EIR findings, significant and unavoidable cumulative GHG impacts will remain for the Proposed Project after mitigation.

WRCOG CAP Work-in-Progress CAP Program. Under CEQA, the effects of GHG emissions are considered a potentially significant environmental impact. CEQA Guidelines recognize this, and include a provision for streamlining the analysis of projects that are consistent with a comprehensive plan for the reduction of GHG emissions (CEQA Guidelines, Section 15183.5).

To meet the requirements of CEQA Guidelines Section 15183.5(b)(1) a qualified CAP must:

1. Quantify existing and projected GHG emissions within the plan area
2. Establish a reduction target based on AB 32's provisions (a level where GHG emission are not cumulatively considerable)
3. Identify and analyze sector specific GHG emissions from Plan activities
4. Specify policies and actions (measures) that local jurisdictions will enact and implement over time to achieve specified reduction target
5. Establish a tool to monitor progress and amend if necessary
6. Adopt in a public process following environmental review

A development project would demonstrate consistency with the CAP if it is consistent with the CAP assumptions regarding the amount and type of future development, and is consistent with the GHG reduction measures identified in the CAP. Projects consistent with the CAP, including conformance with any performance measures applicable to the project, would not require additional GHG emissions analysis and mitigation under CEQA Guidelines Sections 15064(h) and 1513.5(b)(2).

In a future phase of the WRCOG CAP work program, WRCOG will develop a checklist to assist with determining project consistency with the CAP. The checklist is intended to provide individual projects the opportunity to demonstrate that they are minimizing GHG emissions, while ensuring that new development achieves a proportion of emissions reduction consistent with what is assumed in the CAP. The project review checklist will screen projects for important GHG reduction measures that, when implemented, will facilitate and not impede the subregion's ability to meet its 2020 GHG emissions target. The checklist will apply to all projects subject to CEQA.

In addition to the WRCOG CAP work program, the City of Banning shall develop a greenhouse gas (GHG) Reduction Plan or Climate Action Plan (CAP) for the proposed project to ensure that the City continues on a trajectory that aligns with the short-term, interim, and long-term state GHG reduction goals of Assembly Bill (AB) 32 (2020 goal), Executive Order (EO) B-30-15 (2030 goal), and EO S-03-05 (2050 goal).

Threshold B: Would the Project be consistent with the CARB Scoping Plan and regulations adopted for the purpose of reducing the emissions of greenhouse gases?

CEQA allows lead agencies to consider whether regulatory programs are adequate to reduce a project's potentially significant environmental effects. Under AB 32, the State's emission inventory must be reduced to 1990 levels by 2020. One of the questions in the CEQA Guidelines checklist regarding GHG asks whether a project conflicts with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. The CARB Scoping Plan and its implementing regulations provide the regulatory framework for the State to achieve its target and to track its progress. Moreover, *Newhall Ranch* describes that a lead agency may assess consistency with AB 32's goal in whole or in part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities ... [*Newhall*, p. 25.] *Newhall Ranch* further describes that "[t]o the extent a project's design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with 'performance based standards' adopted to fulfill 'a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.'" (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also id., § 15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including 'plans or regulations for the reduction of greenhouse gas emissions'].)"

An important underlying assumption when making a significance determination based on compliance with regulations is that the regulations are adequate to address the impact to a less than significant level. If compliance with regulations is sufficient to mitigate the impact to a less than significant level, then a project is not required to provide any additional mitigation to further reduce the impact. If, however, regulations are only partially effective in mitigating the impacts, or if the regulatory program is not fully implemented, there may be a gap between the amount that can be reasonably claimed from regulation and the amount needed to achieve the less than significant target.

The CARB 2008 Scoping Plan includes a regulatory strategy that will result in the State achieving the AB 32 target by 2020, accounting for growth projected by 2020. The measures in the 2008 Scoping Plan were all in place by 2012. The First Update of the CARB Scoping Plan adopted in May 2014 (CARB 2014) includes no new measures or targets that would require additional consistency analysis.

When the Scoping Plan was first adopted in 2008, most of the regulations to implement it had not been adopted. This resulted in a gap between the reductions achieved by regulations and those reductions required to show consistency with the 2020 BAU percentage reduction. In the *Newhall Ranch* case, the project was required to determine reductions from its land use design and transportation measures to close the gap and exceed the identified 29 percent reduction below BAU threshold. If that project were analyzed today, the gap would likely be closed by regulations that have since been adopted to reduce GHG emissions from project sources, and possibly no reductions from land use design would be required to meet the 2020 target, at least for portions of the project built prior to 2020.

Specifically, since the adopting of AB 32, the State has embarked on an ambitious regulatory development program to implement the Scoping Plan, which continues today. As explained in the First Update to the Scoping Plan (2014) (2014 Scoping Plan Update), all of the regulations needed to achieve the AB 32 target have now been adopted. The 2014 Scoping Plan Update describes the

progress achieved in adopting the regulations, and establishes that the State is on track to meet the targets accounting for the latest growth forecasts.

Most of the reductions required to reach AB 32's 2020 reduction target will be achieved by regulations that apply to both existing and new development, including the RPS, Pavley standards, LCFS, landfill regulations, regulations and programs on high global warming potential (GWP) gases, initiatives on water conservation (such as SB X7-7), and the indirect influence of the Cap and Trade system on electricity and transportation fuel prices. These regulations are sufficient to achieve AB 32's goal to reduce statewide GHG emissions to 1990 levels by 2020.

In summary, the Project is consistent with the goals established under AB 32. The Project provides emission reductions demonstrating consistency with AB 32 targets, and complies with all present and future regulatory measures developed in accordance with AB 32 and CARB's Scoping Plan, and incorporates a number of mitigation measures (listed as MM GHG-1 through MM GHG-3) that would further minimize GHG emissions, as detailed above. Accordingly, the Project will not conflict with any applicable plan, policy, or regulation for the reduction of GHG emissions. The impacts are considered less than significant with mitigation incorporated under Threshold B. Therefore, the Proposed Project would not result in any new significant environmental effects related to consistency with any plan intended to reduce GHG emissions or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

GHG Emissions. With both the changes proposed in the Proposed Project and the emissions modeling changes under CalEEMod, it is estimated that approximately 43,660 MT CO₂e would be generated from project construction of the residential, commercial, and school component of the Proposed Project. If these one-time construction emissions are annualized over a 30-year development life, then the one-time construction emissions would contribute approximately 1,455 MT CO₂e emissions annually.

In addition, the total annual operational GHG emissions generated from the Proposed Project were estimated to be approximately 95,674 MT CO₂e per year. As a result, the annualized total project-generated GHG emissions (construction plus operations) were estimated to be 97,129 MT CO₂e. This represents a reduction of 26,896 MT CO₂e from the 2012 Specific Plan Project's estimated approximately 124,025 MT CO₂e per year.

The Proposed Project will comply with mandatory green building standards code (CalGreen). These comprehensive regulations were adopted by the State of California and went into effect as of January 1, 2011. By adhering to these regulations, the Proposed Project will achieve significant reductions in greenhouse gas emissions, energy consumption and water use. CalGreen, for example, requires that every new residential building constructed in California increase energy efficiency by a minimum of 15 percent, reduce water consumption by minimum of 20 percent, divert 50 percent of construction waste from landfills and install low pollutant-emitting materials.

The CALGreen code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The California Green Building Standards Code was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures take effect on January 1, 2017.

Per the Settlement Agreement, the Proposed Project also includes the installation of ultra-low flow toilets and Energy Star efficiency standard developer-installed appliances throughout the Project, as well as installation of solar voltaic systems (or equivalent) for certain multifamily residential developments and electric car-charging stations in certain areas. Per the Settlement Agreement, the Proposed Project would also request a ride-sharing lot from the City and any applicable transportation agencies before 1,000 dwelling units are built, thereby potentially reducing automobile emissions further. While the ride-sharing lot would reduce Project-related traffic, this lot is not necessary to reduce Project-related traffic to less than significant levels. Similarly, the ride-sharing lot would not reduce mobile sources of GHG emissions to a less than significant level.

For these reasons, the Proposed Project would generate fewer GHG emissions than the 2012 Specific Plan Project. Mitigation Measures GHG-1 through GHG-3 would still be applicable to the Proposed Project. Therefore, the Proposed Project would not result in any new significant environmental effects related to GHG emissions or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. The Proposed Project reduces intensity as compared to the originally proposed Specific Plan. The reduction in project intensity would also result in a reduction in construction emissions due to the reduced scale of development proposed under the Proposed Project. Therefore, the Proposed Project represents an overall reduction in the intensity, scale of development, and traffic trips than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Similar to the 2012 Specific Plan Project, the Proposed Project would implement applicable PDFs and mitigation measures (Mitigation Measures GHG-1 through GHG-3) aimed at reducing GHG emissions during construction and buildout of the Project. However, similar to the 2012 Specific Plan Project, due to the size and scale of the Proposed Project, the Proposed Project's climate change impact with regard to GHG emissions would be considered cumulatively considerable because they would not further the AB 32's statewide GHG reduction goals. Therefore the Proposed Project would not result in any new significant cumulative environmental impacts with respect to global climate change. Therefore, the Proposed Project would not result in any new cumulatively significant environmental effects related to global climate change or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.6.4 Findings Related to Global Climate Change

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the certified Specific Plan EIR. The Proposed Project would not result in a new significant environmental impacts to Global Climate Change or a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Global Climate Change that would require major

changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Global Climate Change requiring major revisions to the certified Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Global Climate Change identified and considered in the certified Specific Plan EIR.

3.6.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project remain applicable to the global climate change analysis for the Proposed Project. The PDFs listed below reflect only those PDFs where minor text changes have been made due to the approval of the Butterfield Specific Plan in 2012 and the subsequent Settlement Agreement.

7. Project design features incorporate applicable recommendations from the Attorney General and the ARB Scoping Plan, ~~as discussed in Impact 4.5-4 below.~~
 - a. The Project's water supply sources are focused first on local supplies, which will reduce reliance upon imported water, thereby reducing GHG emissions associated with energy required for pumping and delivering the water to the site.
 - b. ~~Tables 4.5-3 and 4.5-4~~¹ Section 4.5, Global Climate Change, of the Specific Plan EIR identify Project Design Features that will reduce GHG emissions, as well as criteria pollutant emissions.

3.6.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, minor changes to the mitigation measures found in the Specific Plan EIR are required. Mitigation Measures GHG-1 through GHG-3 remain applicable to the Proposed Project.

¹ Refer to Section 4.5 of the Specific Plan EIR for Tables 4.5-3 and 4.5-4.

Mitigation Measure GHG-2: The Butterfield Specific Plan shall ~~be conditioned to allow the following uses (as reflected on future tract maps and commercial site plans), to further~~ promote renewable energy resources, including:

- Allowing rooftop solar on all structures, subject to City Municipal Code and related building permit provisions; allowing electric vehicle charging stations at all commercial, park, golf course, multifamily residential, and school areas, subject to a Conditional Use Permit; and allowing hydrogen vehicle fueling stations within the Commercial zone, subject to a Conditional Use Permit.

3.6.7 Mitigation Measures No Longer Applicable

All global climate change mitigation measures identified in the Specific Plan EIR would remain applicable to the Proposed Project.

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3.7 CULTURAL RESOURCES

3.7.1 Existing Environmental Setting

There have been no major changes to the existing setting of the Project site with respect to cultural resources since the Specific Plan EIR was prepared. Please see Section 4.6 of the Specific Plan EIR for a summary of the existing environmental setting for Cultural Resources. Section 4.6 addresses the potential for impacts to cultural, historic, archaeological, and paleontological resources that have the potential to occur on the Project site. The cultural resources information is based on several technical studies prepared for the Project site. The reports include *Cultural Resource Assessment and Historic Evaluations*, prepared by LSA Associates, Inc., April 12, 2006 and *Paleontological Resource Assessment*, prepared by LSA Associates, Inc., April 10, 2006. Additional investigations were completed by LSA Associates, Inc. for the proposed 21-acre addition to the Butterfield Ranch Specific Plan Area (*Cultural Resources Assessment – 21-acre Addition to the Butterfield Ranch Specific Plan*, December 19, 2007 and the *Paleontological Resources Assessment – 21-acre Addition to the Butterfield Specific Plan*, December 19, 2007), as well as for areas where off-site improvements will occur (*Cultural Resources Assessment – Butterfield Ranch Specific Plan Off-site Infrastructure*, December 11, 2007, and the *Paleontological Resources Assessment – Butterfield Ranch Specific Plan Off-site Infrastructure*, December 19, 2007).. Section 4.6 of the Specific Plan EIR summarizes the findings and recommendations of those assessments, which are incorporated as Appendix D of the Specific Plan EIR.

Paleontological Resources. The Project site falls into the Upper Sonoran Life Zone, which ranges from sea level to an elevation of 5,000 ft amsl. The Banning area contains sediments of Pilo-Pleistocene age, also referred to as the San Timoteo Formation. This formation is overlain by flat-lying, deeply weathered alluvium. Sediments on the Project site are indicative of three depositional events, beginning with the (1) San Timoteo Formation (occurring at the depth of the Project site), with (2) Pleistocene Old Alluvium then being deposited in the area north of the Banning Fault, which was subsequently eroded to create the flat surface that contains (3) late Pleistocene terrace deposits overlain by soil.

Previous literature searches for the Project site indicate that there is a high paleontological sensitivity for sediments north of the fault where it traverses the site. Furthermore, all subsurface Pleistocene sediments in the Banning-Beaumont area have a high potential to contain significant, non-renewable paleontological resources. Such sediments represented by silty sandstone are present on the Project site at depths ranging from approximately 12 ft in the site's higher elevations to between 20 and 60 ft below the ground surface in the site's lower elevations. Near-surface outcroppings of the Pleistocene deposits are present north of the Banning Fault.

Off-Site Paleontological Resources. The paleontological setting for the areas targeted for off-site improvements (construction of utilities within existing roadways) is generally the same as the Project site. Portions of the areas targeted for these improvements potentially contain significant, non-renewable resources. Specifically, there is a high potential for significant paleontological resources to occur within the Pleistocene sediments along the northwestern portion of the off-site infrastructure alignment. The area with the highest potential for significant paleontological

resources to occur within these Pleistocene alluvial deposits is along Nobel Street and High Street, west of Jonathan Avenue and north of Brookside Avenue.

Archaeological Resources. The Project site is located in an area that was historically inhabited by the Cahuilla Native American tribe. The Cahuilla established villages in the Banning area, including an ethnographic site southeast of the Project site. This site contained slicks, bedrock mortars, a midden, pictographs, and a small rock shelter.

There are a total of 10 archaeological sites and nine built environment cultural resources within 1 mile of the Project site; however, no sites or resources were identified on the Project site. A field survey conducted on the site found three historic sites, but did not identify any prehistoric archaeological sites. Additionally, representatives from Native American tribes in the project area have indicated that there are no known resources on the site and no monitoring of ground-disturbing activities was recommended.

Off-Site Archaeological Resources. There are 24 archeological sites and 119 built environment resources within 1 mile of the site. Additional surveys conducted for these areas determined that there was little potential for disturbance to archaeological resources within these areas given the existing paved condition of the roadways, within which the off-site improvements are proposed.

Historic Resources. The Project site occupies land that was administered by Mission San Gabriel Archangel during the Spanish era. During this era, the Franciscan fathers who established the Mission also established ranchos to provide the Mission with food. One of these ranchos was the San Gorgonio Rancho, which due to its distance from the Mission, was primarily utilized for cattle grazing.

In 1838, the San Gorgonio Rancho was abandoned and the area was subsequently acquired by Dr. Isaac Smith in the mid-1800s. Following Smith's acquisition of the area, a new road was constructed through the San Gorgonio Pass, a portion of which traversed the Project site. By the end of the 1800s, the Smith ranch was sold off and the property became the Highland Acres and has since been utilized for cattle grazing.

There are no historic remains of the Bradshaw Road on the Project site. However, three previously undocumented historic sites and four isolated historic artifacts are present on the site, which have been numbered as follows: LSA-PDH0601-H1-1, H-2, H-3 for the historic sites, and LSA-PDH0601-I-1, I-2, I-3, and I-4 for the isolates.

- **LSA-PDH0601-H1-1:** This resource is a channelized ditch associated with the Smith Creek. Within the Project area, this ditch runs approximately 2 miles from north to south and forms a confluence with an unnamed ditch from the northeast near the southern section of the Project site. This ditch continues south off of the Project site as a culvert under Wilson Street. This ditch would have been a central feature of a historic conveyance system used to drain the Project site and provide water for livestock and was present on the site as early as 1943. The integrity of this resource is considered fair and it is still in good condition, as it is still operational. Previous

evaluations of this resource determined that the ditch did not meet the National Register of Historic Places (National Register) or the California Register of Historical Resources (California Register) criteria.

- **LSA-PDH0601-H-2:** This resource is a refuse deposit located on the edge of an on-site ravine. Items within this deposit are of modern and historic periods and included a rusted horse-drawn wagon leaf spring and a General Electric washing machine. The site is considered to be of poor integrity and condition; however, previous evaluation of this resource determined that there may be a minimal data potential associated with this resource.
- **LSA-PDH0601-H-3:** This resource is a historic transmission corridor dating back to sometime between 1943 and 1953 and includes steel towers, transmission lines, and a dirt access road. This corridor is the southernmost of three adjacent transmission lines. The corridor remains in its operating condition and retains its historical design and use. The transmission corridor meets the age requirement for both the National Register and the California Register; however, because the resource contains a small segment of the corridor within the Project site, it would not be considered eligible for the National Register or the California Registers.
- **LSA-PDH0601-I-1:** This isolate includes a pile of rocks mortared together with concrete, and is of an unknown association, context, or age.
- **LSA-PDH0601-I-2:** This isolate consists of a small section of a rusted steel drum, and the location. The location, stage of decay, and the lack of distinguishable features make it difficult to determine its age.
- **LSA-PDH0601-I-3:** This isolate consists of a small section of corrugated steel pipe, which was popular from the 1940s to the present day. It is difficult to determine whether the pipe is of historic age; however, the pipe does not have integrity as a resource.
- **LSA-PDH0601-I-4:** This isolate consists of a small aqua piece of glass (approximately 1 inch x ½ inch x 1/16 inch in size). While the glass appears historic, the sample is small and its context is unknown. Therefore, the glass has no integrity as a resource.

Off-Site Archaeological Resources. The historical setting for the areas targeted for off-site improvements is the same as the Project site. There are 39 historic structures located along the north and south sides of Lincoln Street between Sunset and San Gorgonio Avenues (where the proposed infrastructure improvements would be constructed). However, it is unlikely that these structures remain within the street-right-of way, which is being improved with new development projects. Potential historic structures are visible at a distance from Lincoln Street, but are not accessible from this roadway.

3.7.2 Specific Plan EIR

Please see Section 4.6 of the Specific Plan EIR for analyses of potential effects of the 2012 Specific Plan Project related to cultural resources.

The Specific Plan EIR concluded that the following impacts related to the cultural scientific resources would be less than significant with implementation of mitigation measures.

Threshold: *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Impact: Paleontological Resources. Less than Significant with Mitigation Incorporated. As described in the Specific Plan EIR, much of the Project site and areas targeted for off-site improvements are underlain by sediments that have the potential to support paleontological resources that could be impacted by site development activities associated with implementation of the 2012 Specific Plan Project. However, the Specific Plan EIR determined that despite the potential presence of paleontological resources on the Project site and areas targeted for off-site improvements, implementation of the 2012 Specific Plan Project would have resulted in less than significant impacts to known and unknown paleontological resources with incorporation of Mitigation Measure CUL-1, which requires the preparation of a paleontological resource impact mitigation program (PRIMP) incorporated for the grading and excavation phase of the 2012 Specific Plan Project.

Mitigation Measure CUL-1: The Project Applicant shall prepare a paleontological resource impact mitigation program (PRIMP) for the grading and excavation phase of the Project, including both on- and off-site activities. The PRIMP shall be submitted for review and approval prior to issuance of any grading permit, and shall conform to the guidelines of the County of Riverside and the Society of Vertebrate Paleontology; including the following:

- A trained paleontological monitor shall be present during initial mass grading or deep trenching activities within the Project in sediment areas determined likely to contain paleontological resources. If paleontological resources are located within excavation, the monitoring program would change to full-time. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. The monitor shall be equipped to rapidly remove any large fossil specimens encountered during excavation. During monitoring, samples shall be collected and processed to recover microvertebrate fossils. Processing shall include wet screen washing and microscopic examination of the residual materials to identify small vertebrate remains.
- Upon encountering a large deposit of bone, salvage of all bone in the area shall be conducted with additional field staff and in accordance with modern paleontological techniques.
- All fossils collected during the Project shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified shall be provided to the museum repository along with the specimens.

- A report documenting the results of the monitoring and salvage activities and the significance of the fossils would be prepared. All fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository for permanent curation and storage.
- All fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository for permanent curation and storage.

Threshold: *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?*

Impact: Archaeological Resources. Less than Significant with Mitigation Incorporated. As described in the Specific Plan EIR, no previously recorded cultural sites exist within the Project boundaries; however, 10 archaeological sites and 9 built environment cultural resources have been identified within 1 mile of the Project area. While there are no identified cultural resources on the Project site or within the areas proposed for infrastructure improvements, the Specific Plan EIR determined that there was a potential to discover unknown resources during ground-disturbing activities, such as grading and excavation, on the Project site and in the area proposed for the infrastructure improvements. Accordingly, the Specific Plan EIR required the implementation of Mitigation Measure CUL-2, which requires preparation of an archeological resources monitoring plan, and CUL-3, which requires that all earthmoving activity occurring within 30 meters of the on-site refuse scatter be monitored by a qualified archeologist. With implementation of these mitigation measures, impacts to unknown archaeological resources were determined to be less than significant.

Mitigation Measure CUL-2: Prior to the issuance of a grading permit, an archaeological resource monitoring plan shall be developed by a qualified archaeologist. This plan shall include a grading observation schedule, to be maintained when initial mass grading occurs in upper soils, to identify and further evaluate any cultural resources that may be discovered in the Project area. A qualified archaeologist shall be retained to attend pre-grading meetings and to monitor earth moving activities, including clearing, grubbing, cutting, and trenching at the site. The archaeologist shall carefully inspect these areas to assess the potential for significant prehistoric or historic remains. If potential archaeological and historical resources are uncovered, the construction contractor shall cease grading operations in the vicinity of the find until further evaluation is undertaken to assess the discovery. Further subsurface investigation may be needed if the resource is determined unique or important for its prehistoric or historic information.

Mitigation Measure CUL-3: All earthmoving activity occurring within 30 meters of the on-site refuse scatter (LSA-PDH0601-H-2) shall be monitored by a qualified archaeologist. If archaeological remnants are discovered during monitoring, the archaeologist shall have the authority to divert

construction in order to assess the significance of the find. Remnants shall be properly evaluated, documented, and deposited as applicable, consistent with State and local protocols.

Threshold: *Would the project cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5?*

Impact: Historic Resources. Less than Significant with Mitigation Incorporated. As described in the Specific Plan EIR, the Project site is located 0.25 mile away from the Highland Springs Resort, which is considered historic. Other historic resources identified on maps of the area included an electrical transmission corridor and a portion of the historic Bradshaw Road. A field survey of the area indicated there are three historic-era sites and four isolated historic era artifacts on the Project site. However, none of these resources meet the required criteria for listing in either the National Register or the California Register. In addition to these resources, the Specific Plan EIR determined that implementation of the 2012 Specific Plan Project may result in potential impacts to unknown historical resources on the site near the known refuse scatter on the property, as the refuse scatter had at least minimal data potential. As such, Mitigation Measure CUL-3, which requires that all earthmoving activities occurring within 30 meters of the discovered resource be monitored by a qualified archaeologist, would be required to reduce impacts to a less than significant level.

Mitigation Measure CUL-3: All earthmoving activity occurring within 30 meters of the on-site refuse scatter (LSA-PDH0601-H-2) shall be monitored by a qualified archaeologist. If archaeological remnants are discovered during monitoring, the archaeologist shall have the authority to divert construction in order to assess the significance of the find. Remnants shall be properly evaluated, documented, and deposited as applicable, consistent with State and local protocols.

The records search performed for the areas proposed for the off-site infrastructure improvements identified 39 historic structures along north and south sides of Lincoln Street, between Sunset and San Gorgonio Avenues. A subsequent field investigation determined that there was little evidence of potentially historic resources within this area. Additionally, 119 historic buildings were identified within a 1-mile radius of this area; however, these structures would not be impacted by construction or implementation of the 2012 Specific Plan Project. As such, the Specific Plan EIR determined that there would be less than significant impacts to off-site historic resources.

Threshold: *Would the project result in the disturbance of any human remains, including those interred outside of formal cemeteries?*

Impact: Human Remains. Less than Significant with Mitigation Incorporated. As described in the Specific Plan EIR, there are no known human remains interred on the Project site or in the area identified for off-site infrastructure improvements. However, due to the prehistoric use and habitation of the area and the identification of archaeological resources within the area, the Specific Plan EIR determined that the possibility of encountering human remains during earthmoving activities did exist. Therefore, the Specific Plan EIR determined that Mitigation Measure CUL-2, which requires monitoring of all off-site land disturbing activities by a qualified monitor, would be required to

reduce potential off-site impacts to human remains. Mitigation Measure CUL-4 would be required to reduce potential on- and off-site impacts associated with the disturbance of unknown human remains. Mitigation Measure CUL-4 outlines required procedures to be taken in the unlikely event that human remains are found on the site during project construction. Implementation of CUL-2 and CUL-4 were determined to reduce impacts to a less than significant level.

Mitigation Measure CUL-2: Prior to the issuance of a grading permit, an archaeological resource monitoring plan shall be developed by a qualified archaeologist. This plan shall include a grading observation schedule, to be maintained when initial mass grading occurs in upper soils, to identify and further evaluate any cultural resources that may be discovered in the Project area. A qualified archaeologist shall be retained to attend pre-grading meetings and to monitor earthmoving activities, including clearing, grubbing, cutting, and trenching at the site. The archaeologist shall carefully inspect these areas to assess the potential for significant prehistoric or historic remains. If potential archaeological and historical resources are uncovered, the construction contractor shall cease grading operations in the vicinity of the find until further evaluation is undertaken to assess the discovery. Further subsurface investigation may be needed if the resource is determined unique or important for its prehistoric or historic information.

Mitigation Measure CUL-4: If previously unknown cultural resources, including human remains, are identified during grading activities, a qualified archaeologist shall be retained to assess the nature and significance of the find. If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner shall be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Cumulative Impacts. Less than Significant with Mitigation Incorporated. The geographic setting for analyzing cumulative impacts to cultural resources is the San Geronio Pass region of the County. Due to the rich cultural history of this area and the inhabitation of the area by various indigenous groups, including the Cahuilla, there area has the potential to contain paleontological, archaeological, and historic resources. The City's General Plan establishes policies, programs, and mitigation measures to address potential impacts. Adherence with these polices, programs, and measures,

combined with Mitigation Measures CUL-1 through CUL-4, would result in a less than significant cumulative impact to cultural resources.

3.7.3 Analysis of Project Changes

Paleontological Resources. The Proposed Project is located on the same site and would not disturb any new areas of sediments. It represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Mitigation Measure CUL-1 would remain applicable to the Project. Further, because the Proposed Project is located on the same Project site and includes similar off-site improvements, the Project would be consistent with the findings of the Specific Plan EIR and it would not result in any new significant environmental effects to paleontological resources or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Archaeological Resources. The Proposed Project is located on the same site and would not disturb any new areas of sediments. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Therefore, because the Proposed Project is located on the same Project site and does not disturb any new areas not previously assessed, includes similar off-site improvements and would adhere to Mitigation Measures CUL-2 and CUL-3, the Proposed Project would be consistent with the findings of the Specific Plan EIR and it would not result in any new significant environmental effects to archaeological resources or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Historical Resources. The Proposed Project is located on the same site and would not disturb any new areas potentially containing historic resources. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific plan Project analyzed under the Specific Plan EIR. Therefore, because the Proposed Project is located on the same Project site and includes similar off-site improvements there would be no new impact to historic resources and no mitigation beyond what was previously identified in the Specific Plan EIR is required. The Proposed Project would not result in any new significant environmental effects to historical resources or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Human Remains. The Proposed Project is located on the same site and would not disturb any new areas potentially containing human remains. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Mitigation Measure CUL-4 would remain applicable to the Project. Further, because the Proposed Project is located on the same Project site and includes similar off-site improvements, and due to the reduction in the 2012 Specific Plan Project's intensity, the Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects or to human remains a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. Because the Project site and the area in which the site (and the areas proposed for off-site infrastructure improvements) is are culturally, paleontologically, and historically sensitive. However, the Proposed Project is located on the same site as that addressed in the Specific Plan EIR and no new lands would be impacted. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR. Mitigation Measures CUL-1 through CUL-4 would continue to apply to the Project. In consideration of all of the above, the Proposed Project would not result in any new significant cumulative impacts to cultural resources. Therefore, the Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to cultural resources or to human remains a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR

3.7.4 Findings Related to Cultural Resources

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the proposed Project would require a major change to the Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to Cultural Resources, nor is there a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Cultural Resources that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Certified 2008 EIR. No significant unavoidable impacts related to Cultural Resources were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Cultural Resources requiring major revisions to the certified Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Cultural Resources identified and considered in the Specific Plan EIR.

3.7.5 Project Design Features

The PDF included as part of the 2012 Specific Plan Project (also listed in Section 2.1.2 of this Addendum) remains applicable to the cultural resources analysis for the Proposed Project. The PDF listed below reflects changes where minor revisions have been made due to the approval of the Butterfield Specific Plan in 2012 and the subsequent Settlement Agreement. The change is shown in underline below.

1. The Project has been redesigned from the previously approved Deutsch Specific Plan, which proposed grading the entire Specific Plan property. Furthermore, the golf course in Pas 35 and 39 has been removed, allowing additional acreage to remain as open space. As such, the preservation of the northeastern portion of the site in permanent open space will reduce the potential for disturbance of previously unidentified paleontological and archaeological resources.

3.7.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, no changes to the mitigation measures found in the Specific Plan EIR are required. Mitigation Measures CUL-1 through CUL-4 remain applicable to the Proposed Project.

3.7.7 Mitigation Measures No Longer Applicable

All cultural resources mitigation measures identified in the Specific Plan EIR would remain applicable to the Proposed Project.

3.8 GEOLOGY, SOILS, AND SEISMICITY

3.8.1 Existing Environmental Setting

There have been no major changes to the existing setting of the project site with respect to geology, soils, and seismicity since the Specific Plan EIR was prepared. Please refer to Section 4.7 of the Specific Plan EIR for a summary of the existing environmental setting for Geology, Soils, and Seismicity. The information contained in Section 4.7 of the Specific Plan EIR is based on the following documents: 2005 *Geotechnical Investigation: Deutsch Property, Highland Springs Avenue and Wilson Street, Banning, California* prepared for Pardee Homes by Geocon Inland Empire, Inc. (Geocon) and the 2005 *Fault Rupture Hazard Investigation: Deutsch Property, Highland Springs Avenue and Wilson Street, Banning, California* prepared for Pardee Homes by Geocon. Additional reports were also prepared to evaluate the approximately 21-acre parcel to be included as part of the Specific Plan Area PA 43B in the northwest site corner (*Scoping Study*, prepared by Geocon dated May 5, 2006) and the proposed off-site improvements (*Limited Geotechnical Observation: Proposed Off-site Sewer, Water, and Recycled Water Improvements Associated with Butterfield Property*, prepared by Geocon and dated December 11, 2007). These reports can be found in Appendix E of the Specific Plan EIR.

Topography. Elevations on the Project site range from over 3,400 ft amsl in the northeastern portion to 2,560 ft amsl in the southeastern portion of the site. Topography on the site ranges from relatively flat to steeply sloping. The majority of the Project site slopes from north to south with the steepest area located in the northeastern-most portion of the site.

Groundwater. The depth of groundwater presently on the Project site is estimated to be greater than 300 ft below ground surface, with prior estimates ranging from 367 ft below ground surface in 1968 to over 550 ft below ground surface in 2005.

On-Site Soils. Soils on the Project site consist of undocumented fill, modern soil, slope wash, colluvium, recent and older alluvium, and Pleistocene conglomerate. Landslide deposit and shallow debris flow deposits are located along several ridges in the northern portion of the site. The Pleistocene conglomerate is the oldest unit on the site. Depths to these deposits range from 2 ft to over 60 ft below ground surface on the site.

Undocumented Fill (Oudf). Undocumented fill on the site consists of locally derived silty sands that are generally loose-to-medium dense and dry-to-moist. These deposits occur as east-west trending berms, approximately 3 to 5 ft in height. The berms were originally created to minimize on-site erosion.

Modern Soil (Qm). Modern soils on the site occur within the upper 6 to 24 inches and are estimated to be 100 to 1,000 years in age. These soils are loose, dry, olive brown silt coarse sand with horizontal parting surfaces.

Slope Wash (Qsw). Slope wash on the Project site is loose-to-medium dense, damp, dark yellow-brown silty sand with trace gravel, and porous.

Colluvium (Qcol). Colluvium on the Project site occurs along the hillsides and slopes and is present at a depth of 1 to 2 ft. The colluvium clast supported and consists of an olive brown, silty sand matrix that is loose, dry, and porous and consists of semi-rounded, moderately weathered cobbles with a typical diameter of 4 inches.

Recent Alluvium (Qal). Younger alluvium deposits on the site occur in several areas throughout the site and are present at depths ranging from 5 to 19 ft below ground surface. Recent alluvium deposits on the site average 10 ft in depth in the southern area of the site, 5 ft in depth in the north-central portion of the site, 10 ft in depth in the northwestern portion of the site, and 15 ft in depth in the east-central portion of the site. The alluvium is comprised of brown to yellow-brown silty coarse sands that are moist, loose, and porous at a depth of 5 to 9 ft below ground surface, with density increasing with depth.

Older Alluvium (Qoal). Older Alluvium deposits on site occur beneath the Recent Alluvium, particularly between the Central fault zone and the slopes in the northern area of the site. The Older Alluvium deposits consist of dark-yellow silty coarse sands with silt and trace clay and are approximately 40,000 years in age. An older unit, consisting of yellow-red silty sand with trace blocky, cemented clay, also occurs along ridgelines and within the alluvial plain near fault zones and is approximately 10,000 years in age.

Undeveloped Soil. Undeveloped soil occurring on the Project site is located between the two older alluvial units. This soil is loose, moist, dark yellow-brown, and channelized.

Debris Flow Deposits (Qdf). Debris flow deposits occur on the Project site along the hillsides and in several tranches at depths greater than 8 ft. Additional debris flows occur in areas where Pleistocene conglomerate is present. The debris flow deposits consist of a yellow silty coarse sand matrix with saprolitic granitic and gneissic clasts, with boulder to cobble conglomerates and sand/gravel beds.

Paleosol (Qp). Paleosol is characterized by a layer of fossilized soil, usually present beneath layers of rock or more recent soil. On the Project site, these soils are dense, dry to damp, red brown clayey silty sand with trace gravel, are generally massive, and consist of a cemented angular blocky structure.

Pleistocene Conglomerate (Qps). Pleistocene conglomerate on the Project site occurs in the northern portion of the property along the hills and along the fault zone in the southern portion of

the site. These soils were deposited as an alluvial fan from a source originating in the San Bernardino Mountains and have subsequently been faulted, uplifted, and eroded. These deposits consist of yellow, coarse silty sand, with granitic gneissic and gabbroic clasts, which are 3 to 12 inches in diameter with boulders up to 4 ft in diameter.

Off-Site Soils. Areas proposed for the infrastructure improvements are underlain by Pleistocene Age alluvial fan deposits. The majority of these deposits consist of sand and gravel of plutonic and gneissic detritus originating from the San Bernardino Mountains. Bedrock is not anticipated to occur along any of the roadways proposed for off-site improvements. The northern portion of these roadways is underlain with dissected sand and gravel alluvial fan deposits. The area where the proposed pipelines are anticipated to meet (on Nobel Street where it connects with existing conveyance systems), the northern portion of the right-of-way, is underlain by alluvial gravel and sand stream channel deposits.

Geology and Seismicity. The central segment of the Banning Fault is present within the Project site. This fault is obscured by Quaternary sediments within the vicinity of the site. The central Banning Fault Zone is comprised of two parallel fault segments (referred to as Strands A and B) and includes the Wildwood Canyon Fault, located northwest of the site. Strand A passes beneath the Banning Bench and is mapped as an Alquist Priolo Earthquake Fault Hazard Zone. Strand B, the northernmost portion of the fault segment, is believed to be an early trace of the San Gorgonio Pass Fault Zone and is considered active; however, this strand is not mapped as an Alquist Priolo Fault Zone. The Highland Springs scarp is believed to be a composite scarp resulting from activity occurring at Strand B on the Wildwood Canyon branch and is not considered active.

The San Gorgonio Pass Fault Zone on the site includes Strands A and B within the northern portion of the site, two small fault scarps 3,000 ft south of the Banning Fault, an unnamed north-south tear fault along the eastern property boundary, and an unnamed fault near the central portion of the site. Other faults are believed to extend from the northwestern portion of the site to the eastern site boundary near 14th Street. An area of transition between the more active fault zone to the east and the inactive zone to the west is also present on the site.

Areas proposed for off-site improvements are anticipated to exhibit geologic characteristics similar to those on the Project site; however, none of these areas are located within an identified Alquist Priolo Earthquake Hazard Fault Zone. No active faults with the potential for surface fault rupture are located within these areas.

Fault Rupture. Earthquake Fault Hazard Zones are delineated if they are known to contain active faults. Active faults are defined as one that has experienced surface displacement during the Holocene Epoch, or within the last 11,000 years. The northern portion of the Project site is located within an Earthquake Fault Hazard Zone. In addition, the central segment of the Banning Fault, which passes through the site, is considered to have the potential for future surface ground ruptures.

Seismic Ground Shaking. Known active faults on the Project site include Banning Fault Strands A and B and the Highland Springs fault. The Banning Fault is considered active and is part of the larger

San Andreas Fault system. Based on geotechnical studies prepared for the 2012 Specific Plan Project, it is estimated that an earthquake off the Banning Fault could generate a peak ground acceleration of 0.74 g (where “g” is defined as the acceleration due to gravity) at the Project site. As such, it is likely that the Project site would be subjected to significant ground shaking in the event of a major earthquake occurring on the San Andreas or other nearby faults.

Liquefaction. Liquefaction occurs when soils loaded by earthquake shaking suddenly transition from a solid to liquefied state. Due to the density of on-site soils and the depth of groundwater, the potential for liquefaction at the Project site is considered to be very low.

Lateral Spreading. Lateral spreading occurs as a result of displacement of surficial blocks of sediment due to liquefaction in a subsurface layer. Topography on the Project site is characterized by generally flat to gently sloping terrain. Due to the depth of groundwater at the site and the very low liquefaction potential on the site, the likelihood of lateral spreading on the Project site is low.

Seismic Densification. Seismic densification of dry soils occurs when loose, dry soils densify and settle as a result of earthquake-induced ground shaking. Because the Project site is located in an area where potentially ground shaking may occur, and contains medium dense, dry alluvial deposits, portions of the site could be subject to seismic densification of dry soils.

Landslides and Debris Flows. Landslides generally occur as a result of slope instability, but can also occur as a result of seismicity (i.e., ground shaking and liquefaction). The norther portion of the Project site extends into the foothills of the San Bernardino Mountains and as such, could be affected by rock falls or other seismically-induced landslides occurring off-site. As previously described, the site has a very low potential for liquefaction, and as such, on-site slopes are unlikely to be affected by liquefaction-induced landslides.

3.8.2 Specific Plan EIR

Please see Section 4.7 of the Specific Plan EIR for analyses of potential effects of the 2012 Specific Plan Project related to Geology and Soils. The Division of the State Architect ensures that structural design shall comply with the current edition of the California Building Code (CBC) applicable to structure design and construction in order to minimize the potentially damaging effects of severe ground shaking resulting from earthquakes in the region.

The Specific Plan EIR concluded that the following impacts would be less than significant related to geology and soils with implementation of mitigation measures.

Threshold: *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake faults, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, or a County of Riverside designated Fault Hazard Area, or a County of Riverside designated Potential Fault Hazard Area?*

Impact: Surface Fault Rupture-Less than Significant. As described in the Specific Plan EIR, the Project site lies within a seismically active region of southern California that is subject to seismic activity associated with the northwest-trending San Andreas, San Jacinto, and Elsinore fault systems. Additionally, the Project site is located between the active Banning Fault Zone to the east and the inactive Banning Fault Zone to the west. The central segment of the Banning Fault also traverses the northernmost quadrant of the site and is comprised of two parallel fault segments, one of which is governed by an Alquist Priolo Fault Zone while the other is also considered active. The areas proposed for off-site improvements included as part of the 2012 Specific Plan Project are not located within an Alquist-Priolo earthquake fault zone. Despite the proximity of these fault zones to the Project site, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in less than significant impacts related to the exposure of people or structures to adverse impacts associated with the rupture of a known earthquake fault or strong ground shaking associated with an earthquake even given the fact that all buildings developed under the 2012 Specific Plan Project would be developed in accordance with building codes and setbacks established by the State and the City. Therefore, impacts related to surface fault rupture were determined to be less than significant.

Threshold: *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?*

Impact: Ground Shaking. Less than Significant Impact with Mitigation Incorporated. Because the Project site lies within the seismically active region of Southern California, the Specific Plan EIR determined that the implementation of Mitigation Measure GEO-1, which mandates that all structures proposed as part of the 2012 Specific Plan Project be constructed to the most current applicable seismic standards, would be required to reduce impacts associated with strong seismic ground shaking to a less than significant level. Furthermore, the Specific Plan EIR determined impacts related to ground shaking would be less than significant through the design of structures in compliance with the requirements contained in the California Building Code and California Residential Code.

Mitigation Measure GEO-1: All structures on the Project site shall be constructed pursuant to the most current applicable seismic standards, as determined by the City of Banning (City) as part of the tract map, grading plan, and building permit review processes, with building setbacks as recommended by the Project's Seismic Hazard Analysis (Geocon 2005). Design criteria developed for project structures shall also be based on the most current standards of practice and design parameters suggested by the Structural Engineers Association of California based on the recommendations and amendments to the California Building Code (CBC) by the Division of the State Architect for specific types of buildings and occupancies.

Threshold: *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction; subsidence, and lateral spreading?*

Impact: Seismically. Induced Ground Failure-Liquefaction-Less than Significant Impact. As previously discussed, liquefaction most commonly occurs when three conditions are present simultaneously: (1) high groundwater; (2) relatively loose, cohesionless (sandy) soil; and (3) earthquake-generated seismic waves. The presence of these conditions has the potential to result in a loss of shear strength and ground settlement, causing the soil to behave as a fluid for a short period of time. As described in the Specific Plan EIR, the Project site is located in an area with a low potential for liquefaction. Therefore, impacts associated with seismic-related ground failure were determined to be less than significant.

Threshold: *Would the project expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving: Landslides?*

Impact: Seismically-Induced Ground Failure-Landslides. Less than Significant Impact with Mitigation Incorporated. Landslides are most common where slopes are steep, soils are weak, and groundwater is present. As described in the Specific Plan EIR, the Project site is located in an area with a moderate potential for landslides given the site's proximity to the foothills of the San Bernardino Mountains. As such, the Specific Plan EIR determined that development occurring under the 2012 Specific Plan Project would be required to comply with the City's Building Code and would be required to implement Mitigation Measures GEO-2 and GEO-3 to reduce potential impacts related to landslides to a less than significant level. Mitigation Measure GEO-2 requires a detailed analysis of site geological conditions, a field investigation, and a slope stability analysis to be conducted to reduce impacts associated with project development on hillsides. Mitigation Measure GEO-3 requires, among other things, several procedures and requirements related to the development of structures on imported fill to reduce impacts associated with landslides. Therefore, impacts related to seismically-induced ground failure were determined to be less than significant with mitigation incorporated.

Mitigation Measure GEO-2: A detailed analysis of site geotechnical conditions, field investigation and slope stability analyses shall be conducted as 40-scale grading plans for mass- and fine-grading are prepared in the course of the phased development of the Project site. These studies shall be submitted to the City Building Department or Building Official, and their recommendations incorporated into project design to the satisfaction of the City Engineer, prior to the issuance of any grading permits, including those for mass grading, in areas where slopes of 10 feet or more in height are anticipated and/or where evidence of debris flows or past landslides is found.

Mitigation Measure GEO-3: The Project site shall be constructed pursuant to the following mitigation measure contained in the City of Banning General Plan Subsequent EIR, Geotechnical Element:

- During the site grading, all existing vegetation and debris shall be removed from areas that are to receive compacted fill. Any trees to be removed shall have a minimum of 95 percent of the root systems extracted. Man-made objects shall be over excavated and exported from the site. Removal of unsuitable materials may require excavation to depths ranging from 2 to 4 feet or more below the existing site grade.
- All fill soil, whether on site or imported, shall be approved by the individual project soils engineer prior to placement as compaction fill. All fill soil shall be free from vegetation, organic material, cobbles and boulders greater than 6 inches in diameter, and other debris. Approved soil shall be placed in horizontal lifts or appropriate thickness as prescribed by the soils engineer and watered or aerated as necessary to obtain near-optimum moisture content.
- Fill materials shall be completely and uniformly compacted to not less than 90 percent of the laboratory maximum density, as determined by the American Society for Testing and Materials (ASTM) Test Method D-1557- 78, or equivalent test method acceptable to the City Building Department.
- The Project soils engineer shall observe the placement of fill and take sufficient tests to verify the moisture content, uniformity, and degree of compaction obtained. In-place soil density should be determined by the sand-cone method, in accordance with ASTM Test Method D1556-64 (74), or equivalent test method acceptable to the City Building Department.
- Finish cut slopes generally shall not be inclined steeper than 2:1 (horizontal to vertical). Attempts to excavate near-vertical temporary cuts for retaining walls or utility installation in excess of 5 feet may result in gross failure of the cut and may possibly damage equipment and injure workers. All cut slopes must be inspected during grading to provide additional recommendations for safe construction.
- Finish fill slopes shall not be inclined steeper than 2:1 (horizontal to vertical). Fill slope surfaces shall be compacted to 90 percent of the laboratory maximum density by either overfilling and cutting back to expose a compacted core or by approved mechanical methods.
- Foundation systems that utilize continuous and spread footings are recommended for the support of one- and two-story structures. Foundations for higher structures must be evaluated based on structure design and on-site soil conditions.

- Retaining walls shall be constructed to adopted building code standards and inspected by the Building Inspector.
- Positive site drainage shall be established during finish grading. Finish lot grading shall include a minimum positive gradient of 2 percent away from structures for a minimum distance of 3 feet and a minimum gradient of 1 percent to the street or other approved drainage course.
- Utility trench excavations in slope areas or within the zone of influence of structures should be properly backfilled in accordance with the following:
 - (a) Pipes shall be bedded with a minimum of 6 inches of pea gravel or approved granular soil. Similar material shall be used to provide a cover of at least 1 foot over the pipe. This backfill shall then be uniformly compacted by mechanical means or jetted to a firm and unyielding condition.
 - (b) Remaining backfill may be fine-grained soils. It shall be placed in lifts not exceeding 6 inches in thickness or as determined appropriate, watered, or aerated to near optimum moisture content, and mechanically completed to a minimum of 90 percent of the laboratory maximum density.
 - (c) Pipes in trenches within 5 feet of the top of slopes or on the face of slopes shall be bedded and backfilled with pea gravel or approved granular soils as described above. The remainder of the trench backfill shall comprise typical on-site fill soil mechanically completed as described in the previous paragraph.

Threshold: *Would the project result in substantial soil erosion or the loss of topsoil?*

Impact: Soil Erosion-Less than Significant Impact. Soil erosion occurs naturally by the action of water or wind. The Project site is located in an area that has been subject to soil erosion as a result of precipitation, wind, stormwater runoff, and sedimentation. As described in the Specific Plan EIR, implementation of the 2012 Specific Plan Project could result in a substantial increase in soil erosion resulting from grubbing and clearing of site vegetation in preparation for on-site grading activities. However, the Specific Plan EIR determined that subsequent to development on the site, hydro-mulching and reseeding would support the temporary revegetation of the site and would reduce impacts related to the loss of topsoil. Further, the Specific Plan EIR determined that impacts related to the loss of topsoil would be reduced to a less than significant level with adherence to grading procedures outlined in the City's Municipal Code and the implementation of Best Management Practices during project construction aimed at minimizing the potential for erosion or sedimentation. Therefore, impacts related to soil erosion were determined to be less than significant with mitigation incorporated.

Threshold: *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as the result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Impact: Unstable Soils. Less than Significant Impact with Mitigation Incorporated. As previously stated, impacts related to landslides and liquefaction were determined to be less than significant in the Specific Plan EIR. As described in the Specific Plan EIR, the potential for lateral spreading and ground subsidence on the Project site was anticipated to be low. The Specific Plan EIR also determined that the Project site is not located on soil that is considered unstable or could be unstable as a result of project implementation. However, given the slopes on the Project site, the Specific Plan EIR required the implementation of Mitigation Measure GEO-2, which requires a detailed analysis of site geotechnical conditions, field investigation and a slope-stability analysis, to reduce potential impacts associated with the landslides or slope collapse in these areas of the site. Therefore, impacts related to unstable soils were determined to be less than significant with mitigation incorporated.

Mitigation Measure GEO-2: A detailed analysis of site geotechnical conditions, field investigation and slope stability analyses shall be conducted as 40-scale grading plans for mass- and fine-grading are prepared in the course of the phased development of the Project site. These studies shall be submitted to the City Building Department or Building Official, and their recommendations incorporated into project design to the satisfaction of the City Engineer, prior to the issuance of any grading permits, including those for mass grading, in areas where slopes of 10 feet or more in height are anticipated and/or where evidence of debris flows or past landslides is found.

Threshold: *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property or on soils with an expansion index greater than 20 percent?*

Impact: Expansive Soils. Less than Significant Impact with Mitigation Incorporated. Expansive soils are characterized by their ability to undergo substantial volume changes (shrink or swell) due to variations in moisture content as a result of precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors. As described in the Specific Plan EIR, while the potential for expansive soils on the Project site was determined to be low, new development under the 2012 Specific Plan Project would have been required to comply with the City's grading standards and design requirements with respect to expansive soils to ensure that potential risks to life and/or property would be less than significant. Additionally, the Specific Plan EIR required that site-specific geotechnical studies be prepared as tracts are developed within the Specific Plan area (Mitigation Measure GEO-2). As part of these studies, expansive soils would have been identified and on-site structures would be designed accordingly. Therefore, the Specific Plan EIR determined that adherence to the City's grading standards and building code and preparation of site-specific studies would ensure that impact related to expansive soils would be less than significant.

Mitigation Measure GEO-2: A detailed analysis of site geotechnical conditions, field investigation and slope stability analyses shall be conducted as 40-scale grading plans for mass- and fine-grading are prepared in the course of the phased development of the Project site. These studies shall be submitted to the City Building Department or Building Official, and their recommendations incorporated into project design to the satisfaction of the City Engineer, prior to the issuance of any grading permits, including those for mass grading, in areas where slopes of 10 feet or more in height are anticipated and/or where evidence of debris flows or past landslides is found.

Cumulative Impacts. The Project site is located within a seismically active region. Implementation of the 2012 Specific Plan Project would have allowed for the continued urbanization of the region and could result in the exposure of future residents and structures to geologic and seismic-related hazards. The City's General Plan has identified potential seismic hazards and has prescribed mitigation measures that have since been incorporated into the City's Municipal Code. Adherence to the City's Municipal Code was determined to be required to ensure that all development projects within the City would reduce seismic impacts to a less than significant level. Furthermore, because the 2012 Specific Plan Project is an amendment to the previously approved Deutsch Specific Plan, buildout of the 2012 Specific Plan Project was determined to be accounted and mitigated for in the City's General Plan EIR cumulative analysis. Therefore, with implementation of Mitigation Measures GEO-1 through GEO-3, the Specific Plan EIR determined that the 2012 Specific Plan Project would not result in a cumulatively significant impact with respect to geology and soils.

3.8.3 Analysis of Project Changes

Surface Fault Rupture. The Proposed Project would be located on the same Project site as the 2012 Specific Plan Project, and would be subjected to the same seismic risks as addressed in the Specific Plan EIR. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. The Project site remains substantially unchanged with the exception of the elimination of the golf course in PAs 35 and 39. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to surface fault rupture or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Ground Shaking. The Proposed Project represents an overall reduction in the intensity and scale of development, thereby exposing fewer structures and persons to potential seismic shaking than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. The Proposed Project would still be required to construct all structures to the most current seismic standards and adhere to Mitigation Measure GEO-1 to reduce impacts associated with strong seismic ground shaking to a less than significant level. Therefore, the Proposed Project would not result in any new significant environmental effects related to ground shaking or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Seismically-Induced Ground Failure. The Proposed Project represents an overall reduction in the intensity and scale of development and exposes fewer people and structures to potential seismic ground failure than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Because the Proposed Project is located on the same Project site in an area with a low potential for liquefaction and because the Project reserves more Planning Areas for open space, the Proposed Project would not result in any new significant environmental effects related to seismically-induced ground failure or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Landslides. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. The Proposed Project is located on the same Project site with the same landslide potential and no substantial changes to the proposed grading. Furthermore, Mitigation Measures GEO-2 and GEO-3 would remain applicable to the Proposed Project. Therefore, the Proposed Project would not result in any new significant environmental effects related to landslides or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Soil Erosion. Due to the reduction in the 2012 Specific Plan Project intensity, the Project would disturb less soil and create less potential for soil erosion and loss of topsoil than the Proposed Project addressed in the Specific Plan EIR. While the Proposed Project would include 67 additional acres of open space on the site as compared to the 2012 Specific Plan Project, these areas would include landscape improvements or are currently vegetated and would not result in more soil erosion than the 2012 Specific Plan improvements. Therefore, the Proposed Project would not result in any new significant environmental effects related to soil erosion or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Unstable Soils. Because the Proposed Project is located on the same Project site with the same soil conditions previously analyzed, impacts related to unstable geological conditions would be similar or incrementally fewer than the previous project. The potential for lateral spreading and ground subsidence on the site is low and the site is not located on soil that is considered to be unstable or could be unstable as a result of Project implementation. Similar to the 2012 Specific Plan Project, the Proposed Project would be required to comply with Mitigation Measure GEO-2 to reduce impacts associated with landslides or slope collapse in the areas of the Project site that are characterized by natural slopes. The Proposed Project would not result in any new significant environmental effects related to unstable soils or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Expansive Soils. Because the Proposed Project is located on the same Project site with the same soil conditions previously analyzed, impacts related to expansive soils would be similar or incrementally fewer than the previous project. The potential for expansive soils on the site is low. However, similar to the 2012 Specific Plan Project, the Proposed Project would be required to comply with the City's grading standards and design requirements with respect to expansive soils to ensure that potential risks to life and/or property would be less than significant. Similar to the 2012 Specific Plan Project, the Proposed Project would be required to comply with Mitigation Measure GEO-2, which requires

site-specific geotechnical studies to identify expansive soils in areas proposed for on-site structures. Therefore, the Project would not result in any new significant environmental effects related to expansive soils or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. Although the Proposed Project will develop the currently vacant site, the potential exposure to the effects of seismic activity and/or unstable soil conditions would not increase substantially and project implementation would not result in potential cumulative impacts because structures included as part of the Proposed Project will be required to meet applicable structural design requirements and City standards outlined in the Municipal Code and will not increase beyond those impacts considered in the Specific Plan EIR. Similarly, other development proposed in the City of Banning and elsewhere in the region must also comply with the specific building design parameters prescribed in the applicable regulations to ensure that potential loss of life and structural damage is minimized. Mitigation Measures GEO-1 through GEO-3 would remain applicable to the Proposed Project and would serve to reduce cumulative impacts of the Proposed Project. With implementation of these measures and adherence with applicable regulations, no significant cumulative impacts would occur as a result of project implementation. Therefore, the Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to geology, seismicity, and/or soils or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.8.4 Findings Related to Geology and Soils

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to Geology and Soils, nor is there a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. Site conditions related to geology and soils as reported in the Specific Plan EIR have not significantly changed. Therefore, there is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Geology and Soils that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. No significant unavoidable impacts related to Geology and Soils were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified.

indicating that there would be a new significant impact to Geology and Soils requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Geology and Soils identified and considered in the certified Specific Plan EIR.

3.8.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (also listed in Section 2.1.2 of this Addendum) remain applicable to the Geology and Soils analysis for the Proposed Project.

3.8.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, no changes to the mitigation measures found in the Specific Plan EIR are required. Mitigation Measures GEO-1 through Geo-3 remain applicable to the Proposed Project.

3.8.7 Mitigation Measures No Longer Applicable

All geology and soils mitigation measures identified in the Specific Plan EIR would remain applicable to the Proposed Project.

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3.9 HAZARDS AND HAZARDOUS MATERIALS

3.9.1 Existing Environmental Setting

There have been no major changes to the existing setting of the project site with respect to aesthetics, light, and glare, since the Specific Plan EIR was prepared. Please see Section 4.8 of the Specific Plan EIR for a summary of the existing environmental setting related to Hazards and Hazardous Material. The analysis contained in Section 4.8 is based on information compiled from the *Phase 1 Environmental Site Assessment* prepared for the Project site in 2002 by Converse Consultants; the Converse Consultants *Technical Memorandum – Hazardous Materials Review for the 21-acre Added Parcel* (March 2007); the Converse Consultants *Technical Memorandum for the Butterfield Specific Plan* site, which updated the original Phase I Environmental Site Assessment (ESA) (March 2007); the *Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP)* (updated March 2005); the *Riverside County Land Use Compatibility Plan – East County Airports: Banning Municipal Airports and Environs* (October 2004); the *Comprehensive General Plan of the City of Banning* (2005); and the General Plan's certified EIR. These reports can be found in Appendix F of the Specific Plan EIR, with the exception of the City's certified EIR, which is on file at the City of Banning.

Physical Setting. The Project site is comprised of 20 parcels covering 1,522 acres, owned by Pardee Homes and an additional 21-acre lot owned by the Highland Springs County Club Owner's Association, which together form a total of 1,543 acres of undeveloped land. Previous uses on the site included dry and irrigated farming and portions of the site have historically (and are currently) being used for cattle grazing. Topography on the site ranges from flat to gently sloping foothills, with steeper slopes in the northeastern portion of the site. On-site vegetation is comprised of non-native grasses with mixed chaparral in the higher elevations. Smith Creek traverses the central portion of the site and supports limited vegetation along its banks. A portion of the northern boundary of the Project site is formed by the San Bernardino National Forest.

On-Site Utility Easements. A 16.5 ft wide So Cal Gas easement traverses the site diagonally through the western site boundary to the site's southeastern corner at a depth that ranges from 12 ft below ground surface at the west end to 4 ft below ground surface at the east end.

Three sets of power lines traverse the Project site from east to west within an SCE corridor, which is comprised of two separate easements: (1) a 330 ft wide south easement and, (2) an adjacent north easement that is approximately 100 ft in width. The south easement contains 80 ft high steel frame transmission towers that carry single circuit lines and also contains a second set of transmission lines consisting of steel frame towers approximately 120 ft in height carrying double circuit lines. The north easement is occupied by a set of single circuit power lines strung on 65 ft high wood poles. A 50 ft wide SCE easement containing 115 kV lines strung on wooden poles is located in the northwestern portion of the site. In addition, overhead 12 kV distribution lines are located adjacent to existing residential development on the northern side of Wilson Avenue.

Illegal On-Site Dumping. Field surveys conducted as part of the Phase I ESA and ESA Update prepared for the Specific Plan EIR indicate that some illegal dumping of asphalt, automotive parts,

tires, and other related debris has occurred on the Project site; however, none of this debris appeared to contain toxic materials in any appreciable quantity. Additionally, the refuse deposit containing potential cultural resources on the site near the edge of the ravine does not contain any materials with an appreciable quantity of toxic elements.

Historical Usage. The Project site has intermittently been used for agricultural purposes, including the cultivation of wheat and cattle grazing. Irrigation on the Project site ceased in 1982 and dry farming ceased in 1989. As part of the Phase I ESA, no concerns related to herbicides associated with cultivating activities on the site were identified.

Following the termination of agricultural activities on the site, subsequent development of residential, and medical uses (i.e., the hospital located at the southeast corner of Highland Springs Avenue and Wilson Street) began to intensify within the Project area. There is no evidence to suggest potential for hazardous substance/waste contamination on the site nor is there any record of underground storage tanks (USTs) present on the site, or having been on the site, at any time. Furthermore, there is no evidence suggesting that there were prior storage and/or maintenance of diesel or gasoline powered farm equipment on the site.

The area proposed for off-site improvements was also historically used for agricultural activities until 1984 when it was developed as a golf course.

3.9.2 Specific Plan EIR

Please refer to Section 4.7 of the Specific Plan EIR for analyses of the potential effects of the proposed Project related to Hazards and Hazardous Materials.

The Specific Plan EIR concluded that the following impacts related to hazards and hazardous materials would be less than significant with implementation of applicable mitigation measures.

Threshold: *Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Impact: Use and Transport of Hazardous Materials. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, construction and operation of new development included under the Specific Plan would have resulted in less than significant impacts related to the transport, use, and/or disposal of hazardous materials with mitigation incorporated. The 2012 Specific Plan Project included residential, commercial, educational, recreational, open space uses, and a wastewater plant. With the exception of the wastewater treatment plant, uses included as part of the 2012 Specific Plan Project were not anticipated to generate significant quantities of hazardous materials or to generate significant quantities of hazardous wastes requiring transport.

Wastewater Treatment Plant. The wastewater treatment plant proposed as part of the Specific Plan Project would be operational 24 hours per day and would involve activities requiring the use of chlorine and other potentially hazardous materials. To ensure the safe handling, storage, use,

and transport of hazardous materials associated with operation of the wastewater treatment plant, the Specific Plan EIR required that the facility comply with Standard Guidelines established by the federal occupational Safety and Health Administration and the California Department of Toxic Substances Control. In addition, the Specific Plan EIR required the wastewater treatment plant to comply with applicable regulations, guidelines, and standards set forth in the County's Hazardous Waste Management Plan and applicable permitting procedures required by Federal, State, and local agencies regulating hazardous materials and waste. The California Department of Health Services and the State Water Resources Control Board would have also regulated activities at the plant. Accordingly, the Specific Plan EIR determined that compliance with these regulations and on-going monitoring of the plant's operations would reduce impacts associated with the routine use, handling, transport, and storage of hazardous materials in connection with the operation of the proposed wastewater treatment plant to a less than significant level.

Short-Term Construction Impacts. While uses included as part of the 2012 Specific Plan Project would not have generated significant quantities of hazardous materials or hazardous wastes requiring transport, construction on the site would have involved the use of various products that could contain materials classified as hazardous (e.g., oils, cleaning solvent, paint, etc.). Consequently, the Specific Plan EIR required the developer and its contractors/subcontractors to adhere to existing hazardous materials regulations and would be required to implement Mitigation Measures HAZ-1 through HAZ-3. Mitigation Measure HAZ-1 requires the preparation of grading plans that indicate methods to address potential contamination discovered during construction, as well as safety considerations for on-site construction personnel and the general public. Mitigation Measure HAZ-2 requires a 500-foot separation between heavy equipment maintenance and fueling areas and adjacent residential uses, and Mitigation Measure HAZ-3 requires implementation of specific BMPs to contain, manage, and dispose of construction hazardous materials and wastes. With implementation of these measures, the Specific Plan EIR determined that construction associated with the 2012 Specific Plan Project would not generate significant quantities of hazardous materials or to generate significant quantities of hazardous wastes requiring transport.

Mitigation Measure HAZ-1: The grading plans shall indicate methods to address potential contamination discovered during construction, as well as safety considerations for on-site construction personnel and the general public. Details of the plan shall include, but not be limited, to the following:

- Procedures for identification of contaminated soil during earthmoving operations;
- Immediate measures to protect workers and the public from exposure to contaminated areas (e.g., fencing or hazard flagging, and covering of contaminated soils with plastic, etc.) and prevent migration of the contaminants to the surrounding environment; and
- Steps to be taken following initial discovery of contaminated soils. Notification shall be made to the local environmental

health officials and the City's construction inspector(s) immediately following identification of previously unknown contamination within the construction area. In the event hazardous substances are encountered during site grading, work shall immediately cease in the area and the property owner/developer shall retain a qualified hazardous materials engineer to assess the impacts and prepare a response plan using risk-based cleanup standards applicable to residential land use. Upon approval of the response plan by the Riverside County Fire Department or other agency, as applicable, the engineer shall obtain any required permits, oversee the removal of such features and/or conduct the response work to the satisfaction of the Fire Department or other agency, as applicable, until closure status is attained.

Mitigation Measure HAZ-2: As part of construction specifications, procedures for the fueling and maintenance of construction vehicles shall be required to minimize the potential for accidental release of hazardous materials. This shall include locating the refueling and maintenance areas a minimum of 500 feet from occupied residential uses. Drip pans shall be placed under motorized equipment when parked on the site to prevent soil contamination from dripping oil or other fluids.

Mitigation Measure HAZ-3: Hazardous construction waste management practices are to be implemented pursuant to the BMPs contained in the California Stormwater BMP Handbook (2009) and shall include the following:

- 1) All hazardous construction wastes as defined by Title 22 Division 4.5, or listed in 40 CFR Parts 110, 117, 261, or 302, including but not limited to, petroleum products, concrete curing compounds, palliatives, septic wastes, stains, wood preservatives, asphalt products, pesticides, acids, paints, solvents, roofing tar, sandblasting grid mixed with lead-, cadmium-, or chromium-based paints, asbestos, or PCBs, that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.
- 2) Wastes shall be stored in sealed containers constructed of suitable material and shall be labeled as required by Title 22 CCR, Division 4.5 and 49, CFR Parts 172, 173, 178, and 179.
- 3) Waste containers shall be stored in temporary containment facilities that should comply with the following requirements:

- a) Temporary containment facilities shall provide for a spill containment volume equal to 1.5 times the volume of all containers able to contain precipitation from a 25-year storm event plus the greater of 10 percent of the aggregate volume of all containers or 100 percent of the largest tank within its boundary, whichever is greater.
 - b) Temporary containment facilities shall be impervious to the materials stored at their locations for a minimum contact time of 72 hours.
 - c) Temporary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be placed into drums after each rainfall. These liquids shall be handled as hazardous waste unless testing determines them to be non-hazardous.
 - d) Sufficient separation shall be provided between stored containers to allow for spill cleanup and emergency response access.
 - e) Incompatible materials such as chlorine and ammonia shall not be stored in the same temporary containment facility.
 - f) Throughout the rainy season, temporary containment facilities shall be covered during non-working days and prior to rain events.
- 4) Storage drums shall not be overfilled and wastes should not be mixed.
 - 5) Unless watertight, containers of dry waste shall be stored on pallets.
 - 6) Herbicides and pesticides shall not be over-used. Only the amount needed shall be prepared. Apply surface dressings in several small applications as opposed to one large application. Allow time for infiltration and avoid excess material being carried off-site by runoff. Do not apply such chemicals immediately prior to rain events. All persons applying pesticides must be certified in accordance with federal and State regulations.
 - 7) Paint brushes and equipment for water and oil-based paints should be cleaned within a contained area and shall not be allowed to contaminate soil, watercourses, or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused shall be disposed of as hazardous waste by a licensed hazardous waste hauler.

- 8) Hazardous waste storage areas on site shall be located away from storm drains or water courses and away from moving vehicles and equipment to prevent accidental spills.
- 9) Containment berms shall be used in fueling and maintenance areas and where the potential for spills is high.
- 10) Potentially hazardous waste shall be segregated from non-hazardous construction site debris.
- 11) Liquid or semi-liquid hazardous materials shall be stored in appropriate containers and under cover.
- 12) Hazardous waste collection sites shall be designated on site away from watercourses and drainage systems, and shall be clearly labeled.
- 13) Hazardous materials shall be stored in containers and protected from vandalism.
- 14) All employees and subcontractors shall receive on-site training in hazardous waste storage and disposal procedures.
- 15) Areas treated with chemicals shall be identified with appropriate warning signage.
- 16) Place a stockpile of spill clean-up materials where it will be readily accessible.
- 17) Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are underway, BMPs shall be inspected on a weekly basis.
- 18) A copy of hazardous waste manifests shall be maintained on-site for access by City inspectors.

Long-Term Operational Impacts. Operation of the 2012 Specific Plan Project was determined to result in the potential generation of hazardous materials associated with landscape maintenance activities and operation of residential, commercial, and recreational uses on-site.

Landscape maintenance activities would have included the use of pesticides, herbicides, and fertilizers, as well as the storage and use of toxic fuels and solvents. The use of these materials would have been in accordance with State and federal regulations.

Residential uses included as part of the 2012 Specific Plan Project would have included the storage and use of hazardous materials, including, but not limited to, motor oil, paints, cleaners, aerosols, and pesticides. However, the Specific Plan EIR determined that the risk level associated with the routine transport or disposal of hazardous substances generated by residential uses is not considered significant because the volume and concentration of such materials would be very low.

Commercial uses included as part of the 2012 Specific Plan Project may have included businesses such as dry cleaning establishments, gas stations, auto repair facilities, doctor's offices, ect., which routinely use and/or dispense hazardous agents. These businesses would have been assigned an Identification Number (in accordance with State law), to identify the hazardous waste handler and to track the waste from its point of origin to its final disposal. Additionally, hazardous waste generated at the Project site would have been handled by licensed hazardous waste handlers and commercial facilities that routinely handle and dispose of hazardous waste would be subject to permitting and inspection by the California Department of Toxic Substances. Accordingly, the Specific Plan EIR determined that compliance with applicable regulations would reduce impacts to a less than significant level.

The golf course originally included as part of the 2012 Specific Plan Project would have utilized pesticides, herbicides, and fertilizers. The routine transport and storage of chemicals for landscape maintenance of the golf course would have occurred during project operation. The handling, use, and disposal of hazardous materials at the golf course would have been subject to regulation by the State Department of Toxic Substances Control. Accordingly, the Specific Plan EIR determined that compliance with applicable regulations would reduce impacts to a less than significant level.

Threshold: *Would the Project create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment*

Impact: Risk of Upset. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, construction and operation of new development included under the 2012 Specific Plan Project could have resulted in hazards to the public or environment through the accidental upset or release of hazardous materials caused by accidental spillage of hazardous materials during construction or operation, or as a result of the exposure of contaminated soil during grading and trenching activities. Additionally, the high pressure natural gas pipeline currently traversing the site could have posed a risk of explosion and soil contamination in the event of leaks or other pipeline failure.

Prior Agricultural Use of the Site. The Phase I ESA prepared for the Specific Plan EIR did not find evidence of the use of herbicides or pesticides in connection with the site's use for farming. The site has also been intermittently used for cattle grazing, which could result in the generation of nitrates and other chemicals from cattle manure leaching into groundwater. However, given the depth of groundwater at the site (over 300 ft below ground surface), the Specific Plan EIR determined that the potential for contaminated untreated groundwater was considered highly unlikely.

Existing Abandoned Well. The Phase I ESA prepared for the Specific Plan EIR identified an abandoned water well on the Project site. Unless properly abandoned and capped, this well could provide a route for the migration of surface contaminants into the groundwater. The capping of the well and removal of the existing pipeline associated with the well or with site irrigation would

have been required prior to grading activities and should be conducted as part of clearing and grubbing on the site to ensure that subsequent construction activity does not result in groundwater soil contamination. Therefore, the Specific Plan EIR determined that implementation of Mitigation Measure HAZ-4 would be required to reduce potentially significant impacts associated with the abandoned well. Mitigation Measure HAZ-4 requires the capping and removal of the abandoned well and any associated pipelines on the site,

Mitigation Measure HAZ-4: The abandoned well identified in the 2007 Converse Consultant's Technical Memorandum for the Butterfield Specific Plan shall be properly capped and any associated pipeline abandoned and/or removed from the site pursuant to applicable State and federal Guidelines.

Debris Removal, Illegal Dumping, and Abandoned Equipment. The Phase I ESA prepared for the Specific Plan EIR identified a diesel engine, a water well pump, and five automotive batteries on a concrete pad, along with an abandoned water well on the Project site. Additionally, debris piles containing asphalt debris, tires, automotive parts, and other potentially hazardous materials were identified in various locations on the Project site. Residues from these materials may be present on the site, thereby requiring the removal of solid debris and the removal and/or treatment of contaminated soils in the vicinity of this debris. Due to the depth of groundwater on the site (over 300 ft below ground surface), it was determined to be unlikely that residues had leached into groundwater. It was, however, determined to be possible that residues had been washed into the Smith Creek channel as a result of surface flows. As such, the Specific Plan EIR determined that Mitigation Measure HAZ-5 would be required to reduce impacts associated with on-site debris. Mitigation Measure HAZ-5 would require the removal and disposal of debris; including potentially hazardous waste and any soil that may have been contaminated by this debris. Implementation of Mitigation Measure HAZ-5 would also ensure that removal of the debris would be handled by appropriately licensed and trained contractors and waste haulers. Additionally, removal and disposal of potentially hazardous trash and debris or contaminated soils were determined to potentially require special handling pursuant to applicable regulations. Accordingly, the Specific Plan EIR determined that compliance with applicable regulations and measures would result in less than significant impacts related to on-site debris and abandoned equipment.

Mitigation Measure HAZ-5: Prior to issuance of grading permits, the following remediation efforts shall occur:

- The batteries, auto parts, tires, and diesel engine observed on the concrete pad next to the well and any associated fuel sources shall be removed and disposed of in compliance with all applicable regulations by waste haulers certified by the State for the handling and disposal of such wastes;
- Piles of asphalt debris and inert trash observed in various locations throughout the property shall be removed following their inspection by a hazardous waste consultant and, if required, by a cultural resource consultant and the

material removed and disposed of pursuant to all applicable laws and regulations.

- Prior to the removal of any potentially hazardous debris, additional environmental assessment and testing shall be completed pursuant to the recommendations of a certified environmental consultant and appropriate methods of handling and disposal shall be identified and implemented pursuant to existing (or then current) regulations and procedures for any particular hazardous waste or toxic material identified.

High Pressure Gas Line. The Phase I ESA prepared for the Specific Plan EIR identified the presence of a high-pressure gas pipeline traversing the Project site. The accidental rupture of the pipeline during construction activities could result in environmental contamination, fire, or explosion. The risk of rupture was determined to be greatest during site clearing and excavation. As such, the Specific Plan EIR determined that Mitigation Measure HAZ-6 would be required to reduce impacts associated with the on-site gas pipeline. Mitigation Measure HAZ-6 requires that the contractor take precautions to avoid the gas pipeline traversing the property, including contacting Dig Alert prior to the start of grading operations and close coordination with SoCalGas prior to and during grading and trenching activities in the vicinity of the pipeline to provide the maximum feasible protection of workers and property.

The majority of the pipeline traversing the Project site is not CPUC-rated residential grade pipe because the pipe was installed when the property was used for agricultural purposes. Development of the Project site associated with the 2012 Specific Plan Project would have increased density surrounding the pipeline and therefore required mitigation to reduce the risk of upset associated with that development. Mitigation Measure HAZ-7 requires that the existing gas pipeline be replaced with a pipeline that is (PUC)-rated for location in residential areas. Mitigation Measure HAZ-7 also requires the Applicant to ensure that the same replacement would occur within the Project site prior to the issuance of building permits for structures located within 100 feet of the outer edge of the pipeline easement and prior to the paving of streets under which the pipeline would be situated. Furthermore, HAZ-7 would require appropriate horizontal and vertical separation between the pipeline and both wet and dry utility installations and crossings and monumentation to mark the location of the pipeline through the developed Project site. School sites included as part of the 2012 Specific Plan Project would have observed a setback from the outer edge of the gas pipeline to further reduce impacts associated with the on-site pipeline. Therefore, the Specific Plan EIR determined that with implementation of Mitigation Measures HAZ-6 and HAZ-7, impacts would be reduced to a less than significant level.

Mitigation Measure HAZ-6: The contractor shall ensure that precautions are taken to avoid the Southern California Gas Company pipeline observed crossing the property diagonally from the west-center of the Project site to the southeast corner and that may be present along the alignments of the proposed off-site infrastructure. Such precautions shall include calling Dig Alert prior to any construction activity to determine and mark the exact location of

this pipeline and close coordination with the Southern California Gas Company to ensure that appropriate measures are taken by the Southern California Gas Company, including potential reduction in pressure and on-site monitoring, to protect both workers and the pipeline from accidental damage during grading activities. The appropriate identification and setbacks shall be maintained in order to ensure the safety of adjacent properties.

Mitigation Measure HAZ-7: The Applicant shall ensure that the existing high pressure gas line is replaced by the operator with pipeline that is PUC-rated for location in residential areas. Replacement of the pipeline and required relocation shall occur prior to trenching for sewer, water and storm drains within 25 feet of the outer edge of the pipeline easement and/or prior to the issuance of building permits for residences located within 100 feet of the ultimate pipeline alignment and prior to the paving of any roads within the pipeline alignment. Unless directed otherwise by the PUC, wet utility crossings shall observe a minimum 10-foot vertical separation and 10-feet of horizontal separation from the pipeline, to the extent feasible given the needed depth of utility services. Undergrounded electrical services shall observe a minimum 10-foot horizontal separation from the pipeline. The location of the pipeline shall be indicated with appropriate curbside notation and/or monuments at minimum 50-foot intervals along its route and by ground-level monumentation through the golf course, or at intervals required by the PUC.

Accidental Releases. The 2012 Specific Plan Project includes four phases of mass grading and multiple phases of rough and precise grading. Grading activities on the site would have involved the use of heavy equipment, which would have had to be fueled and serviced on the site. Fuel may have been stored on the site in temporary aboveground storage tanks and/or may have been supplied by tanker trucks, which could have resulted in accidental spillage on the site. Above ground petroleum storage tanks would be regulated by the Riverside County Certified Program Agency, the Riverside County Fire Department, and the City of Banning. To further minimize impacts that could be created by aboveground fuel storage tanks, the Specific Plan EIR determined that Mitigation Measure HAZ-8 would be required. Mitigation Measure HAZ-8 requires that the Applicant obtain permits from the Riverside County Fire Department prior to the installation of any temporary aboveground fuel storage tank on the site. Additionally, in the event hazardous materials and/or contaminated soil are encountered during site grading, work in the area would cease and the Riverside County Fire Department Hazardous Materials Unit, the County Department of Environmental Health HAZMAT team, and the City Public Works Department would be notified. The Specific Plan EIR also required compliance with Mitigation Measure HAZ-3 to ensure that the Project site is remediated of all existing hazardous materials. With implementation of Mitigation Measures HAZ-3 and HAZ-8, impacts would be reduced to a less than significant level.

Mitigation Measure HAZ-3: Hazardous construction waste management practices are to be implemented pursuant to the BMPs contained in the California Stormwater BMP Handbook (2009) and shall include the following:

- 1) All hazardous construction wastes as defined by Title 22 Division 4.5, or listed in 40 CFR Parts 110, 117, 261, or 302, including but not limited to, petroleum products, concrete curing compounds, palliatives, septic wastes, stains, wood preservatives, asphalt products, pesticides, acids, paints, solvents, roofing tar, sandblasting grid mixed with lead-, cadmium-, or chromium-based paints, asbestos, or PCBs, that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.
- 2) Wastes shall be stored in sealed containers constructed of suitable material and shall be labeled as required by Title 22 CCR, Division 4.5 and 49, CFR Parts 172, 173, 178, and 179.
- 3) Waste containers shall be stored in temporary containment facilities that should comply with the following requirements:
 - a) Temporary containment facilities shall provide for a spill containment volume equal to 1.5 times the volume of all containers able to contain precipitation from a 25-year storm event plus the greater of 10 percent of the aggregate volume of all containers or 100 percent of the largest tank within its boundary, whichever is greater.
 - b) Temporary containment facilities shall be impervious to the materials stored at their locations for a minimum contact time of 72 hours.
 - c) Temporary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be placed into drums after each rainfall. These liquids shall be handled as hazardous waste unless testing determines them to be non-hazardous.
 - d) Sufficient separation shall be provided between stored containers to allow for spill cleanup and emergency response access.
 - e) Incompatible materials such as chlorine and ammonia shall not be stored in the same temporary containment facility.

- f) Throughout the rainy season, temporary containment facilities shall be covered during non-working days and prior to rain events.
- 4) Storage drums shall not be overfilled and wastes should not be mixed.
- 5) Unless watertight, containers of dry waste shall be stored on pallets.
- 6) Herbicides and pesticides shall not be over-used. Only the amount needed shall be prepared. Apply surface dressings in several small applications as opposed to one large application. Allow time for infiltration and avoid excess material being carried off-site by runoff. Do not apply such chemicals immediately prior to rain events. All persons applying pesticides must be certified in accordance with federal and State regulations.
- 7) Paint brushes and equipment for water and oil-based paints should be cleaned within a contained area and shall not be allowed to contaminate soil, watercourses, or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused shall be disposed of as hazardous waste by a licensed hazardous waste hauler.
- 8) Hazardous waste storage areas on site shall be located away from storm drains or water courses and away from moving vehicles and equipment to prevent accidental spills.
- 9) Containment berms shall be used in fueling and maintenance areas and where the potential for spills is high.
- 10) Potentially hazardous waste shall be segregated from non-hazardous construction site debris.
- 11) Liquid or semi-liquid hazardous materials shall be stored in appropriate containers and under cover.
- 12) Hazardous waste collection sites shall be designated on site away from watercourses and drainage systems, and shall be clearly labeled.
- 13) Hazardous materials shall be stored in containers and protected from vandalism.
- 14) All employees and subcontractors shall receive on-site training in hazardous waste storage and disposal procedures.
- 15) Areas treated with chemicals shall be identified with appropriate warning signage.
- 16) Place a stockpile of spill clean-up materials where it will be readily accessible.

- 17) Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are underway, BMPs shall be inspected on a weekly basis.
- 18) A copy of hazardous waste manifests shall be maintained on-site for access by City inspectors.

Mitigation Measure HAZ- 8: A permit shall be obtained from the Riverside County Fire Department (Banning Services Unit) and, if required, from the County Department of Environmental Health, prior to installation of any temporary aboveground fuel storage tank on the Project site.

- A hazardous materials business plan consisting of an owner/operator page, a chemical description/inventory page, and a site map must be submitted with the application for permit.
- The storage area shall be kept free of weeds and extraneous combustible material.
- Plans must be submitted for approval prior to installation. Aboveground fuel/mixed liquid tanks(s) shall meet the following standards:
 - Tank must be tested and labeled to UL2085 Protected Tank Standard or SwRI 93-01.
 - The test must include the Projectile Penetration Test and the Heavy Vehicle Impact Test.
 - A sample copy of the tank's label from an independent test laboratory must be submitted with the tank plans.
- The tank shall be kept 50 feet from buildings and conspicuously marked with the following: **DIESEL and COMBUSTIBLE – KEEP FIRE AWAY.**
- The tank shall be located within a secondary containment area such as earthen berms covered from end to end by a thick mil plastic. Concrete or steel may also be used to provide secondary containment. Calculations for secondary containment shall be shown on the Site Plan.
- The tank shall be secured to prevent movement on the containment surface or be mounted on metal skids (not on an elevated stilt rack).
- The project manager or contractor shall contact the fire department representative for inspections at the time prior to when the product is put into the tank to verify compliance, and at the time when the tank is removed from the site to check for evidence of ground contamination.

Threshold: *Would the proposed Project result in hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

Impact: School Safety. Less than Significant Impact. As described in the Specific Plan EIR, implementation of the 2012 Specific Plan Project would have resulted in the development of residential, commercial, and park uses within 0.25 mile of a school site. While these uses would have likely stored or used hazardous materials typical to such development, the Specific Plan EIR determined that the small volume and low concentration of hazardous materials for these uses would make the risk of upset less than significant.

As previously discussed, SCE maintains an easement which runs through the middle of the Project site in an east-west direction. The required setback between the SCE easement and the power line would be determined based on the kV size of the power lines. The school sites would have complied with applicable setbacks to minimize impacts associated with the potential risk of upset, thereby reducing impacts to a less than significant level. The proposed schools would not have been located within 1,500 ft of the existing or relocated high-pressure gas line currently present on the site. Therefore, the Specific Plan EIR determined that impacts would be less than significant.

Threshold: *Would the proposed Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?*

Impact: Hazardous Materials Site(s). Less than Significant Impact. As described in the Specific Plan EIR, there are no listed hazardous materials sites on the Project site; however, several sites within the vicinity of the Project site were identified as hazardous materials sites. While these sites were identified as potential sources of hazardous materials, the Specific Plan EIR determined that these sites represented a low risk due to their distance from the Project site.

Threshold: *Would implementation of the proposed Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Impact: Emergency Management Plan. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the Project site is located within an area regulated by the City's Multi-Hazard Functioning Planning Document (1996) or the City's Emergency Operations Plan (2007). The Specific Plan EIR determined that implementation of the 2012 Specific Plan Project could result in impacts related to the potential interference with this plan because construction activities could potentially interfere with emergency access and because off-site infrastructure improvements could diminish emergency response times during construction activities. However, the Specific Plan EIR determined that these impacts would be reduced to a less than significant level with Mitigation Measures HAZ-9 and HAZ-10 incorporated. Mitigation Measure HAZ-9 requires the City Engineer and the Riverside County Fire Department to approve ingress and egress points in and out of the construction site to assure there is adequate access and communications protocols for emergency response vehicles during construction. Mitigation Measure

HAZ-10 requires the preparation of a Traffic Management Plan to minimize safety and emergency access impacts during project construction.

Mitigation Measure HAZ-9: Prior to the approval of Final Tract Maps, the City Engineer and Riverside County Fire Department (Banning Services Unit) shall discuss with the Applicant approximate locations of work activities and ingress and egress points in and out of the construction site to assure there is adequate access and communications protocols for emergency response vehicles during each of the proposed construction phases.

Mitigation Measure HAZ-10: Prior to the issuance of grading permits or road encroachment permits, a Traffic Management Plan providing safety control measures for area-wide streets that would be affected by construction traffic and activities must be prepared by a licensed civil or traffic engineer, to the satisfaction of the City Engineer, that would minimize safety hazards and emergency access impacts. The temporary measures in the Traffic Management Plan could include: flaggers, temporary lane restriping, temporary lanes, caution signs, reduced-speed zones, temporary detours, and other safety and traffic control devices.

Threshold: *Would implementation of the Project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland?*

Impact: Wildland Fires. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the Project site is located within an area designated as a High and Very High fire hazard severity zone. The Specific Plan EIR determined that implementation of the 2012 Specific Plan Project would result in less than significant impacts related to wildfires with Mitigation Measures HAZ-11 through HAZ-13 incorporated. Mitigation Measure HAZ-11 requires that all proposed subdivisions be evaluated by the Fire Department to determine whether or not the Urban-Wildland Interface requirements should be implemented and whether or not a fuel modification plan is required; Mitigation Measure HAZ-12 requires that seed mix used for the temporary revegetation of graded areas consist of drought-tolerant grasses; and Mitigation Measure HAZ-13 requires that the Applicant provide an annual fuel modification plan, as required by City code. Therefore, the Specific Plan EIR determined that impacts related to wildland fires would be less than significant with implementation of mitigation.

Mitigation Measure HAZ-11: All proposed subdivisions within the Specific Plan Project area shall be evaluated by the Fire Department to determine whether the Department's Urban-Wildland Interface requirements should be implemented as part of the development. If the Department determines that either an interim or permanent condition of high fire risk would be present, a Fuel Modification Plan that meets the then-current requirements of the Fire Department shall be prepared and shall be approved by the Fire Department prior to recordation

of a Final Tract Map. Maintenance of interim fuel modification areas shall be the responsibility of the master Homeowners Association and/or the property owner and/or a LLMP and temporary maintenance easements shall be recorded over interim fuel modification areas. Such easements shall be quitclaimed when the Fire Department determines that additional new development has eliminated the need for fuel modification in these areas.

Mitigation Measure HAZ-12: Seed mix used for the temporary revegetation of graded areas that would remain as undeveloped open space for a period of 6 months or more shall consist primarily of drought-tolerant grasses that may combine native and non-native species. These mixes include grasses that require little maintenance and do not grow tall, but do provide sufficient vegetative coverage to be effective in controlling wind and water-caused erosion. Defensible spaces as defined by the Fire Department pursuant to Chapter 49 of the California Fire Code shall be maintained around the exposed perimeters of subdivisions abutting un-irrigated grassland and/or chaparral through weed abatement, mowing, and other fuel reduction/modification strategies.

Mitigation Measure HAZ-13: The Applicant shall continue to provide annual fuel modification as required by City code. The annual fuel modification (thinning) shall also be conducted in the future development areas south of Highland Home Road extension as needed (which excludes Planning Areas 50, 51, 52, 60, 61 and 73, which shall remain natural until such time these areas are developed or require infrastructure improvements).

Cumulative Impacts. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, construction and operation of the 2012 Specific Plan Project would not have resulted in significant impact with respect to hazards and hazardous materials with the implementation of Mitigation Measures HAZ-1 through HAZ-13. Therefore, the Specific Plan EIR determined that cumulative impacts with respect to hazards and hazardous materials would be less than significant with mitigation incorporated.

While development envisioned under the 2012 Specific Plan Project would have increased the number of residential structures located in an urban-wildland interface area, and therefore, increased the number of structures and persons vulnerable to the effects of fire, new development would implement State and local codes and regulations related to the creation of defensible space, creation and maintenance of fuel modification zones, building code requirements, and landscape requirements aimed at reducing impacts associated with wildfires. New development would have also extended streets and water infrastructure and paid applicable fees to enable the future construction of fire stations. Accordingly, the Specific Plan EIR determined that cumulative impacts with respect to wildfires would be less than significant.

3.9.3 Analysis of Project Changes

Use and Transport of Hazardous Materials. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. With the exception of the previously proposed golf course, the Proposed Project includes the same uses as proposed under the 2012 Specific Plan Project, none which would generate significant quantities of hazardous materials or generate significant quantities of hazardous wastes requiring transport. The wastewater treatment plan would continue to be required to applicable guidelines, regulations, and standards to reduce impacts related to hazardous materials and waste in connection with the proposed wastewater treatment plan. Construction activities proposed as part of the Proposed Project would also continue to be required to comply Mitigation Measures HAZ-1 through HAZ-3 to reduce short-term impacts related to hazardous waste and materials. Furthermore, due to the reduction in project intensity, the Proposed Project would result in fewer operational impacts related to the generation and transportation of hazardous waste and materials associated with landscape maintenance activities, on-site residential and commercial uses, and the golf course (which is no longer included as part of the Project). Because the Project would be required to comply with Mitigation Measures HAZ-1 through HAZ-13, potential impacts related to the transportation of hazardous materials would be reduced. Therefore, the Proposed Project would not result in any new significant environmental effects related to the use and/or transport of hazardous materials or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Risk of Upset. The Proposed Project is located on the same Project site as the previously proposed 2012 Specific Plan Project. Consequently, the Proposed Project would be required to comply with Mitigation Measure HAZ-4, which requires the capping and removal of the on-site abandoned well and any associated pipelines on the property. The Project would also continue to be required to comply with Mitigation Measure HAZ-5, requiring the removal of potentially hazardous waste, soil, and debris on the site.

The Proposed Project would also be required to comply with Mitigation Measures HAZ-6 and HAZ-7, requiring the contractor to avoid the on-site gas pipeline during construction activities and that the pipeline be replaced with PUC-rated piping in residential areas. The Proposed Project would also continue to be required to comply with Mitigation Measure HAZ-8, which requires permitting, maintenance, and containment of any above-ground fuel storage tanks on the site during project construction. Furthermore, the Proposed Project would result in reduced impacts associated with the 115 kV lines located on the site because unlike the 2012 Specific Plan Project, the Proposed Project would not underground these electrical lines and would allow for the these power lines to remain on the site in their existing condition. Therefore, the Proposed Project would result in fewer impacts related to a risk of upset associated with undergrounding these lines, as proposed in the 2012 Specific Plan Project.

The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR and would reduce the potential for the accidental release of hazardous materials associated with the operation of on-site uses, as there are no new uses proposed that would increase the use or handling of such materials. Therefore, because the Project would be required to comply with Mitigation Measures HAZ-4 through HAZ-8, and due to the reduction in the Proposed Project intensity, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental

effects related to the risk of upset or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

School Safety. Because the Proposed Project proposes the same, but fewer, uses as described in the Specific Plan EIR, impacts related to the creation of a significant hazard due to the presence of a hazardous materials site within 2.5 miles of a school the Project would be consistent with the findings of the Specific Plan EIR and would also be less than significant under the Project. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to school safety or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Hazardous Materials Site(s). Because the Proposed Project is located on the same Project site as described in the Specific Plan EIR and because there would be a similar distance to any recorded off-site hazardous materials sites, impacts related to the creation of a significant hazard due to the presence of a hazardous materials site would also be less than significant under the Project. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to hazardous materials sites or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Emergency Management Plan. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR, and therefore would result in less construction activities on the site than the originally proposed Specific Plan. Although the extension of Highland Home Road has been removed from the Project plans, the plan has substantially fewer homes and does not include a golf course. As described in Section 3.13 of this Addendum, the Proposed Project would result in 2,176 fewer average daily traffic trips than the 2012 Specific Plan Project. Consequently, the Proposed Project would result in reduced circulation impacts as compared to the 2012 Specific Plan Project, thereby reducing impacts to the circulation system during any unforeseen emergency. However, the Proposed Project would continue to be required to comply with Mitigation Measures HAZ-9 and HAZ-10, which require approval by the City Engineer and Riverside County Fire Department of ingress and egress points in and out of the construction site and preparation of a Traffic Management Plan to minimize impacts related to emergency access during Project construction. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to conflicts with an emergency response plan or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Wildland Fires. The Proposed Project is located on the same Project site as the 2012 Specific Plan Project, is still within a High and Very High Hazard Zone, but would result in less development and fewer homes. Due to the reduction in Project intensity, the Proposed Project would not increase the potential for wildfires or subject more structures or people to such hazards. Mitigation Measures HAZ-11, HAZ-12, and HAZ-13 would continue to be implemented. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new

significant environmental effects related to wildland fires or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. Similar to the 2012 Specific Plan Project, the Proposed Project would result in less than significant impacts with the implementation of Mitigation Measures HAZ-1 through HAZ-13. Furthermore, any use of hazardous materials (e.g., chemicals and cleaners, etc.) during Project construction and operation would be utilized, stored, and disposed of in compliance with all applicable local, State, and federal regulations. Reduced cumulative impacts related to public health and safety, as well as wildland fires, would occur as the scale of the Project is reduced from that analyzed in the Specific Plan EIR. In consideration of all of the above, the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental impacts or a substantial increase in the severity of cumulative impacts or require new or substantially different mitigation measures. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new cumulatively significant environmental effects related to hazards and hazardous materials or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.9.4 Findings Related to Hazards and Hazardous Materials

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project requires a major change to the Specific Plan EIR. The proposed Project would not result in new significant environmental impacts to Hazards or Hazardous Materials, nor is there a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Hazardous Materials that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. No significant unavoidable impacts related to Hazardous Materials were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Hazardous Materials requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or

more significant impacts pertaining to Hazardous Materials identified and considered in the Specific Plan EIR.

3.9.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (refer to Section 1.1.2 of this Addendum) remain applicable to the hazards analysis for the Proposed Project. Minor changes have been made to address changes associated with the Settlement Agreement. These changes are shown below in underline/strikeout.

2. Portions of the SoCalGas pipeline will be relocated to ensure that the entirety of the pipeline is located within paved streets ~~or within the golf course~~. No homes will have frontage on the streets where the pipeline will be located and proposed homes will be further buffered by parkway setbacks, block walls, rear yard setbacks, and open space ~~the golf course~~ to reduce risk in the event of a leak or other upset. The existing pipeline will be replaced with residential grade pipeline by SoCalGas per CPUC requirements.

3.9.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, there is no evidence that project modifications require new mitigation measures to address impacts related to Hazards and Hazardous Materials. Mitigation Measures HAZ-1 through HAZ-13 would remain applicable to the Proposed Project.

3.9.7 Mitigation Measures No Longer Applicable

All hazards and hazardous materials mitigation measures identified in the Specific Plan EIR would remain applicable to the Proposed Project.

3.10 HYDROLOGY AND WATER QUALITY

3.10.1 Existing Environmental Setting

There have been no major changes to the existing setting of the project site with respect to hydrology and water quality since the Specific Plan EIR was prepared. Please refer to Section 4.9 of the Specific Plan EIR for a summary of the existing environmental setting for Drainage and Hydrology based on documents reviewed and incorporated in the analysis including the City of Banning *General Plan* (2006); City of Banning *General Plan Final Environmental Impact Report* (2005); *Butterfield Specific Plan* prepared by RBF Consulting (May 2011); City of Banning *2010 Urban Water Management Plan* (May 2011); *Banning/Deutsch Property Backbone Drainage Study* prepared by RBF Consulting (August 2006); the *Geotechnical Investigation for the Deutsch Property Highland Springs Avenue and Wilson Street, Banning California* prepared by Geocon (June 2005); geotechnical data prepared by Geocon (Appendix E); the *Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units and Available Water Supply from the Beaumont Basin* prepared by Geoscience Support Services (May 2011); and a suite of regulatory service reports prepared by Glenn Lukos Associates. The analysis and information presented in these documents have been used as the basis for the analysis of potential impacts on the hydrologic conditions that characterize the site and area in which the Project site is located.

Watersheds. The Project site is located in the upper northwest region of the Whitewater River Watershed, which itself is a subunit of the Salton Sea Watershed. The Project site has historically received water flows from Smith Creek and the Pershing Channel. In its existing condition, the site drains to Smith Creek. Approximately 323 acres in the southeastern quadrant of the site drain to Pershing Channel, which is located on the west side of Highland Home Road north of Wilson Street. Flows from this channel are conveyed under Wilson Street via an existing culvert into an existing channel south of the street.

Smith Creek is the primary natural drainage course on the Project site and in its existing condition flows from north to south within the central portion of the site. Smith Creek is characterized on the site as a natural stream approximately 30 ft in width and ranges from three to five feet in depth. The creek is typically dry through the year, with a higher flow of water during heavy rain events. The channel is sparsely vegetated. The Smith Creek watershed is approximately 3,300 acres in size, which includes areas north and east of the site. Smith Creek is routed under Wilson Avenue at the southern boundary of the site.

The Pershing Channel Watershed is approximately 660 acres in size and is located east of Smith Creek. The channel is an unimproved natural stream with the exception of 1,500 linear feet between the on-site SCE easement and Wilson Street, which is concrete-lined. At Wilson Street, flows from Pershing Channel are conveyed through an existing culvert and the channel continues to the San Geronio River.

Floodplain and Floodplain Management. A floodplain is a flat or nearly flat area of land adjacent to a stream or river that experiences occasional or periodic flooding. The Project site is prone to flash flooding along Smith Creek and flooding due to sheet flow. According to Flood Insurance Rate Maps (FIRM), the Smith Creek area of the Project site is located in an area of 100-year flooding where base

flood elevations and hazards have been determined. This floodplain area is subject to inundation with a probability of occurrence of 1 percent in a year; however, portions of this area could be inundated more frequently.

3.10.2 Specific Plan EIR

Please see Section 4.9 of the Specific Plan EIR for analyses of the potential effects of the 2012 Specific Plan Project on Hydrology and Water Quality.

The Specific Plan EIR concluded that the following drainage and hydrology impacts would be less than significant with implementation of mitigation.

Threshold: *Would the Project result in violation of water quality standards or waste discharge requirements?*

Impact: Water Quality. Less than Significant Impact. The Specific Plan EIR determined that impacts to surface water quality could occur during construction activities, when portions of the site are left fallow with temporary vegetative cover. While impacts could occur both on-and off-site during project construction, the Specific Plan EIR determined that impacts would be limited to the Project site following completion of the off-site facilities.

The Specific Plan EIR also determined that impacts to groundwater quality could occur throughout the life of the 2012 Specific Plan Project. The Project site is underlain by the Beaumont Basin. Additionally, the Project site is a recharge area for the Beaumont Basin and is the result of storm water or snow melt flowing Smith Creek from higher elevations, ponding within the creek channel or the channel's floodplain, and ponding outside of the creek area due to sheet flow. The recharge function of the Smith Creek would have been retained and enhanced as part of the creek realignment proposed as part of the 2012 Specific Plan Project. The use of recycled water on the site would have introduced a new source of water on the site and would have increased the quantity of water available for groundwater recharge through on-site percolation, as would the potential import of water allocated to the City's as a result of the State Water Project (SWP). The Specific Plan EIR determined that discharge of recycled water into recharge areas on the site would require the Applicant to meet Individual Waste Discharge Requirements and Water Recycling Requirements and obtain a Master Recycling Permit from the Regional Water Quality Control Board.

Short-Term Construction Impacts. The Specific Plan EIR determined that grading and excavation occurring on the site during construction could result in violations of water quality standards due to erosion of exposed soils and the subsequent deposition of particles and pollutants to drainage areas. In general, sedimentation was anticipated to be the primary source of water quality impacts during construction. Impacts associated with sedimentation included excessive sediment entering the Smith Creek drainage and downstream environs, increased sediment load and/or turbidity within Smith Creek which could have impacted plant and animal life within the stream, and the introduction of new constituents into downstream waters which would have changed downstream habitats. Additionally, construction of the 2012 Specific Plan Project could have involved the use of potentially hazardous and/or toxic chemicals and materials that could

enter receiving waters in the event of an accidental spill resulting in soil contamination or storm flow contamination, improper handling, and improper storage. Construction activities could have also resulted in the discharge of pollutants such as soil and grease from equipment, trash from worker and construction activities, nutrients from fertilizers, heavy metals, pathogens, and other substances. Accordingly, the 2012 Specific Plan Project was required to prepare a Storm Water Pollution Prevention Plan (SWPPP), which would have included erosion and sediment BMPs. The project would also be required to implement construction-phase Model Progression Specifications (MPS) aimed at minimizing impacts to water quality. Examples of these BMPs include soil binders, earth dikes and drainage swales, silt fence, sediment basin/trap, gravel bag berms, street sweeping and vacuuming, sand bag/straw bale barriers, vehicle and equipment cleaning, stabilized construction entrance, spill prevention and control, solid waste management, hazardous waste management, concrete waste management, catch basin inserts, good housekeeping practices, and sanitary septic water management. Therefore, the Specific Plan EIR determined that implementation of these required BMPs and compliance with existing ordinances would ensure that construction water quality impacts would be less than significant.

Long-Term Impacts. Implementation of the 2012 Specific Plan Project would have converted existing undeveloped lands to urban and open space uses, resulting in an increase in the amount of impervious surfaces on the site, which would have increased stormwater runoff generation and flows while also introducing pollutants associated with the proposed uses that could be carried in runoff and discharged into receiving waters. While sedimentation would have been the primary source of water quality impacts during construction, non-point-source pollutants would have been the primary source of potential water quality degradation during project operation. Examples of these pollutants include maintenance and cleaning supplies, landscape materials, oil grease, and heavy metals from automobiles, and petroleum hydrocarbons from fuels. Accordingly, the 2012 Specific Plan Project was required to prepare a Water Quality Management Plan (WQMP), which would identify site design BMPs, such as minimizing impervious areas, creating reducing discharge areas, and conserving natural areas to the extent feasible. The WQMP would have also incorporated source control and treatment BMPs. To further minimize operational water quality impacts, the 2012 Specific Plan Project included site design BMPs in the Master Drainage Plan and Land Development Plan for the Project. Therefore, the Specific Plan EIR determined that impacts would be less than significant with implementation of BMPs.

Threshold: *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, and increase impervious surfaces, which could substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Impact: Hydrology and Drainage. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the 2012 Specific Plan Project would alter existing drainage patterns on the site; however, these alterations would provide enhanced drainage capacity, eliminate potential downstream impacts associated with an increase of on-site impervious surface, and reduce flooding hazards within the site and downstream of the site. Therefore, the Specific Plan EIR determined that the alteration of the existing drainage pattern on the site would be beneficial. However, the Specific Plan EIR determined that construction and operational BMPs would be

required to reduce potential alterations to drainage patterns resulting from grading and construction activities associated with implementation of the 2012 Specific Plan Project. The Specific Plan EIR also determined that implementation of Mitigation Measure HWQ-1, which requires specific requirements associated with subsequent Tentative Tract Maps, site plans, grading plans, and improvement plans, be adhered to in order to ensure compliance with the Specific Plan's Drainage Plan Guidelines. With implementation of Mitigation Measure HWQ-1, impacts were determined to be less than significant.

Mitigation Measure HWQ-1: The following measures shall be reflected in applicable Tentative Tract Maps (TTMs), site plans, grading plans, and/or improvement plans to the satisfaction of the City Engineer, prior to applicable plan/permit approval:

1. All building pads within the Specific Plan shall be constructed so that they are free from flood hazard for the 100-year frequency storm by elevating finished floor elevations above the 100-year level of flood protection.
2. The depths of flow in the Project's streets shall not exceed top of curb elevations for the 10-year frequency storm event.
3. Streets shall be oriented to allow for maximum potential conveyance of regional flooding during significant storm events to expedite the passage of storm flows through the Specific Plan area.
4. The Specific Plan will be phased so that 100-year flood protection is ensured in all areas of development. Interim improvements (such as temporary debris basin, earthen channels/berms, check dams, sand bag barriers, or other temporary best management practices (BMPs) and flood protection measures; refer to Mitigation Measure HWQ-1, bullet Nos. 6 and 7, below) shall be provided as development progresses to protect against flooding, erosion, siltation, and water quality impacts.
5. All subdivisions implemented as part of the Specific Plan shall be required to detain any incremental increase in drainage within the Project boundary until the Riverside County Flood Control and Water Conservation District Master Drainage Plan ("Banning" – Zone 5) is fully implemented downstream of the Project site.
6. Construction of each phase shall include an assessment of the size and flow patterns of the adjacent undeveloped areas of the

Specific Plan site. Interim phase on-site facilities shall provide developed phases with required flood protection pursuant to Code.

7. Temporary basins shall be constructed to meet detention requirements and earthen channels/berms shall be used to divert and convey flows.

Threshold: *Would the project create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Impact: Runoff Capacity. Less than Significant Impact. Future development occurring under the 2012 Specific Plan Project, including on- and off-site improvements, was determined to result in changes to the absorption rates, drainage patterns, and the corresponding rate and amount of surface runoff to the existing Project site. The 2012 Specific Plan Project would also result in an increase in impervious surface areas as compared to existing conditions. However, the 2012 Specific Plan Project would have included upgrades to drainage and stormwater facilities that would either prevent site development from exceeding existing downstream capacity or result in an increase in that capacity. Therefore, while the 2012 Specific Plan Project would introduce urban uses into a currently undeveloped area with corresponding increases in potential pollutants that could impact storm water runoff from the site, water quality BMPs would be required to reduce these impacts. Therefore, with implementation of these BMPs, the Specific Plan EIR determined that impacts related to flood control capacity and water quality would be reduced to a less than significant level.

Threshold: *Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

Impact: 100-Year Flood Plain. Less than Significant with Mitigation Incorporated. As described in the Specific Plan EIR, a portion of the Project site is located within a 100-year floodplain. Pursuant to the Specific Plan's Master Drainage and Grading Plans (and as required by Mitigation Measure HWQ-1) all building pads would be developed to an elevation that would be free from flood hazard for the 100-year frequency storm event. The 2012 Specific Plan Project would have been designed to effectively drain the Project site into Smith Creek and/or Pershing Channel and would have included improvements to reduce the potential for flooding due to sheet flow or flash flood conditions. For example, a backbone drainage system would have been implemented to ensure that effective drainage is provided to further reduce the potential for flooding. The 2012 Specific Plan Project would have also requested a Conditional Letter of Map Revision from the Federal Emergency Management Agency (FEMA) to revise the existing FEMA floodplain maps for the Project site to reflect the "as built" condition. Therefore, the Specific Plan EIR determined that impacts related to flooding within a 100-year floodplain would be less than significant with implementation of Mitigation Measure HWQ-1.

Mitigation Measure HWQ-1: The following measures shall be reflected in applicable Tentative Tract Maps (TTMs), site plans, grading plans, and/or improvement plans to the satisfaction of the City Engineer, prior to applicable plan/permit approval:

1. All building pads within the Specific Plan shall be constructed so that they are free from flood hazard for the 100-year frequency storm by elevating finished floor elevations above the 100-year level of flood protection.
2. The depths of flow in the Project's streets shall not exceed top of curb elevations for the 10-year frequency storm event.
3. Streets shall be oriented to allow for maximum potential conveyance of regional flooding during significant storm events to expedite the passage of storm flows through the Specific Plan area.
4. The Specific Plan will be phased so that 100-year flood protection is ensured in all areas of development. Interim improvements (such as temporary debris basin, earthen channels/berms, check dams, sand bag barriers, or other temporary best management practices (BMP) and flood protection measures; refer to Mitigation Measure HWQ-1, bullet Nos. 6 and 7, below) shall be provided as development progresses to protect against flooding, erosion, siltation, and water quality impacts.
5. All subdivisions implemented as part of the Specific Plan shall be required to detain any incremental increase in drainage within the Project boundary until the Riverside County Flood Control and Water Conservation District Master Drainage Plan ("Banning" – Zone 5) is fully implemented downstream of the Project site.
6. Construction of each phase shall include an assessment of the size and flow patterns of the adjacent undeveloped areas of the Specific Plan site. Interim phase on-site facilities shall provide developed phases with required flood protection pursuant to Code.
7. Temporary basins shall be constructed to meet detention requirements and earthen channels/berms shall be used to divert and convey flows.

Threshold: *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

Impact: Flooding. Less than Significant Impact. As described in the Specific Plan EIR, the Project site is not located within a mapped inundation area of any dam nor are there any levees on or near the site. The proposed North Basin at the northern edge of the Project site was determined to be able to drain approximately 20 acre feet of runoff. In addition, the backbone drainage system associated with the 2012 Specific Plan Project would have included areas for storm drain detention and would have mitigated runoff. However, the Specific Plan EIR required the implementation of Mitigation Measure HWQ-1 mandating the creation of temporary basins to divert and convey flows from the drainage system to minimize potential flooding impacts to a less than significant level.

Mitigation Measure HWQ-1: The following measures shall be reflected in applicable Tentative Tract Maps (TTMs), site plans, grading plans, and/or improvement plans to the satisfaction of the City Engineer, prior to applicable plan/permit approval:

1. All building pads within the Specific Plan shall be constructed so that they are free from flood hazard for the 100-year frequency storm by elevating finished floor elevations above the 100-year level of flood protection.
2. The depths of flow in the Project's streets shall not exceed top of curb elevations for the 10-year frequency storm event.
3. Streets shall be oriented to allow for maximum potential conveyance of regional flooding during significant storm events to expedite the passage of storm flows through the Specific Plan area.
4. The Specific Plan will be phased so that 100-year flood protection is ensured in all areas of development. Interim improvements (such as temporary debris basin, earthen channels/berms, check dams, sand bag barriers, or other temporary best management practices (BMP) and flood protection measures; refer to Mitigation Measure HWQ-1, bullet # 6 and 7, below) shall be provided as development progresses to protect against flooding, erosion, siltation, and water quality impacts.
5. All subdivisions implemented as part of the Specific Plan shall be required to detain any incremental increase in drainage within the Project boundary until the Riverside County Flood Control and Water Conservation District Master Drainage Plan ("Banning" – Zone 5) is fully implemented downstream of the Project site.
6. Construction of each phase shall include an assessment of the size and flow patterns of the adjacent undeveloped areas of the Specific Plan site. Interim phase on-site facilities shall provide developed phases with required flood protection pursuant to Code.

7. Temporary basins shall be constructed to meet detention requirements and earthen channels/berms shall be used to divert and convey flows during construction phases.

Threshold: *Would the project be subject to inundation by seiche, tsunami, or mudflow?*

Impact: Inundation. Less than Significant Impact. As described in the Specific Plan EIR, the Project site is not located in an area subject to inundation from a seiche or tsunami. However, the Project site includes several areas that would be subject to the threat of mudflow during storm events. As previously stated, the 2012 Specific Plan Project included a series of debris/detention basins that would mitigate impacts related to mudflow that could occur during a major storm event. The Specific Plan EIR required compliance with flood control measures imposed by regional and local agencies and compliance with the Specific Plan Drainage Plan to further reduce impacts associated with mudflow.

Cumulative Impacts. Less than Significant Impact with Mitigation Incorporated. The 2012 Specific Plan Project, in combination with other projects in the City, would represent an incremental change in regional drainage patterns and additional developed permits. The 2012 Specific Plan Project, as well as other project, would be required to construct various on- and off-site facilities to mitigate cumulative drainage and flooding conditions, as well as mitigate potential water quality impacts. Implementation of applicable PDFs and Mitigation Measures HWQ-1 would reduce potentially significant cumulative hydrology and water quality impacts to a less than significant level.

3.10.3 Analysis of Project Changes

Water Quality. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR and would further reduce operational impacts related to the potential for violations of water quality standards due to the increase in pervious area associated with the areas previously proposed for development. The Proposed Project would also reduce the amount of grading and construction activity as compared to the 2012 Specific Plan Project and thereby reduce short-term impacts to water quality due to reduced construction-related erosion and runoff. Although less acreage would be disturbed during construction due to the removal of the golf course and reduction in housing units, overall project implementation requires similar grading equipment and construction activities as the 2012 Specific Plan Project, and would therefore result, overall in similar short-term impacts to water quality. The Project would still be required to adhere to construction and operational BMPs, and the Master Drainage Plan will be updated to reflect the updated Land Use Plan. Due to the reduction in the scale of construction and development, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects to water quality or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Hydrology and Drainage. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. The Proposed Project would also result in less impervious area as compared to the 2012 Specific Plan,

allowing for more natural absorption of runoff than the areas previously targeted for development (and therefore increased impervious surfaces) under the 2012 Specific Plan Project. Similar to the 2012 Specific Plan Project, the Proposed Project would enhance drainage capacity, eliminate potential downstream impacts associated with an increase of on-site impervious surfaces, and reduce flooding hazards within the site and downstream of the site. Therefore, the Proposed Project would also result in beneficial impacts related to the alteration of the on-site drainage patterns. Although the Project would still alter drainage patterns, the Project would continue to be required to comply with Mitigation Measure HWQ-1 to ensure that drainage and flooding impacts are mitigated to a less than significant level. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to hydrology and drainage or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Runoff Capacity. Similar to the 2012 Specific Plan Project, future development occurring under the Proposed Project would be required to result in changes to the absorption rates, drainage patterns, and the corresponding rate and amount of surface runoff to the existing site. The Proposed Project would also result in an increased in impervious surface areas as compared to existing conditions; however, because the Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR, the increase in impervious area would be reduced as compared to the previously approved project. Furthermore, the Proposed Project would also include upgrades to drainage and stormwater facilities that would either prevent site development from exceeding downstream capacity or result in an increase in that capacity, similar to the 2012 Specific Plan Project. Because the amount of urban uses and runoff would be reduced, the Proposed Project would not result in any new significant effects related to polluted runoff or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

100-Year Flood Plain. The Proposed Project is located on the same Project site as the 2012 Specific Plan Project, which includes a portion of the property located within a 100-year floodplain.¹ The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR, thereby reducing the number of people and structures that could be exposed to flooding during a 100-year frequency storm event. The Proposed Project would also include a master drainage system, similar to the 2012 Specific Plan Project, to ensure that effective drainage is provided to further reduce the potential for flooding. The Project reduces the amount of housing within portions of the floodplain, and still would be required to comply with HWQ-1. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to flooding within a designated floodplain or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Flooding. The Proposed Project is located on the same Project site as the 2012 Specific Plan Project, which is not located within a mapped inundation area of any dam; additionally there are no levees on

¹ Federal Emergency Management Agency, National Flood Hazard GIS Layer, 2012-2016.

or near the site. The proposed North Basin included as part of the 2012 Specific Plan Project would also be included as part of the Proposed Project and remain designed to drain approximately 20 acre feet of runoff. The Proposed Project would also include a backbone drainage system, similar to the 2012 Specific Plan Project, which would include areas for storm drain detention to mitigate runoff. The Proposed Project also represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR, thereby reducing the number of people and structures that could be exposed to a drainage system during a flood event on the site. The Proposed Project would continue to be required to comply with HWQ-1 to reduce potential impacts related to flood hazards, but would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to flooding or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Inundation. The Proposed Project is located on the same Project site as the 2012 Specific Plan Project, which is not located within an area subject to inundation from a seiche or tsunami. The Project site does, however, include several areas that could be subject to the threat of mudflow during storm events. Similar to the 2012 Specific Plan Project, the Proposed Project would include a series of debris/detention basins that would mitigate impacts related to mudflow that could occur during a major storm event. The Proposed Project would comply with flood control measures and the Specific Plan Drainage Plan to further reduce impacts. Because the Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR, the Proposed Project would reduce the number of people and structures that could be exposed to impacts related to inundation on the site. Therefore, the Proposed Project would not result in any new significant environmental effects related to inundation or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. Although there are currently no impervious surfaces at the proposed Project site impacts to the existing storm drainage systems and the Smith Creek would continue to be minimized through site design features, applicable PDFs, Mitigation Measure HWQ-1, and applicable BMPs, and the Project would be consistent with the findings of the Specific Plan EIR. Therefore, the Project's contribution to cumulative hydrology impacts would continue to be less than significant with mitigation incorporated. Additionally, because the Proposed Project would not significantly affect peak storm flows, would not adversely impact existing storm drainage systems, and would implement applicable BMPs, it would continue to result in less than significant cumulative water quality impacts. Therefore, the Proposed Project would not result in any new cumulatively significant environmental effects related to hydrology or water quality or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.10.4 Findings Related to Hydrology and Water Quality

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to

Hydrology and Water Quality, nor is there a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Hydrology and Water Quality that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. No significant unavoidable impacts related to Drainage and Hydrology were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Hydrology and Water Quality requiring major revisions to the Specific Plan.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Drainage and Hydrology identified and considered in the Specific Plan EIR.

3.10.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (also listed in Section 2.1.2 of this Addendum) remain applicable to the Hydrology and Water Quality analysis for the Proposed Project.

3. The Project has incorporated a comprehensive drainage, water quality, groundwater recharge and biological resource mitigation program into the site, consisting of the surface drainage system, water quality basins, North Basin, realigned Smith Creek, recharge basins, and Smith Creek culvert improvements. This will reduce stormwater runoff volume and velocity, improve stormwater runoff water quality during storm events and low-flow irrigation volumes, improve groundwater recharge, and create biological resource habitat. Key system features are summarized in Section 3, of the ~~Draft Butterfield Specific Plan, draft Tentative Tract Maps (TTMs) on file at the City, and are briefly summarized below.~~¹

¹ ~~Summary is included in Chapter 3.0, Project Description, of the Specific Plan EIR.~~

3.10.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, no changes to the mitigation measures found in the Specific Plan EIR are required. Mitigation Measure HYD-1 remains applicable to the Proposed Project.

3.10.7 Mitigation Measures No Longer Applicable

All of the hydrology and water quality mitigation measure identified in the Specific Plan EIR would remain applicable to the Proposed Project.

3.11 LAND USE AND PLANNING

3.11.1 Existing Environmental Setting

There have been no major changes to the existing setting of the project site with respect to land use and planning since the Specific Plan EIR was prepared. Please see Section 4.10 of the Specific Plan EIR for a summary of the existing environmental setting for Land Use.

The Project site encompasses 1,543 acres located within the northwest portion of the City. The City of Beaumont is located directly west of the site. Of the total 1,543 acres, 21 acres are located within unincorporated Riverside County and outside of the City's Sphere of Influence; however, this area is within the City's General Plan area. The Project site is generally surrounded by unincorporated Riverside County and the San Bernardino Mountains to the north and northeast, Highland Home Road and the Banning Bench to the east, residential uses to the east and south, and Highland Springs Avenue and the City of Beaumont to the west.

In its existing setting the Project site is undeveloped and has historically been used for farming and livestock grazing. Topography on the site ranges from relatively flat to gentle and steeper slopes in the north. Livestock grazing continues on the site in present day and is expected to continue on undeveloped grassland following mass grading and reseeded of the site. Smith Creek traverses the center of the site from north to south and Pershing Channel is located along the southern portion of the site's east boundary along Highland Home Road. A 16.5 ft wide So Cal Gas easement, which contains a high-pressure natural gas pipeline, traverses the site from east to west within the southern area of the property. Two adjacent SCE easements (totaling 230 ft) traverse the middle of the site from east to west. Additional overhead SCE power lines on wooden poles are located in the north and northeastern areas of the site. An electrical substation, owned and operated by the City, is located near the north terminus of Highland Home Road within the Project boundaries. An abandoned well is located within the site and debris piles are scattered throughout the property. There are no structures on the site.

The San Bernardino National Forest is adjacent to the northern and eastern boundaries of the site. The Highland Springs Country Club is also present to the north of the site across Brookside Avenue. Northeast of the site is an existing golf course and the Highland Springs Mobile Home Village northeast of the site. Residential uses associated with the Sundance Specific Plan, located in the City of Beaumont, are present on the west side of Highland Springs Avenue. A mix of multi-family residential uses and single-family homes are present along the southern boundary of the site, north of Wilson Street. South of Wilson Street and north of I-10 is property designated Highway and Community Commercial on the City's General Plan Land Use Map and is developed with a mix of office, hospital, mobile home park, and residential land uses.

3.11.2 Specific Plan EIR

Please refer to Section 4.10 of the Specific Plan EIR for analysis of potential effects of the 2012 Specific Plan Project on Land Use and Planning.

The Specific Plan EIR concluded that the following impacts would be less than significant related to land use and require no mitigation.

Threshold: *Would the project physically divide an established community?*

Impact: Physically Divide an Established Community. No Impact. Development on the Project site at the time of the Specific Plan EIR was governed by the Deutsch Specific Plan, which is the primary document regulating land use on the site. The Specific Plan EIR determined that since the Project site was vacant and undeveloped, there was no continuous established community on the site that would be divided as a result of implementation of the 2012 Specific Plan Project. Areas targeted for off-site improvements as part of the 2012 Specific Plan Project (utility improvements within roadways) would not have been governed by the 2012 Specific Plan Project and would not have encroached into existing established communities. Therefore, the Specific Plan EIR determined that the 2012 Specific Plan Project would continue a pattern of existing development surrounding the site. For these reasons, the Specific Plan EIR found that implementation of the 2012 Specific Plan Project would not physically divide an established community.

Threshold: *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Impact: Conflict with a Land Use Policy or Plan. Less than Significant Impact. As described in the Specific Plan EIR, approval of the 2012 Specific Plan Project and its associated GPA would have mitigated potential inconsistencies with applicable policies in the City of Banning's General Plan. The 2012 Specific Plan Project was determined to be consistent with all other planning and policy documents regulating land use on the Project site.

The City's Zoning Map includes the previously approved specific plan as the guiding land use document on the site. The 2012 Specific Plan Project would have amended the Deutsch Specific Plan approved in 1993. Following the requested zone change included as part of the 2012 Specific Plan Project, the Specific Plan EIR determined that the 2012 Specific Plan Project would not result in conflicts with the City's Zoning Ordinance. The 2012 Specific Plan Project was also determined to be consistent with goals and policies established in the Southern California Association of Governments (SCAG) Regional Transportation Plan/Compass Growth Vision (RTP). Therefore, the Specific Plan EIR ultimately determined that impacts related to potential conflicts with a land use policy or plan would be less than significant.

Conflict with a Habitat Conservation Plan or Natural Community Conservation Plan. Less than Significant Impact with Mitigation Incorporated. The 2012 Specific Plan Project is located in the City of Banning, which is a signatory to the Western Riverside County Multiple Species Conservation Plan (MSHCP). The Specific Plan EIR determined that the Project site was not located within a designated critical cell and did not contain critical habitat for species requiring protection in the MSHCP. Additionally, the Specific Plan EIR determined that the 2012 Specific Plan Project would be required to comply with Mitigation Measures BIO-1 through BIO-5 to reduce impacts to biological species and potential conflicts with the MSHCP. Therefore, the Specific Plan EIR determined that with implementation of Mitigation Measures BIO-1 through BIO-5, impacts related to conflicts with the MSHCP would be reduced to a less than significant level.

Cumulative Impacts. Less than Significant Impact. Future development occurring within the City limits would result in changes to the City's existing land use environment. The Specific Plan EIR determined that development occurring under the 2012 Specific Plan Project would not have conflicted with the City's General Plan and Zoning designations for the Project site. With adoption of the GPA, the Specific Plan EIR determined that the 2012 Specific Plan Project would be compatible with existing land uses surrounding the Project site. Furthermore, future development occurring in the City would be required to conduct a separate, project-specific land use consistency analysis pursuant to the State CEQA Guidelines. If found to be inconsistent with the City's General Plan or Zoning designations, these projects would require an amendment and/or zone change, and upon adoption, would be consistent with the General Plan and Zoning designations. Therefore, the Specific Plan EIR determined that the 2012 Specific Plan Project would not result in a cumulatively significant impact with respect to land use and planning.

3.11.3 Analysis of Project Changes

Physically Divide an Established Community. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Because the Project is located on the same undeveloped Project site and would not divide a community, the Proposed Project would not result in any new significant environmental effects related to the physical division of an established community or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR..

Conflict with a Land Use Policy or Plan. Similar to the Specific Plan Project, the approval of the Proposed Project would allow for the Butterfield Specific Plan to be the guiding land use and policy document for the Project site, thereby minimizing potential not conflict with the City's General Plan and Zoning designations for the site. No new or different land uses are included under the Proposed Project, as compared to the 2012 Specific Plan Project, and there would be no new conflicts with the regulating land use documents. Unlike the 2012 Specific Plan Project, the Proposed Project includes fewer residential units and includes more open space in place of the previously proposed golf course (in Pas 35 and 39). The Proposed Project also includes a GPA to remove the previously proposed roadway extensions at Brookside Avenue and Cherry Boulevard from the City's General Plan Circulation Element. Approval of the GPA would ensure consistency between the Proposed Project and the Settlement Agreement.

The Project site has long been planned for the development of a master-planned residential community, as proposed under the Deutsch Specific Plan. The current 2016 RTP includes growth projections consistent with General Plans adopted for cities and counties within the SCAG region. Therefore, because the City's General Plan has included the Deutsch Specific Plan in its Land Use Element since the Specific Plan's adoption and because the Proposed Project would amend the previously approved Deutsch Specific Plan to allow for similar uses proposed under the Project, the Proposed Project would be consistent with the 2016 RTP. Therefore, the Proposed Project would not result in any new significant environmental effects related to conflicts with a land use policy and/or plan or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Conflict with a Habitat Conservation Plan or Natural Community Conservation Plan. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR, which would result in fewer impacts to biological species and associated conflicts with the MSHCP. The Project would continue to be required to comply with Mitigation Measures BIO-1 through BIO-5, which would ensure that the Proposed Project would not result in any new significant environmental effects related to conflicts with a habitat conservation plan or a natural community conservation plan or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. The Specific Plan EIR concluded that the 2012 Specific Plan Project, as analyzed, would have a less than significant cumulative impact on land use. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would result in more substantial or new significant cumulative impacts related to Land Use and Planning compared to what was identified in the Specific Plan EIR. Therefore, the Proposed Project would not result in any new cumulatively significant environmental effect related to land use and planning or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.11.4 Findings Related to Land Use and Planning

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to Land Use and Planning, nor is there a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Land Use and Planning that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Certified 2008 EIR. No significant unavoidable impacts related to Land Use and Planning were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Land Use and Planning requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or

more significant impacts pertaining to Land Use and Planning identified and considered in the Specific Plan EIR.

3.11.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (see Section 2.1.2 of this Addendum) remain applicable to the Land Use and Planning analysis for the Proposed Project. The PDFs listed below reflect only those PDFs where minor text changes have been made due to the approval of the Butterfield Specific Plan in 2012 and the subsequent Settlement Agreement. These changes are shown in strikeout/underline below.

1. To be more compatible with the existing residential development, the Project has designated Planning Area 50A as Low Density Residential, with an average lot size of 7,500 square feet. Furthermore, starting at the back of the closest existing off-site residential lots located south of PA 50, there will be approximately 390 ft of open space (SCE easement) between the back of these lots and the southern boundary of Planning Area 50.
2. The approved Deutsch Specific Plan included 351 acres of residential land use in Planning Area 1 and 31 acres of park in Planning Area 2.¹ The ~~proposed Butterfield Specific Plan~~ Proposed Project provides ~~209.2~~862.1 acres of residential (PAs ~~1 through 16, and PAs 40 through 59–50, 51, 52, 60, and 61~~), 496.5 acres of open space (PAs 21 through 39, 62, 63, 65, 67, 69, 72, 73, 74, and 75), ~~11.3~~27.1 acres of school site uses (PAs 68 and 20), ~~and~~, 36.7 acres of commercial/office uses (PAs 17 and 18), a 1.6-acre fire station, and 4.2 acres for existing utility (PA 70). ~~This comparison generally covers the same area~~

3.11.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would require any mitigation measures. Based on the analysis and information above, there is no evidence that project modifications require any changes to the conclusions in the Specific Plan EIR or addition of mitigation measures.

3.11.7 Mitigation Measures No Longer Applicable

There are no land use mitigation measures identified in the Specific Plan EIR and no mitigation is required for the Proposed Project.

¹ Refer to the Butterfield Specific Plan, Exhibit 1.3, Specific Plan Comparison.

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3.12 NOISE

3.12.1 Existing Environmental Setting

There have been no major changes to the existing setting of the project site with respect to noise since the Specific Plan EIR was prepared. Please refer to Section 4.11 of the Specific Plan EIR for a summary of the existing environmental setting for Noise. The analysis presented in the Specific Plan EIR is based primarily on the *City of Banning General Plan* (January 2006), the *City of Banning Municipal Code* (codified through January 2010), the *Butterfield Specific Plan Traffic Impact Analysis* (September 15, 2010), prepared by LSA Associates, and the *Butterfield Specific Plan* (August 2010), prepared by RBF Consulting. The noise analysis for the Proposed Project in this section is based primarily on the *Noise Analysis* (September 2016) prepared by LSA (Appendix C).

Sensitive Receptors. The Project site encompasses approximately 1,528 acres of vacant or undeveloped land. The closest sensitive receptors to the Project site are single-family residential homes, mobile homes, and apartment complexes bordering the site to the northwest, south, east, and west. Also within the proximity of the Project site are hotels, schools, churches, hospitals, and a golf course. The Project proposes the following uses within the site: residential uses, commercial/office, schools, and open space.

Ambient Noise Measurements. Ambient noise measurements for the area were taken as part of the noise analysis included in the Specific Plan EIR in 2010/2011. Because no significant development has occurred within the area since the certification of the Specific Plan EIR, these measurements continue to be used in the baseline for existing noise conditions. As described in the Specific Plan EIR, existing ambient noise levels range from 44.5 A-weighted decibels (dBA) to 62.0 dBA. These noise levels are typical of residential uses in the area.

Mobile Sources. Noise measurements for mobile sources in the area were also taken as part of the noise analysis included in the Specific Plan EIR in 2010/2011. Because no significant development has occurred within the area since the certification of the Specific Plan EIR, these measurements continue to be used in the baseline for existing noise conditions. As described in the Specific Plan EIR, existing noise levels from mobile sources in the area range from 50.9 dBA to 63.0 dBA, with the highest noise levels occurring on Highland Springs Avenue between 8th Street and 6th Street.

Stationary Noise Sources. The area immediately surrounding the site consists of a mix of residential, hotel/motel, commercial/retail, office, school, church, and hospital uses served by a grid system of arterial and collector streets. The primary stationary noise sources in the area include urban-related activities and noises (e.g., delivery trucks unloading and loading, truck movements on driveways, mechanical equipment, grading equipment, trash pick-up, conversations, recreational uses, and parking lot activities).

3.12.2 Specific Plan EIR

Please see Section 4.11 of the Specific Plan EIR for analyses of the potential effects of the 2012 Specific Plan Project regarding Noise.

The Specific Plan EIR concluded that the following impacts would be less than significant related to Noise with implementation of mitigation measures, with the exception of cumulative mobile noise impacts.

Threshold: *Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?*

OR

Threshold: *Would the Project expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Impact: Short-Term Construction-Related Impacts. Less than Significant Impact with Mitigation Incorporated. The Specific Plan EIR determined that construction activities would have resulted in a periodic, temporary increase in ambient noise levels. Construction associated with the 2012 Specific Plan Project would have occurred over a 30-year period. Construction activities would have consisted of grading, trenching, paving, and building construction. Groundborne noise would occur during the initial site preparation activities that occur during earthmoving and soils compaction. High groundborne noise levels and other miscellaneous noise levels could have been generated during these activities due to the operation of heavy-duty equipment. The 2012 Specific Plan Project did not include the use of pile drivers.

The short-term construction noise levels generated during grading, trenching, paving, and building construction associated with the 2012 Specific Plan Project were estimated to range from 35.1 to 69.0 dBA. A 20 dBA attenuation factor was assumed to account for the noise attenuation achieved through building insulation. The 2012 Specific Plan Project-related noise would have been further buffered from adjacent sensitive receptors by intervening topography or structures, or by adjacent streets and/or drainage channels, and off-site areas including perimeter walls.

The City's General Plan EIR acknowledges that noise associated with future construction activities would impact adjacent uses; however, such impacts would be short-term. The General Plan EIR also identifies general and construction mitigation measures, which have been incorporated into the City's Noise Ordinance and included within the Specific Plan EIR as Mitigation Measures NOI-1 through NOI-3.

The City's Noise Ordinance exempts construction noise between the hours of 7:00 a.m. and 6:00 p.m., but limits exceedance to 15 minutes in any 1-hour period.

In addition to compliance with the City's Noise Ordinance, the Specific Plan EIR required the 2012 Specific Plan Project to adhere to Mitigation Measures NOI-1 and NOI-2. Mitigation Measure NOI-1 includes both Project-specific mitigations and mitigation measures required by the City's General Plan EIR to reduce construction noise impacts by requiring the Applicant to submit a Construction Noise Management Plan to the City's Building Official. Mitigation Measure NOI-1 also notes that

noise attenuation barriers may be required when construction activities would occur adjacent to sensitive receptors. Mitigation Measure NOI-2 requires an Applicant-provided Noise Disturbance Coordinator to enforce noise attenuating construction requirements. Therefore, the Specific Plan EIR determined that impacts with respect to construction noise would be less than significant with adherence to the City's Noise Ordinance and implementation of mitigation.

Mitigation Measure NOI-1: As a condition of approval of all grading and building permits, the Applicant shall comply with the following list of noise reduction measures subject to inclusion of additional provisions at the discretion of the City Building Official as appropriate:

- Excavation, grading, and other noise-intensive construction activities related to the Proposed Project shall be restricted to the hours of operation allowed under Section 8.44.090.E, Noise Prohibited – Unnecessary Noise Standard – Construction, Landscape Maintenance or Repair, of the City Municipal Code. Any deviations from these standards shall require the written approval of the City Building Official. The days and hours shall also apply to any servicing of equipment and to the movement of materials to and from the site.
- The developer shall require, as a condition of contract, that all construction equipment operating on the site be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) no less effective than those provided on the original equipment, and no equipment shall have an unmuffled exhaust.
- The developer shall require all contractors, as a condition of contract, to maintain and tune-up all construction equipment to minimize noise emissions.
- Stockpiling and vehicle staging areas shall be located a minimum of 500 feet from occupied residences,¹ and screened from these uses by a solid noise attenuation barrier where necessary to achieve City *Municipal Code*-required noise attenuation levels.
- Solid noise attenuation barriers (temporary barriers or noise curtains) with a sound transmission coefficient (STC) of at least 20 shall be used along project boundaries adjacent to sensitive receptors, where noise monitoring, performed by a qualified noise monitor, indicates exceedance of City Municipal Code noise levels for more than 15 minutes in any 1-hour period.

¹ Each doubling of distance reduces the noise by approximately 4.5 dBA, so for peak construction noise such as scrapers, an exterior noise level of 84 dBA at 50 feet reduces to 70.5 dBA at 400 feet, with a 20 dBA typical noise reduction from closed windows, results in an interior noise level of 50.5 dBA, without any further consideration of attenuation by intervening topography, structures, or perimeter walls.

- Construction activities that occur outside the allowable hours per City standards (6 p.m. to 7 a.m.) shall require approval of the City Building Official based on demonstration of unusual circumstances and avoidance of significant impacts to neighboring sensitive receptors. Construction noise exceeding City standards (i.e., interior noise in excess of 50 A-weighted decibels [dBA] or exterior noise in excess of 65 dBA) and statutory time limits is anticipated, and shall require implementation of additional noise attenuation measures such as temporary noise “curtains” to reduce construction noise to meet City Standards, or offer the affected sensitive receptors the option of temporary relocation at the Developer’s expense for the duration of the impact.
- All stationary construction equipment (e.g., air compressors, and generators, etc.) shall be operated as far away from the residential and institutional uses as feasible. If this is not feasible, the equipment shall be shielded with temporary sound barriers, sound aprons, or sound skins to the satisfaction of the Building Official.
- In areas subject to potentially significant construction noise impacts, the developer shall be required to monitor and document compliance with all applicable noise level limits.
- Construction haul routes for large equipment and material import/export shall be specified to minimize the use of routes affecting sensitive receptors (e.g., residential, parks, hospitals, schools, and convalescent homes, etc.). To the extent feasible, construction phasing for individual subdivisions shall be designed to avoid the need for construction vehicles and related construction traffic to traverse occupied residential neighborhoods. In all cases, trucks shall utilize a route that is least disruptive to sensitive receptors. Construction trucks shall, to the extent feasible, avoid weekday and Saturday a.m. and p.m. peak hours (7 a.m. to 9 a.m. and 4 p.m. to 6 p.m.).

Mitigation Measure NOI-2: Prior to the issuance of each grading or building permit, the Applicant shall submit to the Building Official a proposed Construction Noise Monitoring Program to respond to and track complaints pertaining to construction noise, throughout demolition and/or grading. Throughout and/or grading, these measures shall include the following:

- A procedure and phone numbers for notifying the City Building and Safety Department staff and Banning Police Department (during regular construction hours and off-hours);

- A sign prominently posted on-site containing the permitted construction days and hours and complaint procedures and the name and phone number of the person(s) to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);
- The designation of an on-site construction complaint and enforcement manager for the Project. The manager shall act as a liaison between the Project and its neighbors. The manager's responsibilities and authority shall include the following:
 - An active role in monitoring project compliance with respect to noise;
 - Ability to reschedule noisy construction activities to reduce effects on surrounding sensitive receivers;
 - Site supervision of all potential sources of noise (e.g., material delivery, construction staging areas, construction workers, debris box pick-up and delivery) for all trades;
 - Intervening or discussing mitigation options with contractors; and
 - Conducting a preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, and posted signs, etc.) are completed.

Threshold: *Would the project expose persons to or generate excessive ground borne vibration or ground borne noise levels?*

Impact: Construction-Related Vibration Impacts. Less than Significant Impact with Mitigation Incorporated. Construction activities associated with the 2012 Specific Plan EIR may have generated varying degrees of groundborne vibration. Groundborne vibration generated by construction activity, particularly grading and excavation, would have been readily perceivable at 25 ft from the source, but would not have exceeded applicable annoyance thresholds. As such, groundborne vibration generated during construction would have primarily impacted sensitive uses within or adjacent to 25 ft of project-related activity. Vibration levels were anticipated to reach up to 87 vibration velocity decibels (VdB) for construction activities generating large earthmoving equipment and heavy trucks. This would have exceeded the 80 VdB threshold for residences and the 83 VdB threshold for institutional uses during infrequent events. Accordingly, Mitigation Measure NOI-3 was determined to be required to reduce construction vibration impacts. Mitigation Measure NOI-3 prohibits the use of on-site construction equipment generating higher than 0.049 root-mean-square velocity (RMS) within 25 ft of any sensitive use and limits the use of equipment exceeding this standard to less than 30 events per day. Therefore, the Specific Plan EIR determined that impacts with respect to construction vibration would be mitigated to a less than significant level.

Mitigation Measure NOI-3: The Applicant shall, through contract specifications, prohibit the use of any on-site construction equipment generating greater than 0.049 RMS (greater than 79 VpD) within 25 feet of any sensitive use or limit the use of equipment exceeding this standard to less than 30 events per day.

Threshold: *Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

OR

Threshold: *Would the Project expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Impact: Long-Term Mobile Noise Impacts. Less than Significant Impact with Mitigation Incorporated. Long-term development on the project site associated with the 2012 Specific Plan Project would have resulted in additional traffic on adjacent roadways, which would have increased vehicular noise in the area. Following project implementation, noise levels at a distance of 100 ft from the roadway centerline would have ranged from approximately 61.4 to 68.0 dBA. These noise levels did not account for noise attenuation provided by building insulation, intervening topography, setbacks, perimeter block walls, adjacent streets and/or drainage channels, or landscaping. The 2012 Specific Plan Project would have exceeded the allowable noise increase thresholds (3 dBA or greater) on Highland Home Road between D Street and Wilson Street, Highland Springs Avenue between Starlight Avenue and 8th Street, and Highland Springs Avenue between 8th Street and 6th Street.

Improvements associated with future development along Highland Springs Road between Starlight and 8th Street would include perimeter block walls along the frontage to provide sound attenuation, as well as building insulation to future reduce noise impacts to sensitive receptors (residences). Such improvements are not required for the segment of Highland Springs Road between 8th Street and 6th Street because there are no sensitive receptors (residences) along this portion of the roadway.

In addition to the 20 dBA noise attenuation reduction for closed windows, the Specific Plan EIR determined that NOI-4 would be required to reduce mobile noise impacts to sensitive receptors along Highland Home Road between D Street and Wilson Street. Mitigation NOI-4 requires completion of a focused noise study to determine specific noise reduction measures, if required, to ensure the 2012 Specific Plan Project meets the City's exterior and interior noise standards. Therefore, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in less than significant long-term mobile noise impacts with mitigation incorporated.

Mitigation Measure NOI-4: Prior to the issuance of grading permits or encroachment permits for the improvement of Highland Home Road (aka Meridian Street) between future "D Street" and Wilson Street, an acoustical study shall be completed by the Applicant (using construction-level improvement plans and/or more detailed grading plans) and submitted to the City for review and approval. The acoustical study

will specify additional specific noise attenuation measures necessary, if any, to ensure that the City of Banning's exterior and interior noise standards are met at adjacent residential properties. Appropriate attenuation measures could include a solid wall in the landscaped parkway between future Highland Home Road and the existing frontage street.

Threshold: Would the Project result in stationary-source noise impacts on nearby sensitive receptors?

Impact: Operational Stationary Noise Source Impacts. Less than Significant Impact with Mitigation Incorporated.

Residential Uses. The 2012 Specific Plan Project would have developed the Project site with new single-family and multi-family residential uses. Noise generated from these uses would have primarily occurred during daytime activity hours. The City's Municipal Code includes procedures for complaints and enforcement of violations of the City's noise standards, which provide adequate mitigation for occasional violations of the noise standards by individual homeowners. Therefore, noise impacts to surrounding uses following implementation of the 2012 Specific Plan Project were determined to be less than significant.

Non-Residential Uses. New commercial and retail uses, the proposed satellite wastewater treatment plant, the fire station, parks, and schools included as part of the 2012 Specific Plan Project could have increased noise levels in their proximity.

The proposed wastewater treatment plant would have been constructed indoors and was therefore, not anticipated to generate a significant increase in ambient noise. However, Mitigation Measure NOI-5, which requires the wastewater treatment plant to obtain a Conditional Use Permit (CUP) and to perform an acoustical analysis, would be required to ensure that the wastewater treatment plant would adhere to noise level thresholds established by the City.

Activity occurring at loading docks could have generated noise levels around 76.5 dBA at 50 ft. However, the commercial and other non-residential uses included as part of the 2012 Specific Plan were not anticipated to require a significant amount of truck deliveries and the amount of truck trips would have been relatively low. Therefore, noise associated with large truck and smaller cargo van deliveries was determined to be less than significant. In addition, deliveries would have been somewhat infrequent and irregular. However, Mitigation Measure NOI-5, which requires noise from proposed commercial and retail uses to be analyzed in further detail once site-specific plans have been developed, would be required to reduce potential noise impacts. Therefore, noise impacts to surrounding uses following implementation of the 2012 Specific Plan Project were determined to be less than significant with mitigation incorporated.

Mitigation Measure NOI-5: Prior to the issuance of building permits for non-residential uses (such as commercial areas, wastewater treatment plant, and the golf course clubhouse), the Applicant shall prepare a site-specific construction level noise analysis, analyzing

potential on and off site noise impacts, based upon detailed grading plans, improvement plans and site plans. The grading, site and/or improvement plans for these uses shall include the location of stationary noise sources, such as loading docks, air conditioning units, trash hauling and trash compactors (noise from trash pickup and compacting results from the use of hydraulic equipment to raise and lower the metal trash bins and to compact their contents), and drive-through lanes. The noise analysis shall evaluate the potential noise impacts to the existing and proposed noise-sensitive homes near the commercial areas of the Project. In the event the analysis shows that noise levels for any adjacent sensitive receptor(s) would exceed applicable standards, measures shall be required to reduce noise to levels to within applicable standards, including providing enclosures for stationary sources (such as pump stations and air conditioners), and providing walls or siting to attenuate mobile or stationary sources from receptors (such as loading bays). The analysis shall be subject to review and approval by the City of Banning Building Official and shall ensure compliance with applicable exterior and interior noise standards.

Cumulative Impacts. Significant and Unavoidable Impact. Construction-related noise associated with the 2012 Specific Plan Project was determined to be localized. The 2012 Specific Plan Project, as well as other development projects in the City, would have been required to comply with the City's Noise Ordinance and would have been required to implement mitigation measures (as determined necessary) on a project-specific basis. Accordingly, the Specific Plan EIR determined that compliance with applicable mitigation measures and adherence with the City's Noise Ordinance would mitigate potential cumulative construction impacts to a less than significant level.

The 2012 Specific Plan Project would have introduced stationary noise sources on the property that would increase noise levels within the Project area; however, operational noise impacts were determined to be less than significant. Future development within the City and adjacent areas would have required separate discretionary approvals and project-specific CEQA assessments. Therefore, the Specific Plan EIR determined that cumulative operational noise impacts would be less than significant.

A cumulative mobile noise impact was determined to occur if both the combined and incremental effects criteria were exceeded. As determined in the Specific Plan EIR, the 2012 Specific Plan Project would result in a cumulatively significant contribution to background noise levels, resulting in a significant unavoidable impact at 13 roadway segments.

3.12.3 Analysis of Project Changes

Short-Term Construction-Related Impacts. The Proposed Project reduces intensity and includes 525 fewer residential units than the 2012 Specific Plan Project. Therefore, the Proposed Project

represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Construction of the Proposed Project would disturb approximately 15.4 fewer acres and would require fewer construction vehicles and equipment. The Proposed Project would be required to comply with Mitigation Measure NOI-1. Therefore, the Proposed Project would not result in any substantially greater construction noise and vibration impacts or cumulative impacts than were previously identified in the Specific Plan EIR. Therefore, the Proposed Project would not result in any new significant environmental effects related to short-term construction noise or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Construction-Related Vibration Impacts. The Proposed Project reduces intensity, includes 525 fewer residential units and includes more open space than the 2012 Specific Plan Project. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Construction of the Proposed Project would disturb approximately 15.4 fewer acres and would require fewer construction vehicles and equipment. Therefore, the Proposed Project would not result in any substantially greater construction noise and vibration impacts or cumulative impacts than were previously identified in the certified EIR. The Proposed Project would be required to comply with Mitigation Measure NOI-3. Therefore, the Proposed Project would not result in any new significant environmental effects related to construction vibration or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Long-Term Mobile Noise Impacts. As shown in Tables 3.G.1 and 3.G.2, under the 2012 Specific Plan EIR, project-related traffic noise would have a significant impact on five of the eight roadway segments, all of which are along Highland Springs Avenue and Highland Home Road. Tables 3.G.1 and 3.G.2 also show the change in noise impacts due to the new traffic analysis as a result of the modified network under the Proposed Project. Under the Proposed Project, project-related traffic noise would have a significant impact on the same five of the eight roadway segments along Highland Springs Avenue and Highland Home Road. Consistent with the Specific Plan EIR, the existing Sundance homes to the west of the Project site are located in the City of Beaumont and already have perimeter block walls along the frontage to provide some sound attenuation. Future Proposed Project development areas along the east side of this stretch of road are within the City of Banning and would be designed to provide adequate attenuation pursuant to the outdoor and indoor noise level requirements, as required in previously adopted Mitigation Measure NOI-4. For roadway segments along Highland Home Road, Mitigation Measure NOI-4 requires a focused noise study for sensitive receptors along Highland Homes Road that would potentially experience noise levels in excess of the City of Banning exterior and interior noise standards. As Mitigation Measure NOI-4 would remain applicable to the Proposed Project, the Project would continue to not result in any substantially greater long-term mobile noise impacts than were previously identified in the Specific Plan EIR or any new significant long-term mobile noise impacts.

In addition to Mitigation Measure NOI-4, Mitigation Measures NOI-1 through NOI-3 would remain applicable to the Proposed Project. With implementation of Mitigation Measures NOI-1 through NOI-4, impacts would continue to be less than significant.

Table 3.G.1: Project Noise Impacts: Comparison of General Plan Build-out Traffic Noise Levels: With Previously Approved Specific Plan and With Proposed Project

Roadway Segment	General Plan Build-Out With Approved Project		General Plan Build-Out With Revised Proposed Project	
	Increase In Noise Level From No Build To With Project In CNEL (dBA)	Potentially Significant Impact Without Mitigation	Increase In Noise Level From No Build To With Project In CNEL (dBA)	Potentially Significant Impact Without Mitigation
Highland Springs Avenue between Brookside Avenue and 16 th Street	0.9	No	1.3	No
Highland Springs Avenue between 16 th Street ¹ and F Street	2.0	Yes ²	4.8	Yes
Highland Springs Avenue between F Street and Oak Valley Parkway	2.8	Yes ²	3.8	Yes
Highland Springs Avenue between Oak Valley Parkway and Starlight Avenue	2.3	Yes	2.2	Yes
Highland Springs Avenue between Starlight Avenue and 8 th Street	1.8	Yes	2.1	Yes
Wilson Street between Highland Springs Avenue and C Street	1.0	No	1.2	No
Wilson Street between C Street and Highland Home Road	1.1	No	0.9	No
Highland Home Road between D Street and Wilson Street	3.1	Yes	2.3	Yes

Source: *Noise Analysis for the Proposed Project* (September 2016). (Appendix C)

¹ 16th Street is now Cougar Way

² Based on the criteria presented in the approved EIR and the memorandum above, the identification of significant impact has been corrected.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

Table 3.G.2: Cumulative Noise Impacts: Comparison of General Plan Build-out Traffic Noise Levels: With Previously Approved Specific Plan and With Proposed Project

Roadway Segment	General Plan Build-Out With 2012 Specific Plan Project			General Plan Build-Out With Proposed Project		
	Increase In Noise Level From Existing To With Project In CNEL (dBA)	Increase In Noise Level From No Build To With Project In CNEL (dBA)	Potentially Significant Impact Without Mitigation	Increase In Noise Level From Existing To With Project In CNEL (dBA)	Increase In Noise Level From No Build To With Project In CNEL (dBA)	Potentially Significant Impact Without Mitigation
Highland Springs Avenue between Brookside Ave and 16 th Street	5.9	0.9	Yes	7.9	1.3	Yes
Highland Springs Avenue between 16 th Street ¹ and F Street	4.9	2.0	Yes ²	7.1	4.8	Yes
Highland Springs Avenue between F Street and Oak Valley Parkway	7.0	2.8	Yes ²	6.7	3.8	Yes
Highland Springs Avenue between Oak Valley Parkway and Starlight Avenue	6.2	2.3	Yes	6.7	2.2	Yes
Highland Springs Avenue between Starlight Avenue and 8 th Street	5.2	1.8	Yes	5.6	2.1	Yes
Wilson Street between Highland Springs Avenue and C Street	6.5	1.0	Yes	7.1	1.2	Yes
Wilson Street between C Street and Highland Home Road	6.6	1.1	Yes	6.1	0.9	No
Highland Home Road between D Street and Wilson Street	--	3.1	N/A	--	2.3	N/A

Source: *Noise Analysis for the Proposed Project* (September 2016). (Appendix C)¹ 16th Street is now Cougar Way² Based on the criteria presented in the Specific Plan EIR and the memorandum above, the identification of significant impact has been corrected.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level dBA = A-weighted decibels

Additionally, due to the design changes in the roadway network required as part of the Proposed Project, the redistribution of some project trips would now travel along segments of Highland Springs Avenue. However, consistent with the Specific Plan EIR, the Project cannot reasonably or feasibly mitigate for cumulative mobile noise impacts (constructing sound walls along the entire perimeter of the sensitive uses surrounding the Project site; or forcing existing residential uses to change their existing windows; etc.). Therefore, implementation of the Proposed Project would be consistent with the findings of the Specific Plan EIR and would continue to result in a significant and unavoidable impact for cumulative mobile noise impacts, as both the combined and incremental effects criteria have been exceeded; however, such impacts would not be new or substantially more severe than previously identified in the Specific Plan EIR. Therefore, the Proposed Project would not result in any new significant environmental effects related to long-term mobile noise or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Operational Stationary Noise Source Impacts. The Proposed Project would potentially reduce operational noise impacts within some Planning Areas (PAs), for example, PAs 35 and 39, in which the golf course is being removed and PAs 60 and 61 where residential uses are being removed and replaced with open space. For all other PAs, the operational uses are assumed to be substantially the same and would not result in any new significant noise impacts. Implementation of Mitigation Measure NOI-5, as required by the Specific Plan EIR, would continue to reduce operation-related impacts such that noise levels would comply with City noise requirements. Mitigation Measure NOI-5 would remain applicable to the Proposed Project. Therefore, the Proposed Project would not result in any new significant environmental effects related to operational stationary noise or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. Potential cumulative noise impacts are associated with both construction and operation of the Proposed Project. Construction-related noise would emanate from the site during construction primarily from stationary sources (e.g., equipment), as well as from mobile sources. However, short-term noise would cease when construction activities are completed. Cumulative long-term noise impacts occur when traffic generated by the Proposed Project is added to future noise levels resulting from cumulative project traffic, and the incremental increase in traffic exceeds noise standards. Despite the reduction in project intensity, cumulative mobile noise impacts as a result of increased traffic volumes on local roadways would continue to occur following implementation of the Proposed Project. Thus, cumulative noise impacts are still considered significant and avoidable.

Mitigation Measures NOI-1 through NOI-5 remain applicable to the Proposed Project and would serve to reduce noise impacts, with the exception of cumulative mobile noise impacts, which would remain significant and unavoidable but would not be substantially increased. Therefore, the Proposed Project would not result in any new cumulatively significant environmental effects related to noise or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.12.4 Findings Related to Noise

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to Noise, nor is there a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Noise that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating whether a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to noise requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Noise identified and considered in the Specific Plan EIR.

3.12.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project remain applicable to the Noise analysis for the Proposed Project. The PDF listed below reflects where minor text changes have been made due to the approval of the Butterfield Specific Plan in 2012 and the subsequent Settlement Agreement. The change is shown in strikeout/underline below.

1. The Project has been redesigned from the ~~previously~~ approved Deutsch Specific Plan, to retain the northern steeper slopes in natural open space. In addition, in response to initial public scoping and discussions with adjacent residents, the Applicant designed the Land Use Plan to create low-density residential with higher minimum average lot sizes with substantial separation between Proposed Project development areas east of Highland Home Road and existing residential areas east of Highland Home Road to the south, reducing potential noise impacts from construction in this area.

3.12.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, no changes to the mitigation measures found in the Specific Plan EIR are required. Mitigation Measures NOI-1 through NOI-5 remain applicable to the Proposed Project.

3.12.7 Mitigation Measures No Longer Applicable

All noise mitigation measures remain applicable to the Proposed Project.

3.13 PUBLIC SERVICES AND UTILITIES

3.13.1 Existing Environmental Setting

There have been no major changes to the existing setting of the project site with respect to public services and utilities since the Specific Plan EIR was prepared. Please refer to Section 4.12 of the Specific Plan EIR for a summary of the existing environmental setting for Public Services and Utilities.

Fire Protection Services. Fire protection services are provided to the City by the Riverside County Fire Department (RCFD), which contracts with the California Department of Forestry (Cal Fire). The City is served by the Oak Glen Division of the RCFD and shares services with other surrounding cities in the area. The RCFD Oak Glen Division operates three fire stations within the vicinity of the site, with Station 20 (located in the City of Beaumont) being the closest to the site (0.34 mile from the intersection of Highland Springs Avenue and Wilson Street at the southwestern boundary of the site).

Paramedic services are provided to the City by American Medical Response through the Perris Command Center in coordination with RCFD.

Response Time Objectives. The City has an adopted Fire Services Master Plan. One of the goals in this plan is to have a fire station within five miles of Category III areas. The City's General Plan Police and Fire Protection Element also establishes a policy that calls for a 5-minute response time. Fire Station 20 has a response time to the nearest portion of the site of approximately 3 to 5 minutes and is 6 to 8 minutes to the northwest portion of the site. The City's response time goal for medical services is also 5 minutes for the Fire Department Ambulance Services.

The City assesses a Fire Facilities Impact Fee for all new single-family development projects. Monies collected in association with this fee are used to construct additional fire facilities serving the property.

Police Protection Services. The City of Banning Police Department provides police protection services within the City. The Banning Police Department responds to high priority calls within 3 to 7 minutes. The City maintains a ratio of 1.4 sworn officers for every 1,000 residents; however, the City's General Plan establishes a service goal of 2 officers for every 1,000 residences.

The City imposes a Police Facilities Impact Fee on new development that is used for the acquisition of land, design, and construction and/or expansion of police facilities.

Public School Facilities. The Project site is served by both the Banning Unified School District and the Beaumont Unified School District (USD).

The Beaumont USD serves kindergarten through 12th grade students. The Project site would be served by Sundance Elementary School, San Geronio Middle School, and Beaumont High School. Both

elementary and middle schools have excess capacity, but the high school currently exceeds capacity. Beaumont USD is currently pursuing expansion of the high school.

The Banning USD also serves kindergarten through 12th grade students. Several schools within the Banning USD would serve the 2012 Specific Plan Project.

Each school district assesses impact fees for new residential and commercial uses. The payment of these fees is authorized by Senate Bill (SB) 50, which allows the assessment of such fees to mitigate project impacts on school facilities under CEQA. In addition, each school district has passed general obligation bond measures to generate funding for public school capital improvements.

Library Services. The boundaries of the Banning and Beaumont Library Districts are congruent with the Banning and Beaumont USD boundaries. Both library districts are a part of the Inland Library System. Neither library district has an adopted library service standard; however, the County seeks to maintain a standard of two volumes and 0.5 square feet of library space per capita, which is consistent with the State standard. The current amount of library space and number of volumes in the Banning and Beaumont facilities fall below the identified minimum standard.

Libraries rely on revenue from federal, State, and local funding sources, as well as private contributions. The Banning Library District's primary revenue source is property taxes supplemented by investment income, fees, fines, grants, and donations. In recent past, the Banning and Beaumont Library Districts have generated revenue that has exceeded expenditures. Neither library district has established a library impact fee.

Health Care Services. The San Geronio Memorial Hospital is the closest medical center to the Project site, located at 600 North Highland Springs Avenue (south of the Project site at the corner of Highland Springs Avenue and Wilson Street). This hospital provides medical services to the Cities of Banning and Beaumont.

Recreation and Parks. Parks and recreation services are provided by the City of Banning Community Services Department. Park classifications in the City include the following: (1) neighborhood parks located within walking or bicycle distance of residences and ranging in size from 5–10 acres; (3) school parks built adjacent to but separate from educational facilities; (4) community parks that range in size from 20–50 acres designed to serve an area within a 5-mile radius of the park; (5) regional parks that are at least 50 acres in size and serve the entire City or region; and (6) special use parks linked to a specific activity, such as a skate park. The City collects Parkland Impact Fees for new residential and commercial/industrial uses for the purpose of constructing new parks and recreation facilities in the City.

The City has over 60 acres of parks and owns an additional 170 acres of undeveloped property, the majority of which are planned for development as the Smith Creek Ranch Park. The City also owns and operates the City's community center and senior center, a municipal swimming pool, and a skate park. The City has also established a Joint Use Agreement with the Banning USD that allows the City

to utilize some of the District's school campus facilities. Additionally, the County owns the 160-acre Gilman Historic Ranch and the Wagon Museum in the City of Banning.

The City has an adopted Master Plan for Recreation and Parks. As described in this plan, the City currently has a deficit of parkland. The top priority of the City as identified in the Master Plan for Recreation and Parks is the establishment of trails, a dog park, sporting fields, picnic areas, and an equestrian center. Neighborhood parks are also identified as the most critical target for development in the western areas of the City. The Master Plan also identifies the 2012 Specific Plan Project area as a potential location for future parks and recreation facilities. Establishment of the 2012 Specific Plan Project was anticipated to address neighborhood park deficiencies in the City.

Bikeways, trails, and pathways are also identified as important recreational resources in the City. There are currently no bikeways in the City; however, several Class II and III bikeways have been proposed. Class II bikeways are signed and striped bicycle lanes within the paved right-of-way of a street, whereas Class III bikeways are designated but unmarked bike routes located on the street amidst vehicular traffic.

Hiking trails are located within the San Bernardino National Forest and the San Jacinto Mountains within the City's Sphere of Influence. The Master Plan for Recreation and Parks also identifies a proposed trail system that would provide access to the regional trail system.

Energy.

Electricity. Electricity in the City is provided by the Banning Electricity Department. The City-owned utility procures its electricity through contracts with the Southern California Public Power Authority. These contracts include participation in the San Juan coal plant, the Palo Verde nuclear plant, and the Hoover Hydroelectric Uploading project. The City also purchases power from the Western System Power Pool Forward and Over-the-Counter markets to cover its super peak load requirements. The City also has an agreement with SCE to utilize SCE's subtransmission system. The majority of the City's electricity demand is associated with existing residential and commercial uses. The City has recently taken several steps to expand its generating capacity and reduce its carbon footprint. Specifically, the City adopted a Renewable Portfolio Standard, which includes a commitment to obtain 20 percent of its electric requirement from renewable resources by December 31, 2017. As of 2011, 21 percent of the City's electricity requirements were met by energy generated by renewable resources.

The City's General Plan EIR accounted for the City's electricity demand at General Plan build out. As described in the General Plan EIR, the total electricity demand is estimated to be 424,637,277 kilowatt-hours (kWh) per year. The 2012 Specific Plan Project's electricity demand was accounted for within the build out demand projection. The General Plan EIR identified several energy reduction measures to reduce the City's projected electricity demand. With implementation of these measures, the General Plan EIR determined that build out of the General Plan would not have a significant adverse impact on the availability of electricity or the ability of the Banning Electricity Department to provide electricity at General Plan build out.

The City constructed the 34-12kV “Sunset Substation” near the existing SCE transmission line on the Project site. This substation was constructed on the site and in operation in 2009. The substation currently serves the electricity needs of development surrounding the Project site.

The City collects energy metering and conservation fees for residential uses in the City. Additionally, the City assessed an impact fee for energy conservation and a new electric service fees.

Natural Gas. SoCalGas provides natural gas services and facilities to the City. The majority of the natural gas supply is imported from Texas and is transported via three major east-west trending high pressure pipelines, one of which traverses the site.

Communications.

Phone Service. Verizon California provides telephone service in the City. There is no local Verizon customer service center in the City. Cellular phone service is provided by a growing list of phone providers, all of which are licensed and operated by the CPUC.

Cable and Internet Service. Cable television services are provided to the City by Time Warner Cable. Internet service is provided by several internet service providers, including both Verizon and Time Warner.

Wastewater and Recycled Water.

Wastewater. Sanitary wastewater services are provided to approximately 12,800 service connections by the City’s Water and Wastewater Utility. The City owns, operates, and maintains several gravity sewer mains, four sewer lift stations, and several sewer force mains located within City-owned public right-of-ways.

Wastewater generated within the City is treated at the City’s wastewater treatment plant (WWTP) located at 2242 East Charles Street, which is operated and maintained by United Water Service via an existing contract with the City. The WWTP is designed to treat 7.8 million gallons per day (mgd) of wastewater. As of 2011, the plant received an average flow of 2.5 mgd and was permitted by the Regional Board to receive 3.6 mgd. According to the City of Banning 2015 Urban Water Management Plan (UWMP), approximately 2,207 acre feet/year (1.97 mgd) of wastewater was collected within the City's service area and treated at the WWTP during 2015.¹

The City operates its wastewater treatment and collection systems pursuant to the requirements outlined in Order No. 01-022. The City is also covered by Order 01-077 NPDES No. CAS617002 and Waste Discharge requirements, which prohibits the acceptance of waste in excess of the disposal system’s design treatment capacity.

¹ City of Banning. 2015 Urban Water Management Plan (May 2016).

Recycled Water. The City treats wastewater to a secondary standard prior to discharge. The City does not have the treatment capability or infrastructure to provide tertiary-treated recycled water; however, the City is moving forward to complete a 1.5 mgd tertiary upgrade at its main plant to produce recycled water to be used for landscaping irrigation.

Solid Waste. Solid waste generated in the City is managed by the City of Banning Public Works Department and is collected and disposed of by Waste Management Inland Empire via an existing contract with the City. Waste Management provides separate containers to residential uses for trash, recycling, and green waste and also provides free pickup of used motor oil and electronic waste.

In 2015, the most current year for which CalRecycle data is available, the City disposed of 22,111.63 tons of solid waste from all sources.¹ Waste generated in the City is disposed of in the following landfills: Antelope Valley Public Landfill, Azusa Land Reclamation Co. Landfill, Badlands Sanitary Landfill, El Sobrante Landfill, Lamb Canyon Sanitary Landfill, Mid-Valley Sanitary Landfill, Olinda Alpha Sanitary Landfill, Prima Deshecha Sanitary Landfill, San Timoteo Sanitary Landfill, and the Simi Valley Landfill and Recycling Center.

3.13.2 Specific Plan EIR

Please see Section 4.12 of the Specific Plan EIR for analyses of the potential effects of the 2012 Specific Plan Project regarding Public Services and Utilities.

The Specific Plan EIR concluded that the following impacts would be less than significant related to Public Services and Utilities with implementation of mitigation measures, with the exception of cumulative impacts related to the following: public school facilities, library services and facilities, hospital facilities, use of parks or other recreational facilities, consumption of energy, telecommunication facilities, and wastewater treatment requirements.

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance standards?*

Impact: Fire Services and Facilities. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the 2012 Specific Plan Project would have resulted in an increased demand for fire services and facilities. The Specific Plan EIR determined that impacts to fire protection would be less than significant with Mitigation Measures PSU-1 and Mitigation Measures HAZ-6 and HAZ-10 through HAZ-12 incorporated. Mitigation Measure PSU-1 addresses potential impacts related to the provision of adequate fire services to all portions of the

¹ CalRecycle. Website: <http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=ReportYear%3d2014%26ReportName%3dReportEDRSJurisDisposalByFacility%26OriginJurisdictionIDs%3d34> (accessed August 19, 2016).

Project site. Mitigation Measure PSU-1 requires the Applicant and the Riverside County Fire Department to work together to determine the appropriate timing for additional fire services. Mitigation Measures HAZ-10, HAZ-11, and HAZ-12 outline required standards and procedures to reduce impacts related to wildfires. Further, the reduction of fire hazards related to the presence of a high pressure natural gas pipeline through the Project site would have been addressed through the replacement of existing pipeline as provided for in Mitigation Measure HAZ-6. Refer to Section 3.8, Hazards and Hazardous Materials, of this Addendum for Mitigation Measure HAZ-6, as well as Mitigation Measures HAZ-10 through HAZ-12. Therefore, the Specific Plan EIR determined that impacts with respect to fire services and facilities would be less than significant with mitigation incorporated.

Mitigation Measure PSU-1: Applicant shall communicate and work with the Fire Chief throughout Project development to determine the appropriate timing for a potential addition of a fire response unit (medic squad, fire engine), or the need for a fire station that is conceptually located in PA 60 but could be located in any Planning Area as described within the Specific Plan. When the fire station or a response unit is determined to be necessary, the Applicant shall fund and/or construct the fire response unit and/or fire station, and would subsequently be credited the cost of the fire response unit or fire station towards the payment of applicable fire fees.

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered police protection facilities or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance standards?*

Impact: Police Services and Facilities. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the population increase of roughly 14,168 persons under the 2012 Specific Plan Project could generate a demand for as many as 28 additional sworn officers at full build out, based on the City of Banning's Police Department adopted officer-to-resident ratio goal. The need for additional officers to meet the City's officer-to-resident ratio would have occurred slowly and incrementally over time. Accordingly, existing facilities could have remained adequate for the provision of police services to the 2012 Specific Plan Project for much of its development period. To finance any new facilities, or the expansion of existing facilities, the City assesses a Police Facilities Fee on all new development. In addition, the 2012 Specific Plan Project was determined to result in indirect contributions to the City's General Fund through sales and property taxes and thus provide financial support for expanded police operations. The 2012 Specific Plan Project was also required to comply with Mitigation Measure PSU-2, which requires incorporation of defensible space design elements into the Project's multifamily and cluster housing developments to maintain compliance with the General Plan and to facilitate policing of the community. With the payment of the Police Facilities Fee and the implementation of Mitigation Measure PSU-2, the impacts to police facilities would be reduced to a less than significant level.

Mitigation Measure PSU-2: The Project shall incorporate the principles of defensible space as defined by the U.S. Department of Housing and Urban Development Office of Policy Development and Research in the design of cluster housing and/or multifamily housing within the Proposed Project to reduce the impact of such development on police services. These principles shall be incorporated through inclusion of the following design solutions:

- Orienting the front doors and living area windows to the public street without providing “protection” of walls and fencing while providing back doors in these same units that allow access to more secure play areas and open space.
- Clustering parking in close proximity to units or the must provide enclosed garages or semi-subterranean parking garages that can be secured.
- Providing motion-activated security lighting.
- Clustering multifamily units around shared courtyard spaces with appropriate amenities that draw residents into the common area and encourage the development of relationships between neighbors through interaction in the public domain.

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered school facilities?*

Impact: Public School Facilities. Less than Significant Impact with Mitigation Incorporated. The Specific Plan EIR assumed that approximately 390 of the proposed dwelling units located in Planning Areas (PA) 50, 51, 52 would be located in the Banning Unified School District jurisdiction, with the remaining approximately 4,997 residences located within the Beaumont Unified School District jurisdiction. The total number of students that could be generated by the 2012 Specific Plan Project would have been incremental over time.

The 2012 Specific Plan Project would have complied with Government Code Section 65995 and would have paid prevailing school facility impact fees at the time of building permit issuance, which would have provided full mitigation of the 2012 Specific Plan Project’s impacts on school facilities, pursuant to Senate Bill 50 and the California Government Code. 2012 Specific Plan Project impacts to public schools would also be addressed through the provision of two potential school sites within the development (Mitigation Measure PSU-3). With the payment of the school facility impact fees and the implementation of Mitigation Measure PSU-3, impacts to public school facilities were determined to be less than significant.

Mitigation Measure PSU-3: The Project shall include potential school sites within the development by designating and setting aside two 11+ acre Planning Areas (i.e., PA 68 for Banning Unified School District and PA 20 for Beaumont Unified School District) to increase available school facilities.

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered public library facilities?*

Impact: Library Services and Facilities. Less than Significant Impact. As described in the Specific Plan EIR, the 2012 Specific Plan Project would have contributed substantially toward overall City General Fund revenue, which would have proportionally increased revenue available to the local library districts that could have been used to expand existing facilities. Future development occurring under the 2012 Specific Plan would have also been required to pay any Library Facilities Fee that could have been levied on new future development. In addition, the 2012 Specific Plan Project would have provided school sites that would have been developed with schools which would have included on-site libraries that could be used jointly with the library districts and would have also provided a location for a new community center that could have been jointly used to increase community access to the internet, a primary function of existing library facilities. Therefore, impacts to library services and facilities following implementation of the 2012 Specific Plan Project were determined to be less than significant.

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered hospital facilities?*

Impact: Health Care Services and Facilities. Less than Significant Impact. As described in the Specific Plan EIR, because the Deutsch Specific Plan's projected contribution to the demand for hospital facilities was considered in the City's General Plan EIR analysis, and the 2012 Specific Plan Project was determined to be generally consistent with the Deutsch Specific Plan, implementation of the 2012 Specific Plan Project was not expected to have any significant adverse impacts on medical facilities in the area. Therefore, impacts to health care services and facilities following implementation of the 2012 Specific Plan Project were determined to be less than significant.

Threshold: *Would the Project result in an increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Impact: Parks and Recreation Services and Facilities. Less than Significant Impact described in the Specific Plan EIR, at full build out, the 2012 Specific Plan Project would include 19 neighborhood/mini parks, 2 neighborhood recreation parks, 3 community park areas, 2 potential joint-use school sites, and a 253.9-acre golf course. The park and recreational needs of residents on the site would have been largely accommodated by the 2012 Specific Plan Project itself based on the currently adopted City standard of 5 acres of park/recreation land for every 1,000 residents. In addition, the 2012 Specific Plan Project would have paid approximately \$10 million dollars in City imposed park facilities fees. Therefore, impacts to parks and recreation services and facilities following implementation of the 2012 Specific Plan Project were determined to be less than significant.

Threshold: *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Impact: Construction of Recreational Facilities. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, operation of the parks included as part of the 2012 Specific Plan Project could have resulted in potentially significant impacts to adjacent residential uses within the Project site. In order to reduce impacts associated with park lighting on nearby residential uses, the Specific Plan EIR determined that the 2012 Specific Plan Project would be required to comply with the City's Municipal Code and Mitigation Measure AES-7. Noise impacts from activities within these parks would not have occurred in the morning or night hours and would not occur during sensitive hours. Additionally, these parks would have been separated from residential uses by block walls, which would attenuate daytime noise. As such, the Specific Plan EIR determined that the parks included as part of the 2012 Specific Plan Project would not have resulted in significant noise impacts and would result in less than significant lighting impacts with the implementation of Mitigation Measure AES-7.

Threshold: *Would the Project require or result in the construction of new energy production and/or transmission facilities or expansion or existing facilities, the construction of which could cause significant environmental effects?*

OR

Threshold: *Would the Project encourage the inefficient, wasteful or unnecessary consumption of energy?*

Impact: Energy. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the 2012 Specific Plan Project is an amendment and restatement of the Deutsch Specific Plan, which was included in the City's 10-year Electric System Master Plan. Because the 2012 Specific Plan Project proposed fewer residential units and similar commercial square footage as compared to the Deutsch Specific Plan, the 2004 Master Plan estimate of demand would remain valid for the 2012 Specific Plan Project. No additional supplies were determined to be required for the 2012 Specific Plan Project and its development would not have required or resulted in the construction of new energy production facilities.

The 2012 Specific Plan Project also included the relocation of certain existing power transmission lines and a portion of the existing high pressure natural gas pipeline, and the installation of underground electrical power lines and natural gas lines throughout the Project site. As required by Mitigation Measure HAZ-6 (refer to Section 3.8, Hazards and Hazardous Materials), precautions would be required to avoid the SoCalGas pipeline observed crossing the property. With implementation of Mitigation Measure HAZ-6, the 2012 Specific Plan Project's impacts on energy generation and transmission facilities would be less than significant.

Energy Consumption. As described in the Specific Plan EIR, all new construction facilitated by the 2012 Specific Plan Project would have been required to comply with California's Energy Efficiency Standards for Residential and Nonresidential Buildings, contained in Title 24, Part 6, of the California Code of Regulations as amended in 2008. In addition, Specific Plan Design Guidelines include provision for the use of photovoltaic panels integrated into the roofline of

residential structures. Therefore, with compliance to efficiency requirements and green design, the Specific Plan EIR concluded that the 2012 Specific Plan Project would not encourage the wasteful or inefficient use of energy and its impacts relative to this threshold would be less than significant. Therefore, impacts related to energy facilities and consumption following implementation of the 2012 Specific Plan Project were determined to be less than significant.

Threshold: *Would the Project result in a need for new systems or substantial alterations to existing communication systems?*

Impact-Communications Systems. Less than Significant Impact. As described in the Specific Plan EIR, cable, internet, and phone services would have been extended through the 2012 Specific Plan Project by their providers as part of the dry utility installations. Cell towers to serve the area were in place at the time the Specific Plan EIR was prepared or could have been constructed unobtrusively within the Project site if needed. Installation of facilities and cabling necessary to support telecommunications would have been performed by the service provider as each tract in the Specific Plan was developed. Therefore, impacts to communication systems following implementation of the 2012 Specific Plan Project were determined to be less than significant.

Threshold: *Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

OR

Threshold: *Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

OR

Threshold: *Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?*

Impact: Sanitary Sewer and Recycled Water. Less than Significant Impact with Mitigation Incorporated.

Wastewater. As described in the Specific Plan EIR, the 2012 Specific Plan Project was expected to generate approximately 1.34 million gallons per day (mgd) (without conservation) of wastewater at full build out, not including adjustments based on future water demand reductions due to conservation. With completion of the proposed plant expansion, there could be an excess capacity of 1.76 mgd available after all of the 2012 Specific Plan Project's needs were addressed. Project-generated wastewater would have been handled by either the City's existing treatment plant or a potential optional on-site satellite wastewater treatment plant, and impacts were, therefore, identified as less than significant.

Alternatively, or in combination with the planned expansion of the City's treatment plant, the 2012 Specific Plan Project could have supplemented the City's wastewater treatment capacity through the construction and operation of a satellite waste water treatment plant on site. The proposed satellite plant would have had the capacity to treat the estimated wastewater generated by the 2012 Specific Plan Project at build out and additional wastewater generated by existing uses located nearby. The proposed on-site water treatment plant would have required a permit from the Regional Water Quality Control Board (RWQCB) and would have been operated pursuant to RWQCB requirements. With payment of required connection fees and compliance with required regulatory agency permits, the Specific Plan EIR concluded project would not have significant impacts related to RWQCB wastewater treatment requirements.

As described in the Specific Plan EIR, the 2012 Specific Plan Project would have required either the expansion of existing City wastewater treatment facilities or the construction of a satellite wastewater treatment facility on site. It was also determined that the potential impacts associated with the proposed off-site expansion would have been less than significant or could have been mitigated to a less than significant level. Mitigation Measure PSU-4 was required to ensure that potential impacts associated with the construction of a sewer lift station at the Omar Street location would be avoided and/or effectively mitigated. Implementation of Mitigation Measures PSU-4 and PSU-5 were determined to result in the reduction of potential impacts of off-site infrastructure, specifically impacts associated with sensitive resources, to less than significant levels.

Mitigation Measure PSU-4: Off-site infrastructure improvements shall comply with all of the same mitigation measures for on-site facilities, as applicable. Off-site facilities shall provide for:

- a. Fair market compensation for private land acquisition, if City-owned parcels are not available. Such acquisition shall be either through voluntary sale or through eminent domain proceedings in accordance with local and State law.
- b. A general biological assessment for off-site above ground infrastructure by a qualified biologist. If sensitive resources are determined to be present, those resources shall be assessed and/or delineated, mitigation measures shall be developed and imposed.

Mitigation Measure PSU-5: Prior to the issuance of building permits for the Satellite Wastewater Treatment Plant and wastewater facilities, the Applicant shall prepare a site-specific construction-level noise analysis analyzing potential on- and off-site noise impacts. In addition, the analysis shall evaluate the potential noise impacts to existing and proposed sensitive receptors. Construction and implementation of the wastewater treatment plan would require a Conditional Use Permit (CUP) to be approved by the City of Banning, as well as design review of the proposed site plan and building architecture, landscaping and lighting. Compliance with the existing regulations (specified under Impact 4.8-1) and on-

going monitoring of the plant's operations would reduce potential impacts associated with the routine use, handling, transport, and storage of hazardous materials.

Also, refer to Mitigation Measures AQ-8 and NOI-5.

The City has an adopted Capital Improvement Program that includes upgrades and the expansion of the City's wastewater treatment infrastructure which were determined to be sufficient to accommodate the 2012 Specific Plan Project. Its 2006 Recycled Water Master Plan and its 2009–2010 Rates Study anticipated and included the construction of the 2012 Specific Plan Project. In addition, the City's Municipal Code allows the City to require extension of wastewater infrastructure to the Project site as a condition of approval for the Specific Plan. Accordingly, the Specific Plan EIR determined the City had and would have the capacity to serve the project as it develops over time. Therefore, impacts were considered less than significant.

Threshold: *Would the Project be served by a landfill that does not have sufficient permitted capacity for Project's solid waste disposal needs?*

OR

Threshold: *Would the Project fail to comply with federal, State, and local statutes and regulations related to solid waste?*

Impact: Solid Waste. Less than Significant Impact with Mitigation Incorporated. The Specific Plan EIR determined that build out of the 2012 Specific Plan Project would increase the total citywide generation of solid waste, but with mitigation, impacts to landfill facilities would be less than significant. Specifically, Mitigation Measure PSU-6 requires the operator of the golf course to prepare an Operational Waste Management Plan to reduce green waste from the site. With implementation of Mitigation Measure PSU-6, its impacts with regard to solid waste were determined to be less than significant.

The Specific Plan EIR determined that the project would be fully compliant with all federal, State, and local requirements for solid waste diversion and recycling, and, with mitigation, impacts with regard to solid waste would be reduced to a less than significant level with implementation of Mitigation Measure PSU-6.

Mitigation Measure PSU-6: The operator of the Butterfield Specific Plan Golf Course shall prepare and implement an Operational Waste Management Plan that incorporates to the extent feasible the Best Management Practices for the management of green waste recommended by the Golf Course Superintendent Association of America (GCSAA) including separate collection and recycling of green waste by a licensed hauler and recycling facility, on-site use of green waste for landscape mulching, and other methods acceptable to the City and the SCAQMD so as to reduce the facility's impact on landfill capacity.

Cumulative Impacts.

Fire Facilities. Less than Significant Impact with Mitigation Incorporated. The Specific Plan EIR determined that additional development occurring within the Fire Department's Oak Glen service area would result in an increased demand for fire protection services, including the need for additional and/or expanded fire protection facilities. Implementation of the 2012 Specific Plan Project was determined to add to potential impacts associated with this increased demand for fire protection services, but due to the implementation of Project-specific mitigation measures, the Specific Plan EIR determined the 2012 Specific Plan Project would result in a less than significant cumulative impact related to fire facilities.

Police Facilities. Less than Significant Impact with Mitigation Incorporated. The Specific Plan EIR determined that because the City had not yet met police service ratios established in the General Plan and because additional development could result in an increased demand for police protection services, including the need for additional and/or expanded police protection facilities, implementation of the 2012 Specific Plan Project would serve to further increase the demand for police protection services. However, due to the implementation of Project-specific mitigation measure and the payment of Police Facilities Fees, the Specific Plan EIR determined the 2012 Specific Plan Project would result in a less than significant cumulative impact related to police facilities.

School Facilities. Less than Significant Impact. The Specific Plan EIR determined that implementation of the 2012 Specific Plan Project would increase the demand for school facilities because the Project would have generated a number of students at project buildout that would exceed the capacity available or reasonably projected to be available at existing schools. As such, the 2012 Specific Plan Project included two on-site schools to serve both the Banning and Beaumont USDs. Furthermore, the 2012 Specific Plan Project would have paid School District Facilities Fees, which according to State Law, would fully mitigate impacts to these schools. For these reasons, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in a less than significant cumulative impact related to school facilities.

Library Facilities. Less than Significant Impact. At the time the Specific Plan EIR was prepared, both the Banning and Beaumont Library Districts had deficits of space pursuant to State standards. The City's General Plan EIR found that buildout of the General Plan would not create a significant and unavoidable impact on library facilities. The Specific Plan EIR determined that implementation of the 2012 Specific Plan not result in a cumulatively significant demand for library facilities because the 2012 Specific Plan Project would be consistent with the Deutch Specific Plan, which was included in the land use and population growth numbers that supported the General Plan EIR analysis. The Specific Plan EIR did, however, require that the 2012 Specific Plan Project pay applicable Library Facilities Fees to further reduce impacts to these library districts. For these reasons, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in a less than significant cumulative impact related to library facilities.

Health Care Services and Facilities. Less than Significant Impact. The Specific Plan EIR determined that implementation of the 2012 Specific Plan not result in a cumulatively significant demand for health care services and facilities because improvements associated with the San Gorgonio Memorial Hospital would have increased its capacity, thereby ensuring this facility could serve the 2012 Specific Plan Project.

Parks and Recreation Facilities. Less than Significant Impact. The Specific Plan EIR determined that implementation of the 2012 Specific Plan would have included park facilities that could have been accessed by adjacent residents living outside the boundaries of the Project site. Additionally, the 2012 Specific Plan **Project** may have included a site for the development of a new community center and would have paid City-imposed Parkland Fees. The 2012 Specific Plan Project would have also included a number of on-site parks and a golf course to further reduce the Project-related demand on existing parks and recreation facilities. Therefore, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in a less than significant cumulative impact related to parks and recreation facilities.

Energy. Less than Significant Impact. The City's 10-Year ESMP assumes the need for additional transmission facilities to meet needs associated with anticipated growth, including the 2012 Specific Plan Project. The Specific Plan EIR determined that implementation of the 2012 Specific Plan could have been served by existing facilities, including an already constructed and operated substation, and with existing generating capacity. In addition, because the 2012 Specific Plan Project would have complied with applicable energy reduction regulations, the Specific Plan EIR determined that the 2012 Specific Plan Project would have met or exceeded local, State, and federal energy conservation guidelines and regulatory requirements. Therefore, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in a less than significant cumulative impact related to energy facilities.

Communication Systems. Less than Significant Impact. The Specific Plan EIR determined that while the 2012 Specific Plan could have increased the demand for telecommunication services, telecommunication services are provided to customers as requested and the service provider would construct those systems in accordance with applicable regulations. Therefore, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in a less than significant cumulative impact related to telecommunication facilities.

Sanitary Sewer and Recycled Water. Less than Significant Impact. The City's General Plan EIR estimate that buildout of the General Plan would have the potential to generate approximately 8,203,300 gallons of wastewater per day, which includes the potential wastewater generated by the 2012 Specific Plan Project. The Specific Plan EIR also noted that the City's Sewer System Study (2006) also anticipated a need to expand capacity at the City's treatment plants, as well as the need to expand the balance of the City's sewer collection and transmission system. The City's Sewer System Study also included a plan to create a network for the distribution of recycled water. These facilities would be funded through connection fees, user fees, plan check fees, General Fund revenue, and other sources. Because implementation of the

2012 Specific Plan Project would have fully mitigated its own impacts with respect to sewer and recycled water facilities, the Specific Plan EIR determined that implementation of the 2012 Specific Plan Project would result in a less than significant cumulative impact related to sanitary sewer and recycled water facilities.

Solid Waste. Less than Significant Impact. The City's General Plan EIR estimate that buildout of the General Plan would have the potential to generate approximately 88,223 tons of solid waste per year, which does not account for diversion factors. The Specific Plan EIR noted that all mitigation measures in the City's General Plan EIR would be applied to the 2012 Specific Plan Project. The 2012 Specific Plan Project would also comply with Mitigation Measure PSU-6, outlined in the Specific Plan EIR, which requires that the golf course operator implement efficient green waste recycling and diversion practices. Schools included as part of the 2012 Specific Plan Project would also comply with their existing waste management and recycling plans. Existing landfills were determined to have capacity to serve the 2012 Specific Plan Project. Therefore, the Specific Plan EIR determined that implementation of the 2012 Specific Plan Project would result in a less than significant cumulative impact related to sanitary sewer and recycled water facilities

3.13.3 Analysis of Project Changes

Fire Services and Facilities. The Proposed Project represents an overall reduction in the intensity and scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Because the Proposed Project includes fewer residential units it would result in fewer residents¹ less demand for fire protection. Therefore, the need for fire protection services would be incrementally less than the need for those services by the 2012 Specific Plan Project analyzed in the Specific Plan EIR. Mitigation Measures PSU-1, HAZ6, and HAZ-10 through HAZ-12 would remain applicable to the Proposed Project. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to fire services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Police Services and Facilities. The Proposed Project reduces intensity and includes more open space compared to the 2012 Specific Plan Project. Therefore, the Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Due to the reduction in future residents, the need for police protection services would be incrementally less than the need for those services by the Project analyzed in the

¹ The Proposed Project would result in an additional 12,204 residents in the City. This increase in populations was developed using a factor of 2.51 persons per household multiplied by the total of 4,862 units included as part of the Proposed Project. Using the same factor, the 2012 Specific Plan Project would have generated a total of 13,522 residents (5,387 units * 2.51 persons per household). Accordingly, the Proposed Project would result in a reduction of 1,318 persons compared to the originally approved 2012 Specific Plan Project. The number of persons per household was reported by the United States Census Bureau for the years 2010 through 2014. United States Census Bureau, Quick Facts-Banning City, California, <http://www.census.gov/quickfacts/table/HSD310214/0603820> (accessed August 23, 2016).

Specific Plan EIR. Mitigation Measure PSU-2 is still applicable to the Proposed Project. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to police services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Public School Facilities. The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Therefore, due to a reduced generation of school age population, school facilities' needs would be incrementally less than the needs for the 2012 Specific Plan Project analyzed in the Specific Plan EIR. While the Proposed Project would result in a reduced number of school-aged children as a result of the reduction in on-site dwelling units, the Banning USD is now requesting a 14-acre school site (which has been incorporated into the land use plan) instead of the originally planned 12-acre site. Similarly, the Beaumont USD school site would be increased by approximately 1 acre. These larger sites can be accommodated within the Proposed Project. Additionally, the provision of these two schools on the site is required by Mitigation Measure PSU-3. Despite the increase in the size of the school site, the Proposed Project would not cause a substantial increase in environmental impacts associated with the provision of new school facilities. Furthermore, implementation of the Proposed Project would increase student capacity at both the Beaumont and Banning Unified School Districts, which would accommodate the project-related increase in school children and may also serve to alleviate capacity issues at other schools in the area. Finally, new development occurring under the Proposed Project would be required to pay applicable school fees. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to public school facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Library Services and Facilities. The Proposed Project represents an overall reduction in scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Due to the reduction in on-site residents, the need for library facilities would be less than the need for those facilities by the Project analyzed in the Specific Plan EIR. The Project contribution to the City General Fund and payment of any library fees would still be required for the Proposed Project. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to library facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Health Care Services and Facilities. The Proposed Project represents an overall reduction in the intensity and scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Due to the reduction of residents, the need for hospital facilities would be incrementally less than the need for those facilities by the Project analyzed in the Specific Plan EIR. Furthermore, the City's General Plan EIR considered the Deutsch Specific Plan's projected contribution to the demand for hospital facilities. Therefore, because the 2012 Specific Plan Project was determined to be generally consistent with the Deutsch Specific Plan, implementation of the smaller-scale Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to health care services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Parks and Recreation Services and Facilities. In place of the previously proposed golf course in PAs 35 and 39, the Proposed Project would develop these PAs with open space and other similar uses permitted under the 2012 Specific Plan Project. Under the Proposed Project there would be a 16 percent increase in parks and open space (approximately 67 acres) as compared to the 2012 Specific Plan project. Additionally, because there are fewer residents associated with the Proposed Project, the use of existing and neighborhood and regional parks would be incrementally less than the use of parks for the Project analyzed in the Specific Plan EIR. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to parks and recreation services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Energy. The Proposed Project represents an overall reduction in the intensity and scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR. Specifically, the residential component of the Proposed Project would result in a reduction of 3,395,700 kilowatt hours per year as compared to the 2012 Specific Plan Project due to the reduction project intensity. The Proposed Project also includes the installation of ultra-low flow toilets and Energy Star efficiency standard developer-installed appliances throughout the Project, as well as installation of solar voltaic systems (or equivalent) for certain multifamily residential developments, electric car-charging stations in certain areas, and may also include a ride-sharing lot to encourage reduced vehicle trips. The Proposed Project would also comply with CalGreen buildings standards and would utilize local water supplies to the extent feasible which would reduce reliance upon imported water, and therefore reduce energy required for pumping and delivering water to the Project Site. Additionally, the construction of fewer units would result in less energy used during Project construction and fewer residents would result in less energy consumption during Project operation. The reduced amount of development would incrementally reduce energy demands. Mitigation Measure HAZ-6 would also remain applicable to the Proposed Project. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would increase energy efficiency compared to the 2012 Specific Plan. The Proposed Project would not result in any new significant environmental effects to energy or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Communications Systems. The Proposed Project represents an overall reduction in the intensity and scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR. As such, the Proposed Project would result in a reduced demand for cable, internet, and phone services and associated infrastructure improvements. Installation of these facilities remains the responsibility of the service provider. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects to communication systems or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Sanitary Sewer and Recycled Water. The Proposed Project represents an overall reduction in the intensity and scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR. As such, the Proposed Project would result in a reduced demand for sanitary sewer services and recycled water and associated infrastructure improvements. Installation of these

facilities remains the responsibility of the service provider. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to sanitary sewer and/or recycled water facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Wastewater. The Proposed Project represents an overall reduction in the intensity and scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR and would consequently result in a reduced demand for wastewater treatment. At build-out, the Proposed Project will produce approximately 869 AFY of direct wastewater flows, a reduction from the 942 AFY under the 2012 Specific Plan Project.¹ Therefore, wastewater treatment requirements would be incrementally less than the requirements for the 2012 Specific Plan Project analyzed in the Specific Plan EIR. Similar to the 2012 Specific Plan Project, the Proposed Project may also include a satellite wastewater treatment plant. The environmental impacts of constructing wastewater treatment facilities and infrastructure would remain similar to those analyzed under the 2012 Specific Plan EIR. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to wastewater or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Solid Waste. The Proposed Project reduces intensity and includes more open space compared to the 2012 Specific Plan Project. The Proposed Project also eliminates the golf course from Planning Areas 35 and 39. Therefore, the Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR and, therefore, would result in an overall reduction in solid waste generated from the Project. Specifically, the Proposed Project would result in an estimated 10,770.06 tons per year tons of solid waste² at Project buildout. With the removal of the golf course, Mitigation Measure PSU-6 would no longer be applicable to the Proposed Project and would not be required to reduce impacts. Although there would be less solid waste generated due to the reduction of residential units, the Project would still comply with all federal, State, and local requirements for solid waste diversion and recycling. Therefore, there would be less solid waste generated by the Proposed Project than for the Project analyzed in the Specific Plan EIR. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to solid waste or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

¹ 4,862 DU x 139.3 GPD wastewater flow per unit (net of anticipated water conservation) + 111 AFY of wastewater flows from non-residential uses (commercial, schools, club houses, recreation centers). Generation rate of 139.3 GPD was derived from the WSA prepared for the 2012 Specific Plan Project. The non-residential wastewater generation was derived by taking the percentage increase (10 percent) of commercial, school and landscaped/recreational areas under Proposed Project and applying it to the 101 AFY of wastewater from non-residential uses associated with the 2012 Specific Plan Project.

² 4,296 Single-Family DU * 2.04 tons/unit/year => 8,763.84 tons/year + 566 Multi-Family DU * 1.17 tons/unit/year=> 662.22 tons/year + 560,000 square feet of Commercial/Office * .0024 tons/square feet/year=> 1,344 tons = 10,770.06 tons per year. Generation rates included in the Specific Plan EIR were utilized for this analysis.

Cumulative Impacts.

Fire Services and Facilities. Potential cumulative impacts are associated with increased demand for fire services under the Proposed Project. The Mitigation Measure PSU-1 remains applicable to the Proposed Project and would serve to reduce impacts related to fire services. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to fire services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Police Services and Facilities. Potential cumulative impacts are associated with increased demand for police services under the Proposed Project. The PDFs and Mitigation Measure PSU-2 remain applicable to the Proposed Project and would serve to reduce impacts related to police services. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to police services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Public School Facilities. Potential cumulative impacts are associated with increased demand for additional school facilities under the Proposed Project. The payment of District-levied School Facilities Fees and Mitigation Measure PSU-3 remains applicable to the Proposed Project and would serve to reduce impacts related to the provision of public school facilities. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to public school facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Library Services and Facilities. Potential cumulative impacts are associated with increased demand for additional library services and facilities under the Proposed Project. The two library districts that serve the Specific Plan area have ability to impose library facilities fees on new development to fund facility expansion. The potential for library facilities fees remains applicable to the Proposed Project and would serve to reduce impacts related to the provision of library services and facilities. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to library services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Health Care Services and Facilities. Potential cumulative impacts are associated with increased demand for additional health care services and facilities under the Proposed Project. The San Geronio Memorial Hospital has independently planned for population growth in its service area and will have capacity to serve up to 225,000 persons per year once its new facilities are completed. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to

health care services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Parks and Recreation Programs and Facilities. Potential cumulative impacts are associated with increased demand for parks and recreation programs and facilities under the Proposed Project. The payment of Parkland Facilities Fees remains applicable to the Proposed Project and would serve to reduce impacts related to the provision of park and recreation programs and facilities. In addition, the Proposed Project includes fewer residents and would, therefore, require fewer park facilities. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to parks and recreation services and/or facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Energy. Potential cumulative impacts are associated with increased demand for additional electricity under the Proposed Project (see Table 3.H, below). The geographic area for the cumulative analysis of impacts to the provision of electricity is the service territory of the Banning Electric Department.

Table 3.H: Estimated Electricity Usage.

Land Use-Proposed Project	Annual Usage Rate	2012 Specific Plan Project	Proposed Project
Residential (4,862 units)	6,460 kilowatt-hour/unit/yr	34,800,020 kWh/year	31,408,520 kWh/year
Commercial (560,000 sf)	27.8 kilowatt-hour/sf/yr	15,262,200 kWh/year	15,568,000 kWh/year
Schools (217,000 sf)	2.5 kilowatt-hour/sf/yr	1,200,000 kWh/year	590,000 kWh/year
Wastewater Treatment Plant (2 mgd capacity)	1,541 kilowatt-hour/million gallons/yr	1,124,930 kWh/year	1,124,930 kWh/year
Golf Course (not included in project)	-	300,000 kWh/year	-
Total	-	52,687,150.00 kWh/year	48,691,450 kWh/year

Source: Section 4.12, Public Services and Utilities, of the Specific Plan EIR

kWh= kilowatt hour

mgd = million gallons per day

sf= square feet

yr = year

Buildout of the Proposed Project would result in an operational electricity demand of 48,691,450 kWh per year (a 3,995,700 kWh per year decrease in demand over the 2012 Specific Plan Project).

As described in the Specific Plan EIR, the 2012 Specific Plan Project's electricity demand would be 13 percent of the total projected annual consumption, and therefore, would be within the Banning Electric Department's ability to serve the Project site. Because the Proposed Project would result in a decreased demand for electricity as compared to the 2012 Specific Plan Project, build out of the Project would result in a less than significant cumulative impact related to electricity demand.

Natural gas is provided to the City by SoCal Gas. The City's General Plan accounts for the previously approved Deutsch Specific Plan in its natural gas projections. Because the Proposed Project would generally be consistent with the previous Specific Plan approved for the site, the Specific Plan EIR determined that cumulative impacts with respect to natural gas demand would be less than significant. Because the Proposed Project represents a reduction in intensity as compared to the 2012 Specific Plan Project, the project-related natural gas demand would be less than the 2012 Specific Plan Project's natural gas demand and would therefore, be less than significant. Accordingly, build out of the Project would result in a less than significant cumulative impact related to natural gas demand.

Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to energy or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Communications Systems. The Proposed Project represents an overall reduction in the intensity and scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR. As such, the Proposed Project would result in a reduced cumulative demand for cable, internet, and phone services and associated infrastructure improvements at project build out. Installation of these facilities remains the responsibility of the service provider. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to communication systems or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Sanitary Sewer and Recycled Water. The City's General Plan EIR estimates that build out of the General Plan, which includes potential wastewater generated within the 2012 Specific Plan Project, would generate approximately 8,203,300 gallons of wastewater per day. The Specific Plan EIR determined that cumulative impacts with respect to wastewater would be within the City's capacity to treat wastewater with implementation of mitigation prescribed in the Specific Plan EIR and implementation of the wastewater treatment plant.

The Proposed Project represents an overall reduction in the intensity and scale of development than the 2012 Specific Plan Project analyzed under the Specific Plan EIR. As such, the Proposed Project would result in a reduced cumulative demand for sanitary sewer services and recycled water and associated infrastructure improvements. Similar to the 2012 Specific Plan Project, the Proposed Project would implement all applicable mitigation measures identified in the Specific Plan EIR with respect to wastewater and would also include an optional on-site wastewater treatment plan. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to sanitary sewer and recycled water facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Solid Waste. Potential cumulative impacts related to solid waste are associated with both construction and operation of the Proposed Project. Construction-related solid waste would be generated primarily from demolition during construction but would not increase beyond those impacts considered in the Specific Plan EIR and short-term waste generation would cease when

construction activities are completed. Cumulative long-term solid waste impacts occur when waste generated by the Proposed Project is added to future solid waste generated in the greater service area. In addition to the reduction in solid waste from the reduced in residential units, adherence to recycling efforts and current State and local codes requiring a reduction in solid waste, should result in further reductions in overall solid waste volumes. With the removal of the golf course, Mitigation Measure PSU-6 would no longer be applicable to the Proposed Project and would not be required. Therefore, in the Proposed Project does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental effects related to solid waste or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.13.4 Findings Related to Public Services

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to Public Services and Utilities, nor is there a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Public Services and Utilities that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. No significant unavoidable impacts related to Public Services and Utilities were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating whether a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to noise requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Public Services and Utilities identified and considered in the Specific Plan EIR. Mitigation Measure PSU-6, which required an Operational Waste Management Plan for the management of green waste, would no longer be applicable to the Proposed Project because the golf course has been removed from the Proposed Project.

3.13.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (also listed in Section 2.1.2 of this Addendum) remain applicable to the Public Services and Utilities analysis for the Proposed Project. Minor edits to these PDFs have been made to reflect the changes to the Proposed Project resulting from the Settlement Agreement and are identified below. These changes are shown in ~~strikeout~~/underline below.

1. In addition to paying over \$7 million~~3~~ in potential City fire facility impact fees, the Project proposes to reserve and/or dedicate a site for the construction of a new fire station within the Project site, currently illustrated in the southeast corner of Planning Area ~~60~~72 though subject to location change based on the City's preference. Reservation of the fire station site would aid towards substantially improve fire services within and beyond the Project area and place additional resources in closer proximity to wildland areas, helping to reduce the risk associated with wildfire for the entire community.
4. All homes within the Project constructed ~~as of 2011~~ will include in-house fire protection sprinkler systems per new State regulations, which the City will enforce through its building and occupancy permit process.
11. The Project includes park, open space and recreational uses that total approximately 496.5 ~~50.9~~ acres or approximately 32.5 ~~29.5~~ percent of the Project footprint. Developed park acreage may be credited toward part, or all, of the Project's required parkland fees, which are estimated to be in excess of \$10 million.
12. The Project would offer two elementary school sites for dedication to the Banning and Beaumont USDs. These sites, totaling 258 acres, would be located in PA 20 and PA 68. If constructed, both sites could potentially provide joint use of playground/field facilities for neighborhood recreational uses pursuant to with the school districts.
13. The Project will include 19 neighborhood mini-parks in PAs 21, 22, 24, 26, 28-33, 34, 36-39, 62, 63, 64, ~~64,~~ 65, 67, and 72 that would include combinations of play equipment, play areas, sport courts, shade structures, picnic areas, passive turf play areas, sand boxes, benches, and basic related amenities.
14. The Project will include neighborhood recreation parks in PAs 21 and 63, ranging in size from 3 to 48 acres, to serve the active and passive recreational needs of residents. The parks would be centrally located and would be accessible through a pedestrian system of walkways and paths.
16. ~~The Project would include open space and potentially an 18-hole golf course and clubhouse in the 253.9-acre area that includes PAs 35 and 39, located through the central portion of the Project area. Though privately owned, the golf course would be open to the public 7 days per week with the potential for nighttime driving range hours.~~
17. The Project would include the construction and/or extension of trails within and adjacent to open space PAs 19, ~~50-52, 60-61~~21-25, 28-30, 32-39, 62, 63-66, 68, 69, 73, 74 and 71-75, and within the natural open space area located on the northeastern portion of the Project site. These trails will provide connections between the residential communities and the natural open space areas within and adjacent to the Project.
19. The Project's parks, trails and open space areas would be maintained by a Landscape Lighting and Maintenance District (LLMD), or other similar entity for use by the Project residents and

would not impact the City's General Fund. ~~The Project golf course will be specifically open to the general public for a use fee and owned, operated, and maintained by a private operator.~~

3.13.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Project would affect the mitigation measures contained therein. Based on the analysis and information above, no changes to the mitigation measures found in the Specific Plan EIR are required. However, due to the removal of the golf course from the Proposed Project, Mitigation Measure PSU-6 is no longer required. Mitigation Measures PSU-1 through PSU-5 remain applicable to the Proposed Project.

3.13.7 Mitigation Measures No Longer Applicable

The Settlement Agreement included the removal of the golf course from the Proposed Project. Therefore, Mitigation Measure PSU-6 is no longer applicable and shall be removed from the conditions of approval.

~~**Mitigation Measure PSU-6:** The operator of the Butterfield Specific Plan Golf Course shall prepare and implement an Operational Waste Management Plan that incorporates to the extent feasible the Best Management Practices for the management of green waste recommended by the Golf Course Superintendent Association of America (GCSAA) including separate collection and recycling of green waste by a licensed hauler and recycling facility, on-site use of green waste for landscape mulching, and other methods acceptable to the City and the SCAQMD so as to reduce the facility's impact on landfill capacity.~~

3.14 TRANSPORTATION/TRAFFIC

3.14.1 Existing Environmental Setting

There have been no major changes to the existing setting of the Project site with respect to transportation and traffic since the Specific Plan EIR was prepared. Please refer to Section 4.13 of the Specific Plan EIR for a summary of the existing environmental setting related to Transportation and Circulation. The traffic analysis in that section is based primarily on the *Traffic Impact Analysis* for the *Butterfield Specific Plan*, prepared by LSA Associates Inc. (September 15, 2010) (TIA), *City of Banning General Plan* (January 2006), the *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance* (June 2005), *City of Banning Municipal Code* (codified through January 2010) and the proposed *Draft Butterfield Specific Plan* (July 2010).

Information contained in this section is also based on the *Traffic Impact Analysis* (TIA) prepared for the Proposed Project, prepared by LSA (September 2016).

The Project site is generally bounded by Wilson Street to the south, Highland Springs Road to the west, unincorporated Riverside County land to the north and northeast, and portions of Highland Home Road to the east.

Regional access to the Project site is provided by Interstate 10 (I-10). I-10 is an eight lane freeway that runs through the City, bisecting the City into north and south communities. Major arterials in the City providing access to the site include Highland Springs Avenue, Highland Home Road, and Wilson Street.

Level of Service Standards. The relationship between capacity and traffic volumes are expressed in terms of level of service (LOS), which are defined using letter grades A through F, where LOS A represents free-flowing conditions and LOS F represents the heavily congested conditions.

According to the City of Banning GPA Change in Level of Service Policy dated September 2012, the City considers LOS D as the upper limit of satisfactory operations. Mitigation is required for any intersection where project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an already existing deficient intersection; therefore, a conservative criterion was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars would constitute a significant project impact. This criterion was applied to study intersections in all the jurisdictions.

A total of 49 intersections were included within the study area for the Specific Plan EIR, including intersections within the Cities of Banning and Beaumont and the County of Riverside. In the existing condition, the intersections of Highland Springs Avenue/6th Street-Ramsey Street and Highland Springs Avenue/I-10 Westbound Ramps operate at deficient level of service (LOS F and E, respectively).

Public and Alternative Transportation. Public transportation in the City is provided by Pass Transit, which itself provides Dial-A-Ride and bus services. The Transit Fixed Route Division of Banning operates three bus routes in the City, with the nearest transit stop to the Project site located at the southeast corner of Highland Springs Avenue and Wilson Street. Dial-A-Ride services provide a curb-to-curb service throughout the City and requires a reservation and is wheelchair accessible.

Bicycles. As previously discussed, there are no bikeways in the City. However, future bike routes are being considered to reduce reliance on cars.

3.14.2 Specific Plan EIR

Please refer to Section 4.12 of the Specific Plan EIR for an analysis of the potential effects of the 2012 Specific Plan Project related to Transportation and Circulation.

The Specific Plan EIR concluded that the following impacts would be significant and unavoidable related to transportation and circulation despite implementation of mitigation.

Similar to the Specific Plan EIR, the following section has been organized to first provide the reader an overview of project trip generation, trip distribution, and calculated intersection and freeway levels of service.

Project Trip Generation. Trip generation results associated with the 2012 Specific Plan Project indicated that Phase I (Year 2022) was expected to generate 2,427 trips during the a.m. peak hour, 3,807 trip during the p.m. peak hour, and 34,049 daily trips. Phases I and II (Year 2032) were expected to generate 3,527 trips during the a.m. peak hour, 4,542 trips during the p.m. peak hour, and 48,156 daily trips. Buildout of the 2012 Specific Plan Project (Year 2042) was expected to generate 4,626 trips during the a.m. peak hour, 5,998 trips during the p.m. peak hour, and 62,263 daily trips.

Existing (Baseline) plus Project Intersection Level of Service. The LOS analysis conducted as part of the 2012 Specific Plan Project analyzed existing plus 2012 Specific Plan Project a.m. and p.m. peak hour traffic operations at the study area intersections. Results of this analysis identified 25 intersections that exceeded LOS thresholds prior to implementation of Mitigation Measures TR-1 and TR-2 and project-related traffic improvements identified within the Cities of Banning and Beaumont, the County of Riverside, and areas within the jurisdiction of Caltrans. With mitigation incorporated, all intersections were determined to operate at acceptable levels of service. However, mitigation of Specific Plan project-related impacts in other jurisdictions outside of the City would be outside of the control of the Applicant and the City, and/or would require substantial right-of-way, or otherwise may not be feasible to construct. For these reasons, the Specific Plan EIR determined that traffic impacts at these locations are considered significant and unavoidable following project implementation.

Existing (Baseline) plus Project Freeway Segment Levels of Service. Freeway segments within the Project study area (along I-10 and State Route [SR]-60) were analyzed as part of the TIA prepared for the Specific Plan EIR. Results of this analysis indicated that all freeway segments under existing conditions would have operated at LOS E or better during the a.m. and p.m. peak hours in both directions with implementation of the 2012 Specific Plan Project.

Threshold: *Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

Impact: Conflict with an Applicable Plan, Ordinance, or Policy. Significant and Unavoidable Impact. As described in the Specific Plan EIR, the 2012 Specific Plan Project would result in significant and unavoidable impacts related to conflicts with the City's (City) General Plan despite implementation of Mitigation Measures TRF-1 through TRF-4. Mitigation Measure TRF-1 requires the Applicant to construct and/or fund required intersection improvements, Mitigation Measure TRF-2 requires the Applicant to prepare a Traffic Impact Analysis Validation Report (TVR) for submittal to the City Engineer to identify further traffic impacts associated with implementation of new development proposed under Tentative Tract Maps moving forward under the 2012 Specific Plan Project, and Mitigation Measure TRF-3 requires that improvement plans be prepared for each project-related off-site traffic improvement. Mitigation Measure TRF-4 requires the Applicant to pay a fair share toward cumulative impacts not otherwise captured in existing fee programs. Because the timely implementation of Mitigation Measures TRF-1 through TRF-4 could not be guaranteed and because impacts at study area intersections outside of the City's jurisdiction are beyond the lack of control of the City, impacts were considered significant and unavoidable.

Mitigation Measure TRF-1: If not constructed by the City of Banning (City) or others, the Applicant shall construct road improvements identified in Table 4.13-9, *Summary of Future Improvements* ("Existing plus Project" improvements in the City of Banning only). These improvements include portions of Highland Springs Avenue in the City of Beaumont, between Interstate 10 (I-10) and Brookfield, but exclude locations that are determined by the affected jurisdiction(s) to be infeasible due to impacts of right-of-way acquisition. If constructed by the Applicant, the cost of these improvements shall be credited against applicable City fees, and/or shall be eligible for reimbursement agreements with the City and/or third parties. The Improvements listed in Table 4.13-9 shall be consistent with the General Plan Circulation Element.

Mitigation Measure TRF-2: As part of each Final Tract Map, or appropriate group of maps, the Applicant shall prepare a Traffic Impact Analysis Validation Report (TVR) based on the criteria provided herein for review and approval by the City Engineer. Final Tract Map approvals resulting in less than 500 p.m. peak hour trips (Exempt Maps) shall not require a

TVR, unless the cumulative total of prior approved Exempt Maps exceeds 1,000 p.m. peak hour trips since the last TVR. The TVR shall identify which of the Existing plus Project improvements identified in Table 4.13-9 are required to be constructed for the respective Final Tract Map, to ensure adequate emergency access and satisfactory levels of service. Improvements identified in an approved TVR shall be conditions of Final Tract Map approval. To the extent that any of the improvements mentioned above are included in a fee program, the cost for those improvements, if constructed by the Applicant, will be eligible for fee credits.

The ongoing traffic impact assessment program will be based on the p.m. peak hour trip threshold. The Final Tract Maps' total number of p.m. peak hour trips will be established based on the trip generation listed in Table 4.13-7, *Project Trip Generation*. If a portion of commercial development and some residential development is included in the Final Tract Map, the total number of trips generated by each use (commercial and residential) will be calculated for the p.m. peak hour and compared to a predefined threshold. Recognizing the variety of land use options, overlays and permitted or conditionally permitted uses, the TVR will also be used to verify, as the Project builds out, that the Project's total peak hour trips are consistent with the assumptions in the project Traffic Impact Analysis.

Mitigation Measure TRF-3: Improvement plans shall be prepared for each project-related off-site traffic improvement and approved by the City Engineer. Improvement plans shall incorporate the following considerations, as applicable:

- a) Obtain encroachment permit(s) from the applicable jurisdiction(s) for off-site improvements;
- b) Through creative design techniques, where determined feasible and consistent with City policy, modify roadway geometry to reduce potential impacts to existing developed areas (such as reduced lane widths, reduced or eliminated medians, reduced turn-lane transition zones, and/or shifting intersection approaches to widen intersection quadrants where associated impacts would be reduced);
- c) Maintain access for existing residences and businesses at all times;
- d) Replace landscaped areas within the affected parcel and along the parcel frontage wherever practical;

- e) Assist the affected property owner in restriping affected parking areas and/or reconfiguring affected driveways to avoid or offset improvement-related impacts;
- f) Follow applicable project EIR mitigation measures related to biological resources (i.e., Mitigation Measures BIO-1 through BIO-5), with respect to minimizing loss of native vegetation, replacement or relocation of mature trees, use of native and/or drought-tolerant vegetation in new landscaped areas, and ensuring consistency with applicable Multiple Species Habitat Conservation Plan MSHCP and regulatory agency permitting provisions; and
- g) Compensate the affected property owner based on fair market valuation of the acquired right-of-way in accordance with applicable local, State, and federal regulations.

Mitigation Measure TRF-4: The Applicant shall pay a fair share toward cumulative impacts not otherwise captured in existing fee programs, funding sources, or in lieu improvements noted above, if such a program is in place at the time of building permit issuance, based on project contribution percentages identified in Table 13-16.

In addition to the implementation of Mitigation Measures TRF-1 through TRF-4, the Specific Plan EIR determined that traffic improvements within the City of Banning, City of Beaumont, and Riverside County would be required to reduce traffic-related impacts. These improvements are listed and briefly summarized below.

City of Banning Improvements. The Specific Plan EIR determined that for the Existing plus Project traffic improvements within the City of Banning, the Applicant would be required to construct or fund the improvements on a phased schedule as determined necessary with each Final Tract Map submittal (see Mitigation Measure TRF-1). If not constructed by the City or others, the Applicant was to construct project-related improvements in the City of Banning noted below, for credit against Specific Plan Project traffic fees (refer to Mitigation Measure TRF-2).

The Applicant's total traffic-related fees were estimated at over \$49 million for residential units only, and excluding contributions to General Fund revenue, plan check fees, improvement plan fees, and other City fees and Specific Plan Project funding sources.

Highland Springs Avenue Beaumont/Banning Improvements. Traffic impacts associated with the 2012 Specific Plan Project along Highland Springs Avenue, adjacent to the western site boundary, were identified on the boundary of the City of Banning and the City of Beaumont. Considering that the Applicant, Pardee Homes, is the owner/developer for the Sundance Specific Plan in the City of Beaumont, the Specific Plan EIR determined that the Applicant would be required to construct improvements within the City of Beaumont, as identified below, along Highland Springs Avenue from Brookside Avenue to Wilson Street. It should be noted that while improvements have been identified for impacts located in the City of Beaumont, the Specific Plan EIR determined that such impacts would be significant and unavoidable due to the City's and Applicant's lack of control over these improvements and because the timely implementation of these improvements is uncertain.

County of Riverside Improvements. Project-related impacts to County roadways are funded through several existing County fee programs, most notably Transportation Uniform Mitigation Fees (TUMF). Since land use and associated traffic generation has not materially changed on the Project site since 1992, the County's long-range circulation system planning has accounted for traffic that would be generated by development of the Project site. In addition to TUMF fees, which are expressly intended for mitigation regional traffic impacts, the 2012 Specific Plan Project would have contributed toward the funding of County road improvements through General Fund revenue from property tax, sales tax and other project-related revenue. At the time the Specific Plan EIR was prepared, the Applicant was also planning on extending Highland Home Road from its existing terminus just north of Wilson Street through the project and connecting to the existing terminus of Brookside Avenue. This improvement would have improved circulation between Beaumont, Banning, the 1-10 corridor, and unincorporated Cherry Valley and areas beyond and would have been funded 100 percent by the Applicant.

Improvements Funded or Controlled by Others. Notwithstanding the above regarding the adequacy and availability of project-related funding for project-related improvements, certain mitigation measures identified below are under the control of jurisdictions other than the City of Banning. In addition, the 2012 Specific Plan Project's funding of improvements in these jurisdictions is in some cases not location-specific (while TUMF fees and the City of Beaumont's fee programs are targeted toward specific locations, not all locations are presently identified in TUMF or Beaumont fee programs, and some regional improvements receive funding through General Fund and similar sources, for which the timing and allocation to specific improvements is uncertain). As such, the Specific Plan EIR determined that neither the City of Banning nor the Applicant could guarantee that the mitigation measures identified in jurisdictions other than Banning will in fact be constructed in a timely manner. In addition, certain improvements may not have proceeded due to feasibility issues associated with potential ROW acquisition, cost, and/or structural takes. Therefore, the Specific Plan EIR determined that traffic-impacts requiring improvements funded or controlled by other parties other than the City and the Applicant would be significant and unavoidable even with identified mitigation/improvements.

Threshold: *Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

Impact: Conflict with a Congestion Management Program. Significant and Unavoidable Impact. The Specific Plan EIR identified mitigation to achieve acceptable levels of service (LOS) for Riverside County Congestion Management Plan (CMP) facilities. However, as these improvement locations are outside the control of the City of Banning and the Applicant, timely implementation of the mitigation measures (Mitigation Measures TRF-1 through TRF-4) could not be guaranteed, and therefore, CMP impacts were considered significant and unavoidable.

Threshold: *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

Impact: Result in a Change in Air Traffic Patterns or Cause Safety Risks. No Impact. The Specific Plan EIR determined that there would be no impacts related to a change in air traffic patterns that could increase traffic levels or result in substantial safety risks given the site's distance from the Banning Airport (approximately 6 miles).

Threshold: *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Impact: Increase Hazards. Less than Significant Impact. The Specific Plan EIR determined that impacts related to increased hazards due to a design feature were less than significant. All roadways for the project would have been designed and built in compliance with the City of Banning, the County of Riverside, the California Department of Transportation (Caltrans), and other relevant regulating agency development standards, requirements, and regulations.

Threshold: *Would the project result in inadequate emergency access?*

Impact: Result in Inadequate Emergency Access. No Impact. The Specific Plan EIR determined that there would be no impact related to inadequate emergency access, and that the 2012 Specific Plan Project would not change the circulation system of emergency access routes.

Threshold: *Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

Impact: Conflict with Adopted Policies, Plans, or Programs or Decrease Safety of Alternative Travel Facilities. Less than Significant Impact. The Specific Plan EIR determined that the proposed addition of pedestrian, bicycle and neighborhood electric vehicles (NEV) facilities would have provided safe paths for pedestrians, bicycles, and NEVs to travel throughout the Specific Plan area. Further, it determined that the 2012 Specific Plan Project would not have conflicted with the performance of transit systems within the area or with adopted plans or programs related to pedestrian, bicycle, and transit facilities.

Cumulative Impacts. Significant and Unavoidable Impact. The Specific Plan EIR concluded that the 2012 Specific Plan Project, as analyzed, would potentially have a significant cumulative impact on the transportation system and would require mitigation. According to the TIA prepared for the Specific Plan EIR, the General Plan Buildout plus project condition would result in significant impacts at several intersections within the Project study area. While improvements and mitigation were required to reduce impacts, certain improvements may not be constructed or constructed in a timely manner due to feasibility, cost, significant right-of-way impacts, lack of jurisdiction, or other factors. For these reasons, the Specific Plan EIR did not assume implementation of these mitigation measures, and therefore, found that the 2012 Specific Plan Project would result in a significant unavoidable cumulative impact.

3.14.3 Analysis of Project Changes

A TIA was prepared to assess the potential circulation impacts as a result of the Proposed Project. As compared to the 2012 Specific Plan EIR Project, the Proposed Project would include a new site access location on Highland Springs Road north of proposed F Street. This access location would align with the existing intersection of Highland Springs Road/Cougar Way.

Because modifications to project Planning Areas under the Proposed Project would result in a reduction of project trip generation, no additional impacts would occur at the study area intersections or freeway segments evaluated in the TIA for the 2012 Specific Plan Project. Therefore, the TIA focuses on traffic impacts at the intersections adjacent to the Project site.

The analysis presented in the TIA for the Proposed Project focuses on impacts at the following 12 intersections adjacent to the Project site:

1. Highland Springs Avenue/Brookside Avenue [Riverside County];
2. Highland Springs Avenue/16th Street-Cougar Way [City of Beaumont/City of Banning];
3. Highland Springs Avenue/F Street [City of Beaumont/City of Banning];
4. Highland Springs Avenue/Oak Valley Parkway-14th Street-B Street [City of Beaumont/City of Banning];
5. Highland Springs Avenue/Starlight Avenue-A Street [City of Beaumont/City of Banning];
6. Highland Springs Avenue/8th Street-Wilson Street [City of Beaumont/City of Banning];
7. C Street-Apex Avenue/Wilson Street [City of Banning];
8. Highland Home Road/Northern Loop [City of Banning];
9. Highland Home Road/Beaumont Avenue-G Street [City of Banning];
10. Highland Home Road/F Street [City of Banning];
11. Highland Home Road/D Street [City of Banning]; and
12. Highland Home Road/Wilson Street [City of Banning].

Trip Generation. As shown in Table 3.I, Project Trip Generation Comparison, implementation of the Proposed Project would result in 4,587 trips in the a.m. peak hour and 5,778 trips in the p.m. peak hours, and 60,087 daily trips thereby reducing circulation and traffic impacts for the project.

Table 3.I: Project Trip Generation Comparison

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
2012 Specific Plan Project ¹								
Residential ²	4,182 DU	794	2,341	3,135	2,634	1,591	4,225	40,022
Commercial ³	549 TSF	257	136	393	841	920	1,761	18,423
Condominium/Townhouse ⁴	1,205 DU	90	440	530	420	207	627	7,001
Elementary School ⁵	200 TSF	584	458	1,042				3,092
Golf Course ⁶	18 Holes	32	8	40	23	28	51	643
Internal Trip Capture ⁷	10%	(176)	(338)	(514)	(392)	(275)	(666)	(6,918)
2012 Specific Plan Project Total Trip Generation		1,582	3,044	4,626	3,526	2,471	5,998	62,263
Proposed Project 2								
Residential ²	4,296 DU	819	2,403	3,222	2,704	1,631	4,335	41,113
Commercial ³	560 TSF	261	137	399	855	935	1,791	18,719
Condominium/Townhouse ⁴	566 DU	42	207	249	197	97	294	3,288
Elementary School ⁵	236 TSF	687	540	1,227				3,643
Internal Trip Capture ⁷	10%	(181)	(329)	(510)	(376)	(266)	(642)	(6,676)
Proposed Project Total Trip Generation		1,628	2,958	4,587	3,381	2,397	5,778	60,087

Source: *Traffic Impact Analysis* (September 2016) (Appendix C)¹ Trip Generation for Approved Project obtained from BSPTIA.² Rates based on Land Use 210 - Single Family Detached Housing from Institute of Transportation Engineers (ITE) *Trip Generation*, 8th Edition.³ Trip Generation rates based on Land Use 820 - Shopping Center from ITE *Trip Generation*, 8th Edition and Pass-By Rates based on Land Use 820 - Shopping Center from ITE *Trip Generation Handbook*, 2nd Edition.⁴ Rates based on Land Use 230 - Residential Condominium/Townhomes from ITE *Trip Generation*, 8th Edition.⁵ Rates based on Land Use 520 - Elementary School from ITE *Trip Generation*, 8th Edition.⁶ Rates based on Land Use 430 - Golf Course from ITE *Trip Generation*, 8th Edition.⁷ Internal Trip Capture Rates based on Project Select Zone from the Pass Area Model

As a result of the analysis conducted in the TIA for the Proposed Project, the following six intersections were determined to exceed LOS thresholds following project implementation:

- Highland Springs Avenue/16th Street-Cougar Way [City of Beaumont/City of Banning];
- Highland Springs Avenue/F Street [City of Beaumont/City of Banning];
- Highland Springs Avenue/Starlight Avenue-A Street [City of Beaumont/City of Banning];
- Highland Springs Avenue/Wilson Street [City of Beaumont/City of Banning];
- C Street-Apex Avenue/Wilson Street [City of Banning];
- Highland Home Road/Wilson Street [City of Banning].

The following 11 intersections would exceed LOS thresholds under General Plan Buildout plus Project a.m. and p.m. peak hour traffic operations.

- Highland Springs Avenue/Brookside Avenue [Riverside County];
- Highland Springs Avenue/16th Street-Cougar Way [City of Beaumont/City of Banning];
- Highland Springs Avenue/F Street [City of Beaumont/City of Banning];
- Highland Springs Avenue/Oak Valley Parkway-14th Street-B Street [City of Beaumont/City of Banning];
- Highland Springs Avenue/Starlight Avenue-A Street [City of Beaumont/City of Banning];
- Highland Springs Avenue/Wilson Street [City of Beaumont/City of Banning];
- C Street-Apex Avenue/Wilson Street [City of Banning];
- Highland Home Road/Northern Loop [City of Banning];
- Highland Home Road/Beaumont Avenue-G Street [City of Banning];
- Highland Home Road/D Street [City of Banning]; and
- Highland Home Road/Wilson Street [City of Banning].

The TIA concluded that despite the exceedance of LOS thresholds at the six and 11 study area intersections under Existing plus Project and General Plan Buildout conditions, the Proposed Project would require equal or less mitigation at all study area intersections when compared to the previous 2012 Specific Plan Project. Specifically, the Proposed Project would require fewer improvements at two intersections (Highland Springs Avenue/Brookside Avenue and Highland Springs Avenue/Oak Valley Parkway-B Street) compared to the 2012 Specific Plan Project. With implementation of the recommended improvements and mitigation measures identified below, impacts at all study area intersections were determined to be less than significant. Additionally, all internal intersections would continue to operate at satisfactory levels of service following project implementation. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Conflict with an Applicable Plan, Ordinance, or Policy. The Proposed Project includes the GPA for the removal of the extension of the Highland Home Road connection to Brookside Avenue and Cherry Valley Boulevard, and an overall reduction in project intensity. The Proposed Project also results in minor modifications to PDFs at project access locations that were identified in the *Butterfield Specific Plan Traffic Impact Assessment* (Traffic Impact Assessment) (December 2010). However, the removal of the Highland Home Road extension and the overall reduction project intensity would result in 2,176 fewer average daily traffic (ADT) trips than analyzed in the Specific Plan EIR. The Proposed Project would also request a ride-sharing lot from the City and any applicable transportation agencies before 1,000 dwelling units are built to further reduce traffic impacts during project construction. While the ride-sharing lot would reduce Project-related traffic, this ride-sharing lot is not necessary to reduce Project-related traffic to less than significant levels and was not included as part of the TIA for the Proposed Project. Mitigation Measures TRF-1 through

TRF-4 and other traffic-related improvements would remain applicable to the Proposed Project. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Table 3.J, General Plan Build-out With Improvements Comparison, provides a comparison of improvements between the 2012 Specific Plan Project and the Proposed Project. Any new improvements at project access locations, or amended improvements, would be incorporated into the Project as PDFs. Therefore, the Proposed Project would result in a less than significant impact related to potential conflicts with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to traffic generation or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Conflict with a Congestion Management Program. The Proposed Project includes the removal of the extension of the Highland Home Road connection to Brookside Avenue and Cherry Valley Boulevard and an overall reduction in project intensity. The Proposed Project also results in minor modifications to PDFs at project access locations that were identified in the Traffic Impact Assessment (2010). However, the removal of the Highland Home Road extension and the overall reduction in project intensity would result in 2,176 fewer ADT trips than analyzed in the Specific Plan EIR. The Proposed Project would also request a ride-sharing lot from the City and any applicable transportation agencies before 1,000 dwelling units are built to potentially further reduce traffic impacts during project construction. While the ride-sharing lot would reduce Project-related traffic, this ride-sharing lot is not necessary to reduce Project-related traffic to less than significant levels and was not included as part of the TIA for the Proposed Project.

Table 3.J: General Plan Build-out With Improvements Comparison

Intersection	2012 Specific Plan Project	Proposed Project	
		Additional Improvements	Improvements Not Required
1. Highland Springs Avenue/Brookside Avenue	Install a traffic signal. Add NBT, NBR with overlap phasing, SBL, SBT, EBL, EBT, WBL, WBT, WBR.		NBT, NBR with overlap phasing, SBL, EBL, EBT, WBL, WBT, WBR.
2. Highland Springs Avenue/16th Street-Cougar Way	Install a traffic signal.		
3. Highland Springs Avenue/F Street	Install a traffic signal.		
4. Highland Springs Avenue/Oak Valley Parkway-B Street	Add 2nd NBL, NBT, SBT.		
5. Highland Springs Avenue/Starlight Avenue -A Street	Install a traffic signal. Add NBT, NBR, SBL, SBT, SBR, EBR, WBL.		
6. Highland Springs Avenue/Wilson Street	NBT, 2nd SBL, SBR, EBR, 2nd WBL		SBR, EBR
7. C Street-Apex Avenue/Wilson Street	Install a traffic signal. Add EBL, WBT.		
8. Highland Home Road/Northern Loop	Install a traffic signal. Add a NBL, SBT	Intersection Does Not Exist	
9. Highland Home Road/Beaumont Road-G St	Install a traffic signal. Add NBT, NBR, SBL, WBL.		
10. Highland Home Road/F Street	Install a traffic signal. Add NBL.		
11. Highland Home Road/D Street	Install a traffic signal. Add NBL.		
12. Highland Home Road/Wilson Street	Install a traffic signal. Re-stripe NBR to NBTR, 2 SBL, SBT, WBR with overlap phasing.		

Source: Traffic Impact Analysis (LSA Associates) (Appendix C)

Notes:

NBL= northbound left-turn lane ; NBT = northbound through lane; NBR = northbound right-turn lane;

NBTR =shared northbound through/right-turn lane SBL= southbound left-turn lane ;

SBT = southbound through lane; SBR = southbound right-turn lane;

SBTR = shared southbound through/right-turn lane EBL= eastbound left-turn lane ;

EBT = eastbound through lane; EBR = eastbound right-turn lane;

EBTL = shared eastbound through/left-turn lane;

EBLTR = shared eastbound left/through/right-turn lane;

EBTR = shared eastbound through/right-turn lane

WBL= westbound left-turn lane ;

WBT = westbound through lane;

WBR = westbound right-turn lane;

WBTR = shared westbound through/right-turn lane.

New improvements required for the Proposed Project have been incorporated into the Project as four new PDFs and constructed consistent with applicable standards. These improvements are as follows:

1. Constructing Highland Springs Avenue as a four-lane roadway (easterly half section only) according to City's General Plan designation between 8th Street-Wilson Street and Brookside Avenue. This would also include constructing single left-turn lanes at signalized intersections on Highland Springs Avenue within the above-mentioned limits.
2. Highland Springs Avenue/Brookside Avenue. Addition of a dedicated right-turn lane with overlap phasing.
3. Highland Springs Avenue/16th Street-Cougar Way. Addition of a second southbound left-turn lane, a northbound right-turn lane with overlap phasing, two westbound left-turn lanes, and one westbound right-turn with overlap phasing.
4. Highland Home Road/F Street. Installation of a traffic signal and addition of a northbound left-turn lane.

Further, Mitigation Measures TRF-1 through TRF-4 would remain applicable to the Proposed Project. However, similar to the 2012 Specific Plan Project, the Proposed Project would result in a significant unavoidable impact related to potential conflicts with the Riverside County CMP because some improvement locations are outside the control of the City and the Applicant and the timely implementation of the mitigation measures is uncertain. It should be noted that the off-site improvement locations included as part of the Proposed Project are the same locations that were impacted under the Specific Plan Project (i.e., there are no new off-site improvement locations that would be outside of the City's and Applicant's control). Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to conflicts with a CMP or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Result in a Change in Air Traffic Patterns or Cause Safety Risks. The Proposed Project is located on the same Project site (approximately 6 miles from the Banning Airport) as the 2012 Specific Plan Project and is a less intense development. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to changes in air traffic patterns or increases in safety risks or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Increase Hazards. The Project includes the removal of the extension of the Highland Home Road connection to Brookside Avenue and Cherry Valley Boulevard and a reduction in the project intensity. The Proposed Project also results in minor modifications to PDFs at project access locations that were identified in the Traffic Impact Assessment (2010). However, the removal of the Highland Home Road extension and the overall reduction in project intensity would result in 2,176 fewer ADT trips than analyzed in the Specific Plan EIR. The Proposed Project would also request a ride-sharing lot from the City and any applicable transportation agencies before 1,000 dwelling units are built to further potentially reduce traffic impacts during project construction. While the ride-sharing lot would reduce Project-related traffic, this lot is not necessary to reduce Project-related traffic to less than significant levels and was not included as part of the TIA for the Proposed Project.

Any new improvements at project access locations, or amended improvements, would be incorporated into the Project as PDFs and constructed with applicable standards. Therefore, the Project would result in a reduced impact related to hazards. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to increases in hazards or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Result in Inadequate Emergency Access. The Proposed Project is located on the same Project site and similarly, would not interfere with or change emergency access routes. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to inadequate emergency access or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Conflict with Adopted Policies, Plans, or Programs or Decrease Safety of Alternative Travel Facilities. The Proposed Project includes the removal of the extension of the Highland Home Road connection to Brookside Avenue and Cherry Valley Boulevard, through a request for GPA, and a reduction in project intensity. The Proposed Project also results in minor modifications to PDFs at project access locations that were identified in the Traffic Impact Assessment (2010). However, the removal of the Highland Home Road extension and the overall reduction in project intensity would result in approximately 2,176 fewer ADT trips than analyzed in the Specific Plan EIR. The Proposed Project would also request a ride-sharing lot from the City and any applicable transportation agencies before 1,000 dwelling units are built to potentially further reduce traffic impacts during project construction. While the ride-sharing lot would reduce Project-related traffic, this ride-sharing lot is not necessary to reduce Project-related traffic to less than significant levels and was not included as part of the TIA for the Proposed Project.

Any new improvements (if required) at project access locations, or amended improvements, would be incorporated into the Project as PDFs and constructed with applicable standards. Therefore, the Project would result in a reduced impact related to conflicts with adopted policies plans or programs regarding alternative transportation systems than previously identified in the Specific Plan EIR. Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new significant environmental effects related to conflicts with adopted policies, plans, and/or programs or a decrease in safety of alternatives travel facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. As discussed above, the Proposed Project would result in significant unavoidable cumulative impacts on the transportation system and would require mitigation and improvements. According to the TIA prepared for the Proposed Project, the General Plan Buildout plus Project condition would result in significant impacts at 11 intersections within the Project study area. While improvements and mitigation could be implemented to alleviate such impacts, certain improvements may not be constructed or constructed in a timely manner due to feasibility, cost, significant right-of-way impacts, lack of jurisdiction, or other factors. For these reasons, implementation of these improvements and mitigation measures cannot be assumed or guaranteed and the Proposed Project would continue to result in a significant unavoidable cumulative impact.

Therefore, the Proposed Project would be consistent with the findings of the Specific Plan EIR and would not result in any new cumulatively significant environmental effects related to transportation and traffic or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

3.14.4 Findings Related to Traffic and Circulation

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project would require a major change to the Specific Plan EIR. The Proposed Project would not create any new significant environmental impacts to Traffic and Circulation or a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Traffic and Circulation that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to Traffic and Circulation requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Traffic and Circulation identified and considered in the Specific Plan EIR.

3.14.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (also listed in Section 2.1.2 of this Addendum) remain applicable to the traffic and circulation analysis for the Proposed Project.

3.14.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the required improvements and mitigation measures contained therein. Based on the analysis and information above, minor text changes have

been made to the required transportation improvements due to the approval of the Butterfield Specific Plan in 2012 and the subsequent Settlement Agreement. These changes are shown in strikeout/underline below.

County of Riverside Improvements. The Applicant has also been materially participating and funding portions of several regional transportation improvement studies (described under “Caltrans Improvements” below), and will be extending Highland Home Road from its existing terminus just north of Wilson Street northerly through the Project and connecting to Cougar Way ~~the existing terminus of Brookside Avenue~~. This is a regional road improvement providing important additional north/south and east/west circulation between Beaumont, Banning, the I-10 corridor, and unincorporated Cherry Valley areas and beyond.

Similarly, minor text changes have been made to the mitigation measures. These changes are shown in strikeout/underline below. Updates have also been made to Tables 4.13-6 and 4.13-9 (both of which are referenced in Mitigation Measures TRF-1, TRF-2, and TRF-4) to ensure consistency with changes included as part of the Proposed Project. These updated tables have been included below for reference.

Mitigation Measure TRF-2: As part of each Final Tract Map, or appropriate group of maps, the Applicant shall prepare a Traffic Impact Analysis Validation Report (TVR) based on the criteria provided herein for review and approval by the City Engineer. Final Tract Map approvals resulting in less than 500 p.m. peak hour trips (Exempt Maps) shall not require a TVR, unless the cumulative total of prior approved Exempt Maps exceeds 1,000 p.m. peak hour trips since the last TVR. The TVR shall identify which of the Existing plus Project improvements identified in Table 4.13-9 are required to be constructed for the respective Final Tract Map, to ensure adequate emergency access and satisfactory levels of service. Improvements identified in an approved TVR shall be conditions of Final Tract Map approval. To the extent that any of the improvements mentioned above are included in a fee program, the cost for those improvements, if constructed by the Applicant, will be eligible for fee credits.

The ongoing traffic impact assessment program will be based on the p.m. peak hour trip threshold. The Final Tract Maps’ total number of p.m. peak hour trips will be established based on the trip generation listed in ~~Table 4.13-7, Project Trip Generation~~, Table 3.I, Project Trip Generation Comparison. If a portion of commercial development and some residential development is included in the Final Tract Map, the total number of trips generated by each use (commercial and residential) will be calculated for the p.m. peak hour and compared to a predefined threshold. Recognizing the variety of land use options, overlays and permitted or conditionally permitted uses, the TVR will also be used to verify , as the Project builds out, that the Project’s total peak hour trips are consistent with the assumptions in the project Traffic Impact Analysis.

Mitigation Measure TRF-4: The Applicant shall pay a fair share toward cumulative impacts not otherwise captured in existing fee programs, funding sources, or in lieu improvements noted above, if such a program is in place at the time of building permit issuance, based on project contribution percentages identified in Table 4.13-16 of the Specific Plan EIR, with the exception of the intersections included in the Project study area for the 2016 Traffic Impact Analysis, as outlined in Table 4.13-16A.

Updates have also been made to Tables 4.13-6 and 4.13-9 (both of which are referenced in Mitigation Measures TRF-1, TRF-2, and TRF-4) to ensure consistency with changes included as part of the Proposed Project. These updated tables have been included below for reference.

3.14.7 Mitigation Measures No Longer Applicable

All traffic and circulation mitigation measures remain applicable to the Proposed Project.

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Table 4.13.9: Summary and Comparison of Improvements: 2012 Specific Plan Project vs Proposed Project

Intersection	Jurisdiction	Existing Plus Project (Project Completion)	Existing Plus Project (Project Completion)			General Plan Build-Out Plus Project	General Plan Build-Out		
			Funded through TUMF Program	Funded through Local Fee Program	No Funding Available		Funded through TUMF Program	Funded through Local Fee Program	No Funding Available
1. I-10 Eastbound Ramps/San Timeteo Canyon Dr.	Caltrans	Signalize.		Signalize		Signalize, 2 SBL, 3 EBT, WBL, 2 WBT, WBR, Convert SBR - Free SBR.	Signalize, 2 SBL, 3 EBT, WBL, 2 WBT, WBR, Convert SBR - Free SBR.		
2. I-10 Westbound Ramps/Oak Valley Pkwy.	Caltrans	Signalize.		Signalize		Signalize, Convert NBR to free NBR, 2 EBT, EBR, 2 WBT.	Signalize, Convert NBR to free NBR, 2 EBT, EBR, 2 WBT.		
3. Elm Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, NBL, SBL, SBR, EBL, EBT, EBR, WBT.		Signalize	NBL, SBL, SBR, EBL, EBT, EBR, WBT.
4. Beaumont Ave./Oak Valley Pkwy.-14th St.	Beaumont								
5. Beaumont Ave./8th St.	Beaumont					Signalize, NBL		Signalize	NBL
6. Beaumont Ave./I-10 Westbound Ramps	Caltrans					NBL.	NBL.		
7. Beaumont Ave./I-10 Eastbound Ramps	Caltrans					EBL, SBL.	EBL, SBL.		
8. Beaumont Ave./1st St.	Beaumont					EB & WB PERM-PROT, NBT, SBT, EBT, WBT, WBR with overlap.	EB & WB PERM-PROT, NBT, SBT, EBT, WBT, WBR with overlap.		
9. Beaumont Ave./Westward Ave.	Beaumont					Signalize, NBL, NBR, SBL, SBR, 2 EBL, WBL.	Signalize, NBL, NBR, SBL, SBR, 2 EBL, WBL.		
10. Lamb Canyon Rd./California Ave.	Riverside County					Signalize, SBL	SBL	Signalize	
11. Palm Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, EBT,WBT, Re-stripe EB, WB, & NB approaches to 1 left-turn and a through right lane	EBT,WBT, Re-stripe EB, WB, & NB approaches to 1 left-turn and a through right lane	Signalize	
12. Palm Ave./8th St.	Beaumont					Signalize, WBL.		Signalize	WBL
13. Pennsylvania Ave./Oak Valley Pkwy.-14th St.	Beaumont	(EBT,WBT) Stripe.	(EBT,WBT) Stripe.			Signalize, (EBT, WBT) Stripe	(EBT, WBT) Stripe	Signalize	
14. Pennsylvania Ave./8th St.	Beaumont	WBL, WBR.			WBL, WBR.	Signalize, NBR, EBL, WBL, WBR.		Signalize	NBR, EBL, WBL, WBR.

Table 4.13.9: Summary and Comparison of Improvements: 2012 Specific Plan Project vs Proposed Project

Intersection	Jurisdiction	Existing Plus Project (Project Completion)	Existing Plus Project (Project Completion)			General Plan Build-Out Plus Project	General Plan Build-Out		
			Funded through TUMF Program	Funded through Local Fee Program	No Funding Available		Funded through TUMF Program	Funded through Local Fee Program	No Funding Available
15. Pennsylvania Ave./I-10 Westbound Ramp	Caltrans	Signalize.		Signalize		Signalize, NBR, SBL, NBT.	Signalize, NBR, SBL, NBT.		
16. Pennsylvania Ave/I-10 Eastbound Ramp	Caltrans					Signalize, NBT, EBR.	Signalize, NBT, EBR.		
17. Pennsylvania Ave./3rd St.	Beaumont					TWLTL	TWLTL		
18. Cherry Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, EBT		Signalize	EBT
19. Starlight Ave/ Oak Valley Pkwy.-14th St.	Beaumont					Signalize		Signalize	
20. Highland Springs Ave./Brookside Ave.	Riverside County	Convert TWSC to AWSC, WBR.			Convert TWSC to AWSC, WBR.	Signalize, NBT, NBR, 2 SBL, SBT, EBL, EBT, EBR, 2 WBL, WBT, WBR.	NBT, SBT		Signalize, NBR, 2 SBL, EBL, EBT, EBR, 2 WBL, WBT, WBR.
20a. Highland Springs Ave./Brookside Ave.	Riverside County					Signalize, SBT, EBR with overlap	SBT		Signalize
21. Highland Springs Ave./16th St.-Cougar Way	Beaumont/ Banning					Signalize			Signalize
21a. Highland Springs Ave./16th St.-Cougar Way	Beaumont/ Banning	Signalize, NBT, NBR with overlap, 2 SBL, SBT, 2 WBL, WBR			Signalize	Signalize, NBT, NBR with overlap, 2 SBL, SBT, 2 WBL, WBR with overlap			Signalize
22. Highland Springs Ave./F St.	Beaumont/ Banning	Signalize		Signalize		Signalize, NBR		Signalize	NBR
22a. Highland Springs Ave./F St.	Beaumont/ Banning	Signalize, NBT, SBL, SBT		Signalize		Signalize, NBT, SBL, SBT		Signalize	
23. Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Beaumont/ Banning	NBL, NBR, WBL.	NBL, NBR, WBL.			NBL, NBT, SBT.	NBL, NBT, SBT.		
23a. Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Beaumont/ Banning	NBT, SBT				NBL, NBT, SBT	NBL		
24. Highland Springs Ave./Starlight Ave.-A St.	Beaumont/ Banning	Signalize,NBT,SB T,SBL, WBL.	NBT,SBT,SBL.	Signalize	WBL	Signalize, NBL, NBT, NBR with overlap, SBL, SBT, SBR, EBL, EBR with overlap, WBL.	NBT, SBL, SBT	Signalize	NBL, NBR with overlap, SBR, EBL, EBR with overlap, WBL.
24a. Highland Springs Ave./Starlight Ave.-A St.	Beaumont/ Banning	Signalize,NBT,SB T,SBL, WBL.		Signalize	WBL	Signalize, NBT, NBR, SBL, SBT, SBR, EBR, WBL.		Signalize	NBR, SBR, EBR, WBL.
25. Highland Springs Ave./8th St.-Wilson St.	Beaumont/ Banning	NBT,WBL.	NBT,WBL.			2 NBT, SBL, SBR, EBR, WBL, Convert the WBR to WBR with overlap.	2 NBT, SBL, SBR, EBR, WBL, Convert the WBR to WBR with overlap.		

Table 4.13.9: Summary and Comparison of Improvements: 2012 Specific Plan Project vs Proposed Project

Intersection	Jurisdiction	Existing Plus Project (Project Completion)	Existing Plus Project (Project Completion)			General Plan Build-Out Plus Project	General Plan Build-Out		
			Funded through TUMF Program	Funded through Local Fee Program	No Funding Available		Funded through TUMF Program	Funded through Local Fee Program	No Funding Available
25a. Highland Springs Ave./8th St.-Wilson St.	Beaumont/Banning	NBT	NBT			NBT, SBL, WBL	NBT, SBL, WBL		
31. C St.-Apex Ave./Wilson St.	Banning	Signalize, EBL.	EBL		Signalize	Signalize, EBL, EBT, WBT.	EBL, EBT, WBT.		Signalize
31a. C St.-Apex Ave./Wilson St.	Banning	Signalize, EBL.	EBL		Signalize	Signalize, EBL, WBT.	EBL, WBT.		Signalize
32. Highland Home Rd./Northern Loop	Banning	Signalize.			Signalize	Signalize, NBL, NBT, SBT, SBR			Signalize, NBL, NBT, SBT, SBR
32a. Highland Home Rd./Northern Loop	Banning								
33. Highland Home Rd./Beaumont Rd.-G St	Banning					Signalize, NBT, 2 SBL, WBL, NBR			Signalize, NBT, 2 SBL, WBL, NBR
33a. Highland Home Rd./Beaumont Rd.-G St	Banning					Signalize, NBT, SBL, WBL, NBR			Signalize, NBT, SBL, WBL, NBR
34. Highland Home Rd./F St.	Banning					Signalize, NBL			Signalize, NBL
34a. Highland Home Rd./F St.	Banning	Signalize, NBL				Signalize, NBL			
35. Highland Home Rd./D St.	Banning	Signalize.			Signalize	Signalize, NBL			Signalize, NBL
35a. Highland Home Rd./D St.	Banning				Signalize	Signalize, NBL			Signalize, NBL
36. Highland Home Rd./Wilson St.	Banning	Signalize, SBL.		Signalize	SBL	Signalize, NBT, 2 SBL, SBT, WBR with overlap.		Signalize	NBT, 2 SBL, SBT, WBR with overlap.
36a. Highland Home Rd./Wilson St.	Banning	Signalize, SBL.		Signalize	SBL	Signalize, NBT, 2 SBL, SBT, WBR with overlap.		Signalize	NBT, 2 SBL, SBT, WBR with overlap.
37. Highland Home Rd./Ramsey St.	Banning	Signalize.		Signalize		Signalize, WBR with overlap		Signalize	WBR with overlap
38. Sunset Ave./Wilson St.	Banning	Signalize.		Signalize		Signalize, 2 NBL, NBT, SBL, SBT, SBR with overlap, 2 WBL, WBT, WBR , 2 EBL, EBT, EBR.	WBL, WBT, EBL, EBT	Signalize	2 NBL, NBT, SBL, SBT, SBR with overlap, WBL, WBR , EBL, EBR.
39. Sunset Ave./Ramsey St.	Banning					NBL, NBR, SBL, SBR, EBR with overlap, WBL.			NBL, NBR, SBL, SBR, EBR with overlap, WBL.
40. Sunset Ave./I-10 Westbound Ramps	Caltrans					Signalize, Free SBR.	Signalize, Free SBR.		
41. Sunset Ave./I-10 Eastbound Ramps	Caltrans	Convert SBTL to SBL, EBL.	Convert SBTL to SBL, EBL.			Signalize, SBL, 2 EBL.	Signalize, SBL, 2 EBL.		
42. Sunrise Ave./Wilson St.	Banning	Convert TWSC to AWSC.			Convert TWSC to AWSC.	Signalize, EBTL, Convert WBR to WBTR.	EBTL, Convert WBR to WBTR.		Signalize
43. 16th St./Wilson St.	Banning					Signalize			Signalize

Table 4.13.9: Summary and Comparison of Improvements: 2012 Specific Plan Project vs Proposed Project

Intersection	Jurisdiction	Existing Plus Project (Project Completion)	Existing Plus Project (Project Completion)			General Plan Build-Out Plus Project	General Plan Build-Out		
			Funded through TUMF Program	Funded through Local Fee Program	No Funding Available		Funded through TUMF Program	Funded through Local Fee Program	No Funding Available
44. 8th St./Wilson St.	Banning					Signalize, NBL, SBL, WBR	NBL, SBL, WBR	Signalize	
45. 8th St./Ramsey St.	Banning					NBL, NBR, EBT, WBL.	NBL, NBR, EBT, WBL.		
46. 8th St./I-10 Westbound Ramps	Caltrans					Signalize, 2 NBL, NBT, SBT.			Signalize, 2 NBL, NBT, SBT.
47. 8th St./I-10 Eastbound Ramps	Caltrans	Signalize.			Signalize.	Signalize, NBT,SBT, SBL, EBL, EBR.			Signalize, NBT,SBT, SBL, EBL, EBR.
48. 4th St./Wilson St.	Banning					Signalize			Signalize
49. San Gorgonio Ave./Wilson St.	Bannning					Signalize, EBT, EBL, WBTL		Signalize	EBT, EBL, WBTL

Notes:
Int# (Not Bold) – 2012 Specifc Plan Project
Int# (Bold) - Proposed Project
NB, SB, EB, WB: Northbound, Southbound, Eastbound, Westbound
L, T, R: Left, Through, Right
Within the City of Banning
Shared by both City of Beaumont and Banning
Within the City of Banning
Improvement funded by Beaumont Transportation Fee/TUMF
Improvement funded by Banning Signal Fee
Improvement funded by Beaumont Signal Fee
Project Design Feature

Table 4.13-16A Project Contribution to Total New Traffic Comparison

Intersection	A.M. Peak Hour					P.M. Peak Hour					Proposed	Approved Project
	Total Approach Volume		Total	Project	Project	Total Approach Volume		Total	Project	Project	Project	Fair
	Existing	2035	Growth	Trips	%	Existing	2035	Growth	Trips	%	Fair Share	Share ¹
1. Highland Springs Avenue/Brookside Avenue	458	2,042	1,584	596	37.6%	422	3,121	2,699	745	27.8%	37.6%	29.0%
2. Highland Springs Avenue/16th Street-Cougar Way	456	2,559	2,103	918	43.7%	420	4,090	3,670	1,147	31.5%	43.7%	60.1%
3. Highland Springs Avenue/F Street	-	-	-	1,192	100.0%	-	-	-	1,504	100.0%	100.0%	100.0%
4. Highland Springs Avenue/Oak Valley Parkway-B Street	762	3,117	2,355	1,744	74.1%	720	4,473	3,753	2,196	58.5%	74.1%	73.1%
5. Highland Springs Avenue/Starlight Avenue -A Street	1,034	3,699	2,665	1,788	67.1%	1,108	5,109	4,001	2,252	56.3%	67.1%	66.1%
6. Highland Springs Avenue/Wilson Street	1,522	4,144	2,622	1,698	64.8%	1,625	5,575	3,950	2,138	54.1%	64.8%	63.7%
7. C Street-Apex Avenue/Wilson Street	626	2,049	1,423	688	48.3%	657	3,015	2,358	867	36.8%	48.3%	48.5%
8. Highland Home Road/Beaumont Road-G St	-	-	-	550	100.0%	-	-	-	694	100.0%	100.0%	100.0%
9. Highland Home Road/F Street	-	-	-	1,055	100.0%	-	-	-	1,330	100.0%	100.0%	100.0%
10. Highland Home Road/D Street	-	-	-	1,238	100.0%	-	-	-	1,560	100.0%	100.0%	100.0%
11. Highland Home Road/Wilson Street	628	3,578	2,950	1,421	48.2%	690	5,318	4,628	1,792	38.7%	48.2%	47.5%

Source: LSA Associates, Inc. (September 2016).

¹ 2012 Specific Plan Project Fair Share obtained from Table 4.13-16 of the Butterfield Specific Plan EIR.

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3.15 WATER SUPPLY

3.15.1 Existing Environmental Setting

There have been no major changes to the existing setting of the project site with respect to water supply since the Specific Plan EIR was prepared. Please refer to Section 4.11 of the Specific Plan EIR for a summary of the existing environmental setting related to Water Supply. The analysis in this section is based on information contained in the Water Supply Assessment for Butterfield Specific Plan (WSA), the City's 2011 Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin report prepared by Geoscience Support Services, Inc., the City of Banning Draft 2010 Urban Water Management Plan (UWMP), and the City of Banning General Plan and the City's General Plan EIR.

The City of Banning Water Department currently provides water services within the City. The Water Department's service area encompasses approximately 23 miles and incorporates the majority of the City with the exception of a small area north of the City. The Project site is located within the service area of the City's General Plan and Zoning designations for the site.

Sources of Water. The City's current water system relies on local groundwater and imported water from the SWP through the San Gorgonio Pass Water Agency (Pass Agency). The City also relies on surface water and treated wastewater to recharge local groundwater basins, including the Banning, Banning Bench, Banning Canyon, Cabazon and Beaumont Basins. Other sources of water include recycled water and return flows from irrigation. The City currently has no sources of recycled water.

According to the City's 2010 Urban Water Management Plan (UWMP), approximately 87 percent of the City's water supply comes from groundwater. The City has historically been able to meet the water demand of its customers through available groundwater supplies; however, growing demands for water as a result of population growth has threatened to limit the City's ability to provide water via groundwater supplies during dry years. Furthermore, declining water levels have been identified in the Beaumont Basin, Banning Canyon, and Banning Ranch over the last 20 years, all of which the City relies upon for its groundwater.

In addition to groundwater, the City purchases imported SWP water from the Pass Agency. The Pass Agency imports water directly from the SWP and distributes this water to retailers, such as the City. It is anticipated that 25 percent of the Pass Agency's water supply will be available for purchase by the City.

As described in the Specific Plan EIR, all projected groundwater supplies (in normal, single dry, and multiple dry years) are within the safe yields of all basins.

3.15.2 Specific Plan EIR

Please see Section 4.1 of the Specific Plan EIR for an analysis of the potential effects of the 2012 Specific Plan Project on Water Supply.

The Specific Plan EIR concluded that the following impacts related to water supply would be less than significant with implementation of mitigation.

Threshold: *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Impacts: Groundwater Supplies and Water Demand. Less than Significant with Mitigation Incorporated. According to the Specific Plan EIR, the estimated water demand for the 2012 Specific Plan Project at build out would be approximately 4,224 acre feet per year (AFY). The 2012 Specific Plan Project's total potable water demand at build out would be approximately 2,800 AFY, whereas the non-potable demand would be 1,344 AFY. Following implementation of water conservation features, the total projected water demand was estimated to be 3,103 AFY.

The 2012 Specific Plan Project also included an on-site groundwater recharge system to offset the additional project-related water demand. The 2012 Specific Plan Project would have produced 942 AFY of wastewater flows, and the City may have directed 650 AFY of existing wastewater flows from areas surrounding the site in the event the WWTP was developed on site. This total wastewater flow of 1,592 AFY would have been converted to a total recycled supply of 1,194 AFY. This recycled water would have served non-potable demands of the 2012 Specific Plan Project.

The 2012 Specific Plan Project would have generated approximately 470 AFY of stormwater drainage runoff as compared to existing conditions, a portion of which would have percolated into the Beaumont Basin and would serve to increase the City's groundwater basin.

According to the Specific Plan EIR, the City's projected water supplies would be sufficient to serve the 2012 Specific Plan Project. Adequate groundwater production may have been achieved through existing wells in the City. However, in order to ensure groundwater levels in the Banning, Banning Bench, Banning Canyon, and Cabazon Basins, the Specific Plan EIR determined that implementation of Mitigation Measure WS-1 would be required. Mitigation Measure WS-1 requires a groundwater audit to be periodically conducted, a groundwater model to be developed to simulate groundwater flow and quality in the City, and the siting of new wells to minimize interference with existing wells in the City. Therefore, the Specific Plan EIR determined that with implementation of Mitigation Measure WS-1, impacts related to the 2012 Specific Plan Project's water demand on existing groundwater resources would be less than significant.

Mitigation Measure WS-1: With respect to all City of Banning (City) groundwater supplies, the City will:

1. Periodically, conduct a groundwater audit that evaluates groundwater level trends, production rates, groundwater quality or other aquifer/well/pump considerations from the previous year (through use of an ongoing groundwater monitoring and data collection system).

2. Develop a groundwater model to allow accurate simulation of groundwater flow and groundwater quality (including potential impacts by recharge of recycled water) in the City groundwater resource area.

Additionally, to avoid injury to other legal users of the Cabazon Basin, the City will:

3. Site any new well so as to not result in material interference to existing wells.

Threshold: *Would there be sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Impact: New or Expanded Entitlements. Less than Significant Impact with Mitigation Incorporated. As described in the Specific Plan EIR, the City has vested rights to extract groundwater from the Banning, Banning Bench, and Banning Canyon Basins. The City also has vested appropriative and developed water rights in the Cabazon Basin. The Beaumont Basin is an adjudicated Basin. The Specific Plan EIR determined that the 2012 Specific Plan Project would not have caused the City to exceed its rights in any of the groundwater basins from which it obtains its supply. Additionally, the 2012 Specific Plan Project would have created up to 117 AFY additional supply (stormwater) for recharge into the Beaumont Basin.

The City is proposing to increase pumping from the Cabazon Basin to make use by extraction of all historically and future water percolated into the Cabazon Basin from the City WWTP and other future groundwater recharge operations. The City also intends to develop additional groundwater supplies from the Cabazon Basin, but will not extract groundwater to the point that adverse impacts to the Basin would occur. Therefore, the Specific Plan EIR determined that the projected water demands of the 2012 Specific Plan Project would not have required additional extraction from the Cabazon and Banning Basins, beyond what is described above. These basins are unadjudicated and would not require permits or agreements for additional groundwater extraction. While the 2012 Specific Plan Project would not have resulted in water demands that would require additional extraction from existing groundwater basins and would not require new or expanded entitlements, Mitigation Measure WS-1 would be required to ensure that if additional wells are needed, impacts to the environment would not occur. Therefore, the Specific Plan EIR determined that the 2012 Specific Plan Project would result in less than significant impacts with mitigation incorporated.

Mitigation Measure WS-1: With respect to all City of Banning (City) groundwater supplies, the City will:

1. Periodically, conduct a groundwater audit that evaluates groundwater level trends, production rates, groundwater quality or other aquifer/well/pump considerations from the previous year (through use of an ongoing groundwater monitoring and data collection system).

2. Develop a groundwater model to allow accurate simulation of groundwater flow and groundwater quality (including potential impacts by recharge of recycled water) in the City groundwater resource area.

Additionally, to avoid injury to other legal users of the Cabazon Basin, the City will:

3. Site any new well so as to not result in material interference to existing wells.

Threshold: *Would the project require or result in the construction of new water system facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Impact: Construction of Water System Facilities. Less than Significant Impact with Mitigation Incorporated. The 2012 Specific Plan Project included several water supply and quality features included as PDFs and also proposed the construction of water treatment, storage, and transmission facilities to meet the 2012 Specific Plan Project's water demand.

As part of the 2012 Specific Plan Project's storage and transmission system, three to four aboveground storage tanks, with a total capacity of 3.5 million gallons were proposed to serve the Project. The ultimate size and location of these tanks was to be based on balancing deliveries throughout the Project site as well as the City. Additional water treatment, storage, and transmission facilities included an optional on-site satellite treatment facility, three pump stations, subsurface pipelines, and the off-site sewer lift station. All treatment processes would have occurred within an enclosed structure. The lift station would have been located on a commercial lot in a screened building. The pump stations would have also been located within an enclosure structure. In order to ensure the 2012 Specific Plan Project would result in less than significant impacts, the Specific Plan EIR determined that the project would be required to comply with Mitigation Measure PSU-4, which requires fair market compensation for private land acquisition required for off-site infrastructure, if City-owned parcels are not available, and a general biological assessment for off-site aboveground infrastructure. With implementation of this measure, the Specific Plan EIR determined that impacts would be less than significant.

Mitigation Measure PSU-4: Off-site infrastructure improvements shall comply with all of the same mitigation measures for on-site facilities, as applicable. Off-site facilities shall provide for:

- a) Fair market compensation for private land acquisition, if City of Banning (City)-owned parcels are not available. Such acquisition shall be either through voluntary sale or through eminent domain proceedings in accordance with local and State law.
- b) A general biological assessment for off-site aboveground infrastructure by a qualified biologist. If sensitive resources are

determined to be present, those resources shall be assessed and/or delineated, mitigation measures shall be developed and imposed.

Cumulative Impacts. Less than Significant with Mitigation Incorporated. The 2012 Specific Plan Project and other reasonably foreseeable projects would have been served by the existing and future water supplies provided by the City. Individual projects would have also been required to include an assessment of project-related water demands to identify potential impacts to the local and regional water supply system. These assessments would have ensured that future projects would only be approved if adequate water supplies exist at the time of their implementation. Therefore, impacts to water supply were determined to result in less than significant cumulative impacts.

The Specific Plan EIR also included a cumulative analysis with respect to potential impacts of climate change on the City's water supply. The WSA for the 2012 Specific Plan Project accounted for the potential impacts of climate change on the availability of the City's imported water supply, and therefore, no additional analysis was determined to be required. This analysis determined that implementation of Mitigation Measure WS-2, which requires the City to manage imported water and groundwater, monitor analyses of climate change on water supplies, practice and promote integrated flood management, diversify its portfolio through increased water use efficiency, and develop alliances with cities and water agencies and districts, cumulative impacts related to water supply would be less than significant.

Mitigation Measure WS-2: Additionally, to guard against the potential adverse effects of climate change on the City's water supplies, the City will:

1. Continue to manage its imported and surface water supplies conjunctively with its groundwater supplies to maximize opportunities for groundwater storage.
2. Continue to monitor expert technical analyses of the impacts of climate change on surface and groundwater supplies and incorporate any recommendations into the City's water supply planning efforts.
3. Continue to practice and promote integrated flood management. The City will incorporate climate change findings into the infrastructure design and continue to integrate water and land use practices, such as encouraging new developments to capture and treat stormwater on site. New water infrastructure will be designed to operate under a wide range of conditions and will consider climate change impacts.
4. Continue to diversify its portfolio through increased water use efficiency and aggressive demand reductions achieved by existing and new conservation programs. The development and

use of a new recycled water supply will further diversity the City's portfolio and reduce potable water demands.

5. Continue to further develop regional alliances with cities, water districts and water agencies to integrate, improve and develop regional water management.

3.15.3 Analysis of Project Changes

Groundwater Supplies and Water Demand. The Proposed Project's demand for potable and non-potable water was estimated using the generation rates included in the Specific Plan EIR. Based on these generation rates, the estimated water demand for the Proposed Project at buildout would be approximately 4,213 AFY (a decrease of 11 AFY in water demand compared to the 2012 Specific Plan Project. The Proposed Project's total potable water demand at buildout would be approximately 2,528 AFY, whereas the non-potable demand would be 1,685 AFY. Refer to Table 3.K, Projected Gross Potable and Non-Potable Water Use for the Proposed Project, for the Project's water demand.

Table 3.K: Projected Gross Potable and Non-Potable Water Use for the Proposed Project

Land Use	Net Dwelling Units	Net Acres	Water Use Factor	Gross Water Use (gpd)	Gross Water Use (AFY)
Potable Water Use					
Residential					
All Residential Units	4,862	862.1	0.52 AFY/DU	2,255,000	2,528
Non-Potable Water Use					
Other Uses					
Schools (40% of area)	N/A	10.84	1.76 AFY/AC	17,020	19.08
Commercial/Office	N/A	36.7	1.21 AFY/AC	39,620	44.41
Open Space					
Parks	N/A	78.4	3.44 AFY/AC	240,600	269.70
Central Open Space/Drainage	N/A	418.1	2,885 GPD/AC	1,206,219	1,352.03
Total Potable Water Demands				2,255,000	2,528
Total Non-Potable Water Demands				1,503,459	1,685
Total Gross Water Demands for the Project				3,758,459	4,213

Source: Generation rates obtained from Section 4.14, Water Supply, of the Specific Plan EIR

Furthermore, the Project is a less intense development that includes fewer residential units and replacement of the golf course with recreational areas, resulting in a lower water demand than previously analyzed. The removal of the golf course and the resulting increase in natural open space will reduce water demand and increase infiltration to the groundwater basins. The project would not

require more water supplies. Therefore, the Proposed Project would not result in any new significant environmental effects related to groundwater or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

New or Expanded Entitlements. The Proposed Project represents an overall reduction in the intensity and scale of development compared to the 2012 Specific Plan Project analyzed under the Specific Plan EIR. The Project is a less intense development that includes fewer residential units and replacement of the golf course with recreational areas, resulting in a lower water demand than previously analyzed. For this reason, the Proposed Project would not require new or expanded entitlements with respect to water. Therefore, the Project would not result in any new significant environmental effects related to new and/or expanded entitlements or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Construction of Water System Facilities. The Project is a less intense development that includes fewer residential units and replacement of the golf course with recreational areas, resulting in a lower water demand than previously analyzed. Therefore, because the water demand would be reduced, no additional water system facilities beyond those envisioned in the Specific Plan EIR would be required. The project would not result in any new significant environmental effects related to the construction of water system facilities or a substantial increase in the severity of previously identified significant effects in the Specific Plan EIR.

Cumulative Impacts. Future regional growth will result in increased demands for water facilities. The long-range plans and programs, including the provision of adequate utilities, adopted by the City, address "build out" of the General Plan land uses. The Proposed Project is consistent with the City's General Plan land use designation for the Project site, and therefore, has been accounted for within the City's 2015 UWMP, which itself indicates that the City has sufficient water supplies to serve existing and projected development within the City.¹ As a result, adequate capacities are available to accommodate the Proposed Project, as well as other related projects, that have been approved and are identified for future development. The Proposed Project is consistent with the long-range plans and programs adopted by the City and demands for domestic water have been anticipated by the City. Therefore, in consideration of all of the above, the Proposed Project is consistent with the findings of the EIR and does not require any major changes to the Specific Plan EIR and would not result in any new significant cumulative environmental impacts related to water supply or a substantial increase in the severity of cumulative impacts or require new or substantially different mitigation measures.

3.15.4 Findings Related to Water Supply

No New Significant Effects Requiring Major EIR Revisions. Based on the foregoing analysis and information, there is no evidence that the Proposed Project requires a major change to the Specific Plan EIR. The Proposed Project would not result in new significant environmental impacts to Water

¹ City of Banning, 2015 Urban Water Management Plan, Prepared by Krieger & Stewart (May 2016)

Supply, nor is there a substantial increase in the severity of impacts previously identified in the Specific Plan EIR.

No Substantial Change in Circumstances Requiring Major EIR Revisions. The Project site and surrounding area have not been further developed or altered since the Specific Plan EIR was prepared. There is no information in the record or otherwise available that indicates that there are substantial changes in circumstances pertaining to Water Supply that would require major changes to the Specific Plan EIR due to the involvement of significant effects or a substantial increase in the severity of previously identified significant effects.

No New Information Showing Greater Significant Effects than the Specific Plan EIR. No significant unavoidable impacts related to Water Supply were identified in the Specific Plan EIR. This Addendum has analyzed all available relevant information to determine whether there is new information that was not available at the time the Specific Plan EIR was certified, indicating that a new significant effect not reported in that document may occur. Based on the information and analyses above, there is no substantial new information which was not known and could not have been known with the exercise of reasonable diligence at the time the Specific Plan EIR was certified indicating that there would be a new significant impact to water supply requiring major revisions to the Specific Plan EIR.

No New Information Showing Ability to Reduce Significant Effects in Previous EIR. There are no alternatives to the Project or additional mitigation measures that would substantially reduce one or more significant impacts pertaining to Water Supply identified and considered in the Specific Plan EIR.

3.15.5 Project Design Features

All PDFs included as part of the 2012 Specific Plan Project (refer to Section 1.1.2 of this Addendum) and are applicable to the Water Supply analysis for the Proposed Project. The PDF listed below reflects where minor text changes have been made due to the approval of the Butterfield Specific Plan in 2012 and the subsequent Settlement Agreement. The change is shown in strikeout/underline below.

Recycled Water.

1. Recycled water, as it is available, will be used to irrigate the ~~golf course and the~~ common landscaped areas of the Project in order to reduce the demand for domestic (potable) water. The City has completed plans and prepared environmental analysis for a 1.5 mgd upgrade, referred to as the Phase I project, of the City's main treatment plant that will produce and supply recycled water. Funding for the Phase I project has been ~~identified and the upgrade should be completed by year 2015~~ (see Appendix J, *Water Supply Assessment*, Section 6.4, for further detail). In addition to on-site infrastructure, the recycled water system for the Project would require connecting and pumping recycled water from the City's wastewater treatment plant through planned City pipelines to the Project site. The Project also includes the option of constructing an on-site "satellite" wastewater treatment plant to be owned and operated by the City of Banning.

3.15.6 Mitigation Measures

In light of the Proposed Project, the Specific Plan EIR was reviewed to determine whether or not changes to the 2012 Specific Plan Project would affect the mitigation measures contained therein. Based on the analysis and information above, no changes to the mitigation measures found in the Specific Plan EIR are required. Mitigation Measures WS-1 and WS-2 remain applicable to the Proposed Project.

3.15.7 Mitigation Measures No Longer Applicable

All water supply mitigation measures remain applicable to the Proposed Project.

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3.16 FINDINGS OF THIS ADDENDUM

Based on information and analyses in this Addendum and pursuant to Section 15164 of the *State CEQA Guidelines*, the City has determined the following:

1. There are no substantial changes to the 2012 Specific Plan Project that would require major revisions of the Specific Plan EIR due to new significant environmental effects or a substantial increase in severity of impacts identified in the Specific Plan EIR;
2. Substantial changes have not occurred in the circumstances under which the Proposed Project is being undertaken that will require major revisions to the Specific Plan EIR to disclose new significant environmental effects or that would result in a substantial increase in severity of impacts identified in the Specific Plan EIR; and
3. There is no new information of substantial importance which was not known at the time the Specific Plan EIR was certified, indicating any of the following:
 - The Proposed Project will have one or more new significant effects not discussed in the Specific Plan EIR;
 - There are impacts determined to be significant in the Specific Plan EIR that would be substantially more severe;
 - There are additional mitigation measures or alternatives to the Proposed Project that would substantially reduce one or more significant effects identified in the Specific Plan EIR; and
 - There are additional mitigation measures or alternatives rejected by the Proposed Project proponent that are considerably different from those analyzed in the Specific Plan EIR that would substantially reduce a significant impact identified in that EIR.

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APPENDIX A

AIR QUALITY MEMORANDUM

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SAN LUIS OBISPO

MEMORANDUM

DATE: November 14, 2016

TO: Ashley Davis, Principal, LSA

FROM: Michael Slavick, Senior Air Quality Specialist, LSA

Subject: Air Quality and Greenhouse Gas Review for the Butterfield Specific Plan Modification and General Plan Amendment Project in the City of Banning

LSA has reviewed the proposed changes to the Butterfield Specific Plan in the City of Banning, as reflected in a 2014 Settlement Agreement with Pardee, Highland Springs Resort and Cherry Valley Acres and Neighbors and Cherry Valley Environmental Planning Group, and the City of Banning. The Butterfield Specific Plan Project anticipated the development of up to 4,862 residential units, two elementary schools, 560,000 square feet of retail shopping center, 62.5 acres of recreational park, and 428 acres of landscape/open space area. As detailed in the Final Environmental Impact Report (Specific Plan EIR), even with the implementation of mitigation measures, the air quality impacts were identified as significant and unavoidable. As a result, the City Council, in approving the original 2012 Specific Plan Project, adopted a Statement of Overriding Considerations in accordance with CEQA. Following the City's approval of the 2012 Specific Plan and its associated Specific Plan EIR, the legality of the certified Specific Plan EIR was challenged in April 2012. A Settlement Agreement was reached in 2014.

We understand the scope of the residential, retail commercial and school components for the Butterfield Specific Plan Project has now been revised in the Specific Plan Modification and General Plan Amendment (GPA) ("Proposed Project" or "proposed project") application. We were asked to calculate the estimated air pollutant emissions anticipated as a result of these project revisions; to compare those calculated emissions to the emissions estimates included in the Specific Plan EIR; and to determine whether the Proposed Project would result in a substantial new air quality impact or make an identified air quality impact substantially more severe.

In addition to the changes in the Proposed Project, the accepted methodology for quantifying air pollutant emissions from the original Project has changed since the Specific Plan EIR was published. The recommended methodology for quantifying air pollutant emissions from development projects has changed since the air quality analysis in the Specific Plan EIR was prepared. The Specific Plan EIR utilized the URBEMIS model recommended by South Coast Air Quality Management District (SCAQMD) at the time the Specific Plan EIR was prepared. Since publication and certification of the Specific Plan EIR in 2012, however, the SCAQMD has recommended using California Emissions Estimator Model (CalEEMod) to quantify air pollutant emissions for assessing potential air quality impacts in environmental documents prepared in SCAQMD's jurisdiction.

It should be noted that the SCAQMD has modified the methods for calculating PM₁₀ fugitive dust from grading and site preparation in the CalEEMod model. The resultant construction PM₁₀ and PM_{2.5} emissions would be lower in the CalEEMod model than what is typically generated in the previous

URBEMIS model used in the Specific Plan EIR. Conversely, the resultant NOx emissions would be higher in the CalEEMod model than the URBEMIS model. Also, the mobile source emission factors currently used in the CalEEMod model (EMFAC2011) includes the Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. The resultant operational criteria pollutant emissions are lower in the CalEEMod model than what is generated in the previous URBEMIS model used in the Specific Plan EIR.

Background

The Butterfield Specific Plan Final Environmental Impact Report (Specific Plan EIR) was approved by the City Council on March 27, 2012. The Butterfield Specific Plan, as approved, includes the development of up to 5,387 residential units, two elementary schools, 549,000 square feet of retail shopping center, and an 18-hole golf course. The land uses planned for the approved 2012 Specific Plan are summarized in Table 1 below.

Proposed Project

The proposed specific plan modification and GPA is for the Butterfield Specific Plan. The Proposed Project will reduce the number of dwelling units from 5,387 units to 4,862 units and the commercial retail shopping center will slightly increase from 549,000sf to 560,000sf. The golf course will be eliminated and replaced with parks and open space.

The reduced 1,528-acre modified Butterfield Specific Plan includes 862.1 acres for residential land uses, 27.1 acres for elementary schools, 36.7 acres for commercial shopping centers, 78.4 acres reserved for parks, 418.1 acres for landscape/easement, 4.2 acres of utility substation, 1.6 acre for fire station, and 101 acres to accommodate perimeter and collector streets. The land uses planned for the Proposed Project are summarized in Table 1.

Analysis of Air Quality Impacts from Proposed Project Changes

LSA reviewed the proposed changes to the Original Project reflected in the SP and used CalEEMod to estimate emissions from construction-related activities (using the similar list of equipment from the Specific Plan EIR), residential, school, and park land uses area source emissions (including landscaping), and mobile sources associated with the Proposed Project. The Specific Plan EIR stated that the development of the Butterfield Specific Plan would occur within five phases, over approximately a 30-year time period. It should be noted

Table 1: Land Uses by Planning Area in Specific Plan EIR and 2016 Proposed Project

Land Use	Units
Approved 2012 Butterfield Specific Plan	
Residential	4,182 DU
Commercial	549 TSF
Condominium/Townhouse	1,205 DU
Elementary School	200 TSF
Golf Course	254 Acres
Utility Station	4.2 Acres
Fire Station	1.6 Acres
Parks & Recreational Centers	66.5 Acres
Landscape/Easement	70 Acres
Backbone Roads	114 Acres
Modified 2016 Butterfield Specific Plan (Proposed Project)	
Residential	4,296 DU
Commercial	560 TSF
Condominium/Townhouse	566 DU
Elementary School	236 TSF
Golf Course	0 Acres
Utility Station	4.2 Acres
Fire Station	1.6 Acres
Parks & Recreational Centers	78.4 Acres
Landscape/Easement	418.1 Acres
Backbone Roads	101 Acres

DU = Dwelling unit

TSF=thousand square feet

Source: LSA Project Description – Table A and Traffic Impact Assessment Table E, September 12, 2016.

that the 30-year construction schedule for the five phases was previously estimated to begin in year 2012. The construction schedule for the Proposed Project will remain unchanged except the start year would begin in 2017. Our analysis utilized the lower traffic study trip generation rates prepared by LSA reflected in the Proposed Project (see Table 2). To evaluate the impact of the revisions to the planning area, LSA compared the criteria air pollutant emissions estimated in the Specific Plan EIR, which relied on the URBEMIS model (version 9.2.4) to emissions estimated for the Proposed Project using CalEEMod.

Due to the emissions modeling changes under CalEEMod, emissions of carbon monoxide (CO), oxides of nitrogen (NO_x), volatile organic compound (VOC),¹ sulfur dioxide (SO₂), particulate matter (Specifically PM₁₀), and fine particulate matter (PM_{2.5}) would all decrease. The reduction in the size of the development and fewer automobile trips contribute also contribute to lower emissions. The emissions of CO, NO_x, VOC, SO₂, PM₁₀, and PM_{2.5} are lower for the Proposed Project than previously estimated for both the construction and operation phases of the 2012 Specific Plan.

Construction Activities

The same number and type of equipment that were listed in the Specific Plan EIR were also used in the construction analysis for the Proposed Project (Butterfield Specific Plan planning area only). The maximum daily construction activities are expected to be similar for the project site (such as the maximum daily number of construction equipment and workers). For the mass grading activity in the Specific Plan EIR, the URBEMIS model estimated a total of 825 acres disturbed. The Proposed Project assumed the same total grading area of 825 acres. Based on the re-evaluation of potential air quality impacts prepared for the Proposed Project, all criteria pollutant emissions, except for NO_x and SO_x during construction, for construction activities associated with the Proposed Project are shown to be lower than those reported in the Specific Plan EIR for the original Project. In large part this is attributable to cleaner off-road engines and on-road vehicles, which are subject to increasingly strict regulatory requirements that were not accounted for in the URBEMIS model. In

Table 2: Land Uses and Project Trip Generation

Land Use	Units	Daily
Single Family Residences		
Trip Generation Rates ^a	Per DU	9.57
Trip Generation	4,296 DU	41,113
Commercial Retail		
Trip Generation Rates ^b	Per TSF	33.43
Trip Generation	560 TSF	18,719
Condominium/Townhouse		
Trip Generation Rates ^c	Per DU	5.81
Trip Generation	566 DU	3,288
Elementary School		
Trip Generation Rates ^d	Per TSF	15.44
Trip Generation	236 TSF	3,643
Total Gross Trip Generation		66,673
Internal Trips within Butterfield		
Internal Capture	10%	(6,676)
Net Trip Generation		60,087

^a Trip generation based on rates for Land Use 210 - "Single Family Detached Housing" from Institute of Transportation Engineers' (ITE) Trip Generation (9th Edition).

^b Trip generation based on rates for Land Use 820 - "Shopping Center" from Institute of Transportation Engineers' (ITE) Trip Generation (9th Edition).

^c Trip generation based on rates for Land Use 230 - "Residential Condominium/Townhouse" from Institute of Transportation Engineers' (ITE) Trip Generation (9th Edition).

^d Trip generation based on rates for Land Use 520 - "Elementary School" from Institute of Transportation Engineers' (ITE) Trip Generation (9th Edition).

DU = dwelling units

TSF = thousand square feet

Source: LSA, Inc. *Traffic Impact Assessment*, September 2016

¹ It should be noted that the Specific Plan EIR analyzed emissions in terms of ROG; however, for purposes of this analysis, ROG and VOC emissions are considered the same.

particular, the Proposed Project's grading activity VOC, PM₁₀ and PM_{2.5} emissions are substantially reduced. In addition, during the development of the CalEEMod model, SCAQMD staff worked with construction and building industries to conduct a construction site survey gathering accurate information to better estimate emissions from construction equipment based on their typical operations. The general trend in CalEEMod as compared to URBEMIS is the net increase in construction VOC, NO_x, CO and SO_x emissions. The increase in SO_x emission is due to better emission estimation techniques and would not cause SO_x emission previously identified in the Specific Plan EIR to be substantially more severe. The NO_x emissions anticipated to occur during construction grading activity are estimated to be higher for the Proposed Project (i.e., 451.09 pounds/day) due to better NO_x emission estimation techniques; these emissions would remain significantly above the SCAQMD significance threshold of 100 pounds per day. This construction related NO_x emission increase found the Proposed Project would be consistent with findings in the 2012 Specific Plan. In addition, due to the differences in the model calculation rates, the CO emissions anticipated to occur during construction grading activity are estimated to be slightly higher for the Proposed Project (i.e., 281.86 pounds/day) but they would remain well below the SCAQMD significance threshold of 550 pounds/day and would not be substantially increased. The Proposed Project construction, architectural coating and paving activities generating NO_x, CO, PM₁₀ and PM_{2.5} emissions are substantially reduced and would now be lower than the SCAQMD Significance Threshold. The VOC emissions anticipated to occur during architectural coating activity are estimated to be lower for the Proposed Project (i.e., 248.50 pounds/day) but they would remain significantly above the SCAQMD significance threshold of 75 pounds/day. Table 3-A and Table 3-B present the comparison of Phase 1 construction emission analysis between the Specific Plan EIR and Proposed Project.

Table 3-A: 2012 Specific Plan Project Phase 1 Construction Activity - Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading Activity (2012)	43.97	319.87	188.54	0.01	110.80	34.64
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Grading, Trenching, and Paving (2013)	42.46	319.87	177.61	0.02	109.67	33.61
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Construction Building and Paving (2014)	25.36	62.38	570.98	0.90	10.47	7.18
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2015)	310.25	89.51	533.39	0.90	10.14	6.87
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from Butterfield Air Quality Impact Analysis in 2012 Specific Plan.

Note: URBEMIS2007 model was used in the Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 3-B: Proposed Project Phase 1 Construction Activity - Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading Activity (2017)	38.97	451.09	281.86	0.42	35.72	26.22
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Grading, Trenching, and Paving (2018)	34.19	388.16	248.02	0.41	32.77	23.50
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Construction Building and Paving (2019)	10.77	67.88	130.45	0.36	24.28	7.99
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2020)	248.50	76.55	151.87	0.42	28.70	9.59
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the *Air Quality Memorandum* (LSA November 2016).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Factors affecting the Proposed Project construction emissions include use of California Ultra-Low Sulfur Diesel fuel (15 parts per million sulfur maximum), as required by state regulation. In addition, the California Air Resources Board studied construction equipment load factors in 2009, finding that equipment is used 33 percent less than was assumed in the URBEMIS model. The 33 percent reduction in load factor for construction equipment is included in CalEEMod, which results in the lowering of construction emissions from those modeled with URBEMIS.

In addition, three of the Specific Plan EIR project mitigation measures (MM) in MM AQ-1 and MM AQ-7 were applied in CalEEMod: watering three times per day, early paving of roadways, and using diesel particulate traps on all heavy equipment used during construction. As required under SCAQMD Rule 403 – Fugitive Dust Control Measures, these measures would have the effect of lowering the PM₁₀ and PM_{2.5} emissions even more, falling even further below the SCAQMD Significance Thresholds. As a result, the emissions anticipated to occur during construction activity are estimated to be lower for the Proposed Project. CalEEMod output is included in Attachment A. Table 4-A and Table 4-B present the comparison of Phase 2 construction emission analysis between the Specific Plan EIR and Proposed Project.

Table 4-A: 2012 Specific Plan Phase 2 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Trenching and Building Activity (2016)	9.36	6.45	201.71	0.40	4.38	2.98
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Building (2017)	8.57	6.45	188.72	0.40	4.18	2.80
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2018)	189.86	6.45	176.63	0.40	4.01	2.63
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from Butterfield Air Quality Impact Analysis in Specific Plan EIR.

Note: URBEMIS2007 model was used in the Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 4-B: Proposed Project Phase 2 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Trenching and Building Activity (2021)	4.61	11.56	10.21	0.18	0.37	0.30
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Building (2022)	5.00	34.34	58.19	0.16	11.21	3.66
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2023)	262.95	34.34	58.19	0.16	11.21	3.66
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the *Air Quality Memorandum* (LSA November 2016).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

All criteria pollutants except for VOC would now be lower than the SCAQMD Significance Threshold. The VOC emissions anticipated to occur during architectural coating activity are estimated to be higher for the Proposed Project (i.e., 262.95 pounds/day) due to better VOC emission estimation techniques in CalEEMod and they would remain significantly above the SCAQMD significance threshold of 75 pounds/day. However, the VOC emissions would not result in a substantial increase when compared to the previous analysis because there is a calculation error in the CalEEMod model for architectural coating VOC emissions estimations for the recreational park land use. SCAQMD has

acknowledged and stated that the CalEEMod model incorrectly assumed the total number of acres of parkland would be painted. The resultant VOC emissions are overestimated for the park land uses and should not be considered as a substantial increase. The NO_x and PM₁₀ emissions due to the trenching activities would not result in a substantial increase when compared to the previous analysis. According to the Specific Plan EIR, several mitigation measures were proposed to reduce the construction-related VOC and other criteria pollutant emissions. These mitigation measures are applicable to the Proposed Project and no new mitigation is required.

Table 5-A and Table 5-B presents the comparison of phase 3 construction emission analysis between the Specific Plan EIR and Proposed Project. The Proposed Project grading activity PM₁₀ and PM_{2.5} emissions are substantially reduced. However, the NO_x emissions anticipated to occur during construction grading activity are estimated to be higher for the Proposed Project (i.e., 230.59 pounds/day) due to better NO_x emission estimation techniques and they would remain significantly above the SCAQMD significance threshold of 100 pounds per day. This construction related NO_x emission increase would be consistent with findings of a significant impact in the Specific Plan EIR.

Table 5-A: 2012 Specific Plan Phase 3 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading Activity (2019)	11.12	25.45	47.71	0.00	488.85	104.30
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	Yes	Yes
Grading, Trenching, Building, and Paving (2020)	22.48	3.31	183.41	0.48	4.33	2.72
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2021 - 2029)	89.45	6.81	136.30	0.48	4.15	2.56
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from Butterfield Air Quality Impact Analysis in Specific Plan EIR.

Note: URBEMIS2007 model was used in the Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 5-B: Proposed Project Phase 3 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading Activity (2024)	12.15	230.59	202.70	0.47	48.68	29.28
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
Grading, Trenching, Building, and Paving (2025)	13.60	28.10	60.54	0.17	10.65	3.57
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2026 - 2034)	13.51	21.56	50.94	0.16	10.65	3.53
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the *Air Quality Memorandum* (LSA November 2016).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits.

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 6-A and Table 6-B present the comparison of phase 4 construction emission analysis between the Specific Plan EIR and Proposed Project. All criteria pollutants would now be lower than the SCAQMD Significance Threshold.

Table 6-A: 2012 Specific Plan Phase 4 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading, Trenching, and Paving (2032)	6.24	6.78	32.51	0.11	109.14	24.02
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Paving (2033)	35.31	6.78	30.47	0.11	1.28	0.90
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2034)	68.99	0.04	1.00	0.01	0.04	0.02
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from Butterfield Air Quality Impact Analysis in Specific Plan EIR.

Note: URBEMIS2007 model was used in the Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 6-B: Proposed Project Phase 4 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading, Trenching, and Paving (2037)	7.56	39.08	91.28	0.28	22.96	11.69
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Paving (2038)	37.31	7.91	17.89	0.03	2.54	0.70
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2039)	36.10	0.76	1.79	0.01	0.37	0.10
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the *Air Quality Memorandum* (LSA November 2016).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 7-A and Table 7-B presents the comparison of phase 5 construction emission analysis between the Specific Plan EIR and Proposed Project. All criteria pollutants would now be lower than the SCAQMD Significance Threshold.

Table 7-A: 2012 Specific Plan Phase 5 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading, Trenching, and Paving (2035)	6.24	21.51	32.51	0.10	109.96	24.20
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building (2036)	2.14	6.78	26.92	0.10	1.21	0.71
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2037)	74.31	6.78	26.92	0.10	1.21	0.71
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: URBEMIS2007 Model Output in Appendix from Butterfield Air Quality Impact Analysis in Specific Plan EIR.

Note: URBEMIS2007 model was used in the Specific Plan EIR. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Table 7-B: Proposed Project Phase 5 Construction Activity Mitigated Emissions (lbs/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading, Trenching, and Paving (2040)	8.24	32.92	101.88	0.30	22.69	11.40
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building (2041)	1.08	6.88	17.82	0.03	1.71	0.48
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No
Construction Building and Architectural Coating (2042)	44.06	6.88	17.82	0.03	1.71	0.48
SCAQMD Threshold	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod Model Output in the Attachment to the Air Quality Memorandum (LSA November 2016).

Note: CalEEMod model was used in the Proposed Project. Modeled construction years are provided in parenthesis. **Bolded** emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

VOC = volatile organic compounds

Specific Plan EIR Mitigation Measures AQ-1 through AQ-7:

Mitigation Measure AQ-1: Prior to issuance of any Grading Permit, the City of Banning (City) Director of Public Works and the City Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with the South Coast Air Quality Management District (SCAQMD) Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, in accordance with SCAQMD Rule 402, the Applicant shall implement dust suppression techniques to prevent fugitive dust from creating a nuisance off the site. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered at least twice daily to prevent excessive amounts of dust;
- On-site vehicle speed shall be limited to 15 miles per hour;
- All on-site roads shall be paved where feasible, watered as needed, or chemically stabilized;
- Visible dust beyond the property line that emanates from the Project shall be prevented to the maximum extent feasible;
- All material transported off the site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site;

- Track-out devices shall be used at all construction site access points;
- All delivery truck tires shall be watered down and/or scraped down prior to departing the job site; and
- Ground cover on disturbed areas shall be replaced quickly.

Mitigation Measure AQ-2: All trucks that are to haul excavated or graded material on the site shall comply with State Vehicle Code Section 23114 (Spilling Loads on Highways), with special attention to Sections 23114(b)(F), (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads. Prior to the issuance of grading permits, the Applicant shall coordinate with the appropriate City Engineer on hauling activities compliance.

Mitigation Measure AQ-3: Prior to the issuance of building permits, the City Building Official shall confirm that construction plans and specifications include the following measures, which shall be implemented to reduce reactive organic gas (ROG) emissions resulting from application of architectural coatings:

- Contractors shall use high-pressure-low-volume paint applicators with a minimum transfer efficiency of at least 50 percent;
- Coatings and solvents with an ROG content lower than required under Rule 1113 shall be used;
- Construction and building materials that do not require painting shall be used to the extent feasible; and
- Pre-painted construction materials shall be used to the extent feasible.

Mitigation Measure AQ-4: Prior to issuance of any Grading Permit, the City Director of Public Works and the City Building Official shall confirm that the Grading Plan, Building Plans and specifications stipulate that, in compliance with SCAQMD Rule 403, ozone precursor emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications, to the satisfaction of the City Engineer. A set of maintenance records shall be provided to the City before grading commences. The City Inspector shall be responsible for ensuring that contractors comply with this measure during construction.

Mitigation Measure AQ-5: Prior to issuance of any Grading Permit, the grading plan shall indicate dust management measures for review and approval by the City Engineer, to identify viable dust control measures and include a monitoring plan to be implemented throughout the construction phases of the Specific Plan. In accordance with the Specific Plan and

the City's *Municipal Code*, the dust management measures shall minimize wind-blown particles by including:

- a) All applicable mitigation measures identified in this EIR (related to dust control) and otherwise required by the City or by SCAQMD;
- b) An erosion and sediment control plan to minimize wind or waterborne transport of soil onto adjacent properties, streets, storm drains, or drainages; and
- c) A Revegetation Plan to address interim conditions between initial grading and final site development. The Revegetation Plan, although focused on the control of wind and water erosion, shall consider compatibility with fuel modification zone requirements, drought-tolerant landscape requirements, and potential ongoing livestock grazing. Special techniques such as wind fences shall also be considered, to minimize surface soil and dust during high wind events.

Mitigation Measure AQ-6: GPS-controlled “machine-guided grading”, or other equivalent grading techniques, shall be incorporated into the Project grading plans, subject to review and approval by the City Engineer. This technology will be utilized on mass grading activities where determined feasible, and shall be used where feasible on subsequent rough or fine grading activities.

Mitigation Measure AQ-7: The following measures shall be implemented during construction to substantially reduce nitrogen oxides (NO_x)-related emissions. They shall be included in the Grading Plan, Building Plans, and specifications.

- Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than 5 minutes, and shall ensure that all off-road equipment is compliant with the California Air Resources Board (ARB) in-use off-road diesel vehicle regulations and SCAQMD Rule 2449.
- The following note shall be included on all grading plans: “The City shall require construction contractors to utilize diesel powered construction equipment that meets EPA-certified Tier III emissions standards, or higher according to the following:

January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards at a minimum. In addition, all construction equipment shall be outfitted with best available control technology (BACT) devices certified by ARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be

achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.

- Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by ARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.
- A copy of each unit's certified tier specification, BACT documentation, and ARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.
- Construction contractors are encouraged to apply for AQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for AQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: <http://www.aqmd.gov/tao/Implementation/SOONProgram.htm>.
- The contractor and the Applicant, if the Applicant's equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions, as required by SCAQMD Rules 431.1 and 431.2.
- Existing power sources (i.e., power poles) shall be used when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Construction parking shall be located on the site where possible and shall be configured to minimize traffic interference.
- Obstruction of through-traffic lanes shall be minimized by providing temporary traffic controls such as flag persons, cones, and/or signage during all phases of construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum.
- A traffic plan shall be developed to minimize traffic flow interference from construction activities. The plan shall specify the times during which construction activities would occur and particular times when travel lanes cannot be blocked (e.g., peak traffic periods as directed by the affected City Engineer). The plans shall provide details regarding the placement of traffic control, warning devices, and detours. As a supplement to the traffic plan, the construction contractor shall coordinate with the

affected agency to determine the need for a public information program that would inform area residents, employers, and business owners of the details concerning construction schedules and expected travel delays, detours, and blocking of turning movements lanes at intersections. The public information programs could utilize various media venues (e.g., newspaper, radio, television, telephone hot lines, or internet website, etc.) to disseminate information such as:

- o Overview of project information;
- o Weekly updates on location of construction zones;
- o Identification of street(s) affected by construction;
- o Times when construction activities would occur and when traffic delays, and blockage of intersection turning movements can be expected; and
- o Identification of alternate routes that could be used to avoid construction delays.

These construction emissions Mitigation Measures AQ-1 through AQ-7 are applicable to the Proposed Project and no new mitigation is required. As Proposed Project-related construction emissions are anticipated to exceed SCAQMD thresholds, construction-related emissions, like the original Project, are considered significant and unavoidable.

Operational Activities

All project-related operational criteria pollutant emissions for the Proposed Project are estimated to be lower than those reported in the Specific Plan EIR. Building energy efficiency regulations have required new buildings to be more efficient than the requirements in place for the Specific Plan EIR analysis, which reduces natural gas usage and the resulting pollutants during operation. Table 8 presents the operational emissions for both the 2012 Specific Plan and the Proposed Project scenarios. Emissions for the Proposed Project would still exceed the applicable SCAQMD significance thresholds, except in the case of SO_x emissions. The projected VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions, while significantly reduced in the Proposed Project scenario based on CalEEMod, would still be above the significance threshold.

Table 8: Operational Activity Emissions (pounds/day)

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Specific Plan EIR	805.12	794.22	5,681.94	6.42	1,046.43	204.28
Proposed Project	366.65	387.17	2,059.88	7.70	512.91	147.08
SCAQMD Threshold	55	55	550	150	150	55
Is Threshold Exceeded?	Yes	Yes	Yes	No	Yes	Yes

Note: URBEMIS2007 model was used in the Specific Plan EIR. CalEEMod model was used in the Proposed Project.

Bolded emission values indicates the exceedance of the SCAQMD Significance Threshold Limits

Source: URBEMIS2007 Model Output in Appendix from Butterfield Air Quality Impact Analysis in 2012 Specific Plan EIR; CalEEMod Model Output in Appendix A from Proposed Project

Under the Proposed Project, the emissions of VOC, NO_x, CO, PM₁₀, and PM_{2.5} are lower than previously estimated for the operational emissions. Overall, with a lower trip generation rate, the estimated criteria pollutant emissions for the Modified Butterfield Specific Plan as established under the proposed project are slightly lower than the emission for the Butterfield Specific Plan identified in the Specific Plan EIR for the Original Project.

According to the Specific Plan EIR, several project design features were proposed to reduce the operational-related criteria pollutant emissions. These project design features are applicable to the Proposed Project and no new mitigation is required. As a result, similar to the original Project, operation of the Proposed Project would have a significant and unavoidable impact on regional air quality.

Consistency with Air Quality Management Plan Analysis

Despite the measures to be implemented as part of the proposed project, the Proposed Project contemplates substantially lower residential development and lower student enrollment intensity than was included in the adopted Butterfield Specific Plan (and by association, the City's General Plan). Therefore, since the Butterfield Specific Plan would meet the growth projections for the project site contained in the City's General Plan, it would be consistent with the projections in the SCAQMD's air quality management plan (AQMP), since the plans partially serve as the basis for the AQMP. Furthermore, as discussed in greater detail below, the Proposed Project would result in construction and operational unavoidable significant impacts resulting from project-related air pollutant emissions. As such, implementation of the proposed project would not change the result found in the Specific Plan EIR, which is significant unavoidable impacts related to implementation of the SCAQMD significance thresholds.

An evaluation of the Original Project's consistency with the applicable goals and policies of the Banning General Plan was addressed in the Specific Plan EIR. Because the Proposed Project would be required to implement CalGreen building standards in future residential and school construction projects, and would also employ a number of other sustainability features, all of which would serve to reduce air quality emissions and help achieve air quality goals, the Proposed Project would not result in conflicts with the applicable policies contained in the Banning General Plan, and therefore impacts in this regard would be considered less than significant.

CO Hot Spots

Peak CO concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the Basin's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of the CO Attainment Plan and subsequent AQMP updates. According to the CO attainment demonstration in the 2003 AQMP, Wilshire Boulevard and Veteran Avenue is the most congested intersection in Basin with daily traffic volumes of about 100,000 per day. Reflecting these results, the Basin has been designated as attainment for CO since 2007 and even very busy intersections do not result in exceedances of the CO standard. None of the intersections in the Proposed Project area have peak hour traffic volumes that exceed those at the intersections modeled in the 2003 AQMP nor do they have any geometric qualities that would result in higher concentrations than the intersections modeled by the SCAQMD.

The Traffic Impact Analysis by RBF Associates² and the certified Specific Plan EIR shows that total trip generation in the project area would be 62,263 vehicle trips per day. As a result, the Specific Plan EIR determined CO concentrations to be less than 2.8 ppm (1-hour average) or 2.13 ppm (8-hour average), which would not exceed the thresholds of 20 ppm for 1-hour and 9 ppm for 8-hours CO concentrations. The revised Trip Generation Analysis by LSA, Inc. shows that the net trip generation for Proposed Project is forecast to be 59,797 vehicle trips per day.³ Thus, this comparison of 62,263 trips to 59,797 trips provides evidence that the Proposed Project would not contribute to the formation of CO hotspots and no further CO analysis is required. Based on the expected peak hour traffic volumes that would occur at Proposed Project buildout, and paralleling conclusions of the CO Attainment Plan and 2003 AQMP, significant concentrations of CO emissions would be less than significant under the Proposed Project. Nor would there be any reason unique to project area meteorology or other factors to conclude that the Project Study Area intersections would yield higher CO concentrations if modeled in detail. Therefore, the Proposed Project would result in less than significant impacts with respect to CO hotspots.

Toxic Air Contaminants

Construction of the planning areas associated with the Proposed Project would be expected to result in up to 30 years construction emissions of TACs (i.e., DPM) and would be required to implement all mitigation measures including Tier 4 engines with Level 3 diesel particulate filters. These emission control device would help reduce DPM exposures to local residences and school children. It is anticipated that there will be no additional sources of TAC emissions associated with the proposed residential and school developments for the Butterfield Specific Plan as established under the Proposed Project. Therefore, the Proposed Project would not result in new or worsening impacts than what was analyzed for the Original Project in the Specific Plan EIR.

Odors

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents and diesel-powered on- and off-road equipment. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with SCAQMD Rules, no construction activities or materials are proposed which would create objectionable odors. Therefore, no impact would occur during construction of the proposed project and no mitigation measures would be required.

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. There will be a wastewater treatment plant in south of the Proposed Project area. The Proposed Project does not include any other uses identified by the SCAQMD as being associated with odors. Future development pursuant to the Proposed Project consists of residential, commercial, educational, and recreational uses and is not expected to be a source of off-site odor complaints.

² RBF Associates, 2011. *Traffic Impact Analysis*.

³ LSA, Inc., 2016. *Butterfield Specific Plan – Trip Generation Comparison Memorandum*. August.

Operation of the wastewater treatment plant has the potential to result in odor impacts because of the nature of the activities at the proposed facility. However, the frequency with which the facility would expose the public to objectionable odors would be minimal based on the control measures planned in the design. All facilities would be covered to avoid uncontrolled odor release. Active odor control units would be located to manage gases from the wet and solids stream treatment processes. All processes and equipment would be housed (or otherwise contained) and ventilation controlled such that no objectionable odors would be discernible at the project site boundaries. The odor control design for the facility would be such that no perceptible odors would be detected by nearby residences or other sensitive receptors. Additionally, disposal of biosolids at landfill sites could also contribute to odors and increase air emissions at these end-use facilities. The Proposed Project would also be required to comply with Mitigation Measure AQ-8, which requires the wastewater treatment plant to operate under a Conditional Use Permit (CUP). However, the City will only use sites that are properly permitted and that have mitigated all site-specific impacts. Therefore, this impact would be less than significant.

During construction, the Specific Plan EIR concluded that there may be localized instances when the characteristic diesel exhaust odor is noticeable from construction equipment and asphalt paving, but such transitory exposure is a brief nuisance and would not threaten regional air quality standards. Thus, adverse impact in terms of objectionable odors during construction would be less than significant and impacts associated with the Proposed Project would be similar to those identified in the Specific Plan EIR.

The Specific Plan EIR identified that operation of the uses included in the Butterfield Specific Plan would not involve the handling of large quantities of solid waste materials, chemicals, food products, or other materials that have the potential to create objectionable odors. In addition, vehicles traveling on the internal or adjacent roads are not expected to generate odors. In addition, trash bins would be covered and maintained regularly in accordance with City standards. The SCAQMD regulations and City standards would apply to the Proposed Project, therefore, as with the Original Project, no objectionable odors are expected. The Proposed Project would not result in new or worsening impacts and would have a less than significant impact.

Specific Plan EIR Mitigation Measures AQ-8:

Mitigation Measure AQ-8: Construction and implementation of the wastewater treatment plant shall require a Conditional Use Permit to be approved by the City, as well as design review of the proposed site plan and building architecture, landscaping, and lighting.

Conclusion for Air Quality Impacts

The Specific Plan EIR concluded that development of the Original Project would exceed SCAQMD air quality significance thresholds in certain instances, necessitating the incorporation of mitigation measures to reduce both construction and operational air pollutant emissions. It further concluded that all potentially significant air quality impacts could not be reduced to a less-than-significant level, resulting in significant and unavoidable adverse impacts and the adoption of a statement of overriding considerations.

Based on our analysis, construction emissions associated with the Proposed Project will be reduced in all cases as compared to the Original Project, except for VOC and NO_x emissions which would be slightly increased during construction. During the grading activity, the maximum daily NO_x emissions from the heavy-duty grading equipment would exceed the SCAQMD significance threshold, and during the building construction activities, the maximum daily VOC emissions from the architectural coating activities would exceed the SCAQMD significance threshold. Operational emissions will be reduced for all pollutants under the Proposed Project, although VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions will remain significant and unavoidable as identified in the Specific Plan EIR.

Additionally, the Proposed Project would implement Mitigation Measure AQ-8, which requires that the proposed wastewater treatment plant operate under a CUP to reduce odor-related impacts to a less than significant level.

Accordingly, the project changes associated with Proposed Project would not result in any significant new air quality effect not considered in the Specific Plan EIR, and would not cause any significant air quality effect previously identified in the Specific Plan EIR to be substantially more severe.

GREENHOUSE GAS/CLIMATE CHANGE

As described in the Specific Plan EIR, a greenhouse gas (GHG) inventory was completed to estimate both the construction-related emissions and the annual operational emissions expected to occur after build-out of the Original Project. The analysis assumed that all emissions from the project would be “new” since there is no current development or activity on the site. Short-term or one-time emissions would be associated with construction-related activities. Based on the anticipated build-out for the Original Project, the Specific Plan EIR estimated that 104,177 metric tons (MT) of CO₂e would be generated from project construction equipment and emitted over the course of the minimum construction period of 30 years. If these one-time emissions are annualized (assuming a 30-year development life), then the one-time emissions would contribute approximately 3,473 MT CO₂e emissions annually.

Project-related long-term operational or annual emissions include indirect GHG emissions from electricity use in residential and non-residential buildings; emissions from natural gas combustion used in residential and nonresidential buildings; mobile sources; municipal sources; and area sources. Based on the analysis of long-term impacts using all the emission source categories identified above, the total annual GHG emissions generated from the Original Project were estimated to be approximately 124,025 MT CO₂e per year.

To date, the SCAQMD has published thresholds of significance for emissions of GHGs from non-industrial sources at 3,000 MT CO₂e per year. Similarly, at the time of the Specific Plan EIR, there was no significance threshold for GHG emissions adopted by the SCAQMD or City. The potential GHG impacts from the Original Project development were determined to be significant after mitigation at the project level because the GHG emissions reductions were higher than that specified in the 2008 Climate Change Scoping Plan. Specifically, the 2008 Climate Change Scoping Plan set a statewide target for GHG emissions reduction of 28.5 percent from the business-as-usual (BAU) scenario. The GHG emissions estimated for the Original Project with imposed mitigation would not achieve the 28.5 percent reduction from the BAU target.

With the advent of legislation mandating GHG reductions from, for example, mobile sources and electricity generation, the way BAU emissions are estimated is not the same in the 2008 and 2014 Scoping Plans. The 2014 First Update to the Climate Change Scoping Plan calls for a 16 percent reduction from BAU, but the way BAU is defined in calculating the 16% goal incorporates legislation not included in the 2008 Climate Change Scoping Plan BAU.

Analysis of GHG Impacts from Project Changes under the Proposed Project

An updated GHG emissions inventory to determine both construction and operational GHG emissions was prepared for the Proposed Project by LSA using CalEEMod. The model employs widely accepted calculation methodologies for emission estimates combined with appropriate default data if site-specific information is not available. The model is able to estimate GHG emissions based on project-specific data or, where project-specific data are not available, based on default data specific for building types and regions. CalEEMod incorporates state-of-the-science methods for quantifying mitigation and project design features not available in URBEMIS and has replaced URBEMIS, the model used in the Specific Plan EIR.

Greenhouse Gas Emission Thresholds of Significance

The City of Banning has not established local CEQA significance thresholds as described in Section 15064.7 of the State *CEQA Guidelines*. Therefore, significance determinations utilized in this section are from Appendix G of the State *CEQA Guidelines*. A significant impact will occur if implementation of the proposed Project will:

- **Threshold A:** generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- **Threshold B:** conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The evaluation of an impact under CEQA requires measuring data from a project against both existing conditions and a “threshold of significance.” With regard to establishing a significance threshold, the Office of Planning and Research’s amendments to the CEQA Guidelines Section 15064.7(c) state that “[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.”

CEQA Guidelines Section 15064.4(a) further states, “. . . A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . . ; or (2) Rely on a qualitative analysis or performance based standards.”

CEQA Guidelines Section 15064.4 provides that a lead agency may take into account the following three considerations in assessing the significance of impacts from greenhouse gas emissions:

- **Consideration #1:** The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.

- **Consideration #2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #3:** The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

GHG Threshold Used in Specific Plan EIR

The business-as-usual (BAU) analysis was performed in the Specific Plan EIR to determine if the Project's GHG emissions would meet the AB32 Statewide reduction target in 2020, which equals a reduction of 28.3%. BAU is an estimate of the GHG emissions expected to occur if none of the foreseeable California's Scoping Plan measures were implemented. These measures are implemented at the state, regional, and local level. As reported in the Specific Plan EIR, the proposed 2012 Specific Plan would result in approximately 161,118.99 MTCO₂eq/year of direct and indirect GHGs without reductions from Project design features. Mitigation Measure GHG-1 and GHG-2 have been formulated in order to ensure such GHG Project design features are incorporated into the implementation of the 2012 Specific Plan. Based on the reduction measures in Table 4.5-3 of the Specific Plan EIR, the proposed Specific Plan would reduce its GHG emissions 20.29 percent below the Business as Usual scenario, to 124,024.67 MTCO₂eq/year.

Biological Diversity v. California Department of Fish and Wildlife

On November 30, 2015, the California Supreme Court in *Center for Biological Diversity v. California Department of Fish and Wildlife* ("Newhall Ranch") invalidated the GHG analysis for a large master planned residential development in Los Angeles County consisting of over 20,000 residential dwelling units and other uses, determining that the GHG significance finding was "not supported by a reasoned explanation based on substantial evidence." In particular, the Court upheld: (1) use of the statewide emissions reduction goal in AB 32 as a significance criterion, (2) use of the Scoping Plan's BAU model "as a comparative tool for evaluating efficiency and conservation efforts" of the Project, and (3) a comparison of the project's expected emissions to a BAU model rather than a baseline of pre-project conditions.

Notwithstanding, however, the Court invalidated the GHG analysis on the grounds that the "administrative record discloses no substantial evidence that the Newhall Ranch's project-level reduction of 31 percent in comparison to [BAU] is consistent with achieving AB 32's statewide goal of a 29 percent reduction from [BAU]" ("Nor is Justice Corrigan correct that our analysis 'assumes project-level reduction in greenhouse gas emissions must be greater than the reduction California is seeking to achieve statewide.' . . . [W]e only hold that DFW erred in failing to substantiate its assumption that the Scoping Plan's statewide measure of emissions reduction can also serve as the criterion for an individual land use project.")

In so doing, the Court in *Newhall Ranch* questioned whether “a greater degree of reduction may be needed” from new versus existing development to achieve the statewide goal set forth in AB 32. The Court also stated that the EIR failed to contain sufficient evidence to conclude that the “land use density” assumptions used in the EIR’s GHG emissions model relate to the land use density assumptions used in the Scoping Plan’s BAU model. Because this information was not contained in the *Newhall Ranch* EIR, the Court determined that the record in *Newhall Ranch* did not contain substantial evidence supporting the BAU threshold.

The Court in *Newhall Ranch* outlined “potential pathways to compliance” that future EIRs could use to determine if GHG emissions from a given project are significant. Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU.** A lead agency may use a BAU comparison based on the Scoping Plan’s methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the “data behind the Scoping Plan’s business-as-usual model” to determine the necessary project-level reductions from new land use development at the proposed location.
- **Compliance with Regulatory Programs or Performance Based Standards.** A lead agency “might assess consistency with AB 32’s goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. (See Final Statement of Reasons, *supra*, at p. 64 [greenhouse gas emissions ‘may be best analyzed and mitigated at a programmatic level.’].) To the extent a project’s design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Resources Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with ‘performance based standards’ adopted to fulfill ‘a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.’ (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also *id.*, §15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including ‘plans or regulations for the reduction of greenhouse gas emissions’].) ”
- **Compliance with GHG Reduction Plans or Climate Action Plans (CAPs).** A lead agency may utilize “geographically specific GHG emission reduction plans” such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis.
- **Compliance with Local Air District Thresholds.** A lead agency may rely on “existing numerical thresholds of significance for greenhouse gas emissions” adopted by, for example, local air districts.

Therefore, consistent with CEQA Guidelines Appendix G, the three factors identified in CEQA Guidelines Section 15064.4 and the *Newhall Ranch* opinion, the following thresholds are considered in determining the significance of the Proposed Project impacts from GHG.

- ***Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs (see Threshold A).***

Analysis under Threshold A involves both a qualitative and quantitative analysis of the Project's compliance with the Western Riverside Council of Government's Climate Action Plan (CAP). The CAP is a geographically specific plan that was adopted by the Western Riverside Council of Government (WRCOG) for the purpose of reducing GHG emissions under the control or influence of the City consistent with AB 32 and subsequent state legislation and state agency action to address climate change.

- ***Would the Project conflict with the CARB Scoping Plan and regulations adopted for the purpose of reducing emissions of greenhouse gases (see Threshold B)?***

Analysis under Impact Threshold B involves a qualitative analysis of the Project's consistency with the CARB's Scoping Plan and with GHG emission reducing regulations. The Scoping Plan and its adopted regulations are considered a statewide plan, policy, or regulation adopted by a public agency to reduce GHG emissions that may be used to assess consistency with AB 32.

GHG Impacts before Mitigation

Threshold A: Would the Project conflict with any applicable plan, policy or regulation of the City adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed in the *Newhall Ranch* decision, a lead agency may assess the significance of GHG emissions by determining a project's consistency with a local GHG reduction plan or CAP that qualifies under Section 15183.5 of the CEQA Guidelines. The City of Banning does not have a local GHG reduction plan or CAP; however, they are a member of the WRCOG. The WRCOG Subregional Climate Action Plan serves to fulfill this role.

The City of Banning is one of the twelve cities in the western Riverside County, who has joined efforts to develop the WRCOG Subregional CAP. The CAP sets forth a sub-regional emissions reduction target, emissions reduction measures, and action steps to assist each community to demonstrate consistency with California's Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32).

The CAP identifies strategies for reducing GHG emissions and prioritizes the implementation of policies that enable the member cities to fulfill the requirements of AB 32. The CARB adopted the State's strategy for achieving AB 32 targets in its Scoping Plan in 2008. The Scoping Plan GHG reduction goal is to reduce statewide emissions to 1990 levels by 2020. The WRCOG Sub-regional CAP includes strategies that will achieve this target. The strategy will continue to provide reductions past 2020 and includes a roadmap for the City to achieve GHG emissions reductions through the year 2030 and year 2050. The CAP will enable the City to surpass its community-wide GHG emissions target for 2020, but more aggressive action by the City, the WRCOG sub-region, and the state is needed to reach the 2030 and 2050 targets. Using the strategies and policies outlined in the CAP, the City is on track with meeting its long-term GHG reduction goal until approximately 2026. After that point, a gap emerges between needed reductions and expected reductions. Additional action at the state and sub-regional level is critical to the City's ability to attain its long-term GHG targets. However, the City recognizes its vital role in closing the emissions reduction gap through more aggressive local action that is synergistic with state action. Nevertheless, numerous developments in

policy, technology and markets must occur for the state to achieve an economy-wide 80% reduction in GHG emissions by the year 2050 from 1990 levels (WRCOG Subregional CAP 2016).

The 2016 Southern California Association of Government (SCAG) Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) would result in less than significant impacts with respect to its potential to conflict with AB 32 and or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs. However, in the event of a worst case scenario, e.g., responsible agency implementation activities do not achieve their respective GHG emission reduction goals to the appropriate level, the proposed 2016 Specific Plan Amendment may result in significant cumulative impacts. California's Sustainable Communities and Climate Protection Act, or Senate Bill (SB) 375, calls for the SCAG RTP to include an SCS that reduces GHG emissions from passenger vehicles by 8 percent per capita by 2020 and 13 percent per capita by 2035 compared to 2005, as set by the California Air Resources Board (ARB). SB 375 enhances the State's goals of Assembly Bill 32, the Global Warming Solutions Act of 2006. The SCS outlines the plan for integrating the transportation network and land use development strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management measures outlined in the RTP/SCS would benefit the City with more sustainable planning, integrating transportation and land use decisions to allow residents to live closer to where they work and play, and to high-quality transit services. Implementation of SCAG Mitigation Measures outlined in the 2016 RTP/SCS and Project-Level Mitigation Measure MM-GHG-1 through MM-GHG-3 will help reduce project impacts related to the potential to conflict with AB 32 and or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs to the maximum extent practicable and feasible. However, similar to the Specific Plan EIR findings, significant and unavoidable cumulative GHG impacts will remain for the Proposed Project after mitigation.

WRCOG CAP Work-in-Progress CAP Program

Under the California Environmental Quality Act (CEQA), the effects of GHG emissions are considered a potentially significant environmental impact. In addressing climate change, CEQA provides a useful mechanism for local agencies to evaluate the environmental effects of new development, but may also create inefficiencies for both agency staff and applicants through repetitive assessments of small projects on an individual basis, rather than considering cumulative effects of future development and determining needed mitigation up front. The CEQA Guidelines recognize this, and include a provision for streamlining the analysis of projects that are consistent with a comprehensive plan for the reduction of GHG emissions (CEQA Guidelines, Section 15183.5).

To meet the requirements of CEQA Guidelines Section 15183.5(b)(1) a qualified CAP must:

1. Quantify existing and projected GHG emissions within the plan area
2. Establish a reduction target based on AB 32's provisions (a level where GHG emission are not cumulatively considerable)
3. Identify and analyze sector specific GHG emissions from Plan activities
4. Specify policies and actions (measures) that local jurisdictions will enact and implement over time to achieve specified reduction target
5. Establish a tool to monitor progress and amend if necessary
6. Adopt in a public process following environmental review

A development project would demonstrate consistency with the CAP if it is consistent with the CAP assumptions regarding the amount and type of future development, and is consistent with the GHG reduction measures identified in the CAP. Projects consistent with the CAP, including conformance with any performance measures applicable to the project, would not require additional GHG emissions analysis and mitigation under CEQA Guidelines Sections 15064(h) and 1513.5(b)(2).

In a future phase of the WRCOG CAP work program, WRCOG will develop a checklist to assist with determining project consistency with the CAP. The checklist is intended to provide individual projects the opportunity to demonstrate that they are minimizing GHG emissions, while ensuring that new development achieves a proportion of emissions reduction consistent with what is assumed in the CAP. The project review checklist will screen projects for important GHG reduction measures that, when implemented, will facilitate and not impede the subregion's ability to meet its 2020 GHG emissions target. The checklist will apply to all projects subject to CEQA.

In addition to the WRCOG CAP work program, the City of Banning shall develop a greenhouse gas (GHG) Reduction Plan or Climate Action Plan (CAP) for the proposed project to ensure that the City continues on a trajectory that aligns with the short-term, interim, and long-term state GHG reduction goals of Assembly Bill (AB) 32 (2020 goal), Executive Order (EO) B-30-15 (2030 goal), and EO S-03-05 (2050 goal).

Threshold B: Would the Project be consistent with the CARB Scoping Plan and regulations adopted for the purpose of reducing the emissions of greenhouse gases?

CEQA allows lead agencies to consider whether regulatory programs are adequate to reduce a project's potentially significant environmental effects. Under AB 32, the State's emission inventory must be reduced to 1990 levels by 2020. One of the questions in the CEQA Guidelines checklist regarding GHG asks whether a project conflicts with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. The CARB Scoping Plan and its implementing regulations provide the regulatory framework for the State to achieve its target and to track its progress. Moreover, *Newhall Ranch* describes that a lead agency may assess consistency with AB 32's goal in whole or in part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities ... [*Newhall*, p. 25.] *Newhall Ranch* further describes that "[t]o the extent a project's design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with 'performance based standards' adopted to fulfill 'a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.'" (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also id., § 15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including 'plans or regulations for the reduction of greenhouse gas emissions'].)"

An important underlying assumption when making a significance determination based on compliance with regulations is that the regulations are adequate to address the impact to a less than significant level. If compliance with regulations is sufficient to mitigate the impact to a less than significant level, then a project is not required to provide any additional mitigation to further reduce the impact. If, however, regulations are only partially effective in mitigating the impacts, or if the regulatory program is not fully implemented, there may be a gap between the amount that can be reasonably claimed from regulation and the amount needed to achieve the less than significant target.

The CARB 2008 Scoping Plan includes a regulatory strategy that will result in the State achieving the AB 32 target by 2020, accounting for growth projected by 2020. The measures in the 2008 Scoping Plan were all in place by 2012. The First Update of the CARB Scoping Plan adopted in May 2014 (CARB 2014) includes no new measures or targets that would require additional consistency analysis.

When the Scoping Plan was first adopted in 2008, most of the regulations to implement it had not been adopted. This resulted in a gap between the reductions achieved by regulations and those reductions required to show consistency with the 2020 BAU percentage reduction. In the *Newhall Ranch* case, the project was required to determine reductions from its land use design and transportation measures to close the gap and exceed the identified 29 percent reduction below BAU threshold. If that project were analyzed today, the gap would likely be closed by regulations that have since been adopted to reduce GHG emissions from project sources, and possibly no reductions from land use design would be required to meet the 2020 target, at least for portions of the project built prior to 2020.

Specifically, since the adopting of AB 32, the State has embarked on an ambitious regulatory development program to implement the Scoping Plan, which continues today. As explained in the First Update to the Scoping Plan (2014) (2014 Scoping Plan Update), all of the regulations needed to achieve the AB 32 target have now been adopted. The 2014 Scoping Plan Update describes the progress achieved in adopting the regulations, and establishes that the State is on track to meet the targets accounting for the latest growth forecasts.

Most of the reductions required to reach AB 32's 2020 reduction target will be achieved by regulations that apply to both existing and new development, including the RPS, Pavley standards, LCFS, landfill regulations, regulations and programs on high global warming potential (GWP) gases, initiatives on water conservation (such as SB X7-7), and the indirect influence of the Cap and Trade system on electricity and transportation fuel prices. These regulations are sufficient to achieve AB 32's goal to reduce statewide GHG emissions to 1990 levels by 2020.

In summary, the Project is consistent with the goals established under AB 32. The Project provides emission reductions demonstrating consistency with AB 32 targets, and complies with all present and future regulatory measures developed in accordance with AB 32 and CARB's Scoping Plan, and incorporates a number of mitigation measures (listed as MM GHG-1 through MM GHG-3) that would further minimize GHG emissions, as detailed above. Accordingly, the Project will not conflict with any applicable plan, policy, or regulation for the reduction of GHG emissions. Therefore, the impacts are considered less than significant with mitigation incorporated under Threshold B.

Proposed Project GHG Emissions. With both the changes proposed in the Proposed Project and the emissions modeling changes under CalEEMod, it is estimated that approximately 43,660 MT CO₂e would be generated from project construction of the residential, commercial, and school component of the Proposed Project. If these one-time construction emissions are annualized over a 30-year development life, then the one-time construction emissions would contribute approximately 1,455 MT CO₂e emissions annually.

In addition, the total annual GHG emissions generated from the Proposed Project were estimated to be approximately 95,674 MT CO₂e per year. As a result, the annualized total project-generated GHG

emissions were estimated to be 97,129 MT CO₂e. This represents a reduction of 26,896 MT CO₂e from the original project's estimated approximately 124,025 MT CO₂e per year.

The proposed project will comply with mandatory green building standards code (CalGreen). These comprehensive regulations were adopted by the State of California and went into effect as of January 1, 2011. By adhering to these regulations, the Proposed Project will achieve significant reductions in greenhouse gas emissions, energy consumption and water use. CalGreen, for example, requires that every new residential building constructed in California increase energy efficiency by a minimum of 15 percent, reduce water consumption by minimum of 20 percent, divert 50 percent of construction waste from landfills and install low pollutant-emitting materials.

The CALGreen code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The California Green Building Standards Code was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures take effect on January 1, 2017.

According to the Specific Plan EIR, several mitigation measures were proposed to reduce GHG emissions.

Mitigation Measure GHG-1: Prior to the issuance of building permits, the following measures shall be reflected on applicable tract maps, building permits, improvement plans, landscape plans, and/or grading plans:

A) Green Building Practices

- 1) **Water Conservation** – All appliances such as showerheads, lavatory faucets and sink faucets shall comply with efficiency standards set forth in Title 20, California Administrative Code Section 1604(f). Title 24 of the California Administrative Code Section 1606(b) prohibits the installation of fixtures unless the manufacturer has certified to the California Energy Conservation compliance with the flow rate standards.
- 2) **Water Conservation** – Low-flush toilets shall be installed as specified in California State Health and Safety Code Section 17921.3 and the County Green Building Ordinance (as applicable in Riverside County).
- 3) **Water Conservation** – All common area irrigation areas shall be capable of being operated by a computerized irrigation system which includes an on-site weather station/evapotranspiration (ET) gage capable of reading current weather data and making automatic adjustments to independent run times for each irrigation valve based on changes in temperature, solar radiation, relative humidity, rain, and wind. In addition, the computerized irrigation system shall be equipped with flow sensing capabilities, thus automatically shutting down the irrigation system in

the event of a mainline break or broken head. All common area irrigation controllers shall also include a rain-sensing automatic shutoff.

- 4) **Water Conservation** – Common-area landscaping shall emphasize drought-tolerant vegetation. Plants of similar water use shall be grouped to reduce over-irrigation of low-water-using plants. Those areas not designed with drought-tolerant vegetation shall be gauged to receive irrigation using the minimal requirements.
- 5) **Water Conservation** – Residential occupants shall be informed as to the benefits of low-water-using landscaping and sources of additional information related to water conservation.
- 6) **Water Conservation** – Community center or recreational facilities with a pool amenity shall be conditioned to provide and use a pool cover to reduce water evaporation and retain heat.
- 7) **Water Conservation** – Water conservation standards shall be as noted in the Tier 1 measures of the 2010 California Green Building Standards.
- 8) **Energy, Water, and Recycling** – The builder shall be conditioned to provide the following:
 - Energy-efficient appliances
 - Energy-efficient indoor lighting
 - Water-efficient smart controllers for landscaping
 - Water-efficient plumbing in all buildings
 - Integration of recycling into residential home design, creating areas in the home to promote recycling (additional trash cans in cabinets, etc.)
 - Energy Efficiency standards shall be as noted in the Tier 1 measures of the 2010 California Green Building Standards.
- 9) **Carbon Sequestration** – The builder shall plant an average of approximately 40 trees per landscaped acre (where landscaping is provided) as a means to capture (sequester) carbon dioxide emissions and to provide shade to the buildings, which can decrease the need for air conditioning.
- 10) **Green Education Program** - In order to increase awareness of green building practices and to promote water and energy conservation, the builder(s) will develop and implement a green educational program. The program

will include but not necessarily be limited to a pamphlet that educates and promotes conservation practices that homeowners can implement, with specific guidance on landscaping with drought-tolerant plants, use of efficient irrigation systems, compact florescent lighting, and other measures that help lower greenhouse gas (GHG) emissions.

- 11) **Energy Efficient Outdoor Lighting** – Lighting for public streets, parking areas, and recreation areas shall utilize energy-efficient light and mechanical, computerized, or photo cell switching devices to reduce unnecessary energy usage.
- 12) **Energy Conservation** – Community center or recreational facilities with a pool amenity shall be conditioned to install energy-efficient pumps and motors, such as variable speed motors.

B) Solid Waste Measures

- 1) Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- 2) Shall comply with State model ordinance Assembly Bill (AB) 1327, Chapter 18, California Solid Waste Reuse and Recycling Access Act of 1991, which requires interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.

C) Transportation and Motor Vehicles

- 1) Limit idling time for commercial vehicles, including delivery and construction vehicles, pursuant to applicable South Coast Air Quality Management District (SCAQMD) and the City of Banning (City) requirements.
- 2) Promote ride-sharing programs (e.g., by designating a certain percentage of parking spaces for ride-sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles, and providing a website or message board for coordinating rides). The actual percentage of potential ride-sharing vehicle spaces will be determined in coordination with the City Planning Director or designee based on square footage and use type (e.g., shopping center, office, or fitness center, etc.) prior to approval of a site plan within the commercial land use Planning Areas.
- 3) Provide adequate bicycle parking near non-residential building entrances to promote cyclist safety, security, and

convenience. Provide facilities that encourage bicycle commuting (e.g., locked bicycle storage or covered or indoor bicycle parking).

- 4) All golf carts and Neighborhood Electric Vehicles (NEVs) shall be electrical powered only.

Mitigation Measure GHG-2: The Butterfield Specific Plan shall be conditioned to allow the following uses (as reflected on future tract maps and commercial site plans), to further promote renewable energy resources, including:

- Allowing rooftop solar on all structures, subject to City Municipal Code and related building permit provisions; allowing electric vehicle charging stations at all commercial, park, golf course, multifamily residential, and school areas, subject to a Conditional Use Permit; and allowing hydrogen vehicle fueling stations within the Commercial zone, subject to a Conditional Use Permit.

Mitigation Measure GHG-3: As part of future tract map, grading plan, site plan and/or improvement plan submittals, the Applicant shall identify bus stops along arterial streets, through consultation with the City Engineer and Banning Pass Transit, including stops on Highland Springs Road, Wilson Street, Highland Home Road, and F Street, as determined appropriate.

Incorporation of the design features listed in the Specific Plan EIR and mitigation measures GHG-1 through GHG-3 would reduce operational GHG emissions for the Proposed Project.

Conclusion for GHG Impacts

The project changes associated with the Proposed Project would not result in any significant new effects with regard to GHG emissions not considered in the Specific Plan EIR. Even with Project design features and mitigation measures for reducing GHG emissions, Project-related incremental contributions and cumulative development would cause GHG impacts to may remain significant and unavoidable.

Summary Conclusion

As a result, the Proposed Project will not have significant air quality and GHG impacts not previously disclosed, nor will there be a substantial increase in the severity of previously-identified significant air quality and GHG impacts. All Specific Plan EIR mitigation measures would be applicable to the Proposed Project and no new mitigation is required.

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ATTACHMENT A

CALEEMOD DATA

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Modified Butterfield Construction Phase 1 with Revisions
Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	62.50	Acre	62.50	2,722,500.00	0
Single Family Housing	829.00	Dwelling Unit	269.16	1,492,200.00	2371
Regional Shopping Center	560.00	1000sqft	12.86	560,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule is based on previous 2011 FEIR with adjustment to current calendar dates.

Grading - 390 days, Building - 620 days, trenching- 20 days, paving - 132 days, and Arch Coating - 130 days.

Off-road Equipment - Grading equipment based on previous 2011 FEIR.

Grading - Grading for the 825 acres for Phase 1 would last for approximately 18 months (390 days).

Architectural Coating - Low VOC coating pursuant to SCAQMD Rule 1113.

Vehicle Trips - No Operation

Woodstoves - None.

Consumer Products - None.

Area Coating - None.

Landscape Equipment - None

Energy Use - None

Water And Wastewater - None.

Solid Waste - None

Construction Off-road Equipment Mitigation - All equipment would operate with Tier 2 engines and level one PDF. On-site watering three times daily.

Area Mitigation - No Hearth and use low VOC paint

Off-road Equipment - Default trenching equipment includes 2 excavators and 1 general industrial equipment

Off-road Equipment -

Trips and VMT - Default construction equipment activities for all phases.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstEquipMitigation	DPF	No Change	Level 1

tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
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tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	440.00	130.00
tblConstructionPhase	NumDays	6,200.00	620.00
tblConstructionPhase	NumDays	620.00	390.00
tblConstructionPhase	NumDays	440.00	132.00
tblConstructionPhase	PhaseEndDate	6/1/2021	11/27/2020
tblConstructionPhase	PhaseEndDate	12/11/2020	11/13/2020
tblConstructionPhase	PhaseEndDate	5/18/2021	12/1/2020
tblConstructionPhase	PhaseStartDate	12/2/2020	6/1/2020
tblConstructionPhase	PhaseStartDate	7/28/2018	7/2/2018
tblConstructionPhase	PhaseStartDate	11/14/2020	6/1/2020
tblConstructionPhase	PhaseStartDate	6/30/2018	7/2/2018
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	5,089.81	0.00

tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	2.02	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblFireplaces	NumberGas	704.65	0.00
tblFireplaces	NumberNoFireplace	82.90	0.00
tblFireplaces	NumberWood	41.45	0.00
tblGrading	AcresOfGrading	7,020.00	825.00
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	15.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblProjectCharacteristics	OperationalYear	2014	2021
tblSolidWaste	SolidWasteGenerationRate	5.38	0.00
tblSolidWaste	SolidWasteGenerationRate	588.00	0.00
tblSolidWaste	SolidWasteGenerationRate	972.11	0.00

tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	WorkerTripNumber	0.00	3.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	42.94	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	41,480,612.03	0.00
tblWater	IndoorWaterUseRate	54,012,687.24	0.00
tblWater	OutdoorWaterUseRate	74,467,584.35	0.00
tblWater	OutdoorWaterUseRate	25,423,600.92	0.00
tblWater	OutdoorWaterUseRate	34,051,476.74	0.00
tblWoodstoves	NumberCatalytic	41.45	0.00
tblWoodstoves	NumberNoncatalytic	41.45	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	38.9666	451.0931	281.8595	0.4157	39.4713	19.6622	59.1335	20.3941	18.0916	38.4857	0.0000	42,214.0161	42,214.0161	12.6640	0.0000	42,479.9596
2018	34.1940	388.1606	248.0198	0.4158	39.4713	16.7044	56.1757	20.3941	15.3705	35.7646	0.0000	41,528.0023	41,528.0023	12.6608	0.0000	41,793.8784
2019	10.7714	67.8781	130.4499	0.3553	22.0619	2.2144	24.2763	5.9312	2.0640	7.9952	0.0000	29,661.9717	29,661.9717	1.3259	0.0000	29,689.8159
2020	248.4949	76.5534	151.8710	0.4219	25.8502	2.8475	28.6977	6.9357	2.6522	9.5879	0.0000	34,109.4406	34,109.4406	2.1225	0.0000	34,154.0134
Total	332.4269	983.6852	812.2001	1.6088	126.8547	41.4285	168.2832	53.6551	38.1783	91.8334	0.0000	147,513.4307	147,513.4307	28.7732	0.0000	148,117.6673

2.1 Overall Construction (Maximum Daily Emission)**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	10.9176	320.4219	228.3209	0.4157	16.0620	5.8044	21.8664	8.1309	5.8039	13.9348	0.0000	42,214.0160	42,214.0160	12.6640	0.0000	42,479.9595
2018	11.1147	320.3809	227.8999	0.4158	22.1467	5.8043	24.3251	8.1309	5.8038	13.9347	0.0000	41,528.0022	41,528.0022	12.6608	0.0000	41,793.8784
2019	9.4980	70.3746	131.1451	0.3553	22.0619	1.6055	23.6674	5.9312	1.5319	7.4631	0.0000	29,661.9717	29,661.9717	1.3259	0.0000	29,689.8159
2020	246.9156	87.5149	155.4545	0.4219	25.8502	2.1229	27.9731	6.9357	2.0531	8.9888	0.0000	34,109.4406	34,109.4406	2.1225	0.0000	34,154.0134
Total	278.4460	798.6923	742.8205	1.6088	86.1208	15.3371	97.8320	29.1288	15.1927	44.3215	0.0000	147,513.4306	147,513.4306	28.7732	0.0000	148,117.6673

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	16.24	18.81	8.54	0.00	32.11	62.98	41.86	45.71	60.21	51.74	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	96.6218	0.7918	68.6060	3.6200e-003		0.3781	0.3781		0.3781	0.3781	0.0000	123.2861	123.2861	0.1197	0.0000	125.7999
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	96.6218	0.7918	68.6060	3.6200e-003	0.0000	0.3781	0.3781	0.0000	0.3781	0.3781	0.0000	123.2861	123.2861	0.1197	0.0000	125.7999

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	96.6218	0.7918	68.6060	3.6200e-003		0.3781	0.3781		0.3781	0.3781	0.0000	123.2861	123.2861	0.1197	0.0000	125.7999
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	96.6218	0.7918	68.6060	3.6200e-003	0.0000	0.3781	0.3781	0.0000	0.3781	0.3781	0.0000	123.2861	123.2861	0.1197	0.0000	125.7999

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/2/2017	6/29/2018	5	390	
2	Trenching	Trenching	7/2/2018	7/27/2018	5	20	
3	Building Construction	Building Construction	7/2/2018	11/13/2020	5	620	
4	Paving	Paving	6/1/2020	12/1/2020	5	132	
5	Architectural Coating	Architectural Coating	6/1/2020	11/27/2020	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 825

Acres of Paving: 0

Residential Indoor: 3,021,705; Residential Outdoor: 1,007,235; Non-Residential Indoor: 4,923,750; Non-Residential Outdoor: 1,641,250
(Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	6	8.00	174	0.41
Grading	Off-Highway Trucks	6	8.00	400	0.38
Grading	Plate Compactors	3	8.00	8	0.43
Grading	Rubber Tired Dozers	6	8.00	255	0.40
Grading	Scrapers	15	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Trenching	Excavators	2	8.00	162	0.38
Trenching	Other General Industrial Equipment	1	8.00	87	0.34

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	39	98.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	0	3.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,621.00	627.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	324.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					38.3759	0.0000	38.3759	20.1036	0.0000	20.1036			0.0000			0.0000
Off-Road	38.6466	450.6696	277.5714	0.4037		19.6555	19.6555		18.0855	18.0855		41,259.75 96	41,259.75 96	12.6210		41,524.79 97
Total	38.6466	450.6696	277.5714	0.4037	38.3759	19.6555	58.0314	20.1036	18.0855	38.1891		41,259.75 96	41,259.75 96	12.6210		41,524.79 97

3.2 Grading - 2017**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3200	0.4234	4.2881	0.0120	1.0954	6.6600e-003	1.1021	0.2905	6.1400e-003	0.2967		954.2565	954.2565	0.0430		955.1599
Total	0.3200	0.4234	4.2881	0.0120	1.0954	6.6600e-003	1.1021	0.2905	6.1400e-003	0.2967		954.2565	954.2565	0.0430		955.1599

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.9666	0.0000	14.9666	7.8404	0.0000	7.8404			0.0000			0.0000
Off-Road	10.5976	319.9985	224.0328	0.4037		5.7978	5.7978		5.7978	5.7978	0.0000	41,259.7595	41,259.7595	12.6210		41,524.7997
Total	10.5976	319.9985	224.0328	0.4037	14.9666	5.7978	20.7644	7.8404	5.7978	13.6382	0.0000	41,259.7595	41,259.7595	12.6210		41,524.7997

3.2 Grading - 2017**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3200	0.4234	4.2881	0.0120	1.0954	6.6600e-003	1.1021	0.2905	6.1400e-003	0.2967		954.2565	954.2565	0.0430		955.1599
Total	0.3200	0.4234	4.2881	0.0120	1.0954	6.6600e-003	1.1021	0.2905	6.1400e-003	0.2967		954.2565	954.2565	0.0430		955.1599

3.2 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					38.3759	0.0000	38.3759	20.1036	0.0000	20.1036			0.0000			0.0000
Off-Road	33.9063	387.7782	244.1526	0.4038		16.6979	16.6979		15.3644	15.3644		40,610.0277	40,610.0277	12.6210		40,875.0685
Total	33.9063	387.7782	244.1526	0.4038	38.3759	16.6979	55.0738	20.1036	15.3644	35.4680		40,610.0277	40,610.0277	12.6210		40,875.0685

3.2 Grading - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2877	0.3824	3.8671	0.0120	1.0954	6.5600e-003	1.1020	0.2905	6.0700e-003	0.2966		917.9746	917.9746	0.0398		918.8099
Total	0.2877	0.3824	3.8671	0.0120	1.0954	6.5600e-003	1.1020	0.2905	6.0700e-003	0.2966		917.9746	917.9746	0.0398		918.8099

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.9666	0.0000	14.9666	7.8404	0.0000	7.8404			0.0000			0.0000
Off-Road	10.5976	319.9985	224.0328	0.4038		5.7978	5.7978		5.7978	5.7978	0.0000	40,610.0277	40,610.0277	12.6210		40,875.0685
Total	10.5976	319.9985	224.0328	0.4038	14.9666	5.7978	20.7644	7.8404	5.7978	13.6382	0.0000	40,610.0277	40,610.0277	12.6210		40,875.0685

3.2 Grading - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2877	0.3824	3.8671	0.0120	1.0954	6.5600e-003	1.1020	0.2905	6.0700e-003	0.2966		917.9746	917.9746	0.0398		918.8099
Total	0.2877	0.3824	3.8671	0.0120	1.0954	6.5600e-003	1.1020	0.2905	6.0700e-003	0.2966		917.9746	917.9746	0.0398		918.8099

3.3 Trenching - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8837	8.9333	8.7395	0.0131		0.5122	0.5122		0.4713	0.4713		1,320.2135	1,320.2135	0.4110		1,328.8446
Total	0.8837	8.9333	8.7395	0.0131		0.5122	0.5122		0.4713	0.4713		1,320.2135	1,320.2135	0.4110		1,328.8446

3.3 Trenching - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0553	0.5702	0.7247	1.6600e-003	0.0503	0.0111	0.0614	0.0144	0.0102	0.0246		161.8573	161.8573	1.0900e-003		161.8802
Worker	8.8100e-003	0.0117	0.1184	3.7000e-004	0.0335	2.0000e-004	0.0337	8.8900e-003	1.9000e-004	9.0800e-003		28.1013	28.1013	1.2200e-003		28.1268
Total	0.0641	0.5820	0.8431	2.0300e-003	0.0839	0.0113	0.0952	0.0233	0.0104	0.0337		189.9586	189.9586	2.3100e-003		190.0071

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8837		8.7395	0.0131		0.5122	0.5122		0.4713	0.4713	0.0000	1,320.2135	1,320.2135	0.4110		1,328.8445
Total	0.8837		8.7395	0.0131		0.5122	0.5122		0.4713	0.4713	0.0000	1,320.2135	1,320.2135	0.4110		1,328.8445

3.3 Trenching - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0553	0.5702	0.7247	1.6600e-003	0.0503	0.0111	0.0614	0.0144	0.0102	0.0246		161.8573	161.8573	1.0900e-003		161.8802
Worker	8.8100e-003	0.0117	0.1184	3.7000e-004	0.0335	2.0000e-004	0.0337	8.8900e-003	1.9000e-004	9.0800e-003		28.1013	28.1013	1.2200e-003		28.1268
Total	0.0641	0.5820	0.8431	2.0300e-003	0.0839	0.0113	0.0952	0.0233	0.0104	0.0337		189.9586	189.9586	2.3100e-003		190.0071

3.4 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517

3.4 Building Construction - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3303	44.6923	56.7995	0.1304	3.9439	0.8701	4.8140	1.1264	0.8004	1.9268		12,685.5678	12,685.5678	0.0855		12,687.3622
Worker	4.7585	6.3259	63.9654	0.1984	18.1190	0.1085	18.2275	4.8052	0.1004	4.9057		15,184.0487	15,184.0487	0.6580		15,197.8663
Total	9.0888	51.0181	120.7649	0.3288	22.0629	0.9786	23.0415	5.9316	0.9008	6.8324		27,869.6165	27,869.6165	0.7434		27,885.2285

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517

3.4 Building Construction - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3303	44.6923	56.7995	0.1304	3.9439	0.8701	4.8140	1.1264	0.8004	1.9268		12,685.5678	12,685.5678	0.0855		12,687.3622
Worker	4.7585	6.3259	63.9654	0.1984	18.1190	0.1085	18.2275	4.8052	0.1004	4.9057		15,184.0487	15,184.0487	0.6580		15,197.8663
Total	9.0888	51.0181	120.7649	0.3288	22.0629	0.9786	23.0415	5.9316	0.9008	6.8324		27,869.6165	27,869.6165	0.7434		27,885.2285

3.4 Building Construction - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479

3.4 Building Construction - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0582	41.1405	54.8851	0.1302	3.9429	0.8212	4.7641	1.1260	0.7555	1.8814		12,464.5609	12,464.5609	0.0842		12,466.3298
Worker	4.3616	5.7725	58.4444	0.1984	18.1190	0.1081	18.2271	4.8052	0.1003	4.9055		14,616.6491	14,616.6491	0.6138		14,629.5382
Total	8.4198	46.9130	113.3295	0.3285	22.0619	0.9293	22.9912	5.9312	0.8557	6.7869		27,081.2100	27,081.2100	0.6980		27,095.8680

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479

3.4 Building Construction - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0582	41.1405	54.8851	0.1302	3.9429	0.8212	4.7641	1.1260	0.7555	1.8814		12,464.5609	12,464.5609	0.0842		12,466.3298
Worker	4.3616	5.7725	58.4444	0.1984	18.1190	0.1081	18.2271	4.8052	0.1003	4.9055		14,616.6491	14,616.6491	0.6138		14,629.5382
Total	8.4198	46.9130	113.3295	0.3285	22.0619	0.9293	22.9912	5.9312	0.8557	6.7869		27,081.2100	27,081.2100	0.6980		27,095.8680

3.4 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880

3.4 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.8254	35.5541	53.3903	0.1300	3.9420	0.7535	4.6955	1.1256	0.6932	1.8188		12,175.47 48	12,175.47 48	0.0824		12,177.20 55
Worker	4.0643	5.3320	54.1617	0.1984	18.1190	0.1085	18.2275	4.8052	0.1007	4.9059		14,017.74 70	14,017.74 70	0.5790		14,029.90 52
Total	7.8897	40.8861	107.5520	0.3283	22.0610	0.8620	22.9230	5.9308	0.7938	6.7247		26,193.22 18	26,193.22 18	0.6614		26,207.11 07

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,542.479 9	2,542.479 9	0.6194		2,555.488 0
Total	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,542.479 9	2,542.479 9	0.6194		2,555.488 0

3.4 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.8254	35.5541	53.3903	0.1300	3.9420	0.7535	4.6955	1.1256	0.6932	1.8188		12,175.47 48	12,175.47 48	0.0824		12,177.20 55
Worker	4.0643	5.3320	54.1617	0.1984	18.1190	0.1085	18.2275	4.8052	0.1007	4.9059		14,017.74 70	14,017.74 70	0.5790		14,029.90 52
Total	7.8897	40.8861	107.5520	0.3283	22.0610	0.8620	22.9230	5.9308	0.7938	6.7247		26,193.22 18	26,193.22 18	0.6614		26,207.11 07

3.5 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.757 1	2,160.757 1	0.6988		2,175.432 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.757 1	2,160.757 1	0.6988		2,175.432 6

3.5 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0376	0.0493	0.5012	1.8400e-003	0.1677	1.0000e-003	0.1687	0.0445	9.3000e-004	0.0454		129.7139	129.7139	5.3600e-003		129.8264
Total	0.0376	0.0493	0.5012	1.8400e-003	0.1677	1.0000e-003	0.1687	0.0445	9.3000e-004	0.0454		129.7139	129.7139	5.3600e-003		129.8264

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9122	19.6998	16.9276	0.0223		0.4907	0.4907		0.4907	0.4907	0.0000	2,160.757 1	2,160.757 1	0.6988		2,175.432 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9122	19.6998	16.9276	0.0223		0.4907	0.4907		0.4907	0.4907	0.0000	2,160.757 1	2,160.757 1	0.6988		2,175.432 6

3.5 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0376	0.0493	0.5012	1.8400e-003	0.1677	1.0000e-003	0.1687	0.0445	9.3000e-004	0.0454		129.7139	129.7139	5.3600e-003		129.8264
Total	0.0376	0.0493	0.5012	1.8400e-003	0.1677	1.0000e-003	0.1687	0.0445	9.3000e-004	0.0454		129.7139	129.7139	5.3600e-003		129.8264

3.6 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.0717					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	236.3139	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057

3.6 Architectural Coating - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8124	1.0657	10.8257	0.0397	3.6216	0.0217	3.6433	0.9605	0.0201	0.9806		2,801.8199	2,801.8199	0.1157		2,804.2500
Total	0.8124	1.0657	10.8257	0.0397	3.6216	0.0217	3.6433	0.9605	0.0201	0.9806		2,801.8199	2,801.8199	0.1157		2,804.2500

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.0717					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0218		281.9057
Total	236.1856	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0218		281.9057

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8124	1.0657	10.8257	0.0397	3.6216	0.0217	3.6433	0.9605	0.0201	0.9806		2,801.819 9	2,801.819 9	0.1157		2,804.250 0
Total	0.8124	1.0657	10.8257	0.0397	3.6216	0.0217	3.6433	0.9605	0.0201	0.9806		2,801.819 9	2,801.819 9	0.1157		2,804.250 0

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.456057	0.068715	0.179002	0.172810	0.046712	0.007447	0.012395	0.044413	0.000888	0.001061	0.006318	0.000819	0.003363

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	96.6218	0.7918	68.6060	3.6200e-003		0.3781	0.3781		0.3781	0.3781	0.0000	123.2861	123.2861	0.1197	0.0000	125.7999
Unmitigated	96.6218	0.7918	68.6060	3.6200e-003		0.3781	0.3781		0.3781	0.3781	0.0000	123.2861	123.2861	0.1197	0.0000	125.7999

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	94.5391					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0827	0.7918	68.6060	3.6200e-003		0.3781	0.3781		0.3781	0.3781		123.2861	123.2861	0.1197		125.7999
Total	96.6218	0.7918	68.6060	3.6200e-003		0.3781	0.3781		0.3781	0.3781	0.0000	123.2861	123.2861	0.1197	0.0000	125.7999

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	94.5391					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0827	0.7918	68.6060	3.6200e-003		0.3781	0.3781		0.3781	0.3781		123.2861	123.2861	0.1197		125.7999
Total	96.6218	0.7918	68.6060	3.6200e-003		0.3781	0.3781		0.3781	0.3781	0.0000	123.2861	123.2861	0.1197	0.0000	125.7999

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Modified Butterfield Construction Phase 1 with Revisions
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	62.50	Acre	62.50	2,722,500.00	0
Single Family Housing	829.00	Dwelling Unit	269.16	1,492,200.00	2371
Regional Shopping Center	560.00	1000sqft	12.86	560,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule is based on previous 2011 FEIR with adjustment to current calendar dates.

Grading - 390 days, Building - 620 days, trenching- 20 days, paving - 132 days, and Arch Coating - 130 days.

Off-road Equipment - Grading equipment based on previous 2011 FEIR.

Grading - Grading for the 825 acres for Phase 1 would last for approximately 18 months (390 days).

Architectural Coating - Low VOC coating pursuant to SCAQMD Rule 1113.

Vehicle Trips - No Operation

Woodstoves - None.

Consumer Products - None.

Area Coating - None.

Landscape Equipment - None

Energy Use - None

Water And Wastewater - None.

Solid Waste - None

Construction Off-road Equipment Mitigation - All equipment would operate with Tier 2 engines and level one PDF. On-site watering three times daily.

Area Mitigation - No Hearth and use low VOC paint

Off-road Equipment - Default trenching equipment includes 2 excavators and 1 general industrial equipment

Off-road Equipment -

Trips and VMT - Default construction equipment activities for all phases.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstEquipMitigation	DPF	No Change	Level 1

tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	440.00	130.00
tblConstructionPhase	NumDays	6,200.00	620.00
tblConstructionPhase	NumDays	620.00	390.00
tblConstructionPhase	NumDays	440.00	132.00
tblConstructionPhase	PhaseEndDate	6/1/2021	11/27/2020
tblConstructionPhase	PhaseEndDate	12/11/2020	11/13/2020
tblConstructionPhase	PhaseEndDate	5/18/2021	12/1/2020
tblConstructionPhase	PhaseStartDate	12/2/2020	6/1/2020
tblConstructionPhase	PhaseStartDate	7/28/2018	7/2/2018
tblConstructionPhase	PhaseStartDate	11/14/2020	6/1/2020
tblConstructionPhase	PhaseStartDate	6/30/2018	7/2/2018
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	5,089.81	0.00

tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	2.02	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblFireplaces	NumberGas	704.65	0.00
tblFireplaces	NumberNoFireplace	82.90	0.00
tblFireplaces	NumberWood	41.45	0.00
tblGrading	AcresOfGrading	7,020.00	825.00
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	15.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblProjectCharacteristics	OperationalYear	2014	2021
tblSolidWaste	SolidWasteGenerationRate	5.38	0.00
tblSolidWaste	SolidWasteGenerationRate	588.00	0.00
tblSolidWaste	SolidWasteGenerationRate	972.11	0.00

tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	WorkerTripNumber	0.00	3.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	42.94	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	41,480,612.03	0.00
tblWater	IndoorWaterUseRate	54,012,687.24	0.00
tblWater	OutdoorWaterUseRate	74,467,584.35	0.00
tblWater	OutdoorWaterUseRate	25,423,600.92	0.00
tblWater	OutdoorWaterUseRate	34,051,476.74	0.00
tblWoodstoves	NumberCatalytic	41.45	0.00
tblWoodstoves	NumberNoncatalytic	41.45	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	5.0631	58.6444	36.6618	0.0541	7.6233	2.5561	10.1794	3.9574	2.3519	6.3093	0.0000	4,980.005 0	4,980.005 0	1.4935	0.0000	5,011.368 8
2018	2.9783	30.2678	25.5294	0.0507	8.9759	1.2527	10.2286	4.3218	1.1547	5.4765	0.0000	4,290.516 3	4,290.516 3	0.8323	0.0000	4,307.995 5
2019	1.3629	8.9974	17.4705	0.0468	2.8325	0.2885	3.1210	0.7626	0.2689	1.0315	0.0000	3,542.826 5	3,542.826 5	0.1568	0.0000	3,546.118 4
2020	16.6043	8.0392	16.3671	0.0453	2.7166	0.2822	2.9989	0.7305	0.2629	0.9934	0.0000	3,319.456 7	3,319.456 7	0.1825	0.0000	3,323.290 1
Total	26.0085	105.9488	96.0288	0.1969	22.1483	4.3796	26.5279	9.7723	4.0384	13.8107	0.0000	16,132.80 46	16,132.80 46	2.6652	0.0000	16,188.77 28

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	1.4167	41.6571	29.7018	0.0541	3.0585	0.7546	3.8131	1.5661	0.7545	2.3206	0.0000	4,979.999 2	4,979.999 2	1.4935	0.0000	5,011.363 0
2018	1.3590	25.7859	24.2402	0.0507	4.4111	0.4906	4.9017	1.9305	0.4851	2.4156	0.0000	4,290.513 3	4,290.513 3	0.8323	0.0000	4,307.992 4
2019	1.1967	9.3232	17.5612	0.0468	2.8325	0.2090	3.0415	0.7626	0.1995	0.9621	0.0000	3,542.826 1	3,542.826 1	0.1568	0.0000	3,546.118 1
2020	16.4506	8.9722	16.6519	0.0453	2.7166	0.2135	2.9301	0.7305	0.2056	0.9361	0.0000	3,319.456 2	3,319.456 2	0.1825	0.0000	3,323.289 6
Total	20.4230	85.7383	88.1551	0.1969	13.0187	1.6677	14.6864	4.9896	1.6447	6.6344	0.0000	16,132.79 49	16,132.79 49	2.6652	0.0000	16,188.76 30

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	21.48	19.08	8.20	0.00	41.22	61.92	44.64	48.94	59.27	51.96	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	17.5137	0.0990	8.5758	4.5000e-004		0.0473	0.0473		0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	17.5137	0.0990	8.5758	4.5000e-004	0.0000	0.0473	0.0473	0.0000	0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	17.5137	0.0990	8.5758	4.5000e-004		0.0473	0.0473		0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	17.5137	0.0990	8.5758	4.5000e-004	0.0000	0.0473	0.0473	0.0000	0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/2/2017	6/29/2018	5	390	
2	Trenching	Trenching	7/2/2018	7/27/2018	5	20	
3	Building Construction	Building Construction	7/2/2018	11/13/2020	5	620	
4	Paving	Paving	6/1/2020	12/1/2020	5	132	
5	Architectural Coating	Architectural Coating	6/1/2020	11/27/2020	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 825

Acres of Paving: 0

**Residential Indoor: 3,021,705; Residential Outdoor: 1,007,235; Non-Residential Indoor: 4,923,750; Non-Residential Outdoor: 1,641,250
(Architectural Coating – sqft)**

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	6	8.00	174	0.41
Grading	Off-Highway Trucks	6	8.00	400	0.38
Grading	Plate Compactors	3	8.00	8	0.43
Grading	Rubber Tired Dozers	6	8.00	255	0.40
Grading	Scrapers	15	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Trenching	Excavators	2	8.00	162	0.38
Trenching	Other General Industrial Equipment	1	8.00	87	0.34

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	39	98.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	0	3.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,621.00	627.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	324.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4833	0.0000	7.4833	3.9202	0.0000	3.9202	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0241	58.5871	36.0843	0.0525		2.5552	2.5552		2.3511	2.3511	0.0000	4,865.929 2	4,865.929 2	1.4884	0.0000	4,897.186 4
Total	5.0241	58.5871	36.0843	0.0525	7.4833	2.5552	10.0385	3.9202	2.3511	6.2713	0.0000	4,865.929 2	4,865.929 2	1.4884	0.0000	4,897.186 4

3.2 Grading - 2017**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0391	0.0574	0.5776	1.5800e-003	0.1400	8.7000e-004	0.1409	0.0372	8.0000e-004	0.0380	0.0000	114.0759	114.0759	5.0700e-003	0.0000	114.1824
Total	0.0391	0.0574	0.5776	1.5800e-003	0.1400	8.7000e-004	0.1409	0.0372	8.0000e-004	0.0380	0.0000	114.0759	114.0759	5.0700e-003	0.0000	114.1824

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9185	0.0000	2.9185	1.5289	0.0000	1.5289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3777	41.5998	29.1242	0.0525		0.7537	0.7537		0.7537	0.7537	0.0000	4,865.9234	4,865.9234	1.4884	0.0000	4,897.1806
Total	1.3777	41.5998	29.1242	0.0525	2.9185	0.7537	3.6722	1.5289	0.7537	2.2826	0.0000	4,865.9234	4,865.9234	1.4884	0.0000	4,897.1806

3.2 Grading - 2017**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0391	0.0574	0.5776	1.5800e-003	0.1400	8.7000e-004	0.1409	0.0372	8.0000e-004	0.0380	0.0000	114.0759	114.0759	5.0700e-003	0.0000	114.1824
Total	0.0391	0.0574	0.5776	1.5800e-003	0.1400	8.7000e-004	0.1409	0.0372	8.0000e-004	0.0380	0.0000	114.0759	114.0759	5.0700e-003	0.0000	114.1824

3.2 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2039	25.2056	15.8699	0.0263		1.0854	1.0854		0.9987	0.9987	0.0000	2,394.6518	2,394.6518	0.7442	0.0000	2,410.2805
Fugitive Dust					7.4833	0.0000	7.4833	3.9202	0.0000	3.9202	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2039	25.2056	15.8699	0.0263	7.4833	1.0854	8.5687	3.9202	0.9987	4.9189	0.0000	2,394.6518	2,394.6518	0.7442	0.0000	2,410.2805

3.2 Grading - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0175	0.0259	0.2603	7.9000e-004	0.0700	4.3000e-004	0.0704	0.0186	3.9000e-004	0.0190	0.0000	54.8700	54.8700	2.3500e-003	0.0000	54.9192
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0175	0.0259	0.2603	7.9000e-004	0.0700	4.3000e-004	0.0704	0.0186	3.9000e-004	0.0190	0.0000	54.8700	54.8700	2.3500e-003	0.0000	54.9192

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9185	0.0000	2.9185	1.5289	0.0000	1.5289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6889	20.7999	14.5621	0.0263		0.3769	0.3769		0.3769	0.3769	0.0000	2,394.6490	2,394.6490	0.7442	0.0000	2,410.2776
Total	0.6889	20.7999	14.5621	0.0263	2.9185	0.3769	3.2953	1.5289	0.3769	1.9057	0.0000	2,394.6490	2,394.6490	0.7442	0.0000	2,410.2776

3.2 Grading - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0175	0.0259	0.2603	7.9000e-004	0.0700	4.3000e-004	0.0704	0.0186	3.9000e-004	0.0190	0.0000	54.8700	54.8700	2.3500e-003	0.0000	54.9192
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0175	0.0259	0.2603	7.9000e-004	0.0700	4.3000e-004	0.0704	0.0186	3.9000e-004	0.0190	0.0000	54.8700	54.8700	2.3500e-003	0.0000	54.9192

3.3 Trenching - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8400e-003	0.0893	0.0874	1.3000e-004		5.1200e-003	5.1200e-003		4.7100e-003	4.7100e-003	0.0000	11.9768	11.9768	3.7300e-003	0.0000	12.0551
Total	8.8400e-003	0.0893	0.0874	1.3000e-004		5.1200e-003	5.1200e-003		4.7100e-003	4.7100e-003	0.0000	11.9768	11.9768	3.7300e-003	0.0000	12.0551

3.3 Trenching - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	5.8200e-003	7.4300e-003	2.0000e-005	5.0000e-004	1.1000e-004	6.1000e-004	1.4000e-004	1.0000e-004	2.4000e-004	0.0000	1.4758	1.4758	1.0000e-005	0.0000	1.4760
Worker	8.0000e-005	1.2000e-004	1.2300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2584	0.2584	1.0000e-005	0.0000	0.2587
Total	6.3000e-004	5.9400e-003	8.6600e-003	2.0000e-005	8.3000e-004	1.1000e-004	9.4000e-004	2.3000e-004	1.0000e-004	3.3000e-004	0.0000	1.7342	1.7342	2.0000e-005	0.0000	1.7347

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8400e-003		0.0874	1.3000e-004		5.1200e-003	5.1200e-003		4.7100e-003	4.7100e-003	0.0000	11.9768	11.9768	3.7300e-003	0.0000	12.0551
Total	8.8400e-003		0.0874	1.3000e-004		5.1200e-003	5.1200e-003		4.7100e-003	4.7100e-003	0.0000	11.9768	11.9768	3.7300e-003	0.0000	12.0551

3.3 Trenching - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	5.8200e-003	7.4300e-003	2.0000e-005	5.0000e-004	1.1000e-004	6.1000e-004	1.4000e-004	1.0000e-004	2.4000e-004	0.0000	1.4758	1.4758	1.0000e-005	0.0000	1.4760
Worker	8.0000e-005	1.2000e-004	1.2300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2584	0.2584	1.0000e-005	0.0000	0.2587
Total	6.3000e-004	5.9400e-003	8.6600e-003	2.0000e-005	8.3000e-004	1.1000e-004	9.4000e-004	2.3000e-004	1.0000e-004	3.3000e-004	0.0000	1.7342	1.7342	2.0000e-005	0.0000	1.7347

3.4 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1748	1.5236	1.1484	1.7600e-003		0.0979	0.0979		0.0920	0.0920	0.0000	155.0841	155.0841	0.0380	0.0000	155.8811
Total	0.1748	1.5236	1.1484	1.7600e-003		0.0979	0.0979		0.0920	0.0920	0.0000	155.0841	155.0841	0.0380	0.0000	155.8811

3.4 Building Construction - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2805	2.9853	3.8157	8.5900e-003	0.2547	0.0567	0.3115	0.0729	0.0522	0.1251	0.0000	757.6235	757.6235	4.9700e-003	0.0000	757.7280
Worker	0.2921	0.4321	4.3390	0.0132	1.1670	7.1100e-003	1.1741	0.3099	6.5800e-003	0.3165	0.0000	914.5758	914.5758	0.0391	0.0000	915.3969
Total	0.5726	3.4174	8.1547	0.0218	1.4217	0.0638	1.4856	0.3828	0.0588	0.4415	0.0000	1,672.1994	1,672.1994	0.0441	0.0000	1,673.1248

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0706	1.5367	1.1669	1.7600e-003		0.0443	0.0443		0.0443	0.0443	0.0000	155.0840	155.0840	0.0380	0.0000	155.8810
Total	0.0706	1.5367	1.1669	1.7600e-003		0.0443	0.0443		0.0443	0.0443	0.0000	155.0840	155.0840	0.0380	0.0000	155.8810

3.4 Building Construction - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2805	2.9853	3.8157	8.5900e-003	0.2547	0.0567	0.3115	0.0729	0.0522	0.1251	0.0000	757.6235	757.6235	4.9700e-003	0.0000	757.7280
Worker	0.2921	0.4321	4.3390	0.0132	1.1670	7.1100e-003	1.1741	0.3099	6.5800e-003	0.3165	0.0000	914.5758	914.5758	0.0391	0.0000	915.3969
Total	0.5726	3.4174	8.1547	0.0218	1.4217	0.0638	1.4856	0.3828	0.0588	0.4415	0.0000	1,672.1994	1,672.1994	0.0441	0.0000	1,673.1248

3.4 Building Construction - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5234	5.4757	7.3392	0.0171	0.5074	0.1067	0.6141	0.1452	0.0981	0.2433	0.0000	1,483.1847	1,483.1847	9.7600e-003	0.0000	1,483.3897
Worker	0.5326	0.7858	7.8971	0.0263	2.3251	0.0141	2.3392	0.6174	0.0131	0.6305	0.0000	1,754.1115	1,754.1115	0.0727	0.0000	1,755.6374
Total	1.0560	6.2614	15.2363	0.0433	2.8325	0.1208	2.9533	0.7626	0.1112	0.8738	0.0000	3,237.2963	3,237.2963	0.0824	0.0000	3,239.0271

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1407	3.0617	2.3249	3.5000e-003		0.0882	0.0882		0.0882	0.0882	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	0.1407	3.0617	2.3249	3.5000e-003		0.0882	0.0882		0.0882	0.0882	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909

3.4 Building Construction - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5234	5.4757	7.3392	0.0171	0.5074	0.1067	0.6141	0.1452	0.0981	0.2433	0.0000	1,483.1847	1,483.1847	9.7600e-003	0.0000	1,483.3897
Worker	0.5326	0.7858	7.8971	0.0263	2.3251	0.0141	2.3392	0.6174	0.0131	0.6305	0.0000	1,754.1115	1,754.1115	0.0727	0.0000	1,755.6374
Total	1.0560	6.2614	15.2363	0.0433	2.8325	0.1208	2.9533	0.7626	0.1112	0.8738	0.0000	3,237.2963	3,237.2963	0.0824	0.0000	3,239.0271

3.4 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2407	2.1756	1.9162	3.0600e-003		0.1269	0.1269		0.1193	0.1193	0.0000	262.9409	262.9409	0.0641	0.0000	264.2862
Total	0.2407	2.1756	1.9162	3.0600e-003		0.1269	0.1269		0.1193	0.1193	0.0000	262.9409	262.9409	0.0641	0.0000	264.2862

3.4 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4305	4.1347	6.2283	0.0149	0.4431	0.0855	0.5287	0.1268	0.0787	0.2055	0.0000	1,265.628 4	1,265.628 4	8.3300e- 003	0.0000	1,265.803 3
Worker	0.4332	0.6341	6.3934	0.0229	2.0311	0.0124	2.0435	0.5393	0.0115	0.5508	0.0000	1,469.566 1	1,469.566 1	0.0599	0.0000	1,470.823 5
Total	0.8637	4.7688	12.6217	0.0378	2.4743	0.0979	2.5722	0.6661	0.0902	0.7563	0.0000	2,735.194 5	2,735.194 5	0.0682	0.0000	2,736.626 8

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1229	2.6746	2.0310	3.0600e- 003		0.0771	0.0771		0.0771	0.0771	0.0000	262.9406	262.9406	0.0641	0.0000	264.2859
Total	0.1229	2.6746	2.0310	3.0600e- 003		0.0771	0.0771		0.0771	0.0771	0.0000	262.9406	262.9406	0.0641	0.0000	264.2859

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4305	4.1347	6.2283	0.0149	0.4431	0.0855	0.5287	0.1268	0.0787	0.2055	0.0000	1,265.628 4	1,265.628 4	8.3300e- 003	0.0000	1,265.803 3
Worker	0.4332	0.6341	6.3934	0.0229	2.0311	0.0124	2.0435	0.5393	0.0115	0.5508	0.0000	1,469.566 1	1,469.566 1	0.0599	0.0000	1,470.823 5
Total	0.8637	4.7688	12.6217	0.0378	2.4743	0.0979	2.5722	0.6661	0.0902	0.7563	0.0000	2,735.194 5	2,735.194 5	0.0682	0.0000	2,736.626 8

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0878	0.9098	0.9473	1.4700e- 003		0.0488	0.0488		0.0449	0.0449	0.0000	129.3736	129.3736	0.0418	0.0000	130.2523
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0878	0.9098	0.9473	1.4700e- 003		0.0488	0.0488		0.0449	0.0449	0.0000	129.3736	129.3736	0.0418	0.0000	130.2523

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3200e-003	3.4000e-003	0.0343	1.2000e-004	0.0109	7.0000e-005	0.0110	2.8900e-003	6.0000e-005	2.9500e-003	0.0000	7.8729	7.8729	3.2000e-004	0.0000	7.8797
Total	2.3200e-003	3.4000e-003	0.0343	1.2000e-004	0.0109	7.0000e-005	0.0110	2.8900e-003	6.0000e-005	2.9500e-003	0.0000	7.8729	7.8729	3.2000e-004	0.0000	7.8797

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0602	1.3002	1.1172	1.4700e-003		0.0324	0.0324		0.0324	0.0324	0.0000	129.3734	129.3734	0.0418	0.0000	130.2521
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0602	1.3002	1.1172	1.4700e-003		0.0324	0.0324		0.0324	0.0324	0.0000	129.3734	129.3734	0.0418	0.0000	130.2521

3.5 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3200e-003	3.4000e-003	0.0343	1.2000e-004	0.0109	7.0000e-005	0.0110	2.8900e-003	6.0000e-005	2.9500e-003	0.0000	7.8729	7.8729	3.2000e-004	0.0000	7.8797
Total	2.3200e-003	3.4000e-003	0.0343	1.2000e-004	0.0109	7.0000e-005	0.0110	2.8900e-003	6.0000e-005	2.9500e-003	0.0000	7.8729	7.8729	3.2000e-004	0.0000	7.8797

3.6 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.3447					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0157	0.1095	0.1190	1.9000e-004		7.2100e-003	7.2100e-003		7.2100e-003	7.2100e-003	0.0000	16.5962	16.5962	1.2800e-003	0.0000	16.6231
Total	15.3604	0.1095	0.1190	1.9000e-004		7.2100e-003	7.2100e-003		7.2100e-003	7.2100e-003	0.0000	16.5962	16.5962	1.2800e-003	0.0000	16.6231

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0494	0.0723	0.7286	2.6100e-003	0.2315	1.4100e-003	0.2329	0.0615	1.3100e-003	0.0628	0.0000	167.4787	167.4787	6.8200e-003	0.0000	167.6220
Total	0.0494	0.0723	0.7286	2.6100e-003	0.2315	1.4100e-003	0.2329	0.0615	1.3100e-003	0.0628	0.0000	167.4787	167.4787	6.8200e-003	0.0000	167.6220

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.3447					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4000e-003	0.1529	0.1191	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.5961	16.5961	1.2800e-003	0.0000	16.6231
Total	15.3521	0.1529	0.1191	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.5961	16.5961	1.2800e-003	0.0000	16.6231

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0494	0.0723	0.7286	2.6100e-003	0.2315	1.4100e-003	0.2329	0.0615	1.3100e-003	0.0628	0.0000	167.4787	167.4787	6.8200e-003	0.0000	167.6220
Total	0.0494	0.0723	0.7286	2.6100e-003	0.2315	1.4100e-003	0.2329	0.0615	1.3100e-003	0.0628	0.0000	167.4787	167.4787	6.8200e-003	0.0000	167.6220

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

[illegible]

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.456057	0.068715	0.179002	0.172810	0.046712	0.007447	0.012395	0.044413	0.000888	0.001061	0.006318	0.000819	0.003363

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	17.5137	0.0990	8.5758	4.5000e-004		0.0473	0.0473		0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655
Unmitigated	17.5137	0.0990	8.5758	4.5000e-004		0.0473	0.0473		0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	17.2534					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2603	0.0990	8.5758	4.5000e-004		0.0473	0.0473		0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655
Total	17.5137	0.0990	8.5758	4.5000e-004		0.0473	0.0473		0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	17.2534					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2603	0.0990	8.5758	4.5000e-004		0.0473	0.0473		0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655
Total	17.5137	0.0990	8.5758	4.5000e-004		0.0473	0.0473		0.0473	0.0473	0.0000	13.9804	13.9804	0.0136	0.0000	14.2655

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Construction Phase 2

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	128.00	1000sqft	2.94	128,000.00	0
Condo/Townhouse	566.00	Dwelling Unit	35.38	566,000.00	1619
Single Family Housing	905.00	Dwelling Unit	293.83	1,629,000.00	2588

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule for Phase 2 is based on previous 2011 FEIR.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equipment list is based on previous 2011 FEIR.

Architectural Coating - Low VOC paint pursuant to SCAQMD Rule 1113.

Vehicle Trips - No Operation.

Woodstoves - None.

Consumer Products - None.

Area Coating - Low VOC Paint

Landscape Equipment - None.

Energy Use - None.

Water And Wastewater - None.

Solid Waste - None.

Construction Off-road Equipment Mitigation - All equipment will utilized Tier 2 engines and level 1 DPF. On-site watering three times daily.

Area Mitigation - No Hearth, Low VOC paint

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1

[illegible]

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	440.00	65.00
tblConstructionPhase	NumDays	6,200.00	780.00
tblConstructionPhase	NumDays	440.00	66.00
tblConstructionPhase	PhaseEndDate	2/5/2024	12/29/2023
tblConstructionPhase	PhaseEndDate	2/29/2024	12/29/2023
tblConstructionPhase	PhaseEndDate	4/1/2024	11/6/2023
tblConstructionPhase	PhaseStartDate	11/7/2023	10/2/2023
tblConstructionPhase	PhaseStartDate	3/5/2021	1/4/2021
tblConstructionPhase	PhaseStartDate	12/30/2023	8/5/2023
tblEnergyUse	LightingElect	1,001.10	0.00
tblEnergyUse	LightingElect	4.20	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	3,125.85	0.00
tblEnergyUse	NT24E	1.49	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24NG	2,951.00	0.00
tblEnergyUse	NT24NG	1.79	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	749.55	0.00
tblEnergyUse	T24E	3.40	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	17,654.53	0.00
tblEnergyUse	T24NG	7.34	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblFireplaces	NumberGas	581.40	0.00
tblFireplaces	NumberGas	668.95	0.00
tblFireplaces	NumberWood	34.20	0.00

tblFireplaces	NumberWood	39.35	0.00
tblProjectCharacteristics	OperationalYear	2014	2024
tblSolidWaste	SolidWasteGenerationRate	314.64	0.00
tblSolidWaste	SolidWasteGenerationRate	141.70	0.00
tblSolidWaste	SolidWasteGenerationRate	922.91	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	15.43	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	44,565,353.53	0.00
tblWater	IndoorWaterUseRate	3,160,663.98	0.00
tblWater	IndoorWaterUseRate	51,276,218.16	0.00
tblWater	OutdoorWaterUseRate	28,095,548.96	0.00
tblWater	OutdoorWaterUseRate	8,127,421.65	0.00
tblWater	OutdoorWaterUseRate	32,326,311.45	0.00
tblWoodstoves	NumberCatalytic	34.20	0.00
tblWoodstoves	NumberCatalytic	39.35	0.00
tblWoodstoves	NumberNoncatalytic	34.20	0.00
tblWoodstoves	NumberNoncatalytic	39.35	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.5759	34.5990	65.8175	0.1779	10.3776	1.5515	11.9292	2.7746	1.4472	4.2217	0.0000	14,274.0897	14,274.0897	1.3295	0.0000	14,302.0101
2022	4.5546	25.4827	54.9544	0.1638	10.2882	1.0524	11.3406	2.7508	0.9855	3.7363	0.0000	12,822.5026	12,822.5026	0.9007	0.0000	12,841.4162
2023	268.3297	34.3606	74.1261	0.2108	12.2889	1.5254	13.8143	3.2814	1.4243	4.7057	0.0000	16,629.5337	16,629.5337	1.6563	0.0000	16,664.3151
Total	278.4602	94.4423	194.8980	0.5524	32.9547	4.1294	37.0841	8.8068	3.8569	12.6637	0.0000	43,726.1259	43,726.1259	3.8865	0.0000	43,807.7414

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.6130	45.8980	68.3995	0.1779	10.3776	1.2087	11.5864	2.7746	1.1893	3.9638	0.0000	14,274.0897	14,274.0897	1.3295	0.0000	14,302.0101
2022	3.9336	33.4079	56.4425	0.1638	10.2882	0.9229	11.2111	2.7508	0.9036	3.6544	0.0000	12,822.5026	12,822.5026	0.9007	0.0000	12,841.4162
2023	267.6634	54.2605	78.3964	0.2108	12.2889	1.4951	13.7840	3.2814	1.4750	4.7565	0.0000	16,629.5337	16,629.5337	1.6563	0.0000	16,664.3151
Total	276.2099	133.5664	203.2384	0.5524	32.9547	3.6267	36.5814	8.8068	3.5679	12.3747	0.0000	43,726.1259	43,726.1259	3.8865	0.0000	43,807.7414

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.81	-41.43	-4.28	0.00	0.00	12.17	1.36	0.00	7.50	2.28	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	54.7337	1.3978	121.3214	6.4100e-003		0.6724	0.6724		0.6724	0.6724	0.0000	218.5485	218.5485	0.2097	0.0000	222.9530
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	54.7337	1.3978	121.3214	6.4100e-003	0.0000	0.6724	0.6724	0.0000	0.6724	0.6724	0.0000	218.5485	218.5485	0.2097	0.0000	222.9530

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	54.7337	1.3978	121.3214	6.4100e-003		0.6724	0.6724		0.6724	0.6724	0.0000	218.5485	218.5485	0.2097	0.0000	222.9530
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	54.7337	1.3978	121.3214	6.4100e-003	0.0000	0.6724	0.6724	0.0000	0.6724	0.6724	0.0000	218.5485	218.5485	0.2097	0.0000	222.9530

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	1/4/2021	3/4/2021	5	44	
2	Building Construction	Building Construction	1/4/2021	12/29/2023	5	780	
3	Paving	Paving	8/5/2023	11/6/2023	5	66	
4	Architectural Coating	Architectural Coating	10/2/2023	12/29/2023	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 4,253,715; Residential Outdoor: 1,417,905; Non-Residential Indoor: 163,500; Non-Residential Outdoor: 54,500
(Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	162	0.38
Trenching	Other General Industrial Equipment	1	8.00	87	0.34
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	822.00	175.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	164.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

3.2 Trenching - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6806	6.3554	8.6606	0.0131		0.3477	0.3477		0.3198	0.3198		1,270.9099	1,270.9099	0.4110		1,279.5417
Total	0.6806	6.3554	8.6606	0.0131		0.3477	0.3477		0.3198	0.3198		1,270.9099	1,270.9099	0.4110		1,279.5417

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0189	0.0247	0.2498	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		68.1324	68.1324	2.7300e-003		68.1897
Total	0.0189	0.0247	0.2498	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		68.1324	68.1324	2.7300e-003		68.1897

3.2 Trenching - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5326	11.5331	9.9647	0.0131		0.2836	0.2836		0.2836	0.2836	0.0000	1,270.909 9	1,270.909 9	0.4110		1,279.541 7
Total	0.5326	11.5331	9.9647	0.0131		0.2836	0.2836		0.2836	0.2836	0.0000	1,270.909 9	1,270.909 9	0.4110		1,279.541 7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0189	0.0247	0.2498	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		68.1324	68.1324	2.7300e-003		68.1897
Total	0.0189	0.0247	0.2498	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		68.1324	68.1324	2.7300e-003		68.1897

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.781 7	2,542.781 7	0.6126		2,555.646 2
Total	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.781 7	2,542.781 7	0.6126		2,555.646 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0369	8.3445	14.6997	0.0362	1.1002	0.1931	1.2933	0.3141	0.1776	0.4918		3,391.660 6	3,391.660 6	0.0231		3,392.145 8
Worker	1.9464	2.5342	25.6697	0.1008	9.1880	0.0554	9.2434	2.4367	0.0514	2.4881		7,000.605 1	7,000.605 1	0.2801		7,006.486 8
Total	2.9833	10.8787	40.3694	0.1370	10.2882	0.2484	10.5367	2.7509	0.2290	2.9798		10,392.26 57	10,392.26 57	0.3032		10,398.63 26

3.3 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0369	8.3445	14.6997	0.0362	1.1002	0.1931	1.2933	0.3141	0.1776	0.4918		3,391.6606	3,391.6606	0.0231		3,392.1458
Worker	1.9464	2.5342	25.6697	0.1008	9.1880	0.0554	9.2434	2.4367	0.0514	2.4881		7,000.6051	7,000.6051	0.2801		7,006.4868
Total	2.9833	10.8787	40.3694	0.1370	10.2882	0.2484	10.5367	2.7509	0.2290	2.9798		10,392.2657	10,392.2657	0.3032		10,398.6326

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.749 7	2,543.749 7	0.6085		2,556.528 6
Total	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.749 7	2,543.749 7	0.6085		2,556.528 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0113	7.5612	14.4114	0.0362	1.1002	0.1909	1.2911	0.3141	0.1756	0.4898		3,387.788 0	3,387.788 0	0.0236		3,388.284 4
Worker	1.8441	2.3852	24.2154	0.1008	9.1880	0.0558	9.2438	2.4367	0.0518	2.4885		6,890.964 9	6,890.964 9	0.2685		6,896.603 2
Total	2.8554	9.9464	38.6269	0.1369	10.2882	0.2467	10.5349	2.7508	0.2274	2.9782		10,278.75 29	10,278.75 29	0.2921		10,284.88 76

3.3 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286
Total	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0113	7.5612	14.4114	0.0362	1.1002	0.1909	1.2911	0.3141	0.1756	0.4898		3,387.7880	3,387.7880	0.0236		3,388.2844
Worker	1.8441	2.3852	24.2154	0.1008	9.1880	0.0558	9.2438	2.4367	0.0518	2.4885		6,890.9649	6,890.9649	0.2685		6,896.6032
Total	2.8554	9.9464	38.6269	0.1369	10.2882	0.2467	10.5349	2.7508	0.2274	2.9782		10,278.7529	10,278.7529	0.2921		10,284.8876

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.626 2	2,544.626 2	0.6044		2,557.319 1
Total	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.626 2	2,544.626 2	0.6044		2,557.319 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9431	6.0003	13.9039	0.0360	1.1001	0.1884	1.2885	0.3141	0.1734	0.4875		3,370.661 9	3,370.661 9	0.0215		3,371.112 6
Worker	1.7504	2.2553	22.9248	0.1008	9.1880	0.0562	9.2442	2.4367	0.0521	2.4889		6,792.942 0	6,792.942 0	0.2585		6,798.369 8
Total	2.6935	8.2556	36.8286	0.1367	10.2881	0.2446	10.5328	2.7508	0.2255	2.9763		10,163.60 39	10,163.60 39	0.2799		10,169.48 23

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,544.626 2	2,544.626 2	0.6044		2,557.319 1
Total	1.0782	23.4615	17.8156	0.0268		0.6762	0.6762		0.6762	0.6762	0.0000	2,544.626 2	2,544.626 2	0.6044		2,557.319 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9431	6.0003	13.9039	0.0360	1.1001	0.1884	1.2885	0.3141	0.1734	0.4875		3,370.661 9	3,370.661 9	0.0215		3,371.112 6
Worker	1.7504	2.2553	22.9248	0.1008	9.1880	0.0562	9.2442	2.4367	0.0521	2.4889		6,792.942 0	6,792.942 0	0.2585		6,798.369 8
Total	2.6935	8.2556	36.8286	0.1367	10.2881	0.2446	10.5328	2.7508	0.2255	2.9763		10,163.60 39	10,163.60 39	0.2799		10,169.48 23

3.4 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0128	9.9983	14.2850	0.0223		0.5010	0.5010		0.4609	0.4609		2,160.6139	2,160.6139	0.6988		2,175.2884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0128	9.9983	14.2850	0.0223		0.5010	0.5010		0.4609	0.4609		2,160.6139	2,160.6139	0.6988		2,175.2884

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0319	0.0412	0.4183	1.8400e-003	0.1677	1.0300e-003	0.1687	0.0445	9.5000e-004	0.0454		123.9588	123.9588	4.7200e-003		124.0578
Total	0.0319	0.0412	0.4183	1.8400e-003	0.1677	1.0300e-003	0.1687	0.0445	9.5000e-004	0.0454		123.9588	123.9588	4.7200e-003		124.0578

3.4 Paving - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9122	19.6998	16.9276	0.0223		0.4907	0.4907		0.4907	0.4907	0.0000	2,160.6139	2,160.6139	0.6988		2,175.2884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9122	19.6998	16.9276	0.0223		0.4907	0.4907		0.4907	0.4907	0.0000	2,160.6139	2,160.6139	0.6988		2,175.2884

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0319	0.0412	0.4183	1.8400e-003	0.1677	1.0300e-003	0.1687	0.0445	9.5000e-004	0.0454		123.9588	123.9588	4.7200e-003		124.0578
Total	0.0319	0.0412	0.4183	1.8400e-003	0.1677	1.0300e-003	0.1687	0.0445	9.5000e-004	0.0454		123.9588	123.9588	4.7200e-003		124.0578

3.5 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.4845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8017
Total	262.6762	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3492	0.4500	4.5738	0.0201	1.8331	0.0112	1.8444	0.4862	0.0104	0.4966		1,355.2828	1,355.2828	0.0516		1,356.3657
Total	0.3492	0.4500	4.5738	0.0201	1.8331	0.0112	1.8444	0.4862	0.0104	0.4966		1,355.2828	1,355.2828	0.0516		1,356.3657

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.4845					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0168		281.8017
Total	262.5984	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0168		281.8017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3492	0.4500	4.5738	0.0201	1.8331	0.0112	1.8444	0.4862	0.0104	0.4966		1,355.2828	1,355.2828	0.0516		1,356.3657
Total	0.3492	0.4500	4.5738	0.0201	1.8331	0.0112	1.8444	0.4862	0.0104	0.4966		1,355.2828	1,355.2828	0.0516		1,356.3657

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.453702	0.068956	0.179949	0.174153	0.046237	0.007387	0.012169	0.045320	0.000857	0.001069	0.005825	0.000784	0.003591

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	54.7337	1.3978	121.3214	6.4100e-003		0.6724	0.6724		0.6724	0.6724	0.0000	218.5485	218.5485	0.2097	0.0000	222.9530
Unmitigated	54.7337	1.3978	121.3214	6.4100e-003		0.6724	0.6724		0.6724	0.6724	0.0000	218.5485	218.5485	0.2097	0.0000	222.9530

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.0896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	45.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6487	1.3978	121.3214	6.4100e-003		0.6724	0.6724		0.6724	0.6724		218.5485	218.5485	0.2097		222.9530
Total	54.7337	1.3978	121.3214	6.4100e-003		0.6724	0.6724		0.6724	0.6724	0.0000	218.5485	218.5485	0.2097	0.0000	222.9530

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.0896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	45.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6487	1.3978	121.3214	6.4100e-003		0.6724	0.6724		0.6724	0.6724		218.5485	218.5485	0.2097		222.9530
Total	54.7337	1.3978	121.3214	6.4100e-003		0.6724	0.6724		0.6724	0.6724	0.0000	218.5485	218.5485	0.2097	0.0000	222.9530

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Construction Phase 2

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	128.00	1000sqft	2.94	128,000.00	0
Condo/Townhouse	566.00	Dwelling Unit	35.38	566,000.00	1619
Single Family Housing	905.00	Dwelling Unit	293.83	1,629,000.00	2588

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule for Phase 2 is based on previous 2011 FEIR.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equipment list is based on previous 2011 FEIR.

Architectural Coating - Low VOC paint pursuant to SCAQMD Rule 1113.

Vehicle Trips - No Operation.

Woodstoves - None.

Consumer Products - None.

Area Coating - Low VOC Paint

Landscape Equipment - None.

Energy Use - None.

Water And Wastewater - None.

Solid Waste - None.

Construction Off-road Equipment Mitigation - All equipment will utilized Tier 2 engines and level 1 DPF. On-site watering three times daily.

Area Mitigation - No Hearth, Low VOC paint

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1

[illegible]

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	440.00	65.00
tblConstructionPhase	NumDays	6,200.00	780.00
tblConstructionPhase	NumDays	440.00	66.00
tblConstructionPhase	PhaseEndDate	2/5/2024	12/29/2023
tblConstructionPhase	PhaseEndDate	2/29/2024	12/29/2023
tblConstructionPhase	PhaseEndDate	4/1/2024	11/6/2023
tblConstructionPhase	PhaseStartDate	11/7/2023	10/2/2023
tblConstructionPhase	PhaseStartDate	3/5/2021	1/4/2021
tblConstructionPhase	PhaseStartDate	12/30/2023	8/5/2023
tblEnergyUse	LightingElect	1,001.10	0.00
tblEnergyUse	LightingElect	4.20	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	3,125.85	0.00
tblEnergyUse	NT24E	1.49	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24NG	2,951.00	0.00
tblEnergyUse	NT24NG	1.79	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	749.55	0.00
tblEnergyUse	T24E	3.40	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	17,654.53	0.00
tblEnergyUse	T24NG	7.34	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblFireplaces	NumberGas	581.40	0.00
tblFireplaces	NumberGas	668.95	0.00
tblFireplaces	NumberWood	34.20	0.00

tblFireplaces	NumberWood	39.35	0.00
tblProjectCharacteristics	OperationalYear	2014	2024
tblSolidWaste	SolidWasteGenerationRate	314.64	0.00
tblSolidWaste	SolidWasteGenerationRate	141.70	0.00
tblSolidWaste	SolidWasteGenerationRate	922.91	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	15.43	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	44,565,353.53	0.00
tblWater	IndoorWaterUseRate	3,160,663.98	0.00
tblWater	IndoorWaterUseRate	51,276,218.16	0.00
tblWater	OutdoorWaterUseRate	28,095,548.96	0.00
tblWater	OutdoorWaterUseRate	8,127,421.65	0.00
tblWater	OutdoorWaterUseRate	32,326,311.45	0.00
tblWoodstoves	NumberCatalytic	34.20	0.00
tblWoodstoves	NumberCatalytic	39.35	0.00
tblWoodstoves	NumberNoncatalytic	34.20	0.00
tblWoodstoves	NumberNoncatalytic	39.35	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.6309	3.8450	7.7532	0.0218	1.3175	0.1640	1.4815	0.3528	0.1535	0.5062	0.0000	1,565.585 5	1,565.585 5	0.1162	0.0000	1,568.025 6
2022	0.5743	3.3461	7.2907	0.0215	1.3156	0.1367	1.4523	0.3522	0.1280	0.4803	0.0000	1,525.398 4	1,525.398 4	0.1062	0.0000	1,527.627 6
2023	9.1186	3.3524	7.7322	0.0230	1.3796	0.1415	1.5211	0.3692	0.1324	0.5016	0.0000	1,629.021 1	1,629.021 1	0.1273	0.0000	1,631.694 6
Total	10.3237	10.5434	22.7760	0.0663	4.0126	0.4422	4.4549	1.0742	0.4138	1.4880	0.0000	4,720.005 0	4,720.005 0	0.3497	0.0000	4,727.347 8

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.5217	4.7547	7.9480	0.0218	1.3175	0.1264	1.4439	0.3528	0.1238	0.4766	0.0000	1,565.585 1	1,565.585 1	0.1162	0.0000	1,568.025 2
2022	0.4935	4.3763	7.4841	0.0215	1.3156	0.1199	1.4354	0.3522	0.1174	0.4696	0.0000	1,525.398 1	1,525.398 1	0.1062	0.0000	1,527.627 2
2023	9.0493	4.8960	8.0289	0.0230	1.3796	0.1385	1.5181	0.3692	0.1360	0.5052	0.0000	1,629.020 7	1,629.020 7	0.1273	0.0000	1,631.694 1
Total	10.0645	14.0270	23.4610	0.0663	4.0126	0.3848	4.3974	1.0742	0.3772	1.4514	0.0000	4,720.003 8	4,720.003 8	0.3497	0.0000	4,727.346 6

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.51	-33.04	-3.01	0.00	0.00	13.00	1.29	0.00	8.85	2.46	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.7791	0.1747	15.1652	8.0000e-004		0.0841	0.0841		0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.7791	0.1747	15.1652	8.0000e-004	0.0000	0.0841	0.0841	0.0000	0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.7791	0.1747	15.1652	8.0000e-004		0.0841	0.0841		0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.7791	0.1747	15.1652	8.0000e-004	0.0000	0.0841	0.0841	0.0000	0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	1/4/2021	3/4/2021	5	44	
2	Building Construction	Building Construction	1/4/2021	12/29/2023	5	780	
3	Paving	Paving	8/5/2023	11/6/2023	5	66	
4	Architectural Coating	Architectural Coating	10/2/2023	12/29/2023	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

**Residential Indoor: 4,253,715; Residential Outdoor: 1,417,905; Non-Residential Indoor: 163,500; Non-Residential Outdoor: 54,500
(Architectural Coating – sqft)**

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	162	0.38
Trenching	Other General Industrial Equipment	1	8.00	87	0.34
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	822.00	175.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	164.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

3.2 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0150	0.1398	0.1905	2.9000e-004		7.6500e-003	7.6500e-003		7.0400e-003	7.0400e-003	0.0000	25.3649	25.3649	8.2000e-003	0.0000	25.5372
Total	0.0150	0.1398	0.1905	2.9000e-004		7.6500e-003	7.6500e-003		7.0400e-003	7.0400e-003	0.0000	25.3649	25.3649	8.2000e-003	0.0000	25.5372

3.2 Trenching - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	5.7000e-004	5.6900e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9500e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.3784	1.3784	5.0000e-005	0.0000	1.3796
Total	3.9000e-004	5.7000e-004	5.6900e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9500e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.3784	1.3784	5.0000e-005	0.0000	1.3796

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0117	0.2537	0.2192	2.9000e-004		6.2400e-003	6.2400e-003		6.2400e-003	6.2400e-003	0.0000	25.3649	25.3649	8.2000e-003	0.0000	25.5371
Total	0.0117	0.2537	0.2192	2.9000e-004		6.2400e-003	6.2400e-003		6.2400e-003	6.2400e-003	0.0000	25.3649	25.3649	8.2000e-003	0.0000	25.5371

3.2 Trenching - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	5.7000e-004	5.6900e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9500e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.3784	1.3784	5.0000e-005	0.0000	1.3796
Total	3.9000e-004	5.7000e-004	5.6900e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9500e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.3784	1.3784	5.0000e-005	0.0000	1.3796

3.3 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2461	2.2542	2.1499	3.4900e-003		0.1241	0.1241		0.1167	0.1167	0.0000	299.8805	299.8805	0.0723	0.0000	301.3976
Total	0.2461	2.2542	2.1499	3.4900e-003		0.1241	0.1241		0.1167	0.1167	0.0000	299.8805	299.8805	0.0723	0.0000	301.3976

3.3 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1329	1.1066	1.9515	4.7300e-003	0.1410	0.0250	0.1660	0.0404	0.0230	0.0634	0.0000	402.0460	402.0460	2.6600e-003	0.0000	402.1019
Worker	0.2365	0.3438	3.4556	0.0133	1.1745	7.2000e-003	1.1817	0.3119	6.6800e-003	0.3186	0.0000	836.9157	836.9157	0.0330	0.0000	837.6094
Total	0.3694	1.4504	5.4071	0.0180	1.3156	0.0322	1.3478	0.3522	0.0297	0.3819	0.0000	1,238.9617	1,238.9617	0.0357	0.0000	1,239.7113

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1402	3.0500	2.3160	3.4900e-003		0.0879	0.0879		0.0879	0.0879	0.0000	299.8801	299.8801	0.0723	0.0000	301.3973
Total	0.1402	3.0500	2.3160	3.4900e-003		0.0879	0.0879		0.0879	0.0879	0.0000	299.8801	299.8801	0.0723	0.0000	301.3973

3.3 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1329	1.1066	1.9515	4.7300e-003	0.1410	0.0250	0.1660	0.0404	0.0230	0.0634	0.0000	402.0460	402.0460	2.6600e-003	0.0000	402.1019
Worker	0.2365	0.3438	3.4556	0.0133	1.1745	7.2000e-003	1.1817	0.3119	6.6800e-003	0.3186	0.0000	836.9157	836.9157	0.0330	0.0000	837.6094
Total	0.3694	1.4504	5.4071	0.0180	1.3156	0.0322	1.3478	0.3522	0.0297	0.3819	0.0000	1,238.9617	1,238.9617	0.0357	0.0000	1,239.7113

3.3 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2209	2.0197	2.1226	3.4900e-003		0.1047	0.1047		0.0986	0.0986	0.0000	299.9946	299.9946	0.0718	0.0000	301.5017
Total	0.2209	2.0197	2.1226	3.4900e-003		0.1047	0.1047		0.0986	0.0986	0.0000	299.9946	299.9946	0.0718	0.0000	301.5017

3.3 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1294	1.0027	1.9079	4.7300e-003	0.1410	0.0247	0.1658	0.0404	0.0228	0.0631	0.0000	401.5879	401.5879	2.7200e-003	0.0000	401.6451
Worker	0.2240	0.3236	3.2602	0.0133	1.1745	7.2500e-003	1.1818	0.3119	6.7300e-003	0.3186	0.0000	823.8159	823.8159	0.0317	0.0000	824.4808
Total	0.3534	1.3263	5.1681	0.0180	1.3156	0.0320	1.3475	0.3522	0.0295	0.3817	0.0000	1,225.4038	1,225.4038	0.0344	0.0000	1,226.1259

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1402	3.0500	2.3160	3.4900e-003		0.0879	0.0879		0.0879	0.0879	0.0000	299.9943	299.9943	0.0718	0.0000	301.5013
Total	0.1402	3.0500	2.3160	3.4900e-003		0.0879	0.0879		0.0879	0.0879	0.0000	299.9943	299.9943	0.0718	0.0000	301.5013

3.3 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1294	1.0027	1.9079	4.7300e-003	0.1410	0.0247	0.1658	0.0404	0.0228	0.0631	0.0000	401.5879	401.5879	2.7200e-003	0.0000	401.6451
Worker	0.2240	0.3236	3.2602	0.0133	1.1745	7.2500e-003	1.1818	0.3119	6.7300e-003	0.3186	0.0000	823.8159	823.8159	0.0317	0.0000	824.4808
Total	0.3534	1.3263	5.1681	0.0180	1.3156	0.0320	1.3475	0.3522	0.0295	0.3817	0.0000	1,225.4038	1,225.4038	0.0344	0.0000	1,226.1259

3.3 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2036	1.8606	2.1072	3.4900e-003		0.0906	0.0906		0.0852	0.0852	0.0000	300.0980	300.0980	0.0713	0.0000	301.5949
Total	0.2036	1.8606	2.1072	3.4900e-003		0.0906	0.0906		0.0852	0.0852	0.0000	300.0980	300.0980	0.0713	0.0000	301.5949

3.3 Building Construction - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1205	0.7968	1.8398	4.7000e-003	0.1410	0.0244	0.1654	0.0403	0.0225	0.0628	0.0000	399.5686	399.5686	2.4700e-003	0.0000	399.6203
Worker	0.2125	0.3060	3.0867	0.0133	1.1745	7.3100e-003	1.1818	0.3119	6.7800e-003	0.3187	0.0000	812.1057	812.1057	0.0305	0.0000	812.7458
Total	0.3330	1.1028	4.9265	0.0180	1.3156	0.0317	1.3473	0.3522	0.0292	0.3815	0.0000	1,211.674 2	1,211.674 2	0.0330	0.0000	1,212.366 1

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1402	3.0500	2.3160	3.4900e-003		0.0879	0.0879		0.0879	0.0879	0.0000	300.0976	300.0976	0.0713	0.0000	301.5946
Total	0.1402	3.0500	2.3160	3.4900e-003		0.0879	0.0879		0.0879	0.0879	0.0000	300.0976	300.0976	0.0713	0.0000	301.5946

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1205	0.7968	1.8398	4.7000e-003	0.1410	0.0244	0.1654	0.0403	0.0225	0.0628	0.0000	399.5686	399.5686	2.4700e-003	0.0000	399.6203
Worker	0.2125	0.3060	3.0867	0.0133	1.1745	7.3100e-003	1.1818	0.3119	6.7800e-003	0.3187	0.0000	812.1057	812.1057	0.0305	0.0000	812.7458
Total	0.3330	1.1028	4.9265	0.0180	1.3156	0.0317	1.3473	0.3522	0.0292	0.3815	0.0000	1,211.674 2	1,211.674 2	0.0330	0.0000	1,212.366 1

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0334	0.3299	0.4714	7.4000e-004		0.0165	0.0165		0.0152	0.0152	0.0000	64.6825	64.6825	0.0209	0.0000	65.1218
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0334	0.3299	0.4714	7.4000e-004		0.0165	0.0165		0.0152	0.0152	0.0000	64.6825	64.6825	0.0209	0.0000	65.1218

3.4 Paving - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	1.4200e-003	0.0143	6.0000e-005	5.4400e-003	3.0000e-005	5.4700e-003	1.4400e-003	3.0000e-005	1.4800e-003	0.0000	3.7619	3.7619	1.4000e-004	0.0000	3.7648
Total	9.8000e-004	1.4200e-003	0.0143	6.0000e-005	5.4400e-003	3.0000e-005	5.4700e-003	1.4400e-003	3.0000e-005	1.4800e-003	0.0000	3.7619	3.7619	1.4000e-004	0.0000	3.7648

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0301	0.6501	0.5586	7.4000e-004		0.0162	0.0162		0.0162	0.0162	0.0000	64.6824	64.6824	0.0209	0.0000	65.1217
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0301	0.6501	0.5586	7.4000e-004		0.0162	0.0162		0.0162	0.0162	0.0000	64.6824	64.6824	0.0209	0.0000	65.1217

3.4 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	1.4200e-003	0.0143	6.0000e-005	5.4400e-003	3.0000e-005	5.4700e-003	1.4400e-003	3.0000e-005	1.4800e-003	0.0000	3.7619	3.7619	1.4000e-004	0.0000	3.7648
Total	9.8000e-004	1.4200e-003	0.0143	6.0000e-005	5.4400e-003	3.0000e-005	5.4700e-003	1.4400e-003	3.0000e-005	1.4800e-003	0.0000	3.7619	3.7619	1.4000e-004	0.0000	3.7648

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.5308					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2300e-003	0.0424	0.0589	1.0000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3085
Total	8.5370	0.0424	0.0589	1.0000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3085

3.5 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	0.0153	0.1540	6.6000e-004	0.0586	3.6000e-004	0.0590	0.0156	3.4000e-004	0.0159	0.0000	40.5065	40.5065	1.5200e-003	0.0000	40.5384
Total	0.0106	0.0153	0.1540	6.6000e-004	0.0586	3.6000e-004	0.0590	0.0156	3.4000e-004	0.0159	0.0000	40.5065	40.5065	1.5200e-003	0.0000	40.5384

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.5308					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7000e-003	0.0765	0.0596	1.0000e-004		2.3200e-003	2.3200e-003		2.3200e-003	2.3200e-003	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3085
Total	8.5345	0.0765	0.0596	1.0000e-004		2.3200e-003	2.3200e-003		2.3200e-003	2.3200e-003	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3085

3.5 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	0.0153	0.1540	6.6000e-004	0.0586	3.6000e-004	0.0590	0.0156	3.4000e-004	0.0159	0.0000	40.5065	40.5065	1.5200e-003	0.0000	40.5384
Total	0.0106	0.0153	0.1540	6.6000e-004	0.0586	3.6000e-004	0.0590	0.0156	3.4000e-004	0.0159	0.0000	40.5065	40.5065	1.5200e-003	0.0000	40.5384

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

[illegible]

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.453702	0.068956	0.179949	0.174153	0.046237	0.007387	0.012169	0.045320	0.000857	0.001069	0.005825	0.000784	0.003591

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.7791	0.1747	15.1652	8.0000e-004		0.0841	0.0841		0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825
Unmitigated	9.7791	0.1747	15.1652	8.0000e-004		0.0841	0.0841		0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.9289					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.3942					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4561	0.1747	15.1652	8.0000e-004		0.0841	0.0841		0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825
Total	9.7791	0.1747	15.1652	8.0000e-004		0.0841	0.0841		0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.9289					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.3942					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4561	0.1747	15.1652	8.0000e-004		0.0841	0.0841		0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825
Total	9.7791	0.1747	15.1652	8.0000e-004		0.0841	0.0841		0.0841	0.0841	0.0000	24.7830	24.7830	0.0238	0.0000	25.2825

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	0 / 0	0.0000	0.0000	0.0000	0.0000
Elementary School	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	0 / 0	0.0000	0.0000	0.0000	0.0000
Elementary School	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Construction Phase 3
Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,760.00	Dwelling Unit	571.43	3,168,000.00	5034

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule is based on previous 2011 FEIR.

Off-road Equipment - Grading equipment list is based on previous 2011 FEIR.

Off-road Equipment - Trenching equipment is based on previous 2011 FEIR.

Off-road Equipment - Previous 2011 FEIR

Off-road Equipment -

Off-road Equipment -

Grading - 429 Acres disturbed is based on previous 2011 FEIR.

Architectural Coating -

Vehicle Trips - No trip generation data.

Woodstoves - None.

Consumer Products - None.

Area Coating -

Landscape Equipment - None.

Energy Use - None.

Water And Wastewater - None.

Solid Waste - None.

Construction Off-road Equipment Mitigation - All equipment will utilized Tier 2 engines with level 1 DPF. On-site watering three times daily.

Area Mitigation - No Hearth, Low VOC paint.

[illegible]

tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
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tblConstEquipMitigation	DPF	No Change	Level 1
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
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tblConstEquipMitigation	Tier	No Change	Tier 2
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tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
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tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	660.00	2,486.00
tblConstructionPhase	NumDays	9,300.00	2,529.00
tblConstructionPhase	NumDays	930.00	262.00
tblConstructionPhase	NumDays	660.00	22.00
tblConstructionPhase	PhaseEndDate	6/20/2044	12/12/2034
tblConstructionPhase	PhaseEndDate	12/11/2034	12/8/2034
tblConstructionPhase	PhaseStartDate	12/9/2034	6/3/2025
tblConstructionPhase	PhaseStartDate	4/2/2025	4/1/2025
tblConstructionPhase	PhaseStartDate	3/1/2025	3/3/2025
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	27,816.78	0.00

tblFireplaces	NumberGas	1,496.00	0.00
tblFireplaces	NumberWood	88.00	0.00
tblGrading	AcresOfGrading	5,502.00	429.00
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	18.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblSolidWaste	SolidWasteGenerationRate	2,063.94	0.00
tblTripsAndVMT	WorkerTripNumber	108.00	98.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	114,671,085.09	0.00
tblWater	OutdoorWaterUseRate	72,292,640.60	0.00
tblWoodstoves	NumberCatalytic	88.00	0.00
tblWoodstoves	NumberNoncatalytic	88.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	24.6441	230.5866	202.7008	0.4687	38.9644	9.7140	48.6784	20.3394	8.9393	29.2787	0.0000	44,975.3158	44,975.3158	14.2943	0.0000	45,275.4959
2025	13.9544	28.0988	60.5458	0.1662	9.6882	1.1477	10.5206	2.5934	1.0672	3.3747	0.0000	13,445.1369	13,445.1369	1.4706	0.0000	13,476.0203
2026	13.8671	21.5625	50.9409	0.1619	9.6883	0.8247	10.5129	2.5934	0.7741	3.3676	0.0000	12,537.6333	12,537.6333	0.8552	0.0000	12,555.5928
2027	13.8049	21.4535	50.2687	0.1619	9.6884	0.8256	10.5140	2.5935	0.7750	3.3685	0.0000	12,486.5548	12,486.5548	0.8500	0.0000	12,504.4054
2028	13.7430	21.3406	49.6420	0.1619	9.6884	0.8248	10.5132	2.5935	0.7743	3.3677	0.0000	12,442.8808	12,442.8808	0.8453	0.0000	12,460.6325
2029	13.6864	21.2609	49.0771	0.1619	9.6885	0.8254	10.5138	2.5935	0.7748	3.3683	0.0000	12,405.8716	12,405.8716	0.8410	0.0000	12,423.5317
2030	13.5360	16.4094	48.6753	0.1659	9.6885	0.4173	10.1058	2.5935	0.3978	2.9913	0.0000	12,713.6168	12,713.6168	0.3512	0.0000	12,720.9928
2031	13.4940	16.3586	48.3567	0.1659	9.6890	0.4145	10.1035	2.5937	0.3952	2.9889	0.0000	12,693.9446	12,693.9446	0.3489	0.0000	12,701.2706
2032	13.4427	16.3047	48.0044	0.1659	9.6895	0.4150	10.1045	2.5939	0.3957	2.9896	0.0000	12,674.0726	12,674.0726	0.3457	0.0000	12,681.3322
2033	13.4001	16.2580	47.7224	0.1659	9.6900	0.4155	10.1055	2.5941	0.3961	2.9903	0.0000	12,657.6492	12,657.6492	0.3429	0.0000	12,664.8509
2034	13.3535	16.2166	47.4219	0.1660	9.6903	0.4159	10.1062	2.5943	0.3965	2.9908	0.0000	12,643.7353	12,643.7353	0.3403	0.0000	12,650.8820
Total	160.9263	425.8501	703.3561	2.1119	135.8534	16.2404	151.7785	46.2762	15.0859	61.0763	0.0000	171,676.4117	171,676.4117	20.8855	0.0000	172,115.0071

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.1475	357.7030	255.6395	0.4687	15.8643	6.4845	22.3488	8.1096	6.4759	14.5855	0.0000	44,975.3158	44,975.3158	14.2943	0.0000	45,275.4959
2025	13.6001	48.1218	64.7726	0.1662	9.6882	1.3374	10.6527	2.5934	1.3134	3.5748	0.0000	13,445.1369	13,445.1369	1.4706	0.0000	13,476.0203
2026	13.5127	32.0660	52.6100	0.1619	9.6883	0.9568	10.6450	2.5934	0.9328	3.5262	0.0000	12,537.6333	12,537.6333	0.8552	0.0000	12,555.5928
2027	13.4505	31.9570	51.9378	0.1619	9.6884	0.9577	10.6461	2.5935	0.9337	3.5271	0.0000	12,486.5548	12,486.5548	0.8500	0.0000	12,504.4054
2028	13.3887	31.8442	51.3110	0.1619	9.6884	0.9569	10.6453	2.5935	0.9329	3.5264	0.0000	12,442.8808	12,442.8808	0.8453	0.0000	12,460.6325
2029	13.3321	31.7644	50.7462	0.1619	9.6885	0.9574	10.6459	2.5935	0.9334	3.5269	0.0000	12,405.8716	12,405.8716	0.8410	0.0000	12,423.5317
2030	13.3211	31.3715	50.3976	0.1659	9.6885	0.9211	10.6097	2.5935	0.9016	3.4951	0.0000	12,713.6168	12,713.6168	0.3512	0.0000	12,720.9928
2031	13.2791	31.3208	50.0789	0.1659	9.6890	0.9183	10.6073	2.5937	0.8990	3.4927	0.0000	12,693.9446	12,693.9446	0.3489	0.0000	12,701.2706
2032	13.2279	31.2668	49.7267	0.1659	9.6895	0.9188	10.6084	2.5939	0.8995	3.4935	0.0000	12,674.0726	12,674.0726	0.3457	0.0000	12,681.3322
2033	13.1853	31.2201	49.4447	0.1659	9.6900	0.9193	10.6093	2.5941	0.9000	3.4941	0.0000	12,657.6492	12,657.6492	0.3429	0.0000	12,664.8509
2034	13.1386	31.1787	49.1442	0.1660	9.6903	0.9197	10.6101	2.5943	0.9003	3.4946	0.0000	12,643.7353	12,643.7353	0.3403	0.0000	12,650.8820
Total	145.5835	689.8144	775.8092	2.1119	112.7533	16.2480	128.6285	34.0464	16.0224	49.7368	0.0000	171,676.4117	171,676.4117	20.8855	0.0000	172,115.0070

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	9.53	-61.99	-10.30	0.00	17.00	-0.05	15.25	26.43	-6.21	18.57	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	73.8413	1.6693	144.6919	7.6700e-003		0.8052	0.8052		0.8052	0.8052	0.0000	261.4521	261.4521	0.2489	0.0000	266.6787
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	73.8413	1.6693	144.6919	7.6700e-003	0.0000	0.8052	0.8052	0.0000	0.8052	0.8052	0.0000	261.4521	261.4521	0.2489	0.0000	266.6787

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	73.8413	1.6693	144.6919	7.6700e-003		0.8052	0.8052		0.8052	0.8052	0.0000	261.4521	261.4521	0.2489	0.0000	266.6787
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	73.8413	1.6693	144.6919	7.6700e-003	0.0000	0.8052	0.8052	0.0000	0.8052	0.8052	0.0000	261.4521	261.4521	0.2489	0.0000	266.6787

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2024	12/31/2024	5	262	
2	Trenching	Trenching	1/1/2025	2/28/2025	5	43	
3	Paving	Paving	3/3/2025	4/1/2025	5	22	
4	Building Construction	Building Construction	4/1/2025	12/8/2034	5	2529	
5	Architectural Coating	Architectural Coating	6/3/2025	12/12/2034	5	2486	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 429

Acres of Paving: 0

Residential Indoor: 6,415,200; Residential Outdoor: 2,138,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Plate Compactors	3	8.00	8	0.43
Grading	Off-Highway Trucks	6	8.00	400	0.38
Trenching	Excavators	4	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	6.00	80	0.38
Trenching	Other General Industrial Equipment	2	8.00	87	0.34
Grading	Rubber Tired Dozers	6	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	6	8.00	174	0.41
Grading	Excavators	2	8.00	162	0.38
Paving	Paving Equipment	2	8.00	130	0.36
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Scrapers	18	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	43	98.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	634.00	188.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	127.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					37.8690	0.0000	37.8690	20.0489	0.0000	20.0489			0.0000			0.0000
Off-Road	24.4455	230.3312	200.0839	0.4566		9.7072	9.7072		8.9330	8.9330		44,174.98 23	44,174.98 23	14.2644		44,474.53 41
Total	24.4455	230.3312	200.0839	0.4566	37.8690	9.7072	47.5762	20.0489	8.9330	28.9819		44,174.98 23	44,174.98 23	14.2644		44,474.53 41

3.2 Grading - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1986	0.2554	2.6169	0.0120	1.0954	6.7900e-003	1.1022	0.2905	6.3000e-003	0.2968		800.3335	800.3335	0.0299		800.9618
Total	0.1986	0.2554	2.6169	0.0120	1.0954	6.7900e-003	1.1022	0.2905	6.3000e-003	0.2968		800.3335	800.3335	0.0299		800.9618

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.7689	0.0000	14.7689	7.8191	0.0000	7.8191			0.0000			0.0000
Off-Road	11.9489	357.4476	253.0226	0.4566		6.4777	6.4777		6.4696	6.4696	0.0000	44,174.9823	44,174.9823	14.2644		44,474.5340
Total	11.9489	357.4476	253.0226	0.4566	14.7689	6.4777	21.2466	7.8191	6.4696	14.2887	0.0000	44,174.9823	44,174.9823	14.2644		44,474.5340

3.2 Grading - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1986	0.2554	2.6169	0.0120	1.0954	6.7900e-003	1.1022	0.2905	6.3000e-003	0.2968		800.3335	800.3335	0.0299		800.9618
Total	0.1986	0.2554	2.6169	0.0120	1.0954	6.7900e-003	1.1022	0.2905	6.3000e-003	0.2968		800.3335	800.3335	0.0299		800.9618

3.3 Trenching - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9540	7.5551	17.1364	0.0263		0.3688	0.3688		0.3393	0.3393		2,542.4182	2,542.4182	0.8223		2,559.6859
Total	0.9540	7.5551	17.1364	0.0263		0.3688	0.3688		0.3393	0.3393		2,542.4182	2,542.4182	0.8223		2,559.6859

3.3 Trenching - 2025**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0291	0.0374	0.3840	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		121.1185	121.1185	4.4400e-003		121.2118
Total	0.0291	0.0374	0.3840	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		121.1185	121.1185	4.4400e-003		121.2118

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0176	18.6123	19.0110	0.0263		0.5089	0.5089		0.5023	0.5023	0.0000	2,542.418 2	2,542.418 2	0.8223		2,559.685 9
Total	1.0176	18.6123	19.0110	0.0263		0.5089	0.5089		0.5023	0.5023	0.0000	2,542.418 2	2,542.418 2	0.8223		2,559.685 9

3.3 Trenching - 2025**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0291	0.0374	0.3840	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		121.1185	121.1185	4.4400e-003		121.2118
Total	0.0291	0.0374	0.3840	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		121.1185	121.1185	4.4400e-003		121.2118

3.4 Paving - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8289	7.7000	13.3547	0.0210		0.3746	0.3746		0.3447	0.3447		2,032.7657	2,032.7657	0.6574		2,046.5719
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8289	7.7000	13.3547	0.0210		0.3746	0.3746		0.3447	0.3447		2,032.7657	2,032.7657	0.6574		2,046.5719

3.4 Paving - 2025**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0291	0.0374	0.3840	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		121.1185	121.1185	4.4400e-003		121.2118
Total	0.0291	0.0374	0.3840	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		121.1185	121.1185	4.4400e-003		121.2118

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8505	18.4265	15.9357	0.0210		0.4521	0.4521		0.4521	0.4521	0.0000	2,032.7657	2,032.7657	0.6574		2,046.5719
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8505	18.4265	15.9357	0.0210		0.4521	0.4521		0.4521	0.4521	0.0000	2,032.7657	2,032.7657	0.6574		2,046.5719

3.4 Paving - 2025**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0291	0.0374	0.3840	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		121.1185	121.1185	4.4400e-003		121.2118
Total	0.0291	0.0374	0.3840	1.8400e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		121.1185	121.1185	4.4400e-003		121.2118

3.5 Building Construction - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386

3.5 Building Construction - 2025**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9809	6.3726	14.5267	0.0387	1.1820	0.2028	1.3847	0.3375	0.1865	0.5240		3,626.0883	3,626.0883	0.0234		3,626.5801
Worker	1.2280	1.5791	16.2286	0.0778	7.0866	0.0443	7.1309	1.8794	0.0411	1.9205		5,119.2739	5,119.2739	0.1878		5,123.2180
Total	2.2088	7.9517	30.7554	0.1165	8.2686	0.2470	8.5156	2.2169	0.2276	2.4445		8,745.3622	8,745.3622	0.2112		8,749.7981

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386
Total	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.8905	2,545.8905	0.5975		2,558.4386

3.5 Building Construction - 2025**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9809	6.3726	14.5267	0.0387	1.1820	0.2028	1.3847	0.3375	0.1865	0.5240		3,626.0883	3,626.0883	0.0234		3,626.5801
Worker	1.2280	1.5791	16.2286	0.0778	7.0866	0.0443	7.1309	1.8794	0.0411	1.9205		5,119.2739	5,119.2739	0.1878		5,123.2180
Total	2.2088	7.9517	30.7554	0.1165	8.2686	0.2470	8.5156	2.2169	0.2276	2.4445		8,745.3622	8,745.3622	0.2112		8,749.7981

3.5 Building Construction - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386

3.5 Building Construction - 2026**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9540	6.1858	14.3107	0.0387	1.1821	0.1945	1.3765	0.3375	0.1789	0.5165		3,625.263 2	3,625.263 2	0.0228		3,625.741 5
Worker	1.1775	1.5175	15.6370	0.0778	7.0866	0.0447	7.1314	1.8794	0.0415	1.9209		5,069.526 9	5,069.526 9	0.1829		5,073.368 2
Total	2.1316	7.7033	29.9477	0.1165	8.2687	0.2392	8.5079	2.2169	0.2204	2.4374		8,694.790 1	8,694.790 1	0.2057		8,699.109 7

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.5 Building Construction - 2026**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9540	6.1858	14.3107	0.0387	1.1821	0.1945	1.3765	0.3375	0.1789	0.5165		3,625.263 2	3,625.263 2	0.0228		3,625.741 5
Worker	1.1775	1.5175	15.6370	0.0778	7.0866	0.0447	7.1314	1.8794	0.0415	1.9209		5,069.526 9	5,069.526 9	0.1829		5,073.368 2
Total	2.1316	7.7033	29.9477	0.1165	8.2687	0.2392	8.5079	2.2169	0.2204	2.4374		8,694.790 1	8,694.790 1	0.2057		8,699.109 7

3.5 Building Construction - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.5 Building Construction - 2027**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9477	6.1421	14.2600	0.0387	1.1822	0.1950	1.3772	0.3376	0.1794	0.5170		3,625.397 7	3,625.397 7	0.0228		3,625.876 9
Worker	1.1310	1.4631	15.1193	0.0778	7.0866	0.0451	7.1317	1.8794	0.0418	1.9212		5,026.860 7	5,026.860 7	0.1786		5,030.610 5
Total	2.0787	7.6052	29.3792	0.1165	8.2688	0.2401	8.5089	2.2170	0.2212	2.4382		8,652.258 3	8,652.258 3	0.2014		8,656.487 3

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.5 Building Construction - 2027**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9477	6.1421	14.2600	0.0387	1.1822	0.1950	1.3772	0.3376	0.1794	0.5170		3,625.397 7	3,625.397 7	0.0228		3,625.876 9
Worker	1.1310	1.4631	15.1193	0.0778	7.0866	0.0451	7.1317	1.8794	0.0418	1.9212		5,026.860 7	5,026.860 7	0.1786		5,030.610 5
Total	2.0787	7.6052	29.3792	0.1165	8.2688	0.2401	8.5089	2.2170	0.2212	2.4382		8,652.258 3	8,652.258 3	0.2014		8,656.487 3

3.5 Building Construction - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.5 Building Construction - 2028**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9367	6.0871	14.1667	0.0387	1.1822	0.1938	1.3760	0.3376	0.1783	0.5159		3,625.237 4	3,625.237 4	0.0227		3,625.714 6
Worker	1.0886	1.4149	14.6748	0.0778	7.0866	0.0454	7.1320	1.8794	0.0421	1.9215		4,990.608 8	4,990.608 8	0.1747		4,994.277 9
Total	2.0253	7.5020	28.8415	0.1165	8.2689	0.2392	8.5080	2.2170	0.2204	2.4374		8,615.846 2	8,615.846 2	0.1974		8,619.992 5

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.5 Building Construction - 2028**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9367	6.0871	14.1667	0.0387	1.1822	0.1938	1.3760	0.3376	0.1783	0.5159		3,625.237 4	3,625.237 4	0.0227		3,625.714 6
Worker	1.0886	1.4149	14.6748	0.0778	7.0866	0.0454	7.1320	1.8794	0.0421	1.9215		4,990.608 8	4,990.608 8	0.1747		4,994.277 9
Total	2.0253	7.5020	28.8415	0.1165	8.2689	0.2392	8.5080	2.2170	0.2204	2.4374		8,615.846 2	8,615.846 2	0.1974		8,619.992 5

3.5 Building Construction - 2029**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.5 Building Construction - 2029**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9299	6.0623	14.1095	0.0387	1.1823	0.1941	1.3764	0.3376	0.1786	0.5162		3,625.192 0	3,625.192 0	0.0228		3,625.669 8
Worker	1.0472	1.3691	14.2519	0.0778	7.0866	0.0456	7.1323	1.8794	0.0423	1.9218		4,959.813 7	4,959.813 7	0.1711		4,963.406 0
Total	1.9770	7.4314	28.3614	0.1165	8.2689	0.2397	8.5086	2.2170	0.2209	2.4379		8,585.005 7	8,585.005 7	0.1938		8,589.075 7

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	1.0641	21.7063	17.6976	0.0269		0.6373	0.6373		0.6327	0.6327	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.5 Building Construction - 2029**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9299	6.0623	14.1095	0.0387	1.1823	0.1941	1.3764	0.3376	0.1786	0.5162		3,625.1920	3,625.1920	0.0228		3,625.6698
Worker	1.0472	1.3691	14.2519	0.0778	7.0866	0.0456	7.1323	1.8794	0.0423	1.9218		4,959.8137	4,959.8137	0.1711		4,963.4060
Total	1.9770	7.4314	28.3614	0.1165	8.2689	0.2397	8.5086	2.2170	0.2209	2.4379		8,585.0057	8,585.0057	0.1938		8,589.0757

3.5 Building Construction - 2030**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617

3.5 Building Construction - 2030**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9239	6.0426	14.0867	0.0387	1.1824	0.1944	1.3768	0.3377	0.1789	0.5165		3,625.175 5	3,625.175 5	0.0228		3,625.653 8
Worker	1.0080	1.3268	13.8793	0.0778	7.0866	0.0458	7.1324	1.8794	0.0425	1.9219		4,933.839 1	4,933.839 1	0.1677		4,937.360 4
Total	1.9319	7.3694	27.9660	0.1165	8.2690	0.2402	8.5092	2.2171	0.2214	2.4384		8,559.014 6	8,559.014 6	0.1905		8,563.014 2

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7
Total	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7

3.5 Building Construction - 2030**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9239	6.0426	14.0867	0.0387	1.1824	0.1944	1.3768	0.3377	0.1789	0.5165		3,625.175 5	3,625.175 5	0.0228		3,625.653 8
Worker	1.0080	1.3268	13.8793	0.0778	7.0866	0.0458	7.1324	1.8794	0.0425	1.9219		4,933.839 1	4,933.839 1	0.1677		4,937.360 4
Total	1.9319	7.3694	27.9660	0.1165	8.2690	0.2402	8.5092	2.2171	0.2214	2.4384		8,559.014 6	8,559.014 6	0.1905		8,563.014 2

3.5 Building Construction - 2031**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.830 0	2,884.830 0	0.1158		2,887.261 7
Total	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.830 0	2,884.830 0	0.1158		2,887.261 7

3.5 Building Construction - 2031**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9244	6.0377	14.0480	0.0387	1.1829	0.1912	1.3741	0.3379	0.1759	0.5138		3,632.804 1	3,632.804 1	0.0230		3,633.287 8
Worker	0.9726	1.2887	13.6461	0.0778	7.0866	0.0461	7.1327	1.8794	0.0428	1.9222		4,911.094 4	4,911.094 4	0.1655		4,914.569 6
Total	1.8970	7.3263	27.6941	0.1165	8.2695	0.2373	8.5068	2.2173	0.2187	2.4360		8,543.898 5	8,543.898 5	0.1885		8,547.857 4

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7
Total	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7

3.5 Building Construction - 2031**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9244	6.0377	14.0480	0.0387	1.1829	0.1912	1.3741	0.3379	0.1759	0.5138		3,632.804 1	3,632.804 1	0.0230		3,633.287 8
Worker	0.9726	1.2887	13.6461	0.0778	7.0866	0.0461	7.1327	1.8794	0.0428	1.9222		4,911.094 4	4,911.094 4	0.1655		4,914.569 6
Total	1.8970	7.3263	27.6941	0.1165	8.2695	0.2373	8.5068	2.2173	0.2187	2.4360		8,543.898 5	8,543.898 5	0.1885		8,547.857 4

3.5 Building Construction - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.830 0	2,884.830 0	0.1158		2,887.261 7
Total	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.830 0	2,884.830 0	0.1158		2,887.261 7

3.5 Building Construction - 2032**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9199	6.0243	14.0427	0.0388	1.1833	0.1917	1.3751	0.3381	0.1764	0.5145		3,634.523 0	3,634.523 0	0.0231		3,635.007 5
Worker	0.9337	1.2549	13.3570	0.0778	7.0866	0.0461	7.1328	1.8794	0.0428	1.9222		4,893.106 7	4,893.106 7	0.1628		4,896.525 9
Total	1.8536	7.2792	27.3997	0.1166	8.2700	0.2379	8.5078	2.2175	0.2192	2.4367		8,527.629 7	8,527.629 7	0.1859		8,531.533 4

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7
Total	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7

3.5 Building Construction - 2032**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9199	6.0243	14.0427	0.0388	1.1833	0.1917	1.3751	0.3381	0.1764	0.5145		3,634.523 0	3,634.523 0	0.0231		3,635.007 5
Worker	0.9337	1.2549	13.3570	0.0778	7.0866	0.0461	7.1328	1.8794	0.0428	1.9222		4,893.106 7	4,893.106 7	0.1628		4,896.525 9
Total	1.8536	7.2792	27.3997	0.1166	8.2700	0.2379	8.5078	2.2175	0.2192	2.4367		8,527.629 7	8,527.629 7	0.1859		8,531.533 4

3.5 Building Construction - 2033**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.830 0	2,884.830 0	0.1158		2,887.261 7
Total	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.830 0	2,884.830 0	0.1158		2,887.261 7

3.5 Building Construction - 2033**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9177	6.0122	14.0529	0.0388	1.1838	0.1922	1.3760	0.3383	0.1768	0.5151		3,636.066 6	3,636.066 6	0.0231		3,636.551 8
Worker	0.9000	1.2261	13.1136	0.0778	7.0866	0.0462	7.1328	1.8794	0.0428	1.9223		4,878.138 2	4,878.138 2	0.1605		4,881.508 5
Total	1.8177	7.2382	27.1665	0.1166	8.2704	0.2384	8.5088	2.2177	0.2197	2.4373		8,514.204 7	8,514.204 7	0.1836		8,518.060 4

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7
Total	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7

3.5 Building Construction - 2033**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9177	6.0122	14.0529	0.0388	1.1838	0.1922	1.3760	0.3383	0.1768	0.5151		3,636.0666	3,636.0666	0.0231		3,636.5518
Worker	0.9000	1.2261	13.1136	0.0778	7.0866	0.0462	7.1328	1.8794	0.0428	1.9223		4,878.1382	4,878.1382	0.1605		4,881.5085
Total	1.8177	7.2382	27.1665	0.1166	8.2704	0.2384	8.5088	2.2177	0.2197	2.4373		8,514.2047	8,514.2047	0.1836		8,518.0604

3.5 Building Construction - 2034**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617
Total	1.3041	7.9179	16.1313	0.0308		0.1476	0.1476		0.1476	0.1476		2,884.8300	2,884.8300	0.1158		2,887.2617

3.5 Building Construction - 2034**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9072	5.9998	14.0342	0.0388	1.1842	0.1926	1.3768	0.3384	0.1772	0.5156		3,637.362 9	3,637.362 9	0.0231		3,637.848 8
Worker	0.8698	1.2018	12.8788	0.0778	7.0866	0.0462	7.1328	1.8794	0.0428	1.9222		4,865.466 3	4,865.466 3	0.1583		4,868.790 3
Total	1.7771	7.2017	26.9130	0.1166	8.2708	0.2387	8.5095	2.2178	0.2200	2.4378		8,502.829 2	8,502.829 2	0.1814		8,506.639 1

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7
Total	1.1061	21.3839	17.8189	0.0308		0.6004	0.6004		0.6004	0.6004	0.0000	2,884.830 0	2,884.830 0	0.1158		2,887.261 7

3.5 Building Construction - 2034**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9072	5.9998	14.0342	0.0388	1.1842	0.1926	1.3768	0.3384	0.1772	0.5156		3,637.362 9	3,637.362 9	0.0231		3,637.848 8
Worker	0.8698	1.2018	12.8788	0.0778	7.0866	0.0462	7.1328	1.8794	0.0428	1.9222		4,865.466 3	4,865.466 3	0.1583		4,868.790 3
Total	1.7771	7.2017	26.9130	0.1166	8.2708	0.2387	8.5095	2.2178	0.2200	2.4378		8,502.829 2	8,502.829 2	0.1814		8,506.639 1

3.6 Architectural Coating - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	10.1382	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2460	0.3163	3.2509	0.0156	1.4196	8.8700e-003	1.4284	0.3765	8.2300e-003	0.3847		1,025.4697	1,025.4697	0.0376		1,026.2598
Total	0.2460	0.3163	3.2509	0.0156	1.4196	8.8700e-003	1.4284	0.3765	8.2300e-003	0.3847		1,025.4697	1,025.4697	0.0376		1,026.2598

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2025**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2460	0.3163	3.2509	0.0156	1.4196	8.8700e-003	1.4284	0.3765	8.2300e-003	0.3847		1,025.4697	1,025.4697	0.0376		1,026.2598
Total	0.2460	0.3163	3.2509	0.0156	1.4196	8.8700e-003	1.4284	0.3765	8.2300e-003	0.3847		1,025.4697	1,025.4697	0.0376		1,026.2598

3.6 Architectural Coating - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	10.1382	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2359	0.3040	3.1323	0.0156	1.4196	8.9600e-003	1.4285	0.3765	8.3100e-003	0.3848		1,015.5046	1,015.5046	0.0366		1,016.2741
Total	0.2359	0.3040	3.1323	0.0156	1.4196	8.9600e-003	1.4285	0.3765	8.3100e-003	0.3848		1,015.5046	1,015.5046	0.0366		1,016.2741

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2026**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2359	0.3040	3.1323	0.0156	1.4196	8.9600e-003	1.4285	0.3765	8.3100e-003	0.3848		1,015.5046	1,015.5046	0.0366		1,016.2741
Total	0.2359	0.3040	3.1323	0.0156	1.4196	8.9600e-003	1.4285	0.3765	8.3100e-003	0.3848		1,015.5046	1,015.5046	0.0366		1,016.2741

3.6 Architectural Coating - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	10.1382	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2027**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2266	0.2931	3.0286	0.0156	1.4196	9.0300e-003	1.4286	0.3765	8.3800e-003	0.3849		1,006.9579	1,006.9579	0.0358		1,007.7090
Total	0.2266	0.2931	3.0286	0.0156	1.4196	9.0300e-003	1.4286	0.3765	8.3800e-003	0.3849		1,006.9579	1,006.9579	0.0358		1,007.7090

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2266	0.2931	3.0286	0.0156	1.4196	9.0300e-003	1.4286	0.3765	8.3800e-003	0.3849		1,006.9579	1,006.9579	0.0358		1,007.7090
Total	0.2266	0.2931	3.0286	0.0156	1.4196	9.0300e-003	1.4286	0.3765	8.3800e-003	0.3849		1,006.9579	1,006.9579	0.0358		1,007.7090

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	10.1382	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2181	0.2834	2.9396	0.0156	1.4196	9.0900e-003	1.4287	0.3765	8.4400e-003	0.3849		999.6961	999.6961	0.0350		1,000.4311
Total	0.2181	0.2834	2.9396	0.0156	1.4196	9.0900e-003	1.4287	0.3765	8.4400e-003	0.3849		999.6961	999.6961	0.0350		1,000.4311

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2181	0.2834	2.9396	0.0156	1.4196	9.0900e-003	1.4287	0.3765	8.4400e-003	0.3849		999.6961	999.6961	0.0350		1,000.4311
Total	0.2181	0.2834	2.9396	0.0156	1.4196	9.0900e-003	1.4287	0.3765	8.4400e-003	0.3849		999.6961	999.6961	0.0350		1,000.4311

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	10.1382	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2098	0.2743	2.8549	0.0156	1.4196	9.1400e-003	1.4287	0.3765	8.4800e-003	0.3850		993.5273	993.5273	0.0343		994.2469
Total	0.2098	0.2743	2.8549	0.0156	1.4196	9.1400e-003	1.4287	0.3765	8.4800e-003	0.3850		993.5273	993.5273	0.0343		994.2469

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0154		281.7705

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2098	0.2743	2.8549	0.0156	1.4196	9.1400e-003	1.4287	0.3765	8.4800e-003	0.3850		993.5273	993.5273	0.0343		994.2469
Total	0.2098	0.2743	2.8549	0.0156	1.4196	9.1400e-003	1.4287	0.3765	8.4800e-003	0.3850		993.5273	993.5273	0.0343		994.2469

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	10.0981	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2019	0.2658	2.7802	0.0156	1.4196	9.1700e-003	1.4287	0.3765	8.5100e-003	0.3850		988.3242	988.3242	0.0336		989.0296
Total	0.2019	0.2658	2.7802	0.0156	1.4196	9.1700e-003	1.4287	0.3765	8.5100e-003	0.3850		988.3242	988.3242	0.0336		989.0296

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2019	0.2658	2.7802	0.0156	1.4196	9.1700e-003	1.4287	0.3765	8.5100e-003	0.3850		988.3242	988.3242	0.0336		989.0296
Total	0.2019	0.2658	2.7802	0.0156	1.4196	9.1700e-003	1.4287	0.3765	8.5100e-003	0.3850		988.3242	988.3242	0.0336		989.0296

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	10.0981	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1948	0.2581	2.7335	0.0156	1.4196	9.2300e-003	1.4288	0.3765	8.5700e-003	0.3850		983.7681	983.7681	0.0332		984.4643
Total	0.1948	0.2581	2.7335	0.0156	1.4196	9.2300e-003	1.4288	0.3765	8.5700e-003	0.3850		983.7681	983.7681	0.0332		984.4643

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2031**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1948	0.2581	2.7335	0.0156	1.4196	9.2300e-003	1.4288	0.3765	8.5700e-003	0.3850		983.7681	983.7681	0.0332		984.4643
Total	0.1948	0.2581	2.7335	0.0156	1.4196	9.2300e-003	1.4288	0.3765	8.5700e-003	0.3850		983.7681	983.7681	0.0332		984.4643

3.6 Architectural Coating - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	10.0981	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1870	0.2514	2.6756	0.0156	1.4196	9.2400e-003	1.4288	0.3765	8.5800e-003	0.3851		980.1649	980.1649	0.0326		980.8498
Total	0.1870	0.2514	2.6756	0.0156	1.4196	9.2400e-003	1.4288	0.3765	8.5800e-003	0.3851		980.1649	980.1649	0.0326		980.8498

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1870	0.2514	2.6756	0.0156	1.4196	9.2400e-003	1.4288	0.3765	8.5800e-003	0.3851		980.1649	980.1649	0.0326		980.8498
Total	0.1870	0.2514	2.6756	0.0156	1.4196	9.2400e-003	1.4288	0.3765	8.5800e-003	0.3851		980.1649	980.1649	0.0326		980.8498

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	10.0981	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1803	0.2456	2.6269	0.0156	1.4196	9.2500e-003	1.4288	0.3765	8.5800e-003	0.3851		977.1665	977.1665	0.0322		977.8416
Total	0.1803	0.2456	2.6269	0.0156	1.4196	9.2500e-003	1.4288	0.3765	8.5800e-003	0.3851		977.1665	977.1665	0.0322		977.8416

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1803	0.2456	2.6269	0.0156	1.4196	9.2500e-003	1.4288	0.3765	8.5800e-003	0.3851		977.1665	977.1665	0.0322		977.8416
Total	0.1803	0.2456	2.6269	0.0156	1.4196	9.2500e-003	1.4288	0.3765	8.5800e-003	0.3851		977.1665	977.1665	0.0322		977.8416

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	10.0981	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1742	0.2408	2.5798	0.0156	1.4196	9.2400e-003	1.4288	0.3765	8.5800e-003	0.3851		974.6281	974.6281	0.0317		975.2940
Total	0.1742	0.2408	2.5798	0.0156	1.4196	9.2400e-003	1.4288	0.3765	8.5800e-003	0.3851		974.6281	974.6281	0.0317		975.2940

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873
Total	10.0812	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0114		281.6873

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1742	0.2408	2.5798	0.0156	1.4196	9.2400e-003	1.4288	0.3765	8.5800e-003	0.3851		974.6281	974.6281	0.0317		975.2940
Total	0.1742	0.2408	2.5798	0.0156	1.4196	9.2400e-003	1.4288	0.3765	8.5800e-003	0.3851		974.6281	974.6281	0.0317		975.2940

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	73.8413	1.6693	144.6919	7.6700e-003		0.8052	0.8052		0.8052	0.8052	0.0000	261.4521	261.4521	0.2489	0.0000	266.6787
Unmitigated	73.8413	1.6693	144.6919	7.6700e-003		0.8052	0.8052		0.8052	0.8052	0.0000	261.4521	261.4521	0.2489	0.0000	266.6787

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	62.7264					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3262	1.6693	144.6919	7.6700e-003		0.8052	0.8052		0.8052	0.8052		261.4521	261.4521	0.2489		266.6787
Architectural Coating	6.7887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	73.8413	1.6693	144.6919	7.6700e-003		0.8052	0.8052		0.8052	0.8052	0.0000	261.4521	261.4521	0.2489	0.0000	266.6787

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	62.7264					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3262	1.6693	144.6919	7.6700e-003		0.8052	0.8052		0.8052	0.8052		261.4521	261.4521	0.2489		266.6787
Architectural Coating	6.7887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	73.8413	1.6693	144.6919	7.6700e-003		0.8052	0.8052		0.8052	0.8052	0.0000	261.4521	261.4521	0.2489	0.0000	266.6787

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Construction Phase 3

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,760.00	Dwelling Unit	571.43	3,168,000.00	5034

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule is based on previous 2011 FEIR.

Off-road Equipment - Grading equipment list is based on previous 2011 FEIR.

Off-road Equipment - Trenching equipment is based on previous 2011 FEIR.

Off-road Equipment - Previous 2011 FEIR

Off-road Equipment -

Off-road Equipment -

Grading - 429 Acres disturbed is based on previous 2011 FEIR.

Architectural Coating -

Vehicle Trips - No trip generation data.

Woodstoves - None.

Consumer Products - None.

Area Coating -

Landscape Equipment - None.

Energy Use - None.

Water And Wastewater - None.

Solid Waste - None.

Construction Off-road Equipment Mitigation - All equipment will utilized Tier 2 engines with level 1 DPF. On-site watering three times daily.

Area Mitigation - No Hearth, Low VOC paint.

[illegible]

tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	18.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	660.00	2,486.00
tblConstructionPhase	NumDays	9,300.00	2,529.00
tblConstructionPhase	NumDays	930.00	262.00
tblConstructionPhase	NumDays	660.00	22.00
tblConstructionPhase	PhaseEndDate	6/20/2044	12/12/2034
tblConstructionPhase	PhaseEndDate	12/11/2034	12/8/2034
tblConstructionPhase	PhaseStartDate	12/9/2034	6/3/2025
tblConstructionPhase	PhaseStartDate	4/2/2025	4/1/2025
tblConstructionPhase	PhaseStartDate	3/1/2025	3/3/2025
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	27,816.78	0.00

tblFireplaces	NumberGas	1,496.00	0.00
tblFireplaces	NumberWood	88.00	0.00
tblGrading	AcresOfGrading	5,502.00	429.00
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	18.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblSolidWaste	SolidWasteGenerationRate	2,063.94	0.00
tblTripsAndVMT	WorkerTripNumber	108.00	98.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	114,671,085.09	0.00
tblWater	OutdoorWaterUseRate	72,292,640.60	0.00
tblWoodstoves	NumberCatalytic	88.00	0.00
tblWoodstoves	NumberNoncatalytic	88.00	0.00

2.0 Emissions Summary

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	3.2267	30.2083	26.5661	0.0614	5.1019	1.2725	6.3745	2.6639	1.1711	3.8349	0.0000	5,346.228 1	5,346.228 1	1.6988	0.0000	5,381.901 8
2025	1.1603	2.3865	5.6125	0.0165	0.9127	0.0927	1.0053	0.2447	0.0867	0.3314	0.0000	1,181.498 4	1,181.498 4	0.0986	0.0000	1,183.568 9
2026	1.7950	2.8418	6.7651	0.0213	1.2437	0.1075	1.3512	0.3334	0.1009	0.4343	0.0000	1,496.432 5	1,496.432 5	0.1012	0.0000	1,498.557 2
2027	1.7873	2.8271	6.6742	0.0213	1.2437	0.1077	1.3513	0.3334	0.1011	0.4344	0.0000	1,490.308 8	1,490.308 8	0.1006	0.0000	1,492.420 6
2028	1.7729	2.8012	6.5640	0.0212	1.2389	0.1071	1.3460	0.3321	0.1006	0.4327	0.0000	1,479.384 7	1,479.384 7	0.0996	0.0000	1,481.476 7
2029	1.7728	2.8012	6.5130	0.0213	1.2437	0.1076	1.3513	0.3334	0.1010	0.4344	0.0000	1,480.640 9	1,480.640 9	0.0995	0.0000	1,482.730 2
2030	1.7537	2.1677	6.4585	0.0218	1.2437	0.0544	1.2981	0.3334	0.0518	0.3852	0.0000	1,517.031 1	1,517.031 1	0.0415	0.0000	1,517.902 9
2031	1.7486	2.1609	6.4157	0.0219	1.2438	0.0540	1.2978	0.3334	0.0515	0.3849	0.0000	1,514.681 2	1,514.681 2	0.0412	0.0000	1,515.547 0
2032	1.7491	2.1618	6.3926	0.0219	1.2486	0.0543	1.3029	0.3347	0.0518	0.3865	0.0000	1,518.091 9	1,518.091 9	0.0410	0.0000	1,518.953 1
2033	1.7307	2.1390	6.3059	0.0218	1.2391	0.0539	1.2930	0.3322	0.0514	0.3836	0.0000	1,504.541 0	1,504.541 0	0.0404	0.0000	1,505.388 8
2034	1.6358	2.0115	5.9084	0.0205	1.1691	0.0509	1.2200	0.3134	0.0485	0.3619	0.0000	1,417.326 0	1,417.326 0	0.0378	0.0000	1,418.119 6
Total	20.1328	54.5070	90.1760	0.2711	17.1288	2.0625	19.1913	5.8879	1.9163	7.8042	0.0000	19,946.16 47	19,946.16 47	2.4001	0.0000	19,996.56 69

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	1.5896	46.8605	33.5010	0.0614	2.0758	0.8495	2.9253	1.0618	0.8484	1.9101	0.0000	5,346.2218	5,346.2218	1.6988	0.0000	5,381.8955
2025	1.1283	3.7496	5.8451	0.0165	0.9127	0.1091	1.0217	0.2447	0.1065	0.3512	0.0000	1,181.4980	1,181.4980	0.0986	0.0000	1,183.5685
2026	1.7487	4.2125	6.9829	0.0213	1.2437	0.1248	1.3684	0.3334	0.1216	0.4550	0.0000	1,496.4321	1,496.4321	0.1012	0.0000	1,498.5568
2027	1.7411	4.1979	6.8920	0.0213	1.2437	0.1249	1.3686	0.3334	0.1218	0.4551	0.0000	1,490.3084	1,490.3084	0.1006	0.0000	1,492.4202
2028	1.7268	4.1667	6.7810	0.0212	1.2389	0.1243	1.3632	0.3321	0.1212	0.4533	0.0000	1,479.3843	1,479.3843	0.0996	0.0000	1,481.4763
2029	1.7266	4.1719	6.7308	0.0213	1.2437	0.1249	1.3685	0.3334	0.1217	0.4551	0.0000	1,480.6405	1,480.6405	0.0995	0.0000	1,482.7298
2030	1.7256	4.1203	6.6833	0.0218	1.2437	0.1201	1.3638	0.3334	0.1176	0.4510	0.0000	1,517.0307	1,517.0307	0.0415	0.0000	1,517.9024
2031	1.7206	4.1134	6.6405	0.0219	1.2438	0.1197	1.3635	0.3334	0.1172	0.4506	0.0000	1,514.6808	1,514.6808	0.0412	0.0000	1,515.5466
2032	1.7210	4.1218	6.6182	0.0219	1.2486	0.1203	1.3689	0.3347	0.1178	0.4525	0.0000	1,518.0914	1,518.0914	0.0410	0.0000	1,518.9527
2033	1.7028	4.0841	6.5298	0.0218	1.2391	0.1194	1.3585	0.3322	0.1169	0.4491	0.0000	1,504.5406	1,504.5406	0.0404	0.0000	1,505.3884
2034	1.6095	3.8458	6.1194	0.0205	1.1691	0.1127	1.2817	0.3134	0.1103	0.4237	0.0000	1,417.3256	1,417.3256	0.0378	0.0000	1,418.1192
Total	18.1404	87.6445	99.3239	0.2711	14.1027	2.0495	16.1522	4.2858	2.0209	6.3067	0.0000	19,946.1542	19,946.1542	2.4001	0.0000	19,996.5564

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	9.90	-60.79	-10.14	0.00	17.67	0.63	15.84	27.21	-5.46	19.19	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	13.2273	0.2087	18.0865	9.6000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	13.2273	0.2087	18.0865	9.6000e-004	0.0000	0.1007	0.1007	0.0000	0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	13.2273	0.2087	18.0865	9.6000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	13.2273	0.2087	18.0865	9.6000e-004	0.0000	0.1007	0.1007	0.0000	0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2024	12/31/2024	5	262	
2	Trenching	Trenching	1/1/2025	2/28/2025	5	43	
3	Paving	Paving	3/3/2025	4/1/2025	5	22	
4	Building Construction	Building Construction	4/1/2025	12/8/2034	5	2529	
5	Architectural Coating	Architectural Coating	6/3/2025	12/12/2034	5	2486	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 429

Acres of Paving: 0

Residential Indoor: 6,415,200; Residential Outdoor: 2,138,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Plate Compactors	3	8.00	8	0.43
Grading	Off-Highway Trucks	6	8.00	400	0.38
Trenching	Excavators	4	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	6.00	80	0.38
Trenching	Other General Industrial Equipment	2	8.00	87	0.34
Grading	Rubber Tired Dozers	6	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	6	8.00	174	0.41
Grading	Excavators	2	8.00	162	0.38
Paving	Paving Equipment	2	8.00	130	0.36
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Scrapers	18	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	43	98.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	634.00	188.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	127.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.9608	0.0000	4.9608	2.6264	0.0000	2.6264	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2024	30.1734	26.2110	0.0598		1.2717	1.2717		1.1702	1.1702	0.0000	5,249.808 0	5,249.808 0	1.6952	0.0000	5,285.407 0
Total	3.2024	30.1734	26.2110	0.0598	4.9608	1.2717	6.2325	2.6264	1.1702	3.7966	0.0000	5,249.808 0	5,249.808 0	1.6952	0.0000	5,285.407 0

3.2 Grading - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0243	0.0349	0.3551	1.6000e-003	0.1411	8.9000e-004	0.1420	0.0375	8.2000e-004	0.0383	0.0000	96.4201	96.4201	3.5600e-003	0.0000	96.4948
Total	0.0243	0.0349	0.3551	1.6000e-003	0.1411	8.9000e-004	0.1420	0.0375	8.2000e-004	0.0383	0.0000	96.4201	96.4201	3.5600e-003	0.0000	96.4948

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9347	0.0000	1.9347	1.0243	0.0000	1.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5653	46.8256	33.1459	0.0598		0.8486	0.8486		0.8475	0.8475	0.0000	5,249.8017	5,249.8017	1.6952	0.0000	5,285.4008
Total	1.5653	46.8256	33.1459	0.0598	1.9347	0.8486	2.7833	1.0243	0.8475	1.8718	0.0000	5,249.8017	5,249.8017	1.6952	0.0000	5,285.4008

3.2 Grading - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0243	0.0349	0.3551	1.6000e-003	0.1411	8.9000e-004	0.1420	0.0375	8.2000e-004	0.0383	0.0000	96.4201	96.4201	3.5600e-003	0.0000	96.4948
Total	0.0243	0.0349	0.3551	1.6000e-003	0.1411	8.9000e-004	0.1420	0.0375	8.2000e-004	0.0383	0.0000	96.4201	96.4201	3.5600e-003	0.0000	96.4948

3.3 Trenching - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0205	0.1624	0.3684	5.6000e-004		7.9300e-003	7.9300e-003		7.3000e-003	7.3000e-003	0.0000	49.5885	49.5885	0.0160	0.0000	49.9253
Total	0.0205	0.1624	0.3684	5.6000e-004		7.9300e-003	7.9300e-003		7.3000e-003	7.3000e-003	0.0000	49.5885	49.5885	0.0160	0.0000	49.9253

3.3 Trenching - 2025**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	8.4000e-004	8.5500e-003	4.0000e-005	3.5400e-003	2.0000e-005	3.5700e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.3949	2.3949	9.0000e-005	0.0000	2.3967
Total	5.8000e-004	8.4000e-004	8.5500e-003	4.0000e-005	3.5400e-003	2.0000e-005	3.5700e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.3949	2.3949	9.0000e-005	0.0000	2.3967

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0219	0.4002	0.4087	5.6000e-004		0.0109	0.0109		0.0108	0.0108	0.0000	49.5885	49.5885	0.0160	0.0000	49.9253
Total	0.0219	0.4002	0.4087	5.6000e-004		0.0109	0.0109		0.0108	0.0108	0.0000	49.5885	49.5885	0.0160	0.0000	49.9253

3.3 Trenching - 2025**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	8.4000e-004	8.5500e-003	4.0000e-005	3.5400e-003	2.0000e-005	3.5700e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.3949	2.3949	9.0000e-005	0.0000	2.3967
Total	5.8000e-004	8.4000e-004	8.5500e-003	4.0000e-005	3.5400e-003	2.0000e-005	3.5700e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.3949	2.3949	9.0000e-005	0.0000	2.3967

3.4 Paving - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1200e-003	0.0847	0.1469	2.3000e-004		4.1200e-003	4.1200e-003		3.7900e-003	3.7900e-003	0.0000	20.2850	20.2850	6.5600e-003	0.0000	20.4228
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.1200e-003	0.0847	0.1469	2.3000e-004		4.1200e-003	4.1200e-003		3.7900e-003	3.7900e-003	0.0000	20.2850	20.2850	6.5600e-003	0.0000	20.4228

3.4 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	4.3000e-004	4.3800e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.2253	1.2253	4.0000e-005	0.0000	1.2262
Total	3.0000e-004	4.3000e-004	4.3800e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.2253	1.2253	4.0000e-005	0.0000	1.2262

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.3600e-003	0.2027	0.1753	2.3000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	20.2850	20.2850	6.5600e-003	0.0000	20.4228
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.3600e-003	0.2027	0.1753	2.3000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	20.2850	20.2850	6.5600e-003	0.0000	20.4228

3.4 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	4.3000e-004	4.3800e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.2253	1.2253	4.0000e-005	0.0000	1.2262
Total	3.0000e-004	4.3000e-004	4.3800e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.2253	1.2253	4.0000e-005	0.0000	1.2262

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1341	1.2224	1.5811	2.6400e-003		0.0517	0.0517		0.0487	0.0487	0.0000	227.4949	227.4949	0.0534	0.0000	228.6162
Total	0.1341	1.2224	1.5811	2.6400e-003		0.0517	0.0517		0.0487	0.0487	0.0000	227.4949	227.4949	0.0534	0.0000	228.6162

3.5 Building Construction - 2025**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0948	0.6412	1.4536	3.8300e-003	0.1148	0.0199	0.1347	0.0329	0.0183	0.0512	0.0000	325.6902	325.6902	2.0400e-003	0.0000	325.7330
Worker	0.1129	0.1624	1.6561	7.7700e-003	0.6864	4.3600e-003	0.6908	0.1823	4.0500e-003	0.1863	0.0000	463.7401	463.7401	0.0168	0.0000	464.0925
Total	0.2077	0.8035	3.1097	0.0116	0.8012	0.0243	0.8255	0.2151	0.0224	0.2375	0.0000	789.4303	789.4303	0.0188	0.0000	789.8255

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1048	2.1381	1.7432	2.6400e-003		0.0628	0.0628		0.0623	0.0623	0.0000	227.4946	227.4946	0.0534	0.0000	228.6159
Total	0.1048	2.1381	1.7432	2.6400e-003		0.0628	0.0628		0.0623	0.0623	0.0000	227.4946	227.4946	0.0534	0.0000	228.6159

3.5 Building Construction - 2025**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0948	0.6412	1.4536	3.8300e-003	0.1148	0.0199	0.1347	0.0329	0.0183	0.0512	0.0000	325.6902	325.6902	2.0400e-003	0.0000	325.7330
Worker	0.1129	0.1624	1.6561	7.7700e-003	0.6864	4.3600e-003	0.6908	0.1823	4.0500e-003	0.1863	0.0000	463.7401	463.7401	0.0168	0.0000	464.0925
Total	0.2077	0.8035	3.1097	0.0116	0.8012	0.0243	0.8255	0.2151	0.0224	0.2375	0.0000	789.4303	789.4303	0.0188	0.0000	789.8255

3.5 Building Construction - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874

3.5 Building Construction - 2026**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1220	0.8247	1.8963	5.0700e-003	0.1521	0.0253	0.1774	0.0435	0.0233	0.0668	0.0000	431.4007	431.4007	2.6200e-003	0.0000	431.4558
Worker	0.1435	0.2068	2.1144	0.0103	0.9094	5.8400e-003	0.9152	0.2415	5.4100e-003	0.2469	0.0000	608.4317	608.4317	0.0217	0.0000	608.8865
Total	0.2655	1.0315	4.0107	0.0154	1.0615	0.0311	1.0926	0.2850	0.0287	0.3137	0.0000	1,039.8324	1,039.8324	0.0243	0.0000	1,040.3423

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1389	2.8327	2.3095	3.5000e-003		0.0832	0.0832		0.0826	0.0826	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	0.1389	2.8327	2.3095	3.5000e-003		0.0832	0.0832		0.0826	0.0826	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871

3.5 Building Construction - 2026**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1220	0.8247	1.8963	5.0700e-003	0.1521	0.0253	0.1774	0.0435	0.0233	0.0668	0.0000	431.4007	431.4007	2.6200e-003	0.0000	431.4558
Worker	0.1435	0.2068	2.1144	0.0103	0.9094	5.8400e-003	0.9152	0.2415	5.4100e-003	0.2469	0.0000	608.4317	608.4317	0.0217	0.0000	608.8865
Total	0.2655	1.0315	4.0107	0.0154	1.0615	0.0311	1.0926	0.2850	0.0287	0.3137	0.0000	1,039.8324	1,039.8324	0.0243	0.0000	1,040.3423

3.5 Building Construction - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1212	0.8189	1.8891	5.0700e-003	0.1521	0.0254	0.1775	0.0435	0.0233	0.0669	0.0000	431.4168	431.4168	2.6300e-003	0.0000	431.4720
Worker	0.1379	0.1994	2.0447	0.0103	0.9094	5.8800e-003	0.9153	0.2415	5.4600e-003	0.2469	0.0000	603.3166	603.3166	0.0211	0.0000	603.7605
Total	0.2590	1.0183	3.9338	0.0154	1.0615	0.0312	1.0928	0.2850	0.0288	0.3138	0.0000	1,034.7334	1,034.7334	0.0238	0.0000	1,035.2325

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1389	2.8327	2.3095	3.5000e-003		0.0832	0.0832		0.0826	0.0826	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	0.1389	2.8327	2.3095	3.5000e-003		0.0832	0.0832		0.0826	0.0826	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871

3.5 Building Construction - 2027**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1212	0.8189	1.8891	5.0700e-003	0.1521	0.0254	0.1775	0.0435	0.0233	0.0669	0.0000	431.4168	431.4168	2.6300e-003	0.0000	431.4720
Worker	0.1379	0.1994	2.0447	0.0103	0.9094	5.8800e-003	0.9153	0.2415	5.4600e-003	0.2469	0.0000	603.3166	603.3166	0.0211	0.0000	603.7605
Total	0.2590	1.0183	3.9338	0.0154	1.0615	0.0312	1.0928	0.2850	0.0288	0.3138	0.0000	1,034.7334	1,034.7334	0.0238	0.0000	1,035.2325

3.5 Building Construction - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1770	1.6133	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642	0.0000	300.2471	300.2471	0.0705	0.0000	301.7269
Total	0.1770	1.6133	2.0867	3.4900e-003		0.0683	0.0683		0.0642	0.0642	0.0000	300.2471	300.2471	0.0705	0.0000	301.7269

3.5 Building Construction - 2028**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1192	0.8085	1.8688	5.0500e-003	0.1516	0.0251	0.1767	0.0434	0.0231	0.0665	0.0000	429.7451	429.7451	2.6100e-003	0.0000	429.7998
Worker	0.1322	0.1921	1.9772	0.0103	0.9059	5.9000e-003	0.9118	0.2406	5.4800e-003	0.2460	0.0000	596.6767	596.6767	0.0206	0.0000	597.1094
Total	0.2515	1.0005	3.8460	0.0153	1.0575	0.0310	1.0885	0.2839	0.0286	0.3125	0.0000	1,026.4217	1,026.4217	0.0232	0.0000	1,026.9092

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1383	2.8218	2.3007	3.4900e-003		0.0829	0.0829		0.0823	0.0823	0.0000	300.2467	300.2467	0.0705	0.0000	301.7266
Total	0.1383	2.8218	2.3007	3.4900e-003		0.0829	0.0829		0.0823	0.0823	0.0000	300.2467	300.2467	0.0705	0.0000	301.7266

3.5 Building Construction - 2028**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1192	0.8085	1.8688	5.0500e-003	0.1516	0.0251	0.1767	0.0434	0.0231	0.0665	0.0000	429.7451	429.7451	2.6100e-003	0.0000	429.7998
Worker	0.1322	0.1921	1.9772	0.0103	0.9059	5.9000e-003	0.9118	0.2406	5.4800e-003	0.2460	0.0000	596.6767	596.6767	0.0206	0.0000	597.1094
Total	0.2515	1.0005	3.8460	0.0153	1.0575	0.0310	1.0885	0.2839	0.0286	0.3125	0.0000	1,026.4217	1,026.4217	0.0232	0.0000	1,026.9092

3.5 Building Construction - 2029**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874
Total	0.1777	1.6195	2.0948	3.5000e-003		0.0685	0.0685		0.0645	0.0645	0.0000	301.4019	301.4019	0.0707	0.0000	302.8874

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1188	0.8083	1.8680	5.0700e-003	0.1521	0.0252	0.1774	0.0435	0.0232	0.0667	0.0000	431.3927	431.3927	2.6200e-003	0.0000	431.4477
Worker	0.1277	0.1866	1.9279	0.0103	0.9094	5.9600e-003	0.9153	0.2415	5.5300e-003	0.2470	0.0000	595.2822	595.2822	0.0203	0.0000	595.7075
Total	0.2465	0.9949	3.7959	0.0154	1.0615	0.0312	1.0927	0.2850	0.0287	0.3137	0.0000	1,026.6749	1,026.6749	0.0229	0.0000	1,027.1552

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1389	2.8327	2.3095	3.5000e-003		0.0832	0.0832		0.0826	0.0826	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871
Total	0.1389	2.8327	2.3095	3.5000e-003		0.0832	0.0832		0.0826	0.0826	0.0000	301.4015	301.4015	0.0707	0.0000	302.8871

3.5 Building Construction - 2029**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1188	0.8083	1.8680	5.0700e-003	0.1521	0.0252	0.1774	0.0435	0.0232	0.0667	0.0000	431.3927	431.3927	2.6200e-003	0.0000	431.4477
Worker	0.1277	0.1866	1.9279	0.0103	0.9094	5.9600e-003	0.9153	0.2415	5.5300e-003	0.2470	0.0000	595.2822	595.2822	0.0203	0.0000	595.7075
Total	0.2465	0.9949	3.7959	0.0154	1.0615	0.0312	1.0927	0.2850	0.0287	0.3137	0.0000	1,026.6749	1,026.6749	0.0229	0.0000	1,027.1552

3.5 Building Construction - 2030**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160

3.5 Building Construction - 2030**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1180	0.8056	1.8648	5.0700e-003	0.1522	0.0253	0.1774	0.0435	0.0233	0.0668	0.0000	431.3908	431.3908	2.6200e-003	0.0000	431.4459
Worker	0.1230	0.1808	1.8778	0.0103	0.9094	5.9800e-003	0.9154	0.2415	5.5500e-003	0.2470	0.0000	592.1712	592.1712	0.0199	0.0000	592.5881
Total	0.2410	0.9865	3.7426	0.0154	1.0615	0.0313	1.0928	0.2850	0.0288	0.3138	0.0000	1,023.5620	1,023.5620	0.0225	0.0000	1,024.0340

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1444	2.7906	2.3254	4.0200e-003		0.0784	0.0784		0.0784	0.0784	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	0.1444	2.7906	2.3254	4.0200e-003		0.0784	0.0784		0.0784	0.0784	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156

3.5 Building Construction - 2030**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1180	0.8056	1.8648	5.0700e-003	0.1522	0.0253	0.1774	0.0435	0.0233	0.0668	0.0000	431.3908	431.3908	2.6200e-003	0.0000	431.4459
Worker	0.1230	0.1808	1.8778	0.0103	0.9094	5.9800e-003	0.9154	0.2415	5.5500e-003	0.2470	0.0000	592.1712	592.1712	0.0199	0.0000	592.5881
Total	0.2410	0.9865	3.7426	0.0154	1.0615	0.0313	1.0928	0.2850	0.0288	0.3138	0.0000	1,023.5620	1,023.5620	0.0225	0.0000	1,024.0340

3.5 Building Construction - 2031**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160

3.5 Building Construction - 2031**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1181	0.8050	1.8595	5.0800e-003	0.1522	0.0249	0.1771	0.0436	0.0229	0.0664	0.0000	432.2940	432.2940	2.6600e-003	0.0000	432.3498
Worker	0.1188	0.1757	1.8466	0.0103	0.9094	6.0100e-003	0.9154	0.2415	5.5800e-003	0.2471	0.0000	589.4610	589.4610	0.0196	0.0000	589.8724
Total	0.2368	0.9806	3.7061	0.0154	1.0616	0.0309	1.0925	0.2850	0.0285	0.3135	0.0000	1,021.7550	1,021.7550	0.0223	0.0000	1,022.2222

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1444	2.7906	2.3254	4.0200e-003		0.0784	0.0784		0.0784	0.0784	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	0.1444	2.7906	2.3254	4.0200e-003		0.0784	0.0784		0.0784	0.0784	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156

3.5 Building Construction - 2031**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1181	0.8050	1.8595	5.0800e-003	0.1522	0.0249	0.1771	0.0436	0.0229	0.0664	0.0000	432.2940	432.2940	2.6600e-003	0.0000	432.3498
Worker	0.1188	0.1757	1.8466	0.0103	0.9094	6.0100e-003	0.9154	0.2415	5.5800e-003	0.2471	0.0000	589.4610	589.4610	0.0196	0.0000	589.8724
Total	0.2368	0.9806	3.7061	0.0154	1.0616	0.0309	1.0925	0.2850	0.0285	0.3135	0.0000	1,021.7550	1,021.7550	0.0223	0.0000	1,022.2222

3.5 Building Construction - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0372	2.1132	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	342.8367	342.8367	0.0138	0.0000	343.1257
Total	0.1708	1.0372	2.1132	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	342.8367	342.8367	0.0138	0.0000	343.1257

3.5 Building Construction - 2032**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1179	0.8063	1.8657	5.1100e-003	0.1529	0.0250	0.1779	0.0438	0.0230	0.0668	0.0000	434.1547	434.1547	2.6700e-003	0.0000	434.2107
Worker	0.1145	0.1717	1.8146	0.0103	0.9129	6.0400e-003	0.9189	0.2424	5.6100e-003	0.2480	0.0000	589.5558	589.5558	0.0194	0.0000	589.9622
Total	0.2325	0.9780	3.6804	0.0154	1.0657	0.0311	1.0968	0.2862	0.0286	0.3148	0.0000	1,023.7105	1,023.7105	0.0220	0.0000	1,024.1729

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1449	2.8013	2.3343	4.0400e-003		0.0787	0.0787		0.0787	0.0787	0.0000	342.8363	342.8363	0.0138	0.0000	343.1252
Total	0.1449	2.8013	2.3343	4.0400e-003		0.0787	0.0787		0.0787	0.0787	0.0000	342.8363	342.8363	0.0138	0.0000	343.1252

3.5 Building Construction - 2032**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1179	0.8063	1.8657	5.1100e-003	0.1529	0.0250	0.1779	0.0438	0.0230	0.0668	0.0000	434.1547	434.1547	2.6700e-003	0.0000	434.2107
Worker	0.1145	0.1717	1.8146	0.0103	0.9129	6.0400e-003	0.9189	0.2424	5.6100e-003	0.2480	0.0000	589.5558	589.5558	0.0194	0.0000	589.9622
Total	0.2325	0.9780	3.6804	0.0154	1.0657	0.0311	1.0968	0.2862	0.0286	0.3148	0.0000	1,023.7105	1,023.7105	0.0220	0.0000	1,024.1729

3.5 Building Construction - 2033**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1695	1.0293	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2196	340.2196	0.0137	0.0000	340.5064
Total	0.1695	1.0293	2.0971	4.0100e-003		0.0192	0.0192		0.0192	0.0192	0.0000	340.2196	340.2196	0.0137	0.0000	340.5064

3.5 Building Construction - 2033**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1168	0.7985	1.8528	5.0700e-003	0.1518	0.0249	0.1766	0.0435	0.0229	0.0663	0.0000	431.0226	431.0226	2.6500e-003	0.0000	431.0783
Worker	0.1097	0.1665	1.7682	0.0103	0.9059	6.0000e-003	0.9119	0.2406	5.5700e-003	0.2461	0.0000	583.2688	583.2688	0.0189	0.0000	583.6663
Total	0.2264	0.9650	3.6210	0.0153	1.0577	0.0309	1.0885	0.2840	0.0285	0.3125	0.0000	1,014.2914	1,014.2914	0.0216	0.0000	1,014.7446

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1438	2.7799	2.3165	4.0100e-003		0.0781	0.0781		0.0781	0.0781	0.0000	340.2192	340.2192	0.0137	0.0000	340.5060
Total	0.1438	2.7799	2.3165	4.0100e-003		0.0781	0.0781		0.0781	0.0781	0.0000	340.2192	340.2192	0.0137	0.0000	340.5060

3.5 Building Construction - 2033**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1168	0.7985	1.8528	5.0700e-003	0.1518	0.0249	0.1766	0.0435	0.0229	0.0663	0.0000	431.0226	431.0226	2.6500e-003	0.0000	431.0783
Worker	0.1097	0.1665	1.7682	0.0103	0.9059	6.0000e-003	0.9119	0.2406	5.5700e-003	0.2461	0.0000	583.2688	583.2688	0.0189	0.0000	583.6663
Total	0.2264	0.9650	3.6210	0.0153	1.0577	0.0309	1.0885	0.2840	0.0285	0.3125	0.0000	1,014.2914	1,014.2914	0.0216	0.0000	1,014.7446

3.5 Building Construction - 2034**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1598	0.9699	1.9761	3.7800e-003		0.0181	0.0181		0.0181	0.0181	0.0000	320.5915	320.5915	0.0129	0.0000	320.8618
Total	0.1598	0.9699	1.9761	3.7800e-003		0.0181	0.0181		0.0181	0.0181	0.0000	320.5915	320.5915	0.0129	0.0000	320.8618

3.5 Building Construction - 2034**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1088	0.7509	1.7434	4.7800e-003	0.1430	0.0235	0.1666	0.0410	0.0216	0.0626	0.0000	406.3000	406.3000	2.5000e-003	0.0000	406.3526
Worker	0.1000	0.1538	1.6365	9.6600e-003	0.8536	5.6500e-003	0.8593	0.2267	5.2500e-003	0.2319	0.0000	548.1937	548.1937	0.0176	0.0000	548.5631
Total	0.2088	0.9047	3.3798	0.0144	0.9967	0.0292	1.0258	0.2676	0.0269	0.2945	0.0000	954.4937	954.4937	0.0201	0.0000	954.9157

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1355	2.6195	2.1828	3.7800e-003		0.0736	0.0736		0.0736	0.0736	0.0000	320.5912	320.5912	0.0129	0.0000	320.8614
Total	0.1355	2.6195	2.1828	3.7800e-003		0.0736	0.0736		0.0736	0.0736	0.0000	320.5912	320.5912	0.0129	0.0000	320.8614

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1088	0.7509	1.7434	4.7800e-003	0.1430	0.0235	0.1666	0.0410	0.0216	0.0626	0.0000	406.3000	406.3000	2.5000e-003	0.0000	406.3526
Worker	0.1000	0.1538	1.6365	9.6600e-003	0.8536	5.6500e-003	0.8593	0.2267	5.2500e-003	0.2319	0.0000	548.1937	548.1937	0.0176	0.0000	548.5631
Total	0.2088	0.9047	3.3798	0.0144	0.9967	0.0292	1.0258	0.2676	0.0269	0.2945	0.0000	954.4937	954.4937	0.0201	0.0000	954.9157

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7575					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0130	0.0871	0.1375	2.3000e-004		3.9100e-003	3.9100e-003		3.9100e-003	3.9100e-003	0.0000	19.4047	19.4047	1.0600e-003	0.0000	19.4270
Total	0.7705	0.0871	0.1375	2.3000e-004		3.9100e-003	3.9100e-003		3.9100e-003	3.9100e-003	0.0000	19.4047	19.4047	1.0600e-003	0.0000	19.4270

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0175	0.0251	0.2560	1.2000e-003	0.1061	6.7000e-004	0.1068	0.0282	6.3000e-004	0.0288	0.0000	71.6748	71.6748	2.5900e-003	0.0000	71.7293
Total	0.0175	0.0251	0.2560	1.2000e-003	0.1061	6.7000e-004	0.1068	0.0282	6.3000e-004	0.0288	0.0000	71.6748	71.6748	2.5900e-003	0.0000	71.7293

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7575					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6600e-003	0.1788	0.1393	2.3000e-004		5.4200e-003	5.4200e-003		5.4200e-003	5.4200e-003	0.0000	19.4047	19.4047	1.0600e-003	0.0000	19.4269
Total	0.7662	0.1788	0.1393	2.3000e-004		5.4200e-003	5.4200e-003		5.4200e-003	5.4200e-003	0.0000	19.4047	19.4047	1.0600e-003	0.0000	19.4269

3.6 Architectural Coating - 2025**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0175	0.0251	0.2560	1.2000e-003	0.1061	6.7000e-004	0.1068	0.0282	6.3000e-004	0.0288	0.0000	71.6748	71.6748	2.5900e-003	0.0000	71.7293
Total	0.0175	0.0251	0.2560	1.2000e-003	0.1061	6.7000e-004	0.1068	0.0282	6.3000e-004	0.0288	0.0000	71.6748	71.6748	2.5900e-003	0.0000	71.7293

3.6 Architectural Coating - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3581
Total	1.3230	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3581

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0287	0.0414	0.4236	2.0600e-003	0.1822	1.1700e-003	0.1833	0.0484	1.0800e-003	0.0495	0.0000	121.8783	121.8783	4.3400e-003	0.0000	121.9694
Total	0.0287	0.0414	0.4236	2.0600e-003	0.1822	1.1700e-003	0.1833	0.0484	1.0800e-003	0.0495	0.0000	121.8783	121.8783	4.3400e-003	0.0000	121.9694

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3581
Total	1.3156	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3581

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0287	0.0414	0.4236	2.0600e-003	0.1822	1.1700e-003	0.1833	0.0484	1.0800e-003	0.0495	0.0000	121.8783	121.8783	4.3400e-003	0.0000	121.9694
Total	0.0287	0.0414	0.4236	2.0600e-003	0.1822	1.1700e-003	0.1833	0.0484	1.0800e-003	0.0495	0.0000	121.8783	121.8783	4.3400e-003	0.0000	121.9694

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3581
Total	1.3230	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3581

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0276	0.0399	0.4096	2.0600e-003	0.1822	1.1800e-003	0.1833	0.0484	1.0900e-003	0.0495	0.0000	120.8536	120.8536	4.2300e-003	0.0000	120.9426
Total	0.0276	0.0399	0.4096	2.0600e-003	0.1822	1.1800e-003	0.1833	0.0484	1.0900e-003	0.0495	0.0000	120.8536	120.8536	4.2300e-003	0.0000	120.9426

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3581
Total	1.3156	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3581

3.6 Architectural Coating - 2027**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0276	0.0399	0.4096	2.0600e-003	0.1822	1.1800e-003	0.1833	0.0484	1.0900e-003	0.0495	0.0000	120.8536	120.8536	4.2300e-003	0.0000	120.9426
Total	0.0276	0.0399	0.4096	2.0600e-003	0.1822	1.1800e-003	0.1833	0.0484	1.0900e-003	0.0495	0.0000	120.8536	120.8536	4.2300e-003	0.0000	120.9426

3.6 Architectural Coating - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303
Total	1.3180	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0265	0.0385	0.3961	2.0500e-003	0.1815	1.1800e-003	0.1827	0.0482	1.1000e-003	0.0493	0.0000	119.5236	119.5236	4.1300e-003	0.0000	119.6102
Total	0.0265	0.0385	0.3961	2.0500e-003	0.1815	1.1800e-003	0.1827	0.0482	1.1000e-003	0.0493	0.0000	119.5236	119.5236	4.1300e-003	0.0000	119.6102

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.3058	0.2382	3.9000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303
Total	1.3106	0.3058	0.2382	3.9000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0265	0.0385	0.3961	2.0500e-003	0.1815	1.1800e-003	0.1827	0.0482	1.1000e-003	0.0493	0.0000	119.5236	119.5236	4.1300e-003	0.0000	119.6102
Total	0.0265	0.0385	0.3961	2.0500e-003	0.1815	1.1800e-003	0.1827	0.0482	1.1000e-003	0.0493	0.0000	119.5236	119.5236	4.1300e-003	0.0000	119.6102

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3581
Total	1.3230	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3581

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0256	0.0374	0.3862	2.0600e-003	0.1822	1.1900e-003	0.1834	0.0484	1.1100e-003	0.0495	0.0000	119.2442	119.2442	4.0600e-003	0.0000	119.3294
Total	0.0256	0.0374	0.3862	2.0600e-003	0.1822	1.1900e-003	0.1834	0.0484	1.1100e-003	0.0495	0.0000	119.2442	119.2442	4.0600e-003	0.0000	119.3294

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3581
Total	1.3156	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3581

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0256	0.0374	0.3862	2.0600e-003	0.1822	1.1900e-003	0.1834	0.0484	1.1100e-003	0.0495	0.0000	119.2442	119.2442	4.0600e-003	0.0000	119.3294
Total	0.0256	0.0374	0.3862	2.0600e-003	0.1822	1.1900e-003	0.1834	0.0484	1.1100e-003	0.0495	0.0000	119.2442	119.2442	4.0600e-003	0.0000	119.3294

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3483
Total	1.3178	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3483

3.6 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0246	0.0362	0.3762	2.0600e-003	0.1822	1.2000e-003	0.1834	0.0484	1.1100e-003	0.0495	0.0000	118.6210	118.6210	3.9800e-003	0.0000	118.7046
Total	0.0246	0.0362	0.3762	2.0600e-003	0.1822	1.2000e-003	0.1834	0.0484	1.1100e-003	0.0495	0.0000	118.6210	118.6210	3.9800e-003	0.0000	118.7046

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3482
Total	1.3156	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3482

3.6 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0246	0.0362	0.3762	2.0600e-003	0.1822	1.2000e-003	0.1834	0.0484	1.1100e-003	0.0495	0.0000	118.6210	118.6210	3.9800e-003	0.0000	118.7046
Total	0.0246	0.0362	0.3762	2.0600e-003	0.1822	1.2000e-003	0.1834	0.0484	1.1100e-003	0.0495	0.0000	118.6210	118.6210	3.9800e-003	0.0000	118.7046

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3483
Total	1.3178	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3483

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0238	0.0352	0.3699	2.0600e-003	0.1822	1.2000e-003	0.1834	0.0484	1.1200e-003	0.0495	0.0000	118.0781	118.0781	3.9200e-003	0.0000	118.1606
Total	0.0238	0.0352	0.3699	2.0600e-003	0.1822	1.2000e-003	0.1834	0.0484	1.1200e-003	0.0495	0.0000	118.0781	118.0781	3.9200e-003	0.0000	118.1606

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3482
Total	1.3156	0.3070	0.2391	3.9000e-004		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3482

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0238	0.0352	0.3699	2.0600e-003	0.1822	1.2000e-003	0.1834	0.0484	1.1200e-003	0.0495	0.0000	118.0781	118.0781	3.9200e-003	0.0000	118.1606
Total	0.0238	0.0352	0.3699	2.0600e-003	0.1822	1.2000e-003	0.1834	0.0484	1.1200e-003	0.0495	0.0000	118.0781	118.0781	3.9200e-003	0.0000	118.1606

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4761
Total	1.3229	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4761

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0229	0.0344	0.3635	2.0700e-003	0.1829	1.2100e-003	0.1841	0.0486	1.1200e-003	0.0497	0.0000	118.0971	118.0971	3.8800e-003	0.0000	118.1785
Total	0.0229	0.0344	0.3635	2.0700e-003	0.1829	1.2100e-003	0.1841	0.0486	1.1200e-003	0.0497	0.0000	118.0971	118.0971	3.8800e-003	0.0000	118.1785

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.3082	0.2401	3.9000e-004		9.3400e-003	9.3400e-003		9.3400e-003	9.3400e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4760
Total	1.3206	0.3082	0.2401	3.9000e-004		9.3400e-003	9.3400e-003		9.3400e-003	9.3400e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4760

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0229	0.0344	0.3635	2.0700e-003	0.1829	1.2100e-003	0.1841	0.0486	1.1200e-003	0.0497	0.0000	118.0971	118.0971	3.8800e-003	0.0000	118.1785
Total	0.0229	0.0344	0.3635	2.0700e-003	0.1829	1.2100e-003	0.1841	0.0486	1.1200e-003	0.0497	0.0000	118.0971	118.0971	3.8800e-003	0.0000	118.1785

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	1.3128	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0220	0.0334	0.3542	2.0500e-003	0.1815	1.2000e-003	0.1827	0.0482	1.1200e-003	0.0493	0.0000	116.8378	116.8378	3.7900e-003	0.0000	116.9174
Total	0.0220	0.0334	0.3542	2.0500e-003	0.1815	1.2000e-003	0.1827	0.0482	1.1200e-003	0.0493	0.0000	116.8378	116.8378	3.7900e-003	0.0000	116.9174

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.3058	0.2382	3.9000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	1.3106	0.3058	0.2382	3.9000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0220	0.0334	0.3542	2.0500e-003	0.1815	1.2000e-003	0.1827	0.0482	1.1200e-003	0.0493	0.0000	116.8378	116.8378	3.7900e-003	0.0000	116.9174
Total	0.0220	0.0334	0.3542	2.0500e-003	0.1815	1.2000e-003	0.1827	0.0482	1.1200e-003	0.0493	0.0000	116.8378	116.8378	3.7900e-003	0.0000	116.9174

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0162	0.1058	0.2220	3.7000e-004		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	31.5327	31.5327	1.2800e-003	0.0000	31.5595
Total	1.2471	0.1058	0.2220	3.7000e-004		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	31.5327	31.5327	1.2800e-003	0.0000	31.5595

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0202	0.0311	0.3305	1.9500e-003	0.1724	1.1400e-003	0.1735	0.0458	1.0600e-003	0.0468	0.0000	110.7081	110.7081	3.5500e-003	0.0000	110.7827
Total	0.0202	0.0311	0.3305	1.9500e-003	0.1724	1.1400e-003	0.1735	0.0458	1.0600e-003	0.0468	0.0000	110.7081	110.7081	3.5500e-003	0.0000	110.7827

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.2905	0.2263	3.7000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	31.5327	31.5327	1.2800e-003	0.0000	31.5595
Total	1.2450	0.2905	0.2263	3.7000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	31.5327	31.5327	1.2800e-003	0.0000	31.5595

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0202	0.0311	0.3305	1.9500e-003	0.1724	1.1400e-003	0.1735	0.0458	1.0600e-003	0.0468	0.0000	110.7081	110.7081	3.5500e-003	0.0000	110.7827
Total	0.0202	0.0311	0.3305	1.9500e-003	0.1724	1.1400e-003	0.1735	0.0458	1.0600e-003	0.0468	0.0000	110.7081	110.7081	3.5500e-003	0.0000	110.7827

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

[illegible]

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	13.2273	0.2087	18.0865	9.6000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409
Unmitigated	13.2273	0.2087	18.0865	9.6000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.2389					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.4476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5408	0.2087	18.0865	9.6000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409
Total	13.2273	0.2087	18.0865	9.6000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Consumer Products	11.4476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5408	0.2087	18.0865	9.6000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409
Architectural Coating	1.2389					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	13.2273	0.2087	18.0865	9.6000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	29.6482	29.6482	0.0282	0.0000	30.2409

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Construction Phase 4

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	390.00	Dwelling Unit	126.62	702,000.00	1115
Elementary School	108.00	1000sqft	2.48	108,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule is based on previous 2011 FEIR.

Off-road Equipment - Construction equipment list was obtained from the previous 2011 FEIR.

Grading - 120 acres disturbed is from 2011 FEIR.

Off-road Equipment - equipment list from FEIR.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Architectural Coating - Low VOC paint.

Vehicle Trips - No trip generation rate.

Woodstoves - None.

Consumer Products - None.

Area Coating -

Landscape Equipment - None.

Energy Use - None.

Water And Wastewater - None.

Solid Waste - None.

Construction Off-road Equipment Mitigation - All equipment will utilized Tier 2 engines with level 1 DPF. On-site watering three times daily.

Area Mitigation - No Hearth, Low VOC paint.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstEquipMitigation	DPF	No Change	Level 1

tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	220.00	170.00
tblConstructionPhase	NumDays	3,100.00	418.00
tblConstructionPhase	NumDays	310.00	44.00
tblConstructionPhase	NumDays	220.00	22.00
tblConstructionPhase	PhaseEndDate	12/28/2037	2/25/2039
tblConstructionPhase	PhaseEndDate	12/9/2038	5/4/2037
tblConstructionPhase	PhaseStartDate	5/5/2037	7/5/2038
tblConstructionPhase	PhaseStartDate	11/10/2038	4/3/2037
tblEnergyUse	LightingElect	4.20	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	1.49	0.00
tblEnergyUse	NT24E	5,089.81	0.00

tblEnergyUse	NT24NG	1.79	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	3.40	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	7.34	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblFireplaces	NumberGas	331.50	0.00
tblFireplaces	NumberWood	19.50	0.00
tblGrading	AcresOfGrading	462.00	120.00
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblSolidWaste	SolidWasteGenerationRate	140.40	0.00
tblSolidWaste	SolidWasteGenerationRate	457.15	0.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	15.43	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	3,131,667.06	0.00
tblWater	IndoorWaterUseRate	25,410,069.99	0.00
tblWater	OutdoorWaterUseRate	8,052,858.15	0.00
tblWater	OutdoorWaterUseRate	16,019,391.95	0.00

tblWoodstoves	NumberCatalytic	19.50	0.00
tblWoodstoves	NumberNoncatalytic	19.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2037	12.2838	39.0756	91.2821	0.2811	21.6874	1.2701	22.9574	10.4219	1.2701	11.6920	0.0000	30,502.5703	30,502.5703	1.0841	0.0000	30,525.3372
2038	37.3093	7.9087	17.8865	0.0338	2.4361	0.1000	2.5361	0.5980	0.1000	0.6979	0.0000	3,166.2780	3,166.2780	0.1179	0.0000	3,168.7543
2039	36.0971	0.7577	1.7943	2.9700e-003	0.3596	9.9000e-003	0.3695	0.0883	9.9000e-003	0.0982	0.0000	281.4481	281.4481	0.0104	0.0000	281.6665
Total	85.6902	47.7420	110.9629	0.3179	24.4830	1.3800	25.8630	11.1081	1.3800	12.4880	0.0000	33,950.2964	33,950.2964	1.2125	0.0000	33,975.7579

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2037	7.5597	213.5062	153.5525	0.2811	8.9026	4.1978	13.1004	4.1737	4.1978	8.3714	0.0000	30,502.5703	30,502.5703	1.0841	0.0000	30,525.3372
2038	37.1713	25.8140	19.6480	0.0338	2.4361	0.7475	3.1836	0.5980	0.7475	1.3455	0.0000	3,166.2780	3,166.2780	0.1179	0.0000	3,168.7543
2039	36.0931	2.3524	1.8324	2.9700e-003	0.3596	0.0713	0.4309	0.0883	0.0713	0.1596	0.0000	281.4481	281.4481	0.0104	0.0000	281.6665
Total	80.8241	241.6726	175.0329	0.3179	11.6983	5.0166	16.7149	4.8599	5.0166	9.8764	0.0000	33,950.2964	33,950.2964	1.2125	0.0000	33,975.7579

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	5.68	-406.21	-57.74	0.00	52.22	-263.53	35.37	56.25	-263.53	20.91	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	16.9977	0.3700	32.0734	1.7000e-003		0.1785	0.1785		0.1785	0.1785	0.0000	57.9590	57.9590	0.0552	0.0000	59.1185
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	16.9977	0.3700	32.0734	1.7000e-003	0.0000	0.1785	0.1785	0.0000	0.1785	0.1785	0.0000	57.9590	57.9590	0.0552	0.0000	59.1185

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	16.9977	0.3700	32.0734	1.7000e-003		0.1785	0.1785		0.1785	0.1785	0.0000	57.9590	57.9590	0.0552	0.0000	59.1185
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	16.9977	0.3700	32.0734	1.7000e-003	0.0000	0.1785	0.1785	0.0000	0.1785	0.1785	0.0000	57.9590	57.9590	0.0552	0.0000	59.1185

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2037	3/3/2037	5	44	
2	Trenching	Trenching	3/4/2037	4/2/2037	5	22	
3	Building Construction	Building Construction	4/3/2037	11/9/2038	5	418	
4	Paving	Paving	4/3/2037	5/4/2037	5	22	
5	Architectural Coating	Architectural Coating	7/5/2038	2/25/2039	5	170	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 120

Acres of Paving: 0

Residential Indoor: 1,421,550; Residential Outdoor: 473,850; Non-Residential Indoor: 162,000; Non-Residential Outdoor: 54,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Off-Highway Trucks	3	8.00	400	0.38
Trenching	Excavators	4	8.00	162	0.38
Grading	Excavators	3	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Trenching	Other General Industrial Equipment	2	8.00	87	0.34
Grading	Rubber Tired Dozers	3	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	3	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	9	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Grading	Scrapers	9	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	30	75.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	186.00	59.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	37.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.9585	0.0000	20.9585	10.2430	0.0000	10.2430			0.0000			0.0000
Off-Road	12.2838	39.0756	91.2821	0.2811		1.2701	1.2701		1.2701	1.2701		30,502.5703	30,502.5703	1.0841		30,525.3372
Total	12.2838	39.0756	91.2821	0.2811	20.9585	1.2701	22.2286	10.2430	1.2701	11.5131		30,502.5703	30,502.5703	1.0841		30,525.3372

3.2 Grading - 2037**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.7288	0.0000	0.7288	0.1789	0.0000	0.1789			0.0000			0.0000
Total					0.7288	0.0000	0.7288	0.1789	0.0000	0.1789			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1738	0.0000	8.1738	3.9948	0.0000	3.9948			0.0000			0.0000
Off-Road	7.5597	213.5062	153.5525	0.2811		4.1978	4.1978		4.1978	4.1978	0.0000	30,502.5703	30,502.5703	1.0841		30,525.3372
Total	7.5597	213.5062	153.5525	0.2811	8.1738	4.1978	12.3716	3.9948	4.1978	8.1925	0.0000	30,502.5703	30,502.5703	1.0841		30,525.3372

3.2 Grading - 2037**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.7288	0.0000	0.7288	0.1789	0.0000	0.1789			0.0000			0.0000
Total					0.7288	0.0000	0.7288	0.1789	0.0000	0.1789			0.0000			0.0000

3.3 Trenching - 2037**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1498	3.2202	18.5640	0.0323		0.0881	0.0881		0.0881	0.0881		3,061.0493	3,061.0493	0.0999		3,063.1475
Total	1.1498	3.2202	18.5640	0.0323		0.0881	0.0881		0.0881	0.0881		3,061.0493	3,061.0493	0.0999		3,063.1475

3.3 Trenching - 2037**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.1458	0.0000	0.1458	0.0358	0.0000	0.0358			0.0000			0.0000
Total					0.1458	0.0000	0.1458	0.0358	0.0000	0.0358			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0651	23.0662	19.9294	0.0323		0.5672	0.5672		0.5672	0.5672	0.0000	3,061.0493	3,061.0493	0.0999		3,063.1475
Total	1.0651	23.0662	19.9294	0.0323		0.5672	0.5672		0.5672	0.5672	0.0000	3,061.0493	3,061.0493	0.0999		3,063.1475

3.3 Trenching - 2037**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.1458	0.0000	0.1458	0.0358	0.0000	0.0358			0.0000			0.0000
Total					0.1458	0.0000	0.1458	0.0358	0.0000	0.0358			0.0000			0.0000

3.4 Building Construction - 2037**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878
Total	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878

3.4 Building Construction - 2037**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2691	0.0000	0.2691	0.0661	0.0000	0.0661			0.0000			0.0000
Worker					1.8075	0.0000	1.8075	0.4437	0.0000	0.4437			0.0000			0.0000
Total					2.0766	0.0000	2.0766	0.5097	0.0000	0.5097			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878
Total	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878

3.4 Building Construction - 2037**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2691	0.0000	0.2691	0.0661	0.0000	0.0661			0.0000			0.0000
Worker					1.8075	0.0000	1.8075	0.4437	0.0000	0.4437			0.0000			0.0000
Total					2.0766	0.0000	2.0766	0.5097	0.0000	0.5097			0.0000			0.0000

3.4 Building Construction - 2038**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878
Total	1.2123	7.1510	16.0922	0.0308		0.0901	0.0901		0.0901	0.0901		2,884.8300	2,884.8300	0.1075		2,887.0878

3.4 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2691	0.0000	0.2691	0.0661	0.0000	0.0661			0.0000			0.0000
Worker					1.8075	0.0000	1.8075	0.4437	0.0000	0.4437			0.0000			0.0000
Total					2.0766	0.0000	2.0766	0.5097	0.0000	0.5097			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878
Total	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8300	2,884.8300	0.1075		2,887.0878

3.4 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2691	0.0000	0.2691	0.0661	0.0000	0.0661			0.0000			0.0000
Worker					1.8075	0.0000	1.8075	0.4437	0.0000	0.4437			0.0000			0.0000
Total					2.0766	0.0000	2.0766	0.5097	0.0000	0.5097			0.0000			0.0000

3.5 Paving - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1165	4.7892	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832		2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1165	4.7892	15.4905	0.0275		0.1832	0.1832		0.1832	0.1832		2,599.9866	2,599.9866	0.1001		2,602.0881

3.5 Paving - 2037**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.1458	0.0000	0.1458	0.0358	0.0000	0.0358			0.0000			0.0000
Total					0.1458	0.0000	0.1458	0.0358	0.0000	0.0358			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9122	19.6998	16.9276	0.0275		0.4907	0.4907		0.4907	0.4907	0.0000	2,599.9866	2,599.9866	0.1001		2,602.0881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9122	19.6998	16.9276	0.0275		0.4907	0.4907		0.4907	0.4907	0.0000	2,599.9866	2,599.9866	0.1001		2,602.0881

3.5 Paving - 2037**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.1458	0.0000	0.1458	0.0358	0.0000	0.0358			0.0000			0.0000
Total					0.1458	0.0000	0.1458	0.0358	0.0000	0.0358			0.0000			0.0000

3.6 Architectural Coating - 2038**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.9792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	36.0971	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665

3.6 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.3596	0.0000	0.3596	0.0883	0.0000	0.0883			0.0000			0.0000
Total					0.3596	0.0000	0.3596	0.0883	0.0000	0.0883			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.9792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0104		281.6665
Total	36.0931	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0104		281.6665

3.6 Architectural Coating - 2038**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.3596	0.0000	0.3596	0.0883	0.0000	0.0883			0.0000			0.0000
Total					0.3596	0.0000	0.3596	0.0883	0.0000	0.0883			0.0000			0.0000

3.6 Architectural Coating - 2039**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.9792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	36.0971	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665

3.6 Architectural Coating - 2039**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.3596	0.0000	0.3596	0.0883	0.0000	0.0883			0.0000			0.0000
Total					0.3596	0.0000	0.3596	0.0883	0.0000	0.0883			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.9792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0104		281.6665
Total	36.0931	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	0.0104		281.6665

3.6 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.3596	0.0000	0.3596	0.0883	0.0000	0.0883			0.0000			0.0000
Total					0.3596	0.0000	0.3596	0.0883	0.0000	0.0883			0.0000			0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	16.9977	0.3700	32.0734	1.7000e-003		0.1785	0.1785		0.1785	0.1785	0.0000	57.9590	57.9590	0.0552	0.0000	59.1185
Unmitigated	16.9977	0.3700	32.0734	1.7000e-003		0.1785	0.1785		0.1785	0.1785	0.0000	57.9590	57.9590	0.0552	0.0000	59.1185

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.0380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9597	0.3700	32.0734	1.7000e-003		0.1785	0.1785		0.1785	0.1785		57.9590	57.9590	0.0552		59.1185
Total	16.9977	0.3700	32.0734	1.7000e-003		0.1785	0.1785		0.1785	0.1785	0.0000	57.9590	57.9590	0.0552	0.0000	59.1185

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.0380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9597	0.3700	32.0734	1.7000e-003		0.1785	0.1785		0.1785	0.1785		57.9590	57.9590	0.0552		59.1185
Total	16.9977	0.3700	32.0734	1.7000e-003		0.1785	0.1785		0.1785	0.1785	0.0000	57.9590	57.9590	0.0552	0.0000	59.1185

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Construction Phase 4

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	390.00	Dwelling Unit	126.62	702,000.00	1115
Elementary School	108.00	1000sqft	2.48	108,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule is based on previous 2011 FEIR.

Off-road Equipment - Construction equipment list was obtained from the previous 2011 FEIR.

Grading - 120 acres disturbed is from 2011 FEIR.

Off-road Equipment - equipment list from FEIR.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Architectural Coating - Low VOC paint.

Vehicle Trips - No trip generation rate.

Woodstoves - None.

Consumer Products - None.

Area Coating -

Landscape Equipment - None.

Energy Use - None.

Water And Wastewater - None.

Solid Waste - None.

Construction Off-road Equipment Mitigation - All equipment will utilized Tier 2 engines with level 1 DPF. On-site watering three times daily.

Area Mitigation - No Hearth, Low VOC paint.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstEquipMitigation	DPF	No Change	Level 1

tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	220.00	170.00
tblConstructionPhase	NumDays	3,100.00	418.00
tblConstructionPhase	NumDays	310.00	44.00
tblConstructionPhase	NumDays	220.00	22.00
tblConstructionPhase	PhaseEndDate	12/28/2037	2/25/2039
tblConstructionPhase	PhaseEndDate	12/9/2038	5/4/2037
tblConstructionPhase	PhaseStartDate	5/5/2037	7/5/2038
tblConstructionPhase	PhaseStartDate	11/10/2038	4/3/2037
tblEnergyUse	LightingElect	4.20	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	1.49	0.00
tblEnergyUse	NT24E	5,089.81	0.00

tblEnergyUse	NT24NG	1.79	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	3.40	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	7.34	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblFireplaces	NumberGas	331.50	0.00
tblFireplaces	NumberWood	19.50	0.00
tblGrading	AcresOfGrading	462.00	120.00
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblSolidWaste	SolidWasteGenerationRate	140.40	0.00
tblSolidWaste	SolidWasteGenerationRate	457.15	0.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	15.43	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	3,131,667.06	0.00
tblWater	IndoorWaterUseRate	25,410,069.99	0.00
tblWater	OutdoorWaterUseRate	8,052,858.15	0.00
tblWater	OutdoorWaterUseRate	16,019,391.95	0.00

tblWoodstoves	NumberCatalytic	19.50	0.00
tblWoodstoves	NumberNoncatalytic	19.50	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2037	0.4134	1.6450	3.9518	9.8500e-003	0.6785	0.0397	0.7183	0.2787	0.0397	0.3184	0.0000	920.4286	920.4286	0.0331	0.0000	921.1246
2038	2.4815	0.8466	1.9109	3.6300e-003	0.2500	0.0107	0.2607	0.0614	0.0107	0.0721	0.0000	308.3999	308.3999	0.0115	0.0000	308.6411
2039	0.7219	0.0152	0.0359	6.0000e-005	7.0500e-003	2.0000e-004	7.2500e-003	1.7300e-003	2.0000e-004	1.9300e-003	0.0000	5.1065	5.1065	1.9000e-004	0.0000	5.1105
Total	3.6168	2.5067	5.8986	0.0135	0.9356	0.0506	0.9862	0.3418	0.0506	0.3924	0.0000	1,233.9350	1,233.9350	0.0448	0.0000	1,234.8762

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2037	0.2932	7.4551	5.5206	9.8500e-003	0.3973	0.1699	0.5672	0.1413	0.1699	0.3112	0.0000	920.4275	920.4275	0.0331	0.0000	921.1235
2038	2.4663	2.7689	2.1055	3.6300e-003	0.2500	0.0800	0.3301	0.0614	0.0800	0.1414	0.0000	308.3995	308.3995	0.0115	0.0000	308.6408
2039	0.7219	0.0471	0.0367	6.0000e-005	7.0500e-003	1.4300e-003	8.4800e-003	1.7300e-003	1.4300e-003	3.1600e-003	0.0000	5.1065	5.1065	1.9000e-004	0.0000	5.1105
Total	3.4813	10.2710	7.6628	0.0135	0.6544	0.2514	0.9057	0.2044	0.2514	0.4557	0.0000	1,233.9335	1,233.9335	0.0448	0.0000	1,234.8747

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.75	-309.74	-29.91	0.00	30.06	-396.78	8.16	40.21	-396.78	-16.14	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0469	0.0463	4.0092	2.1000e-004		0.0223	0.0223		0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0469	0.0463	4.0092	2.1000e-004	0.0000	0.0223	0.0223	0.0000	0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0469	0.0463	4.0092	2.1000e-004		0.0223	0.0223		0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0469	0.0463	4.0092	2.1000e-004	0.0000	0.0223	0.0223	0.0000	0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2037	3/3/2037	5	44	
2	Trenching	Trenching	3/4/2037	4/2/2037	5	22	
3	Building Construction	Building Construction	4/3/2037	11/9/2038	5	418	
4	Paving	Paving	4/3/2037	5/4/2037	5	22	
5	Architectural Coating	Architectural Coating	7/5/2038	2/25/2039	5	170	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 120

Acres of Paving: 0

Residential Indoor: 1,421,550; Residential Outdoor: 473,850; Non-Residential Indoor: 162,000; Non-Residential Outdoor: 54,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Off-Highway Trucks	3	8.00	400	0.38
Trenching	Excavators	4	8.00	162	0.38
Grading	Excavators	3	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Trenching	Other General Industrial Equipment	2	8.00	87	0.34
Grading	Rubber Tired Dozers	3	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	3	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	9	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Grading	Scrapers	9	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	30	75.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	186.00	59.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	37.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4611	0.0000	0.4611	0.2254	0.0000	0.2254	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2702	0.8597	2.0082	6.1800e-003		0.0279	0.0279		0.0279	0.0279	0.0000	608.7723	608.7723	0.0216	0.0000	609.2266
Total	0.2702	0.8597	2.0082	6.1800e-003	0.4611	0.0279	0.4890	0.2254	0.0279	0.2533	0.0000	608.7723	608.7723	0.0216	0.0000	609.2266

3.2 Grading - 2037**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0157	0.0000	0.0157	3.8600e-003	0.0000	3.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0157	0.0000	0.0157	3.8600e-003	0.0000	3.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1798	0.0000	0.1798	0.0879	0.0000	0.0879	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1663	4.6971	3.3782	6.1800e-003		0.0924	0.0924		0.0924	0.0924	0.0000	608.7715	608.7715	0.0216	0.0000	609.2259
Total	0.1663	4.6971	3.3782	6.1800e-003	0.1798	0.0924	0.2722	0.0879	0.0924	0.1802	0.0000	608.7715	608.7715	0.0216	0.0000	609.2259

3.2 Grading - 2037**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0157	0.0000	0.0157	3.8600e-003	0.0000	3.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0157	0.0000	0.0157	3.8600e-003	0.0000	3.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Trenching - 2037**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0127	0.0354	0.2042	3.6000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	30.5463	30.5463	1.0000e-003	0.0000	30.5673
Total	0.0127	0.0354	0.2042	3.6000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	30.5463	30.5463	1.0000e-003	0.0000	30.5673

3.3 Trenching - 2037**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.5700e-003	0.0000	1.5700e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					1.5700e-003	0.0000	1.5700e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0117	0.2537	0.2192	3.6000e-004		6.2400e-003	6.2400e-003		6.2400e-003	6.2400e-003	0.0000	30.5463	30.5463	1.0000e-003	0.0000	30.5672
Total	0.0117	0.2537	0.2192	3.6000e-004		6.2400e-003	6.2400e-003		6.2400e-003	6.2400e-003	0.0000	30.5463	30.5463	1.0000e-003	0.0000	30.5672

3.3 Trenching - 2037**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.5700e-003	0.0000	1.5700e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					1.5700e-003	0.0000	1.5700e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2037**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1182	0.6972	1.5690	3.0100e-003		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	255.1647	255.1647	9.5100e-003	0.0000	255.3644
Total	0.1182	0.6972	1.5690	3.0100e-003		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	255.1647	255.1647	9.5100e-003	0.0000	255.3644

3.4 Building Construction - 2037**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0257	0.0000	0.0257	6.3200e-003	0.0000	6.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.1729	0.0000	0.1729	0.0424	0.0000	0.0424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.1986	0.0000	0.1986	0.0488	0.0000	0.0488	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1051	2.2875	1.7370	3.0100e-003		0.0659	0.0659		0.0659	0.0659	0.0000	255.1644	255.1644	9.5100e-003	0.0000	255.3641
Total	0.1051	2.2875	1.7370	3.0100e-003		0.0659	0.0659		0.0659	0.0659	0.0000	255.1644	255.1644	9.5100e-003	0.0000	255.3641

3.4 Building Construction - 2037**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0257	0.0000	0.0257	6.3200e-003	0.0000	6.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.1729	0.0000	0.1729	0.0424	0.0000	0.0424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.1986	0.0000	0.1986	0.0488	0.0000	0.0488	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2038**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1352	0.7973	1.7943	3.4400e-003		0.0100	0.0100		0.0100	0.0100	0.0000	291.8037	291.8037	0.0109	0.0000	292.0321
Total	0.1352	0.7973	1.7943	3.4400e-003		0.0100	0.0100		0.0100	0.0100	0.0000	291.8037	291.8037	0.0109	0.0000	292.0321

3.4 Building Construction - 2038**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0294	0.0000	0.0294	7.2200e-003	0.0000	7.2200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.1977	0.0000	0.1977	0.0485	0.0000	0.0485	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.2271	0.0000	0.2271	0.0557	0.0000	0.0557	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1202	2.6160	1.9864	3.4400e-003		0.0754	0.0754		0.0754	0.0754	0.0000	291.8034	291.8034	0.0109	0.0000	292.0318
Total	0.1202	2.6160	1.9864	3.4400e-003		0.0754	0.0754		0.0754	0.0754	0.0000	291.8034	291.8034	0.0109	0.0000	292.0318

3.4 Building Construction - 2038**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0294	0.0000	0.0294	7.2200e-003	0.0000	7.2200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.1977	0.0000	0.1977	0.0485	0.0000	0.0485	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.2271	0.0000	0.2271	0.0557	0.0000	0.0557	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.5 Paving - 2037**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0123	0.0527	0.1704	3.0000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	25.9454	25.9454	1.0000e-003	0.0000	25.9663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0123	0.0527	0.1704	3.0000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	25.9454	25.9454	1.0000e-003	0.0000	25.9663

3.5 Paving - 2037**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.5700e-003	0.0000	1.5700e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					1.5700e-003	0.0000	1.5700e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0100	0.2167	0.1862	3.0000e-004		5.4000e-003	5.4000e-003		5.4000e-003	5.4000e-003	0.0000	25.9453	25.9453	1.0000e-003	0.0000	25.9663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0100	0.2167	0.1862	3.0000e-004		5.4000e-003	5.4000e-003		5.4000e-003	5.4000e-003	0.0000	25.9453	25.9453	1.0000e-003	0.0000	25.9663

3.5 Paving - 2037**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.5700e-003	0.0000	1.5700e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					1.5700e-003	0.0000	1.5700e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.6 Architectural Coating - 2038**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3387					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6600e-003	0.0493	0.1166	1.9000e-004		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	16.5962	16.5962	6.1000e-004	0.0000	16.6090
Total	2.3463	0.0493	0.1166	1.9000e-004		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	16.5962	16.5962	6.1000e-004	0.0000	16.6090

3.6 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0229	0.0000	0.0229	5.6300e-003	0.0000	5.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0229	0.0000	0.0229	5.6300e-003	0.0000	5.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3387					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4000e-003	0.1529	0.1191	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.5961	16.5961	6.1000e-004	0.0000	16.6090
Total	2.3461	0.1529	0.1191	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.5961	16.5961	6.1000e-004	0.0000	16.6090

3.6 Architectural Coating - 2038**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0229	0.0000	0.0229	5.6300e-003	0.0000	5.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0229	0.0000	0.0229	5.6300e-003	0.0000	5.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.6 Architectural Coating - 2039**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7196					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3600e-003	0.0152	0.0359	6.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	5.1065	5.1065	1.9000e-004	0.0000	5.1105
Total	0.7219	0.0152	0.0359	6.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	5.1065	5.1065	1.9000e-004	0.0000	5.1105

3.6 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					7.0500e-003	0.0000	7.0500e-003	1.7300e-003	0.0000	1.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					7.0500e-003	0.0000	7.0500e-003	1.7300e-003	0.0000	1.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7196					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2800e-003	0.0471	0.0367	6.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	5.1065	5.1065	1.9000e-004	0.0000	5.1105
Total	0.7219	0.0471	0.0367	6.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	5.1065	5.1065	1.9000e-004	0.0000	5.1105

3.6 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					7.0500e-003	0.0000	7.0500e-003	1.7300e-003	0.0000	1.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					7.0500e-003	0.0000	7.0500e-003	1.7300e-003	0.0000	1.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

[illegible]

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0469	0.0463	4.0092	2.1000e-004		0.0223	0.0223		0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039
Unmitigated	3.0469	0.0463	4.0092	2.1000e-004		0.0223	0.0223		0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9269					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1200	0.0463	4.0092	2.1000e-004		0.0223	0.0223		0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039
Total	3.0469	0.0463	4.0092	2.1000e-004		0.0223	0.0223		0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9269					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1200	0.0463	4.0092	2.1000e-004		0.0223	0.0223		0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039
Total	3.0469	0.0463	4.0092	2.1000e-004		0.0223	0.0223		0.0223	0.0223	0.0000	6.5724	6.5724	6.2600e-003	0.0000	6.7039

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Construction Phase 5

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	412.00	Dwelling Unit	133.77	741,600.00	1178

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule was obtained from the previous FEIR.

Off-road Equipment - Grading construction equipment list was obtained from the 2011 FEIR.

Grading - 175 acres disturbed was obtained from 2011 FEIR.

Off-road Equipment - Trenching equipment list was obtained from the 2011 FEIR.

Off-road Equipment -

Architectural Coating -

Vehicle Trips - No trip generation rate.

Woodstoves - No Hearth.

Consumer Products - None.

Landscape Equipment - None.

Energy Use - None.

Water And Wastewater - None.

Solid Waste - None.

Construction Off-road Equipment Mitigation - All equipment will utilized Tier 2 engines with level 1 DPF. On-site watering three times daily.

Area Mitigation -

[illegible]

tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	220.00	132.00

tblConstructionPhase	NumDays	3,100.00	440.00
tblConstructionPhase	NumDays	310.00	66.00
tblConstructionPhase	PhaseEndDate	1/7/2042	1/6/2042
tblConstructionPhase	PhaseEndDate	5/2/2040	5/1/2040
tblConstructionPhase	PhaseStartDate	5/2/2040	5/1/2040
tblConstructionPhase	PhaseStartDate	4/3/2040	4/2/2040
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblFireplaces	NumberGas	350.20	0.00
tblFireplaces	NumberWood	20.60	0.00
tblGrading	AcresOfGrading	693.00	175.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.34	0.34
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblSolidWaste	SolidWasteGenerationRate	482.98	0.00

tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	26,843,458.56	0.00
tblWater	OutdoorWaterUseRate	16,923,049.96	0.00
tblWoodstoves	NumberCatalytic	20.60	0.00
tblWoodstoves	NumberNoncatalytic	20.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2040	12.2638	32.9206	101.8752	0.3011	21.7042	0.9656	22.6698	10.4371	0.9656	11.4027	0.0000	32,398.9803	32,398.9803	1.0675	0.0000	32,421.3987
2041	1.1926	6.8826	16.0929	0.0308	1.6389	0.0734	1.7123	0.4023	0.0734	0.4757	0.0000	2,884.8303	2,884.8303	0.1038	0.0000	2,887.0091
2042	44.0579	6.8826	16.0929	0.0308	1.6389	0.0734	1.7123	0.4023	0.0734	0.4757	0.0000	2,884.8303	2,884.8303	0.1038	0.0000	2,887.0091
Total	57.5143	46.6858	134.0609	0.3628	24.9820	1.1125	26.0945	11.2416	1.1125	12.3541	0.0000	38,168.6410	38,168.6410	1.2750	0.0000	38,195.4168

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2040	8.2399	228.0915	165.8996	0.3011	8.9685	4.5735	13.5420	4.1941	4.5735	8.7677	0.0000	32,398.9803	32,398.9803	1.0675	0.0000	32,421.3986
2041	1.0782	23.4615	17.8156	0.0308	1.6389	0.6762	2.3151	0.4023	0.6762	1.0785	0.0000	2,884.8303	2,884.8303	0.1038	0.0000	2,887.0091
2042	44.0569	23.4615	17.8156	0.0308	1.6389	0.6762	2.3151	0.4023	0.6762	1.0785	0.0000	2,884.8303	2,884.8303	0.1038	0.0000	2,887.0091
Total	53.3750	275.0145	201.5308	0.3628	12.2463	5.9259	18.1722	4.9987	5.9259	10.9246	0.0000	38,168.6409	38,168.6409	1.2750	0.0000	38,195.4167

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.20	-489.08	-50.33	0.00	50.98	-432.66	30.36	55.53	-432.66	11.57	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2856	0.3908	33.8711	1.7900e-003		0.1885	0.1885		0.1885	0.1885	0.0000	61.2036	61.2036	0.0583	0.0000	62.4271
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	17.2856	0.3908	33.8711	1.7900e-003	0.0000	0.1885	0.1885	0.0000	0.1885	0.1885	0.0000	61.2036	61.2036	0.0583	0.0000	62.4271

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2856	0.3908	33.8711	1.7900e-003		0.1885	0.1885		0.1885	0.1885	0.0000	61.2036	61.2036	0.0583	0.0000	62.4271
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	17.2856	0.3908	33.8711	1.7900e-003	0.0000	0.1885	0.1885	0.0000	0.1885	0.1885	0.0000	61.2036	61.2036	0.0583	0.0000	62.4271

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/2/2040	4/2/2040	5	66	
2	Trenching	Trenching	4/2/2040	5/1/2040	5	22	
3	Building Construction	Building Construction	5/1/2040	1/6/2042	5	440	
4	Architectural Coating	Architectural Coating	1/7/2042	7/9/2042	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 175

Acres of Paving: 0

Residential Indoor: 1,501,740; Residential Outdoor: 500,580; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Off-Highway Trucks	3	8.00	400	0.38
Trenching	Excavators	2	8.00	162	0.38
Grading	Excavators	3	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Trenching	Other General Industrial Equipment	1	8.00	87	0.34
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Rubber Tired Dozers	3	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	3	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	9	8.00	97	0.37
Grading	Scrapers	9	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	30	75.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	148.00	44.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.8782	0.0000	20.8782	10.2343	0.0000	10.2343			0.0000			0.0000
Off-Road	11.5373	30.5161	90.2124	0.2811		0.9183	0.9183		0.9183	0.9183		30,502.53 36	30,502.53 36	1.0035		30,523.60 64
Total	11.5373	30.5161	90.2124	0.2811	20.8782	0.9183	21.7965	10.2343	0.9183	11.1526		30,502.53 36	30,502.53 36	1.0035		30,523.60 64

3.2 Grading - 2040**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.7288	0.0000	0.7288	0.1789	0.0000	0.1789			0.0000			0.0000
Total					0.7288	0.0000	0.7288	0.1789	0.0000	0.1789			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1425	0.0000	8.1425	3.9914	0.0000	3.9914			0.0000			0.0000
Off-Road	7.5597	213.5062	153.5525	0.2811		4.1978	4.1978		4.1978	4.1978	0.0000	30,502.53 36	30,502.53 36	1.0035		30,523.60 64
Total	7.5597	213.5062	153.5525	0.2811	8.1425	4.1978	12.3403	3.9914	4.1978	8.1891	0.0000	30,502.53 36	30,502.53 36	1.0035		30,523.60 64

3.2 Grading - 2040**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.7288	0.0000	0.7288	0.1789	0.0000	0.1789			0.0000			0.0000
Total					0.7288	0.0000	0.7288	0.1789	0.0000	0.1789			0.0000			0.0000

3.3 Trenching - 2040**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7266	2.4045	11.6629	0.0200		0.0474	0.0474		0.0474	0.0474		1,896.4467	1,896.4467	0.0641		1,897.7923
Total	0.7266	2.4045	11.6629	0.0200		0.0474	0.0474		0.0474	0.0474		1,896.4467	1,896.4467	0.0641		1,897.7923

3.3 Trenching - 2040**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0972	0.0000	0.0972	0.0239	0.0000	0.0239			0.0000			0.0000
Total					0.0972	0.0000	0.0972	0.0239	0.0000	0.0239			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6802	14.5853	12.3471	0.0200		0.3758	0.3758		0.3758	0.3758	0.0000	1,896.4467	1,896.4467	0.0641		1,897.7923
Total	0.6802	14.5853	12.3471	0.0200		0.3758	0.3758		0.3758	0.3758	0.0000	1,896.4467	1,896.4467	0.0641		1,897.7923

3.3 Trenching - 2040**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0972	0.0000	0.0972	0.0239	0.0000	0.0239			0.0000			0.0000
Total					0.0972	0.0000	0.0972	0.0239	0.0000	0.0239			0.0000			0.0000

3.4 Building Construction - 2040**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1926	6.8826	16.0929	0.0308		0.0734	0.0734		0.0734	0.0734		2,884.8303	2,884.8303	0.1038		2,887.0091
Total	1.1926	6.8826	16.0929	0.0308		0.0734	0.0734		0.0734	0.0734		2,884.8303	2,884.8303	0.1038		2,887.0091

3.4 Building Construction - 2040**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2007	0.0000	0.2007	0.0493	0.0000	0.0493			0.0000			0.0000
Worker					1.4382	0.0000	1.4382	0.3530	0.0000	0.3530			0.0000			0.0000
Total					1.6389	0.0000	1.6389	0.4023	0.0000	0.4023			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8303	2,884.8303	0.1038		2,887.0091
Total	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8303	2,884.8303	0.1038		2,887.0091

3.4 Building Construction - 2040**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2007	0.0000	0.2007	0.0493	0.0000	0.0493			0.0000			0.0000
Worker					1.4382	0.0000	1.4382	0.3530	0.0000	0.3530			0.0000			0.0000
Total					1.6389	0.0000	1.6389	0.4023	0.0000	0.4023			0.0000			0.0000

3.4 Building Construction - 2041**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1926	6.8826	16.0929	0.0308		0.0734	0.0734		0.0734	0.0734		2,884.8303	2,884.8303	0.1038		2,887.0091
Total	1.1926	6.8826	16.0929	0.0308		0.0734	0.0734		0.0734	0.0734		2,884.8303	2,884.8303	0.1038		2,887.0091

3.4 Building Construction - 2041**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2007	0.0000	0.2007	0.0493	0.0000	0.0493			0.0000			0.0000
Worker					1.4382	0.0000	1.4382	0.3530	0.0000	0.3530			0.0000			0.0000
Total					1.6389	0.0000	1.6389	0.4023	0.0000	0.4023			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8303	2,884.8303	0.1038		2,887.0091
Total	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8303	2,884.8303	0.1038		2,887.0091

3.4 Building Construction - 2041**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2007	0.0000	0.2007	0.0493	0.0000	0.0493			0.0000			0.0000
Worker					1.4382	0.0000	1.4382	0.3530	0.0000	0.3530			0.0000			0.0000
Total					1.6389	0.0000	1.6389	0.4023	0.0000	0.4023			0.0000			0.0000

3.4 Building Construction - 2042**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1926	6.8826	16.0929	0.0308		0.0734	0.0734		0.0734	0.0734		2,884.8303	2,884.8303	0.1038		2,887.0091
Total	1.1926	6.8826	16.0929	0.0308		0.0734	0.0734		0.0734	0.0734		2,884.8303	2,884.8303	0.1038		2,887.0091

3.4 Building Construction - 2042**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2007	0.0000	0.2007	0.0493	0.0000	0.0493			0.0000			0.0000
Worker					1.4382	0.0000	1.4382	0.3530	0.0000	0.3530			0.0000			0.0000
Total					1.6389	0.0000	1.6389	0.4023	0.0000	0.4023			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8303	2,884.8303	0.1038		2,887.0091
Total	1.0782	23.4615	17.8156	0.0308		0.6762	0.6762		0.6762	0.6762	0.0000	2,884.8303	2,884.8303	0.1038		2,887.0091

3.4 Building Construction - 2042

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.2007	0.0000	0.2007	0.0493	0.0000	0.0493			0.0000			0.0000
Worker					1.4382	0.0000	1.4382	0.3530	0.0000	0.3530			0.0000			0.0000
Total					1.6389	0.0000	1.6389	0.4023	0.0000	0.4023			0.0000			0.0000

3.5 Architectural Coating - 2042

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.9430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1149	0.7270	1.7923	2.9700e-003		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003		281.4481	281.4481	9.9000e-003		281.6561
Total	44.0579	0.7270	1.7923	2.9700e-003		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003		281.4481	281.4481	9.9000e-003		281.6561

3.5 Architectural Coating - 2042**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.2915	0.0000	0.2915	0.0716	0.0000	0.0716			0.0000			0.0000
Total					0.2915	0.0000	0.2915	0.0716	0.0000	0.0716			0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.9430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	9.9000e-003		281.6561
Total	44.0569	2.3524	1.8324	2.9700e-003		0.0713	0.0713		0.0713	0.0713	0.0000	281.4481	281.4481	9.9000e-003		281.6561

3.5 Architectural Coating - 2042

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.2915	0.0000	0.2915	0.0716	0.0000	0.0716			0.0000			0.0000
Total					0.2915	0.0000	0.2915	0.0716	0.0000	0.0716			0.0000			0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.2856	0.3908	33.8711	1.7900e-003		0.1885	0.1885		0.1885	0.1885	0.0000	61.2036	61.2036	0.0583	0.0000	62.4271
Unmitigated	17.2856	0.3908	33.8711	1.7900e-003		0.1885	0.1885		0.1885	0.1885	0.0000	61.2036	61.2036	0.0583	0.0000	62.4271

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.6837					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0127	0.3908	33.8711	1.7900e-003		0.1885	0.1885		0.1885	0.1885		61.2036	61.2036	0.0583		62.4271
Total	17.2856	0.3908	33.8711	1.7900e-003		0.1885	0.1885		0.1885	0.1885	0.0000	61.2036	61.2036	0.0583	0.0000	62.4271

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.6837					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0127	0.3908	33.8711	1.7900e-003		0.1885	0.1885		0.1885	0.1885		61.2036	61.2036	0.0583		62.4271
Total	17.2856	0.3908	33.8711	1.7900e-003		0.1885	0.1885		0.1885	0.1885	0.0000	61.2036	61.2036	0.0583	0.0000	62.4271

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Construction Phase 5

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	412.00	Dwelling Unit	133.77	741,600.00	1178

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule was obtained from the previous FEIR.

Off-road Equipment - Grading construction equipment list was obtained from the 2011 FEIR.

Grading - 175 acres disturbed was obtained from 2011 FEIR.

Off-road Equipment - Trenching equipment list was obtained from the 2011 FEIR.

Off-road Equipment -

Architectural Coating -

Vehicle Trips - No trip generation rate.

Woodstoves - No Hearth.

Consumer Products - None.

Landscape Equipment - None.

Energy Use - None.

Water And Wastewater - None.

Solid Waste - None.

Construction Off-road Equipment Mitigation - All equipment will utilized Tier 2 engines with level 1 DPF. On-site watering three times daily.

Area Mitigation -

[illegible]

tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	DPF	No Change	Level 1
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	220.00	132.00

tblConstructionPhase	NumDays	3,100.00	440.00
tblConstructionPhase	NumDays	310.00	66.00
tblConstructionPhase	PhaseEndDate	1/7/2042	1/6/2042
tblConstructionPhase	PhaseEndDate	5/2/2040	5/1/2040
tblConstructionPhase	PhaseStartDate	5/2/2040	5/1/2040
tblConstructionPhase	PhaseStartDate	4/3/2040	4/2/2040
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblFireplaces	NumberGas	350.20	0.00
tblFireplaces	NumberWood	20.60	0.00
tblGrading	AcresOfGrading	693.00	175.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.34	0.34
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblSolidWaste	SolidWasteGenerationRate	482.98	0.00

tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblWater	IndoorWaterUseRate	26,843,458.56	0.00
tblWater	OutdoorWaterUseRate	16,923,049.96	0.00
tblWoodstoves	NumberCatalytic	20.60	0.00
tblWoodstoves	NumberNoncatalytic	20.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2040	0.4931	1.6357	4.5134	0.0122	0.8543	0.0373	0.8915	0.3783	0.0373	0.4156	0.0000	1,161.0760	1,161.0760	0.0389	0.0000	1,161.8932
2041	0.1556	0.8982	2.1001	4.0200e-003	0.2098	9.5800e-003	0.2194	0.0515	9.5800e-003	0.0611	0.0000	341.5282	341.5282	0.0123	0.0000	341.7861
2042	2.9102	0.0618	0.1505	2.6000e-004	0.0221	6.4000e-004	0.0227	5.4200e-003	6.4000e-004	6.0600e-003	0.0000	22.0856	22.0856	7.8000e-004	0.0000	22.1020
Total	3.5589	2.5956	6.7640	0.0165	1.0861	0.0475	1.1336	0.4352	0.0475	0.4827	0.0000	1,524.6898	1,524.6898	0.0520	0.0000	1,525.7813

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2040	0.3513	9.2590	6.7619	0.0122	0.4340	0.2018	0.6358	0.1723	0.2018	0.3741	0.0000	1,161.0746	1,161.0746	0.0389	0.0000	1,161.8918
2041	0.1407	3.0617	2.3249	4.0200e-003	0.2098	0.0882	0.2980	0.0515	0.0882	0.1397	0.0000	341.5278	341.5278	0.0123	0.0000	341.7857
2042	2.9099	0.2022	0.1566	2.6000e-004	0.0221	6.0600e-003	0.0282	5.4200e-003	6.0600e-003	0.0115	0.0000	22.0856	22.0856	7.8000e-004	0.0000	22.1020
Total	3.4019	12.5229	9.2434	0.0165	0.6659	0.2961	0.9620	0.2292	0.2961	0.5253	0.0000	1,524.6880	1,524.6880	0.0520	0.0000	1,525.7795

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	4.41	-382.46	-36.66	0.00	38.70	-523.83	15.14	47.34	-523.83	-8.83	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0964	0.0489	4.2339	2.2000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0964	0.0489	4.2339	2.2000e-004	0.0000	0.0236	0.0236	0.0000	0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0964	0.0489	4.2339	2.2000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0964	0.0489	4.2339	2.2000e-004	0.0000	0.0236	0.0236	0.0000	0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/2/2040	4/2/2040	5	66	
2	Trenching	Trenching	4/2/2040	5/1/2040	5	22	
3	Building Construction	Building Construction	5/1/2040	1/6/2042	5	440	
4	Architectural Coating	Architectural Coating	1/7/2042	7/9/2042	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 175

Acres of Paving: 0

Residential Indoor: 1,501,740; Residential Outdoor: 500,580; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Off-Highway Trucks	3	8.00	400	0.38
Trenching	Excavators	2	8.00	162	0.38
Grading	Excavators	3	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Trenching	Other General Industrial Equipment	1	8.00	87	0.34
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Rubber Tired Dozers	3	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	3	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	9	8.00	97	0.37
Grading	Scrapers	9	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	30	75.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	148.00	44.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6890	0.0000	0.6890	0.3377	0.0000	0.3377	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3807	1.0070	2.9770	9.2800e-003		0.0303	0.0303		0.0303	0.0303	0.0000	913.1573	913.1573	0.0300	0.0000	913.7882
Total	0.3807	1.0070	2.9770	9.2800e-003	0.6890	0.0303	0.7193	0.3377	0.0303	0.3680	0.0000	913.1573	913.1573	0.0300	0.0000	913.7882

3.2 Grading - 2040**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0236	0.0000	0.0236	5.7900e-003	0.0000	5.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0236	0.0000	0.0236	5.7900e-003	0.0000	5.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2687	0.0000	0.2687	0.1317	0.0000	0.1317	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2495	7.0457	5.0672	9.2800e-003		0.1385	0.1385		0.1385	0.1385	0.0000	913.1562	913.1562	0.0300	0.0000	913.7871
Total	0.2495	7.0457	5.0672	9.2800e-003	0.2687	0.1385	0.4072	0.1317	0.1385	0.2703	0.0000	913.1562	913.1562	0.0300	0.0000	913.7871

3.2 Grading - 2040**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0236	0.0000	0.0236	5.7900e-003	0.0000	5.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0236	0.0000	0.0236	5.7900e-003	0.0000	5.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Trenching - 2040**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9900e-003	0.0265	0.1283	2.2000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	18.9247	18.9247	6.4000e-004	0.0000	18.9381
Total	7.9900e-003	0.0265	0.1283	2.2000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	18.9247	18.9247	6.4000e-004	0.0000	18.9381

3.3 Trenching - 2040**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.0500e-003	0.0000	1.0500e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					1.0500e-003	0.0000	1.0500e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4800e-003	0.1604	0.1358	2.2000e-004		4.1300e-003	4.1300e-003		4.1300e-003	4.1300e-003	0.0000	18.9247	18.9247	6.4000e-004	0.0000	18.9381
Total	7.4800e-003	0.1604	0.1358	2.2000e-004		4.1300e-003	4.1300e-003		4.1300e-003	4.1300e-003	0.0000	18.9247	18.9247	6.4000e-004	0.0000	18.9381

3.3 Trenching - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.0500e-003	0.0000	1.0500e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					1.0500e-003	0.0000	1.0500e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1044	0.6022	1.4081	2.7000e-003		6.4300e-003	6.4300e-003		6.4300e-003	6.4300e-003	0.0000	228.9940	228.9940	8.2400e-003	0.0000	229.1669
Total	0.1044	0.6022	1.4081	2.7000e-003		6.4300e-003	6.4300e-003		6.4300e-003	6.4300e-003	0.0000	228.9940	228.9940	8.2400e-003	0.0000	229.1669

3.4 Building Construction - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0172	0.0000	0.0172	4.2300e-003	0.0000	4.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.1234	0.0000	0.1234	0.0303	0.0000	0.0303	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.1407	0.0000	0.1407	0.0345	0.0000	0.0345	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0943	2.0529	1.5589	2.7000e-003		0.0592	0.0592		0.0592	0.0592	0.0000	228.9937	228.9937	8.2400e-003	0.0000	229.1667
Total	0.0943	2.0529	1.5589	2.7000e-003		0.0592	0.0592		0.0592	0.0592	0.0000	228.9937	228.9937	8.2400e-003	0.0000	229.1667

3.4 Building Construction - 2040**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0172	0.0000	0.0172	4.2300e-003	0.0000	4.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.1234	0.0000	0.1234	0.0303	0.0000	0.0303	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.1407	0.0000	0.1407	0.0345	0.0000	0.0345	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2041**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1556	0.8982	2.1001	4.0200e-003		9.5800e-003	9.5800e-003		9.5800e-003	9.5800e-003	0.0000	341.5282	341.5282	0.0123	0.0000	341.7861
Total	0.1556	0.8982	2.1001	4.0200e-003		9.5800e-003	9.5800e-003		9.5800e-003	9.5800e-003	0.0000	341.5282	341.5282	0.0123	0.0000	341.7861

3.4 Building Construction - 2041**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0257	0.0000	0.0257	6.3100e-003	0.0000	6.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.1841	0.0000	0.1841	0.0452	0.0000	0.0452	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.2098	0.0000	0.2098	0.0515	0.0000	0.0515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1407	3.0617	2.3249	4.0200e-003		0.0882	0.0882		0.0882	0.0882	0.0000	341.5278	341.5278	0.0123	0.0000	341.7857
Total	0.1407	3.0617	2.3249	4.0200e-003		0.0882	0.0882		0.0882	0.0882	0.0000	341.5278	341.5278	0.0123	0.0000	341.7857

3.4 Building Construction - 2041**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0257	0.0000	0.0257	6.3100e-003	0.0000	6.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.1841	0.0000	0.1841	0.0452	0.0000	0.0452	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.2098	0.0000	0.2098	0.0515	0.0000	0.0515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2042**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3900e-003	0.0138	0.0322	6.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	5.2342	5.2342	1.9000e-004	0.0000	5.2381
Total	2.3900e-003	0.0138	0.0322	6.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	5.2342	5.2342	1.9000e-004	0.0000	5.2381

3.4 Building Construction - 2042

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					2.8200e-003	0.0000	2.8200e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					3.2100e-003	0.0000	3.2100e-003	7.9000e-004	0.0000	7.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1600e-003	0.0469	0.0356	6.0000e-005		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	5.2341	5.2341	1.9000e-004	0.0000	5.2381
Total	2.1600e-003	0.0469	0.0356	6.0000e-005		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	5.2341	5.2341	1.9000e-004	0.0000	5.2381

3.4 Building Construction - 2042

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					2.8200e-003	0.0000	2.8200e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					3.2100e-003	0.0000	3.2100e-003	7.9000e-004	0.0000	7.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.5 Architectural Coating - 2042

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.9002					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.5800e-003	0.0480	0.1183	2.0000e-004		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	16.8515	16.8515	5.9000e-004	0.0000	16.8639
Total	2.9078	0.0480	0.1183	2.0000e-004		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	16.8515	16.8515	5.9000e-004	0.0000	16.8639

3.5 Architectural Coating - 2042

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0189	0.0000	0.0189	4.6300e-003	0.0000	4.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0189	0.0000	0.0189	4.6300e-003	0.0000	4.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.9002					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.5200e-003	0.1553	0.1209	2.0000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	16.8515	16.8515	5.9000e-004	0.0000	16.8639
Total	2.9078	0.1553	0.1209	2.0000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	16.8515	16.8515	5.9000e-004	0.0000	16.8639

3.5 Architectural Coating - 2042

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0189	0.0000	0.0189	4.6300e-003	0.0000	4.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0189	0.0000	0.0189	4.6300e-003	0.0000	4.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

[illegible]

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0964	0.0489	4.2339	2.2000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791
Unmitigated	3.0964	0.0489	4.2339	2.2000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6798					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1266	0.0489	4.2339	2.2000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791
Total	3.0964	0.0489	4.2339	2.2000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6798					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1266	0.0489	4.2339	2.2000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791
Total	3.0964	0.0489	4.2339	2.2000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	6.9404	6.9404	6.6100e-003	0.0000	7.0791

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Operational Alt 2
Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	236.00	1000sqft	5.42	236,000.00	0
Condo/Townhouse	566.00	Dwelling Unit	35.38	566,000.00	1619
Single Family Housing	4,296.00	Dwelling Unit	1,394.81	7,732,800.00	12287
Regional Shopping Center	560.00	1000sqft	12.86	560,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No Construction

Off-road Equipment -

Vehicle Trips - Weekday Trip Generation Rates were obtained from the Traffic Impact Assessment (LSA Sept 2016).

Area Coating - Low VOC Paint pursuant to SCAQMD Rule 1113.

Area Mitigation - No Hearth and Low VOC Content

Energy Mitigation - Title 24 and RPS is now at 50% improvement

Water Mitigation - Install low flow appliances

Waste Mitigation - Utilized 75% reduction in waste disposed.

Off-road Equipment -

On-road Fugitive Dust - No Construction

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstructionPhase	NumDays	6,000.00	0.00
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2010
tblConstructionPhase	PhaseStartDate	1/1/2017	1/2/2011
tblOnRoadDust	HaulingPercentPave	100.00	1.00
tblOnRoadDust	VendorPercentPave	100.00	1.00
tblOnRoadDust	WorkerPercentPave	100.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	42.94	33.43

2.0 Emissions Summary

[illegible]

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1,488.134 1	36.9367	2,843.636 7	3.9092		373.6247	373.6247		373.5664	373.5664	45,541.95 73	88,238.43 55	133,780.3 928	136.5029	3.0911	137,605.1 841
Energy	4.7327	40.4985	17.6179	0.2582		3.2698	3.2698		3.2698	3.2698		51,629.10 50	51,629.10 50	0.9896	0.9465	51,943.31 11
Mobile	149.0988	358.7924	1,584.650 5	7.0256	497.7931	10.9747	508.7678	132.8135	10.1212	142.9347		503,956.8 765	503,956.8 765	11.4358		504,197.0 279
Total	1,641.965 6	436.2276	4,445.905 1	11.1930	497.7931	387.8693	885.6624	132.8135	386.9574	519.7709	45,541.95 73	643,824.4 170	689,366.3 742	148.9283	4.0376	693,745.5 231

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	211.0826	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247	0.0000	722.4355	722.4355	0.6880	0.0000	736.8835
Energy	2.7774	23.7664	10.3385	0.1515		1.9189	1.9189		1.9189	1.9189		30,298.43 77	30,298.43 77	0.5807	0.5555	30,482.82 89
Mobile	149.0988	358.7924	1,584.650 5	7.0256	497.7931	10.9747	508.7678	132.8135	10.1212	142.9347		503,956.8 765	503,956.8 765	11.4358		504,197.0 279
Total	362.9588	387.1710	1,994.781 0	7.1983	497.7931	15.1183	512.9114	132.8135	14.2648	147.0783	0.0000	534,977.7 496	534,977.7 496	12.7045	0.5555	535,416.7 403

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	77.89	11.25	55.13	35.69	0.00	96.10	42.09	0.00	96.31	71.70	100.00	16.91	22.40	91.47	86.24	22.82

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	No Construction	Site Preparation	1/2/2011	12/31/2010	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
No Construction	Rubber Tired Dozers	3	8.00	255	0.40
No Construction	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
No Construction	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	149.0988	358.7924	1,584.6505	7.0256	497.7931	10.9747	508.7678	132.8135	10.1212	142.9347		503,956.8765	503,956.8765	11.4358		504,197.0279
Mitigated	149.0988	358.7924	1,584.6505	7.0256	497.7931	10.9747	508.7678	132.8135	10.1212	142.9347		503,956.8765	503,956.8765	11.4358		504,197.0279

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	3,288.46	4,052.56	3435.62	11,682,012	11,682,012
Elementary School	3,641.48	0.00	0.00	8,964,241	8,964,241
Regional Shopping Center	18,720.80	27,983.20	14134.40	41,934,949	41,934,949
Single Family Housing	41,112.72	43,303.68	37675.92	139,880,235	139,880,235
Total	66,763.46	75,339.44	55,245.94	202,461,438	202,461,438

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.7774	23.7664	10.3385	0.1515		1.9189	1.9189		1.9189	1.9189		30,298.4377	30,298.4377	0.5807	0.5555	30,482.8289
NaturalGas Unmitigated	4.7327	40.4985	17.6179	0.2582		3.2698	3.2698		3.2698	3.2698		51,629.1050	51,629.1050	0.9896	0.9465	51,943.3111

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	31952.7	0.3446	2.9447	1.2531	0.0188		0.2381	0.2381		0.2381	0.2381		3,759.1394	3,759.1394	0.0721	0.0689	3,782.0169
Elementary School	5903.23	0.0637	0.5788	0.4862	3.4700e-003		0.0440	0.0440		0.0440	0.0440		694.4980	694.4980	0.0133	0.0127	698.7246
Regional Shopping Center	3559.45	0.0384	0.3490	0.2931	2.0900e-003		0.0265	0.0265		0.0265	0.0265		418.7591	418.7591	8.0300e-003	7.6800e-003	421.3076
Single Family Housing	397432	4.2860	36.6261	15.5856	0.2338		2.9613	2.9613		2.9613	2.9613		46,756.7086	46,756.7086	0.8962	0.8572	47,041.2621
Total		4.7327	40.4985	17.6179	0.2581		3.2698	3.2698		3.2698	3.2698		51,629.1050	51,629.1050	0.9896	0.9465	51,943.3111

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	18.2644	0.1970	1.6832	0.7163	0.0107		0.1361	0.1361		0.1361	0.1361		2,148.7504	2,148.7504	0.0412	0.0394	2,161.8273
Elementary School	3.5303	0.0381	0.3461	0.2907	2.0800e-003		0.0263	0.0263		0.0263	0.0263		415.3296	415.3296	7.9600e-003	7.6100e-003	417.8572
Regional Shopping Center	2.00986	0.0217	0.1971	0.1655	1.1800e-003		0.0150	0.0150		0.0150	0.0150		236.4545	236.4545	4.5300e-003	4.3300e-003	237.8935
Single Family Housing	233.732	2.5206	21.5400	9.1660	0.1375		1.7415	1.7415		1.7415	1.7415		27,497.9033	27,497.9033	0.5270	0.5041	27,665.2509
Total		2.7774	23.7664	10.3385	0.1515		1.9189	1.9189		1.9189	1.9189		30,298.4377	30,298.4377	0.5807	0.5555	30,482.8289

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	1,488.1341	36.9367	2,843.6367	3.9092		373.6247	373.6247		373.5664	373.5664	45,541.9573	88,238.4355	133,780.3928	136.5029	3.0911	137,605.1841
Mitigated	211.0826	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247	0.0000	722.4355	722.4355	0.6880	0.0000	736.8835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	22.0794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	180.0770					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,274.0190	32.3245	2,443.8446	3.8880		371.4000	371.4000		371.3417	371.3417	45,541.9573	87,516.0000	133,057.9573	135.8149	3.0911	136,868.3006
Landscaping	11.9586	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247		722.4355	722.4355	0.6880		736.8835
Total	1,488.1341	36.9367	2,843.6367	3.9092		373.6247	373.6247		373.5664	373.5664	45,541.9573	88,238.4355	133,780.3928	136.5029	3.0911	137,605.1841

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	19.0470					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	180.0770					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	11.9586	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247		722.4355	722.4355	0.6880		736.8835
Total	211.0826	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247	0.0000	722.4355	722.4355	0.6880	0.0000	736.8835

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Operational Alt 2

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	236.00	1000sqft	5.42	236,000.00	0
Condo/Townhouse	566.00	Dwelling Unit	35.38	566,000.00	1619
Single Family Housing	4,296.00	Dwelling Unit	1,394.81	7,732,800.00	12287
Regional Shopping Center	560.00	1000sqft	12.86	560,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No Construction

Off-road Equipment -

Vehicle Trips - Weekday Trip Generation Rates were obtained from the Traffic Impact Assessment (LSA Sept 2016).

Area Coating - Low VOC Paint pursuant to SCAQMD Rule 1113.

Area Mitigation - No Hearth and Low VOC Content

Energy Mitigation - Title 24 and RPS is now at 50% improvement

Water Mitigation - Install low flow appliances

Waste Mitigation - Utilized 75% reduction in waste disposed.

Off-road Equipment -

On-road Fugitive Dust - No Construction

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstructionPhase	NumDays	6,000.00	0.00
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2010
tblConstructionPhase	PhaseStartDate	1/1/2017	1/2/2011
tblOnRoadDust	HaulingPercentPave	100.00	1.00
tblOnRoadDust	VendorPercentPave	100.00	1.00
tblOnRoadDust	WorkerPercentPave	100.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	42.94	33.43

2.0 Emissions Summary

[illegible]

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1,488.134 1	36.9367	2,843.636 7	3.9092		373.6247	373.6247		373.5664	373.5664	45,541.95 73	88,238.43 55	133,780.3 928	136.5029	3.0911	137,605.1 841
Energy	4.7327	40.4985	17.6179	0.2582		3.2698	3.2698		3.2698	3.2698		51,629.10 50	51,629.10 50	0.9896	0.9465	51,943.31 11
Mobile	152.7859	346.7386	1,649.745 4	7.5297	497.7931	10.9388	508.7319	132.8135	10.0882	142.9017		536,611.7 505	536,611.7 505	11.3987		536,851.1 222
Total	1,645.652 6	424.1738	4,510.999 9	11.6971	497.7931	387.8334	885.6265	132.8135	386.9244	519.7379	45,541.95 73	676,479.2 910	722,021.2 483	148.8911	4.0376	726,399.6 174

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	211.0826	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247	0.0000	722.4355	722.4355	0.6880	0.0000	736.8835
Energy	2.7774	23.7664	10.3385	0.1515		1.9189	1.9189		1.9189	1.9189		30,298.43 77	30,298.43 77	0.5807	0.5555	30,482.82 89
Mobile	152.7859	346.7386	1,649.745 4	7.5297	497.7931	10.9388	508.7319	132.8135	10.0882	142.9017		536,611.7 505	536,611.7 505	11.3987		536,851.1 222
Total	366.6458	375.1172	2,059.875 9	7.7024	497.7931	15.0825	512.8755	132.8135	14.2318	147.0453	0.0000	567,632.6 237	567,632.6 237	12.6674	0.5555	568,070.8 346

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	77.72	11.57	54.34	34.15	0.00	96.11	42.09	0.00	96.32	71.71	100.00	16.09	21.38	91.49	86.24	21.80

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	No Construction	Site Preparation	1/2/2011	12/31/2010	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
No Construction	Rubber Tired Dozers	3	8.00	255	0.40
No Construction	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
No Construction	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	152.7859	346.7386	1,649.7454	7.5297	497.7931	10.9388	508.7319	132.8135	10.0882	142.9017		536,611.7505	536,611.7505	11.3987		536,851.1222
Mitigated	152.7859	346.7386	1,649.7454	7.5297	497.7931	10.9388	508.7319	132.8135	10.0882	142.9017		536,611.7505	536,611.7505	11.3987		536,851.1222

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	3,288.46	4,052.56	3435.62	11,682,012	11,682,012
Elementary School	3,641.48	0.00	0.00	8,964,241	8,964,241
Regional Shopping Center	18,720.80	27,983.20	14134.40	41,934,949	41,934,949
Single Family Housing	41,112.72	43,303.68	37675.92	139,880,235	139,880,235
Total	66,763.46	75,339.44	55,245.94	202,461,438	202,461,438

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.7774	23.7664	10.3385	0.1515		1.9189	1.9189		1.9189	1.9189		30,298.4377	30,298.4377	0.5807	0.5555	30,482.8289
NaturalGas Unmitigated	4.7327	40.4985	17.6179	0.2582		3.2698	3.2698		3.2698	3.2698		51,629.1050	51,629.1050	0.9896	0.9465	51,943.3111

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	31952.7	0.3446	2.9447	1.2531	0.0188		0.2381	0.2381		0.2381	0.2381		3,759.1394	3,759.1394	0.0721	0.0689	3,782.0169
Elementary School	5903.23	0.0637	0.5788	0.4862	3.4700e-003		0.0440	0.0440		0.0440	0.0440		694.4980	694.4980	0.0133	0.0127	698.7246
Regional Shopping Center	3559.45	0.0384	0.3490	0.2931	2.0900e-003		0.0265	0.0265		0.0265	0.0265		418.7591	418.7591	8.0300e-003	7.6800e-003	421.3076
Single Family Housing	397432	4.2860	36.6261	15.5856	0.2338		2.9613	2.9613		2.9613	2.9613		46,756.7086	46,756.7086	0.8962	0.8572	47,041.2621
Total		4.7327	40.4985	17.6179	0.2581		3.2698	3.2698		3.2698	3.2698		51,629.1050	51,629.1050	0.9896	0.9465	51,943.3111

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	18.2644	0.1970	1.6832	0.7163	0.0107		0.1361	0.1361		0.1361	0.1361		2,148.7504	2,148.7504	0.0412	0.0394	2,161.8273
Elementary School	3.5303	0.0381	0.3461	0.2907	2.0800e-003		0.0263	0.0263		0.0263	0.0263		415.3296	415.3296	7.9600e-003	7.6100e-003	417.8572
Regional Shopping Center	2.00986	0.0217	0.1971	0.1655	1.1800e-003		0.0150	0.0150		0.0150	0.0150		236.4545	236.4545	4.5300e-003	4.3300e-003	237.8935
Single Family Housing	233.732	2.5206	21.5400	9.1660	0.1375		1.7415	1.7415		1.7415	1.7415		27,497.9033	27,497.9033	0.5270	0.5041	27,665.2509
Total		2.7774	23.7664	10.3385	0.1515		1.9189	1.9189		1.9189	1.9189		30,298.4377	30,298.4377	0.5807	0.5555	30,482.8289

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	1,488.1341	36.9367	2,843.6367	3.9092		373.6247	373.6247		373.5664	373.5664	45,541.9573	88,238.4355	133,780.3928	136.5029	3.0911	137,605.1841
Mitigated	211.0826	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247	0.0000	722.4355	722.4355	0.6880	0.0000	736.8835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	22.0794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	180.0770					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,274.0190	32.3245	2,443.8446	3.8880		371.4000	371.4000		371.3417	371.3417	45,541.9573	87,516.0000	133,057.9573	135.8149	3.0911	136,868.3006
Landscaping	11.9586	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247		722.4355	722.4355	0.6880		736.8835
Total	1,488.1341	36.9367	2,843.6367	3.9092		373.6247	373.6247		373.5664	373.5664	45,541.9573	88,238.4355	133,780.3928	136.5029	3.0911	137,605.1841

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	19.0470					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	180.0770					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	11.9586	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247		722.4355	722.4355	0.6880		736.8835
Total	211.0826	4.6122	399.7921	0.0212		2.2247	2.2247		2.2247	2.2247	0.0000	722.4355	722.4355	0.6880	0.0000	736.8835

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Butterfield Operational Alt 2 with Revisions (Energy Title 24)
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	236.00	1000sqft	5.42	236,000.00	0
Condo/Townhouse	566.00	Dwelling Unit	35.38	566,000.00	1619
Single Family Housing	4,296.00	Dwelling Unit	1,394.81	7,732,800.00	12287
Regional Shopping Center	560.00	1000sqft	12.86	560,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No Construction

Off-road Equipment -

Off-road Equipment -

On-road Fugitive Dust - No Construction

Vehicle Trips - Weekday Trip Generation Rates were obtained from the Traffic Impact Assessment (LSA Sept 2016).

Area Coating - Low VOC Paint pursuant to SCAQMD Rule 1113.

Area Mitigation - No Hearth and Low VOC Content

Energy Mitigation - 2016 Title 24 Building Standard is now at 32% improvement over the 2008 Title 24 standard for both residential and non-residential buildings.

Water Mitigation - Install low flow appliances

Waste Mitigation - Utilized 75% reduction in waste disposed.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstructionPhase	NumDays	6,000.00	0.00
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2010
tblConstructionPhase	PhaseStartDate	1/1/2017	1/2/2011
tblOnRoadDust	HaulingPercentPave	100.00	1.00
tblOnRoadDust	VendorPercentPave	100.00	1.00
tblOnRoadDust	WorkerPercentPave	100.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	42.94	33.43

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	54.3136	0.9806	80.5221	0.0513		4.9206	4.9206		4.9199	4.9199	516.4371	1,074.3376	1,590.7747	1.6181	0.0351	1,635.6216
Energy	0.8637	7.3910	3.2153	0.0471		0.5968	0.5968		0.5968	0.5968	0.0000	21,902.2339	21,902.2339	0.7777	0.2837	22,006.5172
Mobile	21.9011	57.2869	253.1957	1.1122	76.8049	1.7127	78.5175	20.5193	1.5795	22.0988	0.0000	72,298.0320	72,298.0320	1.6192	0.0000	72,332.0346
Waste						0.0000	0.0000		0.0000	0.0000	1,257.0885	0.0000	1,257.0885	74.2918	0.0000	2,817.2164
Water						0.0000	0.0000		0.0000	0.0000	115.8303	2,132.1500	2,247.9803	11.9949	0.3012	2,593.2414
Total	77.0784	65.6585	336.9331	1.2105	76.8049	7.2300	84.0349	20.5193	7.0961	27.6154	1,889.3559	97,406.7535	99,296.1094	90.3017	0.6200	101,384.6311

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	37.8350	0.5765	49.9740	2.6500e-003		0.2781	0.2781		0.2781	0.2781	0.0000	81.9228	81.9228	0.0780	0.0000	83.5612
Energy	0.6353	5.4367	2.3650	0.0347		0.4390	0.4390		0.4390	0.4390	0.0000	18,127.6722	18,127.6722	0.6648	0.2279	18,212.2738
Mobile	21.9011	57.2869	253.1957	1.1122	76.8049	1.7127	78.5175	20.5193	1.5795	22.0988	0.0000	72,298.0320	72,298.0320	1.6192	0.0000	72,332.0346
Waste						0.0000	0.0000		0.0000	0.0000	1,257.0885	0.0000	1,257.0885	74.2918	0.0000	2,817.2164
Water						0.0000	0.0000		0.0000	0.0000	92.6642	1,860.0624	1,952.7266	9.6013	0.2421	2,229.3916
Total	60.3714	63.3001	305.5348	1.1495	76.8049	2.4297	79.2346	20.5193	2.2965	22.8158	1,349.7527	92,367.6894	93,717.4421	86.2550	0.4699	95,674.4776

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	21.68	3.59	9.32	5.04	0.00	66.39	5.71	0.00	67.64	17.38	28.56	5.17	5.62	4.48	24.20	5.63

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	No Construction	Site Preparation	1/2/2011	12/31/2010	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
No Construction	Rubber Tired Dozers	3	8.00	255	0.40
No Construction	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
No Construction	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	21.9011	57.2869	253.1957	1.1122	76.8049	1.7127	78.5175	20.5193	1.5795	22.0988	0.0000	72,298.03 20	72,298.03 20	1.6192	0.0000	72,332.03 46
Unmitigated	21.9011	57.2869	253.1957	1.1122	76.8049	1.7127	78.5175	20.5193	1.5795	22.0988	0.0000	72,298.03 20	72,298.03 20	1.6192	0.0000	72,332.03 46

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	3,288.46	4,052.56	3435.62	11,682,012	11,682,012
Elementary School	3,641.48	0.00	0.00	8,964,241	8,964,241
Regional Shopping Center	18,720.80	27,983.20	14134.40	41,934,949	41,934,949
Single Family Housing	41,112.72	43,303.68	37675.92	139,880,235	139,880,235
Total	66,763.46	75,339.44	55,245.94	202,461,438	202,461,438

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.438660	0.072081	0.188459	0.180479	0.040352	0.006464	0.011426	0.050289	0.000798	0.001105	0.004136	0.000696	0.005056

5.0 Energy Detail

2.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.6353	5.4367	2.3650	0.0347		0.4390	0.4390		0.4390	0.4390	0.0000	6,287.5974	6,287.5974	0.1205	0.1153	6,325.8627
NaturalGas Unmitigated	0.8637	7.3910	3.2153	0.0471		0.5968	0.5968		0.5968	0.5968	0.0000	8,547.7774	8,547.7774	0.1638	0.1567	8,599.7977
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11,840.0748	11,840.0748	0.5443	0.1126	11,886.4112
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	13,354.4565	13,354.4565	0.6139	0.1270	13,406.7195

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.16627e+007	0.0629	0.5374	0.2287	3.4300e-003		0.0435	0.0435		0.0435	0.0435	0.0000	622.3677	622.3677	0.0119	0.0114	626.1553
Elementary School	2.15468e+006	0.0116	0.1056	0.0887	6.3000e-004		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	114.9819	114.9819	2.2000e-003	2.1100e-003	115.6817
Regional Shopping Center	1.2992e+006	7.0100e-003	0.0637	0.0535	3.8000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	69.3303	69.3303	1.3300e-003	1.2700e-003	69.7522
Single Family Housing	1.45063e+008	0.7822	6.6843	2.8444	0.0427		0.5404	0.5404		0.5404	0.5404	0.0000	7,741.0975	7,741.0975	0.1484	0.1419	7,788.2085
Total		0.8637	7.3910	3.2153	0.0471		0.5968	0.5968		0.5968	0.5968	0.0000	8,547.7774	8,547.7774	0.1638	0.1567	8,599.7977

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	8.46514e+006	0.0457	0.3901	0.1660	2.4900e-003		0.0315	0.0315		0.0315	0.0315	0.0000	451.7322	451.7322	8.6600e-003	8.2800e-003	454.4814
Elementary School	1.60036e+006	8.6300e-003	0.0785	0.0659	4.7000e-004		5.9600e-003	5.9600e-003		5.9600e-003	5.9600e-003	0.0000	85.4015	85.4015	1.6400e-003	1.5700e-003	85.9212
Regional Shopping Center	937216	5.0500e-003	0.0459	0.0386	2.8000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003	0.0000	50.0134	50.0134	9.6000e-004	9.2000e-004	50.3178
Single Family Housing	1.06822e+008	0.5760	4.9222	2.0946	0.0314		0.3980	0.3980		0.3980	0.3980	0.0000	5,700.4503	5,700.4503	0.1093	0.1045	5,735.1423
Total		0.6353	5.4367	2.3650	0.0347		0.4390	0.4390		0.4390	0.4390	0.0000	6,287.5974	6,287.5974	0.1205	0.1153	6,325.8627

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	2.7601e+006	789.8490	0.0363	7.5100e-003	792.9400
Elementary School	2.14524e+006	613.8967	0.0282	5.8400e-003	616.2992
Regional Shopping Center	8.7696e+006	2,509.5692	0.1154	0.0239	2,519.3904
Single Family Housing	3.29917e+007	9,441.1418	0.4340	0.0898	9,478.0899
Total		13,354.4565	0.6139	0.1270	13,406.7195

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	2.51102e+006	718.5696	0.0330	6.8300e-003	721.3818
Elementary School	1.69023e+006	483.6884	0.0222	4.6000e-003	485.5814
Regional Shopping Center	6.91264e+006	1,978.1687	0.0909	0.0188	1,985.9103
Single Family Housing	3.02608e+007	8,659.6481	0.3981	0.0824	8,693.5378
Total		11,840.0748	0.5443	0.1126	11,886.4112

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	37.8350	0.5765	49.9740	2.6500e-003		0.2781	0.2781		0.2781	0.2781	0.0000	81.9228	81.9228	0.0780	0.0000	83.5612
Unmitigated	54.3136	0.9806	80.5221	0.0513		4.9206	4.9206		4.9199	4.9199	516.4371	1,074.3376	1,590.7747	1.6181	0.0351	1,635.6216

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.0295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	32.8641					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	15.9252	0.4041	30.5481	0.0486		4.6425	4.6425		4.6418	4.6418	516.4371	992.4148	1,508.8519	1.5401	0.0351	1,552.0604
Landscaping	1.4948	0.5765	49.9740	2.6500e-003		0.2781	0.2781		0.2781	0.2781	0.0000	81.9228	81.9228	0.0780	0.0000	83.5612
Total	54.3136	0.9806	80.5221	0.0513		4.9206	4.9206		4.9199	4.9199	516.4371	1,074.3376	1,590.7747	1.6181	0.0351	1,635.6216

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.4761					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	32.8641					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4948	0.5765	49.9740	2.6500e-003		0.2781	0.2781		0.2781	0.2781	0.0000	81.9228	81.9228	0.0780	0.0000	83.5612
Total	37.8350	0.5765	49.9740	2.6500e-003		0.2781	0.2781		0.2781	0.2781	0.0000	81.9228	81.9228	0.0780	0.0000	83.5612

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	2,247.980 3	11.9949	0.3012	2,593.241 4
Mitigated	1,952.726 6	9.6013	0.2421	2,229.391 6

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	36.8772 / 23.2487	223.0252	1.2114	0.0304	257.8825
Elementary School	6.84327 / 17.597	83.6167	0.2267	6.0400e-003	90.2504
Regional Shopping Center	41.4806 / 25.4236	248.5537	1.3625	0.0342	287.7532
Single Family Housing	279.902 / 176.46	1,692.784 8	9.1943	0.2306	1,957.355 3
Total		2,247.980 3	11.9949	0.3012	2,593.241 4

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	29.5017 / 23.2487	193.2031	0.9696	0.0244	221.1319
Elementary School	5.47462 / 17.597	78.0826	0.1819	4.9300e-003	83.4306
Regional Shopping Center	33.1845 / 25.4236	215.0089	1.0905	0.0274	246.4150
Single Family Housing	223.921 / 176.46	1,466.4320	7.3593	0.1853	1,678.4142
Total		1,952.7266	9.6013	0.2421	2,229.3917

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,257.088 5	74.2918	0.0000	2,817.216 4
Unmitigated	1,257.088 5	74.2918	0.0000	2,817.216 4

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	260.36	52.8507	3.1234	0.0000	118.4419
Elementary School	306.8	62.2776	3.6805	0.0000	139.5682
Regional Shopping Center	588	119.3587	7.0539	0.0000	267.4905
Single Family Housing	5037.67	1,022.601 5	60.4340	0.0000	2,291.715 8
Total		1,257.088 5	74.2918	0.0000	2,817.216 4

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	260.36	52.8507	3.1234	0.0000	118.4419
Elementary School	306.8	62.2776	3.6805	0.0000	139.5682
Regional Shopping Center	588	119.3587	7.0539	0.0000	267.4905
Single Family Housing	5037.67	1,022.6015	60.4340	0.0000	2,291.7158
Total		1,257.0885	74.2918	0.0000	2,817.2164

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

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APPENDIX B

NOISE MEMORANDUM

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CARLSBAD

FRESNO
PALM SPRINGS
PT. RICHMOND

RIVERSIDE
ROCKLIN
SAN LUIS OBISPO

MEMORANDUM

DATE: September 13, 2016

TO: Ashley Davis, Principal, LSA

FROM: J.T. Stephens, Senior Noise Specialist, LSA

SUBJECT: Noise Analysis of the Revised Butterfield Specific Plan Project

INTRODUCTION

This memorandum was prepared to address the potential for noise impacts for the Revised Butterfield Specific Plan Project (Proposed Project) in the City of Banning (City), San Bernardino County, California. This memorandum addresses whether new or substantially greater noise impacts would occur as a result of the Project design changes resulting from the Settlement Agreement for the previously approved Butterfield Specific Plan Project (2012 Specific Plan Project).

PROJECT DESCRIPTION

The Butterfield Specific Plan Environmental Impact Report (Specific Plan EIR) was certified by the City on March 27, 2012. The City passed, approved, and adopted an amendment to the Deutsch Specific Plan, the development agreement for the 2012 Specific Plan Project, and conditions of approval for the Specific Plan in April 2012, subsequent to certifying the Specific Plan EIR one month earlier. Following the City's approval of the 2012 Specific Plan Project and its associated EIR, the legality of the Specific Plan EIR was challenged in April 2012. A Settlement Agreement was reached in 2014, resulting in a reduced project with 525 fewer residences, removal of the proposed extensions of Brookside Avenue and Cherry Valley Boulevard, removal of the golf course in Planning Areas (PAs) 35 and 39, and other minor changes that would generally reduce the effects on the environment. The Project design mandated by the Settlement Agreement is hereafter referred to as the Proposed Project.

NOISE IMPACT ANALYSIS

Construction Noise and Vibrations Impacts. The construction analysis in the Specific Plan EIR concluded that the noise and vibration impacts from construction activities would be less than significant with mitigation. Implementation of Mitigation Measures NOI-1 through NOI-3 would lessen construction-related impacts by requiring measures to reduce noise and vibration impacts from construction activities. Mitigation Measures NOI-1 through NOI-3 would remain applicable to the Proposed Project. Construction of the Proposed Project would disturb approximately 15.4 fewer acres and would require fewer construction vehicles and equipment. Therefore, the Proposed Project would not result in any substantially greater construction noise and vibration impacts or cumulative impacts than were previously identified in the Specific Plan EIR or any new significant noise and vibration impacts.

Long-Term Mobile Noise Impacts. This noise impact analysis is based on information from the *Traffic Impact Analysis* (TIA) (LSA 2016) that was conducted for the Proposed Project. The existing roadway segments under General Plan Build out without Project scenario and with Project scenario (referred to as Alternative 2 in the TIA) are evaluated to determine potential traffic noise impacts on sensitive land uses on and off the Project site.

Guidelines included in the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) handbook were used to evaluate highway traffic-related noise conditions along roadway segments in the Project vicinity. The standard vehicle mix for Southern California roadways was used for traffic on these roadway segments. The modeled 24-hour Community Noise Equivalent Levels (CNEL) are shown in Tables A and B.

These noise levels represent the worst-case scenario, which assumes no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and model printouts are provided in Attachment A.

According to the Specific Plan EIR, a significant project-related noise impact would occur when the following criteria are met:

Comparison of Future Build to Without Project Levels-

- An increase of the existing noise level by 5 dB or more, where the existing level is less than 60 dB CNEL;
- An increase of the existing noise level by 3 dB or more, where the existing level is 60 to 65 CNEL; or
- An increase of the existing noise level by 1.5 dB or more, where the existing level is greater than 65 dB CNEL.

According to the Specific Plan EIR a significant cumulative noise impact would occur when both of the following criteria are met:

Cumulative Effect or Comparison to Existing Levels-

- An increase of the existing noise level by 5 dB or more, where the existing level is less than 60 dB CNEL;
- An increase of the existing noise level by 3 dB or more, where the existing level is 60 to 65 CNEL; or
- An increase of the existing noise level by 1.5 dB or more, where the existing level is greater than 65 dB CNEL.

Incremental Effect-

The “Long-Term With Project” causes a 1 dBA increase in noise over the “Long-Term Without Project” noise level.

As shown in Table A, under the Specific Plan EIR, project-related traffic noise would have a significant impact on five of the eight roadway segments, all of which are along Highland Springs Avenue and Highland Home Road. Table A also shows the change in noise impacts due to the new

traffic analysis as a result of the modified network and project description. Under the Proposed Project, project-related traffic noise would have a significant impact on the same five of the eight roadway segments along Highland Springs Avenue and Highland Home Road.

The locations where potentially significant project-related traffic noise increases may occur have sound attenuation features; however, the effects of these sound attenuation features are not reflected in the forecasted noise levels. Along Highland Springs Road between Starlight and 8th, the existing Sundance homes to the west of the Project site are located in the City of Beaumont and have perimeter block walls along the frontage to provide some sound attenuation. Future development areas along the east side of this stretch of road are within the City of Banning and would be designed to provide adequate attenuation pursuant to the outdoor and indoor noise level requirements specified in the City Code. Along Highland Springs Road between 8th and 6th, there are either commercial uses that do not require attenuation, or future project areas that would be designed to incorporate sound attenuation features pursuant to City Code.

The Specific Plan EIR concluded that most of these roadway segments would create a substantial permanent increase in ambient noise levels in the Project vicinity above existing levels without the Project traffic noise impacts; however, those impacts would be considered less than significant with previously identified Mitigation Measure NOI-4, included below. For roadway segments along Highland Home Road, Mitigation Measure NOI-4 requires a focused noise study for sensitive receptors along Highland Homes Road that would potentially experience noise levels in excess of the City of Banning exterior and interior noise standards.

For roadway segments along Highland Springs Avenue, the existing Sundance homes to the west of the road and the Project site are located in the City of Beaumont and already have perimeter block walls along the frontage to provide some sound attenuation. Future Proposed Project development areas along the east side of this stretch of road are within the City of Banning and would be designed to provide adequate attenuation pursuant to the outdoor and indoor noise level requirements, as required in previously adopted Mitigation Measure NOI-4. As Mitigation Measure NOI-4 would remain applicable to the Proposed Project, the results of the revised traffic volumes due to the Proposed Project would not result in any substantially greater long-term mobile noise impacts than were previously identified in the Specific Plan EIR or any new significant long-term mobile noise impacts. In addition, the Proposed Project would not cause a perceptible increase, which is commonly accepted to be an increase of 3 A-weighted decibels (dBA), in noise levels from the 2012 Specific Plan Project to the Proposed Project.

Additionally, as shown in Table B, the mobile noise impact analysis in the Specific Plan EIR concluded that the 2012 Specific Plan Project would result in a cumulatively significant unavoidable noise impact. Consistent with the level of significance conclusion in the Specific Plan EIR, the Proposed Project cannot reasonably or feasibly mitigate for future cumulative mobile noise impacts (constructing sound walls along the entire perimeter of the sensitive uses surrounding the Project site; or the forcing of existing residential uses to change their current windows; etc.). For these same reasons, implementation of the Proposed Project would continue result in a significant and unavoidable impact for cumulative mobile noise impacts, as both the combined and incremental effects criteria would be exceeded. The results of the revised traffic volumes due to the Proposed Project would not result in any substantially greater cumulative long-term mobile noise impacts than were previously identified in the Specific Plan EIR or any new significant cumulative long-term mobile noise impacts.

The City of Banning requires future developments to consider long-term mobile and stationary noise impacts as part of the Project review and approval process, and to incorporate on-site design features to mitigate potentially significant impacts. Many of the affected streets contain non-sensitive uses such as commercial/retail (such as portions of Wilson Street and Highland Springs Avenue), or have residential uses constructed with adequate sound walls given their location on major arterials (such as Highland Springs Avenue). Older residential areas also include perimeter walls that reduce future noise impacts. However, for some older portions of the City, residential areas or other sensitive uses may not have adequate sound attenuation (particularly for units that “front” onto a street, such as those located adjacent to and south of Wilson Street, making sound walls infeasible). The City does not currently have a program for addressing cumulative noise mitigation for existing residential uses. Therefore, these cumulative impacts remain significant and adverse, as identified in the Specific Plan EIR.

Long-Term Operational Stationary Source Noise Impacts. The analysis in the Specific Plan EIR concluded that noise impacts from stationary source activities would be considered less than significant with mitigation. The revised, Proposed Project would potentially reduce operational noise impacts within some Planning Areas, for example, PAs 35 and 39, where the golf course is being removed, and PAs 60 and 61 where residential uses are being removed and replaced with open space. For all other Planning Areas, the operational uses are assumed to be substantially the same and would not result in any new significant noise impacts. Implementation of Mitigation Measure NOI-5 would reduce operation-related impacts such that noise levels would comply with City noise requirements. Mitigation Measure NOI-5 would remain applicable to the Proposed Project. Therefore, the Proposed Project would not result in any substantially greater stationary source noise impacts or cumulative impacts than were previously identified in the Specific Plan EIR or any new significant noise impacts.

APPLICABLE MITIGATION MEASURES

Mitigation Measure NOI-1: As a condition of approval of all grading and building permits, the Applicant shall comply with the following list of noise reduction measures subject to inclusion of additional provisions at the discretion of the City Building Official as appropriate:

- Excavation, grading, and other noise-intensive construction activities related to the Proposed Project shall be restricted to the hours of operation allowed under Section 8.44.090.E, Noise Prohibited – Unnecessary Noise Standard – Construction, Landscape Maintenance or Repair, of the City Municipal Code. Any deviations from these standards shall require the written approval of the
- City Building Official. The days and hours shall also apply to any servicing of equipment and to the movement of materials to and from the site.
- The developer shall require, as a condition of contract, that all construction equipment operating on the site be equipped with mufflers and sound control devices (e.g., intake silencers and

noise shrouds) no less effective than those provided on the original equipment, and no equipment shall have an unmuffled exhaust. The developer shall require all contractors, as a condition of contract, to maintain and tune-up all construction equipment to minimize noise emissions.

- Stockpiling and vehicle staging areas shall be located a minimum of 500 feet from occupied residences, and screened from these uses by a solid noise attenuation barrier where necessary to achieve City *Municipal Code*-required noise attenuation levels.
- Solid noise attenuation barriers (temporary barriers or noise curtains) with a sound transmission coefficient (STC) of at least 20 shall be used along project boundaries adjacent to sensitive receptors, where noise monitoring, performed by a qualified noise monitor, indicates exceedance of City Municipal Code noise levels for more than 15 minutes in any 1-hour period.
- Construction activities that occur outside the allowable hours per City standards (6 p.m. to 7 a.m.) shall require approval of the City Building Official based on demonstration of unusual circumstances and avoidance of significant impacts to neighboring sensitive receptors. Construction noise exceeding City standards (i.e., interior noise in excess of 50 A-weighted decibels [dBA] or exterior noise in excess of 65 dBA) and statutory time limits is anticipated, and shall require implementation of additional noise attenuation measures such as temporary noise “curtains” to reduce construction noise to meet City Standards, or offer the affected sensitive receptors the option of temporary relocation at the Developer’s expense for the duration of the impact.
- All stationary construction equipment (e.g., air compressors, and generators, etc.) shall be operated as far away from the residential and institutional uses as feasible. If this is not feasible, the equipment shall be shielded with temporary sound barriers, sound aprons, or sound skins to the satisfaction of the City Building Official.
- In areas subject to potentially significant construction noise impacts, the developer shall be required to monitor and document compliance with all applicable noise level limits.
- Construction haul routes for large equipment and material import/export shall be specified to minimize the use of routes affecting sensitive receptors (e.g., residential, parks, hospitals, schools, and convalescent homes, etc.). To the extent feasible, construction phasing for individual subdivisions shall be designed to avoid the need for construction vehicles and related construction traffic to traverse occupied residential

neighborhoods. In all cases, trucks shall utilize a route that is least disruptive to sensitive receptors. Construction trucks shall, to the extent feasible, avoid weekday and Saturday a.m. and p.m. peak hours (7 a.m. to 9 a.m. and 4 p.m. to 6 p.m.).

Mitigation Measure NOI-2: Prior to the issuance of each grading or building permit, the Applicant shall submit to the City Building Official a proposed Construction Noise Monitoring Program to respond to and track complaints pertaining to construction noise, throughout demolition and/or grading. Throughout and/or grading, these measures shall include the following:

- A procedure and phone numbers for notifying the City Building and Safety Department staff and Banning Police Department (during regular construction hours and off-hours);
- A sign prominently posted on-site containing the permitted construction days and hours and complaint procedures and the name and phone number of the person(s) to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);
- The designation of an on-site construction complaint and enforcement manager for the Project. The manager shall act as a liaison between the Project and its neighbors. The manager's responsibilities and authority shall include the following:
 - An active role in monitoring project compliance with respect to noise;
 - Ability to reschedule noisy construction activities to reduce effects on surrounding sensitive receivers;
 - Site supervision of all potential sources of noise (e.g., material delivery, construction staging areas, construction workers, debris box pick-up and delivery) for all trades;
 - Intervening or discussing mitigation options with contractors; and
 - Conducting a preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, and posted signs, etc.) are completed.

Mitigation Measure NOI-3: The Applicant shall, through contract specifications, prohibit the use of any on-site construction equipment generating greater than 0.049 RMS (greater than 79 VpD) within 25 feet of any sensitive use or

limit the use of equipment exceeding this standard to less than 30 events per day.

Mitigation Measure NOI-4: Prior to the issuance of grading permits or encroachment permits for the improvement of Highland Home Road (also known as Meridian Street) between future “D Street” and Wilson Street, an acoustical study shall be completed by the Applicant (using construction-level improvement plans and/or more detailed grading plans) and submitted to the City for review and approval. The acoustical study will specify additional specific noise attenuation measures necessary, if any, to ensure that the City of Banning’s exterior and interior noise standards are met at adjacent residential properties. Appropriate attenuation measures could include a solid wall in the landscaped parkway between future Highland Home Road and the existing frontage street.

Mitigation Measure NOI-5: Prior to the issuance of building permits for non-residential uses (such as commercial areas, wastewater treatment plant, and the golf course clubhouse), the Applicant shall prepare a site-specific construction level noise analysis, analyzing potential on and off site noise impacts, based upon detailed grading plans, improvement plans and site plans. The grading, site and/or improvement plans for these uses shall include the location of stationary noise sources, such as loading docks, air conditioning units, trash hauling and trash compactors (noise from trash pickup and compacting results from the use of hydraulic equipment to raise and lower the metal trash bins and to compact their contents), and drive-through lanes. The noise analysis shall evaluate the potential noise impacts to the existing and proposed noise-sensitive homes near the commercial areas of the Project. In the event the analysis shows that noise levels for any adjacent sensitive receptor(s) would exceed applicable standards, measures shall be required to reduce noise to levels to within applicable standards, including providing enclosures for stationary sources (such as pump stations and air conditioners), and providing walls or siting to attenuate mobile or stationary sources from receptors (such as loading bays). The analysis shall be subject to review and approval by the City of Banning (City) Building Official and shall ensure compliance with applicable exterior and interior noise standards.

Table A: Project Noise Impacts: Comparison of General Plan Build-out Traffic Noise Levels: With Previously 2012 Specific Plan Project and With Proposed Project

Roadway Segment	General Plan Build-Out With 2012 Specific Plan Project		General Plan Build-Out With Proposed Project	
	Increase In Noise Level From No Build To With Project In CNEL (dBA)	Potentially Significant Impact Without Mitigation	Increase In Noise Level From No Build To With Project In CNEL (dBA)	Potentially Significant Impact Without Mitigation
Highland Springs Avenue between Brookside Avenue and 16 th Street	0.9	No	1.3	No
Highland Springs Avenue between 16 th Street ¹ and F Street	2.0	Yes ²	4.8	Yes
Highland Springs Avenue between F Street and Oak Valley Parkway	2.8	Yes ²	3.8	Yes
Highland Springs Avenue between Oak Valley Parkway and Starlight Avenue	2.3	Yes	2.2	Yes
Highland Springs Avenue between Starlight Avenue and 8 th Street	1.8	Yes	2.1	Yes
Wilson Street between Highland Springs Avenue and C Street	1.0	No	1.2	No
Wilson Street between C Street and Highland Home Road	1.1	No	0.9	No
Highland Home Road between D Street and Wilson Street	3.1	Yes	2.3	Yes

Source: Compiled by LSA Associates, Inc. (September 2016).

1. 16th Street is now Cougar Way
2. Based on the criteria presented in the approved EIR and the memorandum above, the identification of significant impact has been corrected.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

Table B: Cumulative Noise Impacts: Comparison of General Plan Build-out Traffic Noise Levels: With 2012 Specific Plan Project and With Proposed Project

Roadway Segment	General Plan Build-Out With Approved Project			General Plan Build-Out With Revised Proposed Project		
	Increase In Noise Level From Existing To With Project In CNEL (dBA)	Increase In Noise Level From No Build To With Project In CNEL (dBA)	Potentially Significant Impact Without Mitigation	Increase In Noise Level From Existing To With Project In CNEL (dBA)	Increase In Noise Level From No Build To With Project In CNEL (dBA)	Potentially Significant Impact Without Mitigation
Highland Springs Avenue between Brookside Ave and 16 th Street	5.9	0.9	Yes	7.9	1.3	Yes
Highland Springs Avenue between 16 th Street ¹ and F Street	4.9	2.0	Yes ²	7.1	4.8	Yes
Highland Springs Avenue between F Street and Oak Valley Parkway	7.0	2.8	Yes ²	6.7	3.8	Yes
Highland Springs Avenue between Oak Valley Parkway and Starlight Avenue	6.2	2.3	Yes	6.7	2.2	Yes
Highland Springs Avenue between Starlight Avenue and 8 th Street	5.2	1.8	Yes	5.6	2.1	Yes
Wilson Street between Highland Springs Avenue and C Street	6.5	1.0	Yes	7.1	1.2	Yes
Wilson Street between C Street and Highland Home Road	6.6	1.1	Yes	6.1	0.9	No
Highland Home Road between D Street and Wilson Street	--	3.1	N/A	--	2.3	N/A

Source: Compiled by LSA Associates, Inc. (September 2016).

1. 16th Street is now Cougar Way

2. Based on the criteria presented in the approved EIR and the memorandum above, the identification of significant impact has been corrected.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

ATTACHMENT A

NOISE LEVEL MODEL PRINTOUTS

TABLE GP Buildout w/o Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between Brookside Ave and Cougar Way

NOTES: Butterfield SP - GP Buildout w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20700 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
69.2	145.0	310.3	667.6

TABLE GP Buildout w/o Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between Cougar Way and F St

NOTES: Butterfield SP - GP Buildout w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7700 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	76.6	161.3	345.7

TABLE GP Buildout w/o Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between F St and B St

NOTES: Butterfield SP - GP Buildout w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8700 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	82.7	174.8	375.0

TABLE GP Buildout w/o Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between B St and A St

NOTES: Butterfield SP - GP Buildout w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23200 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
74.3	156.2	334.8	720.3

TABLE GP Buildout w/o Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between A St and Wilson St

NOTES: Butterfield SP - GP Buildout w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25000 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
77.8	164.1	351.8	757.0

TABLE GP Buildout w/o Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Wilson St between Highland Srpings Avenue and C St

NOTES: Butterfield SP - GP Buildout w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21500 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
60.2	124.9	266.9	573.9

TABLE GP Buildout w/o Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Wilson St between C St and Highland Home Rd

NOTES: Butterfield SP - GP Buildout w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21500 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
60.2	124.9	266.9	573.9

TABLE GP Buildout w/o Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Home Rd between Wilson St and D St

NOTES: Butterfield SP - GP Buildout w/o Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12500 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	57.4	123.1	264.8

TABLE GP Buildout with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between Brookside Ave and Cougar Way

NOTES: Butterfield SP - GP Buildout with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28000 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
83.6	176.8	379.4	816.4

TABLE GP Buildout with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between Cougar Way and F St

NOTES: Butterfield SP - GP Buildout with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22900 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
73.7	154.9	331.9	714.1

TABLE GP Buildout with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between F St and B St

NOTES: Butterfield SP - GP Buildout with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21000 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
69.8	146.3	313.3	674.0

TABLE GP Buildout with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between B St and A St

NOTES: Butterfield SP - GP Buildout with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38200 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
102.1	217.1	466.5	1004.2

TABLE GP Buildout with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Springs Avenue between A St and Wilson St

NOTES: Butterfield SP - GP Buildout with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 40600 SPEED (MPH): 50 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
106.2	226.1	485.8	1045.8

TABLE GP Buildout with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Wilson St between Highland Srpings Avenue and C St

NOTES: Butterfield SP - GP Buildout with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27900 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
70.6	148.2	317.3	682.7

TABLE GP Buildout with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Wilson St between C St and Highland Home Rd

NOTES: Butterfield SP - GP Buildout with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26100 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.98

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
67.8	141.8	303.6	653.0

TABLE GP Buildout with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/13/2016

ROADWAY SEGMENT: Highland Home Rd between Wilson St and D St

NOTES: Butterfield SP - GP Buildout with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27500 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.51

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	98.1	208.4	447.6

APPENDIX C

TRAFFIC IMPACT ANALYSIS REPORT

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TRAFFIC IMPACT ANALYSIS

REVISED BUTTERFIELD SPECIFIC PLAN

CITY OF BANNING

RIVERSIDE COUNTY, CALIFORNIA

The logo for LSA, consisting of the letters 'LSA' in a bold, blue, sans-serif font.

September 14, 2016

TRAFFIC IMPACT ANALYSIS

REVISED BUTTERFIELD SPECIFIC PLAN

CITY OF BANNING

RIVERSIDE COUNTY, CALIFORNIA

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LSA Project No. TPO1501



September 14, 2016

EXECUTIVE SUMMARY

This Traffic Impact Analysis (TIA) has been prepared to assess the potential circulation impacts associated with the proposed amendments to the Butterfield Specific Plan (Revised Project) in the City of Banning (City). The Butterfield Specific Plan Traffic Impact Analysis (December 2010) (BSPTIA) and the subsequent Environmental Impact Report (EIR) was certified by the City on March 27, 2012. The City passed, approved, and adopted an amendment to the Deutsch Specific Plan, the development agreement for the Specific Plan, and conditions of approval for the Specific Plan in April 2012, subsequent to certifying the Specific Plan EIR one month earlier. The Specific Plan consisted of approximately 1,543 acres, which included residential uses, a golf course, parks, open space, school sites, and commercial uses.

Following the City's approval of the Specific Plan and its associated Environmental Impact Report (EIR), the Highland Springs Resort (Resort), Cherry Valley Pass Acres and Neighbors, and Cherry Valley Environmental Planning Group (CVAN) challenged the legality of the Specific Plan EIR in April 2012, which was heard by the Riverside County Superior Court. Ultimately, the City and the Petitioners (Resort and CVAN) reached a settlement agreement in 2014, which among other things, required the following:

- Removal of the proposed extensions of Brookside Avenue and Cherry Valley Boulevard;
- Reservation of Planning Area (PA) 60 and PA 61 as open space rather than the development of 412 dwelling units;
- Grant of a revocable license for hiking, walking, and non-motorized bicycle use and the transport of equipment to the eastern portion of the site;
- Elimination of the proposed golf course in PA 35 and PA 39 and replacement of the golf course with a recreational area to include parks and open space uses;
- Reduction in the number of residential units from 5,387 dwelling units to 4,862 dwelling units; and
- Request a ride sharing lot from the City and any applicable transportation agencies before 1,000 dwelling units are built.

Therefore, as part of the Revised Project, two alternative plans have been proposed that are being evaluated in this TIA. A detailed description of the two alternatives analyzed in this TIA follows:

- **Project Alternative 1:** This alternative will have the same layout as included in the Approved Project with the exception of the following:
 - o Removal of the proposed extensions of Brookside Avenue and Cherry Valley Boulevard;
 - o Reservation of PA 60 and PA 61 as open space rather than the development of 412 dwelling units;
 - o Elimination of the proposed golf course in PA 35 and PA 39 and replacement of the golf course with a recreational area to include parks and open space uses; and
 - o Modifications to Planning Area 43B.

The modifications to the site plan as summarized above resulted in a reduction in the number of residential units from 5,387 dwelling units to 4,871 dwelling units.

In addition to the above modifications, the project will also include the following project design features:

1. Constructing Highland Springs Avenue as a 4-lane roadway according to City's General Plan designation between 8th Street-Wilson Street and Brookside Avenue. This would also include constructing single left-turn lanes at signalized intersections on Highland Springs Avenue within the above-detailed limits.
 2. Highland Springs Avenue/Brookside Avenue: Addition of a dedicated right-turn lane with overlap phasing.
 3. Highland Springs Avenue/F Street: Addition of a second southbound left-turn lane, a northbound right-turn lane with overlap phasing, and a westbound right-turn lane with overlap phasing.
 4. Highland Springs Avenue/Starlight Avenue-A Street: Addition of two westbound left-turn lanes and a westbound right-turn lane.
 5. Highland Home Road/F Street: Installation of a traffic signal, addition of two northbound left-turn lanes, a southbound right-turn lane, and an eastbound left-turn lane.
- **Project Alternative 2:** For this alternative, in addition to the modifications listed in Alternative 1, a new and slightly modified layout of the planning areas is proposed within the site plan. The reduction in the number of dwelling units will be the same as in Alternative 1. Additionally, a new site access location is proposed on Highland Springs Road north of proposed F Street. This access location will align with the existing intersection of Highland Springs Road/Cougar Way. Due to changes in PAs 60, 61, and 43B under Project Alternative 2, single-family dwelling units are increased from 4,182 units to 4,296 units, and residential condominiums/townhomes are reduced from 1,206 units to 566 units compared to the Approved Project. Additionally, compared to the Approved Project, the square footage for the Elementary Schools has increased from 200 thousand square feet (TSF) to 236 TSF, the square footage of commercial/retail uses has increased from 549 TSF to 560 TSF and the acreage for open space/recreation has increased from 428 acres to 496.5 acres. As part of this alternative, the project will also include the following two project design features:
 1. Constructing Highland Springs Avenue as a 4-lane roadway according to City's General Plan designation between 8th Street-Wilson Street and Brookside Avenue. This would also include constructing single left-turn lanes at signalized intersections on Highland Springs Avenue within the above-detailed limits.
 2. Highland Springs Avenue/Brookside Avenue: Addition of a dedicated right-turn lane with overlap phasing.
 3. Highland Springs Avenue/16th Street-Cougar Way: Addition of a second southbound left-turn lane, a northbound right-turn lane with overlap phasing, two westbound left-turn lanes, and one westbound right-turn with overlap phasing.

4. Highland Home Road/F Street: Installation of a traffic signal and addition of a northbound left-turn lane.

Table ES-A is a land use summary comparison between the Approved Project and the Project Alternatives.

Table ES-A: Land Use Summary Comparison

Land Use	Units	
Approved Project ¹		
Residential	5,387	DU
Commercial	549	TSF
Elementary School	200	TSF
Landscape/Recreational Area	428	acres
Project Alternative 1		
Residential	4,871	DU
Commercial	549	TSF
Elementary School	200	TSF
Landscape/Recreational Area	428	acres
Project Alternative 2		
Residential	4,862	DU
Commercial	560	TSF
Elementary School	236	TSF
Landscape/Recreational Area	496.5	acres

Notes: DU=Dwelling Units, TSF=Thousand Square Feet

¹ Land Use Summary for Approved Project obtained from Butterfield Specific Plan TIA.

Since this report evaluates potential circulation impacts associated with the Revised Project, project impacts have been evaluated under existing and General Plan Build-out conditions for all project alternatives. Additionally, this report has been prepared consistent with Riverside County guidelines for a traffic impact study and analyzes the following eight scenarios to satisfy the requirements for the disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA).

- Existing (Baseline) Conditions;
- Existing (Baseline) plus Approved Project Conditions;
- Existing (Baseline) plus Project Alternative 1 Conditions;
- Existing (Baseline) plus Project Alternative 2 Conditions;
- General Plan Build-out without project Conditions;
- General Plan Build-out Plus Approved Project Conditions;
- General Plan Build-out Plus Project Alternative 1 Conditions; and
- General Plan Build-out Plus Project Alternative 2 Conditions.

This analysis analyzes potential circulation impacts as a result of the proposed Revised Project. Since, under both project alternatives, modifications to project planning areas result in reduction of project trip generation, no additional impacts will occur at the study area intersections evaluated in the BSP TIA. Additionally, a comparison between traffic counts used for BSPTIA and year 2015 counts was conducted at two intersections in the vicinity of the proposed project. Table ES-B illustrates the comparison between the traffic counts.

Table ES-B: Traffic Count Comparison on Highland Springs Avenue: 2009 vs 2015

Intersections	2008 (BSPTIA)		2015		Percentage Change	
	AM	PM	AM	PM	AM	PM
Highland Springs Avenue/Ramsey Street	1885	2427	2361	2712	25.3%	11.7%
Sunset Avenue/Wilson Street	840	906	713	876	-15.1%	-3.3%

As shown in Table ES-B, for the intersection of Sunset Avenue/Wilson Street, traffic counts have decreased since the BSPTIA counts were conducted. For the intersection of Highland Springs Avenue/Ramsey Street, the intersection counts have increased by 25% in the a.m. peak hour and by 12% in the p.m. peak hour. While, the a.m. peak hour increase is substantial, the impacts at that intersection are primarily due to the p.m. peak hour volumes which are higher than the a.m. peak hour. The BSPTIA was analyzed based on a cumulative traffic growth of approximately 3% per annum while the actual growth between 2008 and 2015 is approximately 1% per annum. Thus, the BSPTIA presents a more conservative analysis than if the proposed project was to be analyzed using recent traffic counts. Therefore, this TIA focuses on traffic impacts at the 12 intersections adjacent to the project site including all adjacent major intersections and project access locations.

Table ES-C summarizes the project trip generation comparison between the Approved Project and the proposed Project Alternatives.

Table ES-C: Trip Generation Comparison

	Average Daily Trips	A.M. Peak Hour	P.M. Peak Hour
Approved Project	62,263	4,626	5,998
Project Alternative 1	57,239	4,241	5,483
Project Alternative 2	60,087	4,587	5,778

Table ES-D shows the mitigation comparison between the Approved Project and the proposed Project Alternatives under existing plus project conditions. Table ES-E shows the mitigation comparison between the Approved Project and the proposed Project Alternatives under General Plan build-out plus project conditions. As shown in ES-D, under existing plus project conditions, both the proposed Project Alternatives would require equal or fewer mitigations at all study intersections compared to the Approved Project. As shown in Table ES-E, under General Plan build-out conditions, Project Alternative 1 will require additional mitigations at four intersections while Project Alternative 2 will require equal or fewer mitigations at all study intersections compared to the Approved Project. It needs to be noted that Project Alternative 2 is the preferred alternative.

Table ES-D- Existing With Improvements Comparison

Intersection	Approved Project	Project Alternative 1		Project Alternative 2	
		Additional Improvements	Improvements Not Required	Additional Improvements	Improvements Not Required
1 . Highland Springs Avenue/Brookside Avenue	Convert to AWSC. Add WBR.		Convert to AWSC. Add WBR.		Convert to AWSC. Add WBR.
2 . Highland Springs Avenue/16th Street-Cougar Way					
3 . Highland Springs Avenue/F Street	Install a traffic signal.				
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	NBR, WBL		NBR, WBL		NBR
5 . Highland Springs Avenue/Starlight Avenue -A Street	Install a traffic signal. Add NBT, SBL, SBT, WBL.				
6 . Highland Springs Avenue/Wilson Street	NBT				
7 . C Street-Apex Avenue/Wilson Street	Install a traffic signal. Add EBL				
8 . Highland Home Road/Northern Loop	Install a traffic signal.		Install a traffic signal.	Intersection Does Not Exist	
9 . Highland Home Road/Beaumont Road-G St					
10 . Highland Home Road/F Street					
11 . Highland Home Road/D Street					
12 . Highland Home Road/Wilson Street	Install a traffic signal. SBL				

Notes:

NBL= northbound left-turn lane ; NBT = northbound through lane; NBR = northbound right-turn lane; NBTR =shared northbound through/right-turn lane
 SBL= southbound left-turn lane ; SBT = southbound through lane; SBR = southbound right-turn lane; SBTR = shared southbound through/right-turn lane
 EBL= eastbound left-turn lane ; EBT = eastbound through lane; EBR = eastbound right-turn lane; EBTL = shared eastbound through/left-turn lane;
 EBLTR = shared eastbound left/through/right-turn lane; EBTR = shared eastbound through/right-turn lane
 WBL= westbound left-turn lane ; WBT = westbound through lane; WBR = westbound right-turn lane; WBTR = shared westbound through/right-turn lane.

Table ES-E - General Plan Build-out With Improvements Comparison

Intersection	Approved Project	Project Alternative 1		Project Alternative 2	
		Additional Improvements	Improvements Not Required	Additional Improvements	Improvements Not Required
1 . Highland Springs Avenue/Brookside Avenue	Install a traffic signal. Add NBT, NBR with overlap phasing, SBL, SBT, EBL, EBT, WBL, WBT, WBR.		NBT, NBR with overlap phasing, SBL, EBL, EBT, WBL, WBT, WBR.		NBT, NBR with overlap phasing, SBL, EBL, EBT, WBL, WBT, WBR.
2 . Highland Springs Avenue/16th Street-Cougar Way	Install a traffic signal.				
3 . Highland Springs Avenue/F Street	Install a traffic signal.				
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	Add 2nd NBL, NBT, SBT.				
5 . Highland Springs Avenue/Starlight Avenue -A Street	Install a traffic signal. Add NBT, NBR, SBL, SBT, SBR, EBR, WBL.	Add 2nd WBL			
6 . Highland Springs Avenue/Wilson Street	NBT, 2nd SBL, SBR, EBR, 2nd WBL	NBT, overlap phasing to WBR	EBR		SBR, EBR
7 . C Street-Apex Avenue/Wilson Street	Install a traffic signal. Add EBL, WBT.	EBT			
8 . Highland Home Road/Northern Loop	Install a traffic signal. Add a NBL, SBT		Install a traffic signal. Add a NBL, SBT	Intersection Does Not Exist	
9 . Highland Home Road/Beaumont Road-G St	Install a traffic signal. Add NBT, NBR, SBL, WBL.		NBT, SBL.		
10 . Highland Home Road/F Street	Install a traffic signal. Add NBL.	2nd NBL.			
11 . Highland Home Road/D Street	Install a traffic signal. Add NBL.				
12 . Highland Home Road/Wilson Street	Install a traffic signal. Re-stripe NBR to NBTR, 2 SBL, SBT, WBR with overlap phasing.		SBL		

Notes:

NBL= northbound left-turn lane ; NBT = northbound through lane; NBR = northbound right-turn lane; NBTR =shared northbound through/right-turn lane
SBL= southbound left-turn lane ; SBT = southbound through lane; SBR = southbound right-turn lane; SBTR = shared southbound through/right-turn lane
EBL= eastbound left-turn lane ; EBT = eastbound through lane; EBR = eastbound right-turn lane; EBTL = shared eastbound through/left-turn lane;
EBLTR = shared eastbound left/through/right-turn lane; EBTR = shared eastbound through/right-turn lane
WBL= westbound left-turn lane ; WBT = westbound through lane; WBR = westbound right-turn lane; WBTR = shared westbound through/right-turn lane.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
TABLE OF CONTENTS	vii
Appendices.....	viii
FIGURES AND TABLES.....	ix
Figures	ix
Tables.....	ix
1.0 INTRODUCTION AND SUMMARY	1
1.1 Purpose of Report and Study Objectives.....	1
1.2 Site Location	9
1.3 Development Description.....	9
2.0 STUDY AREA CONDITIONS.....	9
2.1 Existing Roadway System.....	9
2.2 Study Area.....	11
2.3 Intersection Levels of Service: Definition and Criteria.....	11
3.0 EXISTING CONDITIONS.....	13
3.1 Existing Traffic Controls and Intersection Geometrics.....	13
3.2 Existing Traffic Volumes	13
3.3 Existing (Baseline) Conditions Levels of Service	13
3.4 Project Traffic.....	13
3.5 Existing plus Project Traffic Volumes	16
4.0 GENERAL PLAN BUILD-OUT CONDITIONS	31
4.1 Roadway Network.....	31
4.2 General Plan Build-out Without Project Condition Traffic Volumes	31
4.3 General Plan Build-out plus Approved Project Condition Traffic Volumes.....	31
4.4 General Plan Build-out plus Project Alternative 1 Condition Traffic Volumes.....	31
4.5 General Plan Build-out plus Project Alternative 2 Condition Traffic Volumes.....	37
5.0 TRAFFIC ANALYSIS	37
5.1 Existing (Baseline) plus Approved Project Intersection Levels of Service.....	37
5.2 Existing (Baseline) plus Project Alternative 1 Intersection Levels of Service.....	37
5.3 Existing (Baseline) plus Project Alternative 2 Intersection Levels of Service.....	37
5.4 General Plan Build-out Year Without Project Conditions Intersection Levels of Service.....	37
5.5 General Plan Build-out plus Approved Project Intersection Levels of Service	37
5.6 General Plan Build-out plus Project Alternative 1 Intersection Levels of Service	40
5.7 General Plan Build-out plus Project Alternative 2 Intersection Levels of Service	40
6.0 RECOMMENDED IMPROVEMENTS.....	40
6.1 Existing plus Approved Project Improvement Requirements	40
6.2 Existing plus Project Alternative 1 Improvement Requirements	41
6.3 Existing Plus Project Alternative 2 Improvement Requirements.....	41
6.4 General Plan Build-out plus Approved Project Improvement Requirements	48

6.5 General Plan Build-out plus Project Alternative 1 Improvement Requirements	51
6.6 General Plan Build-out plus Project Alternative 2 Improvement Requirements	51
7.0 INTERNAL CIRCULATION	57

Appendices

- A: LEVEL OF SERVICE CALCULATION WORKSHEETS
- B: SIGNAL WARRANT ANALYSIS
- C: INTERNAL CIRCULATION HCM WORKSHEETS

FIGURES AND TABLES

Figures

Figure 1: Regional and Project Location.....	2
Figure 2: Study Area Intersections – Approved Specific Plan.....	3
Figure 3: Study Area Intersections with Conceptual Site Plan – Alternative 1.....	6
Figure 4: Study Area Intersections with Conceptual Site Plan – Alternative 2.....	7
Figure 5: Existing (Baseline) Intersection Geometrics and Stop Control	10
Figure 6: Existing (Baseline) Peak Hour Traffic Volumes	14
Figure 7: Project Trip Distribution – Existing (Baseline) plus Approved Project.....	18
Figure 8: Project Trip Distribution – Existing (Baseline) plus Project Alternative 1.....	19
Figure 9: Project Trip Distribution – Existing (Baseline) plus Project Alternative 2.....	20
Figure 10: Project Trip Distribution – General Plan Build-out plus Approved Project	21
Figure 11: Project Trip Distribution – General Plan Build-out plus Project Alternative 1	22
Figure 12: Project Trip Distribution – General Plan Build-out plus Project Alternative 2	23
Figure 13: Project Trip Assignment – Existing (Baseline) plus Approved Project.....	24
Figure 14: Project Trip Assignment – Existing (Baseline) plus Project Alternative 1.....	25
Figure 15: Project Trip Assignment – Existing (Baseline) plus Project Alternative 2.....	26
Figure 16: Project Trip Assignment – General Plan Build-out plus Approved Project	27
Figure 17: Project Trip Assignment – General Plan Build-out plus Project Alternative 1	28
Figure 18: Project Trip Assignment – General Plan Build-out plus Project Alternative 2	29
Figure 19: Existing (Baseline) plus Approved Project Peak Hour Traffic Volumes.....	30
Figure 20: Existing (Baseline) plus Project Alternative 1 Peak Hour Traffic Volumes.....	32
Figure 21: Existing (Baseline) plus Project Alternative 2 Peak Hour Traffic Volumes.....	33
Figure 22: General Plan Build-out without Project Peak Hour Traffic Volumes.....	34
Figure 23: General Plan Build-out plus Approved Project Peak Hour Traffic Volumes	35
Figure 24: General Plan Build-out plus Project Alternative 1 Peak Hour Traffic Volumes	36
Figure 25: General Plan Build-out plus Project Alternative 2 Peak Hour Traffic Volumes	38
Figure 26: Existing (Baseline) plus Approved Project With Improvements Intersection Geometrics and Stop Control.....	43
Figure 27: Existing (Baseline) plus Project Alternative 1 With Improvements Intersection Geometrics and Stop Control.....	45
Figure 28: Existing (Baseline) plus Project Alternative 2 With Improvements Intersection Geometrics and Stop Control.....	47
Figure 29: General Plan Build-out plus Approved Project With Improvements Intersection Geometrics and Stop Control.....	52
Figure 30: General Plan Build-out plus Project Alternative 1 With Improvements Intersection Geometrics and Stop Control.....	54
Figure 31: General Plan Build-out plus Project Alternative 2 With Improvements Intersection Geometrics and Stop Control.....	56

Tables

Table ES-A: Land Use Summary Comparison.....	iii
Table ES-B: Trip Generation Comparison	iv
Table ES-C: Existing With Improvements Comparison	v
Table ES-D: General Plan Build-out With Improvements Comparison	vi

Table A: Land Use Summary Comparison.....	4
Table B: Level of Service Definitions.....	12
Table C: Level of Service Criteria for Unsignalized and Signalized Intersections	12
Table D: Existing (Baseline) and plus Project Intersection Levels of Service	15
Table E: Project Trip Generation Comparison.....	17
Table F: General Plan Build-out without and plus Project Intersection Levels of Service	39
Table G: Existing (Baseline) plus Approved Project With Improvements Intersection Levels of Service	42
Table H: Existing (Baseline) plus Project Alternative 1 With Improvements Intersection Levels of Service	44
Table I: Existing (Baseline) plus Project Alternative 2 With Improvements Intersection Levels of Service	46
Table J: Existing With Improvements Comparison	49
Table K: General Plan Build-out plus Approved Project With Improvements Intersection Levels of Service	50
Table L: General Plan Build-out plus Project Alternative 1 With Improvements Intersection Levels of Service.....	53
Table M: General Plan Build-out plus Project Alternative 2 With Improvements Intersection Levels of Service.....	55
Table N: General Plan Build-out With Improvements Comparison	58
Table O: Internal Intersections Level of Service Summary	59

1.0 INTRODUCTION AND SUMMARY

1.1 Purpose of Report and Study Objectives

This Traffic Impact Analysis (TIA) has been prepared to assess the potential circulation impacts associated with the proposed amendments to the Butterfield Specific Plan (Revised Project) in the City of Banning (City). The Butterfield Specific Plan Traffic Impact Analysis (December 2010) (BSPTIA) and the subsequent Environmental Impact Report (EIR) was certified by the City on March 27, 2012. The City passed, approved, and adopted an amendment to the Deutsch Specific Plan, the development agreement for the Specific Plan, and conditions of approval for the Specific Plan in April 2012, subsequent to certifying the Specific Plan EIR one month earlier. The Specific Plan (hereby referred to as the “Approved Project” in this document) consisted of approximately 1,543 acres, which included residential uses, a golf course, parks, open space, school sites, and commercial uses. Figure 1 shows the project location. Figure 2 shows the Approved Project site plan and shows all project access roads approved in the previous analysis. Table A provides the land use summary for the Approved Project.

Following the City’s approval of the Specific Plan and its associated EIR, the Highland Springs Resort (Resort), Cherry Valley Pass Acres and Neighbors, and Cherry Valley Environmental Planning Group (CVAN) challenged the legality of the Specific Plan EIR in April 2012, which was heard by the Riverside County Superior Court. Ultimately, the City and the Petitioners (Resort and CVAN) reached a settlement agreement in 2014, which among other things, required the following:

- Removal of the proposed extensions of Brookside Avenue and Cherry Valley Boulevard;
- Reservation of Planning Area (PA) 60 and PA 61 as open space rather than the development of 412 dwelling units;
- Grant of a revocable license for hiking, walking, and non-motorized bicycle use and the transport of equipment to the eastern portion of the site;
- Elimination of the proposed golf course in PA 35 and PA 39 and replacement of the golf course with a recreational area to include parks and open space uses;
- Reduction in the number of residential units from 5,387 dwelling units to 4,862 dwelling units; and
- Request a ride sharing lot from the City and any applicable transportation agencies before 1,000 dwelling units are built.

Therefore, as part of the Revised Project, two alternative plans have been proposed that are being evaluated in this TIA. A detailed description of the two alternatives analyzed in this TIA follows:

- **Project Alternative 1:** This alternative will have the same layout as included in the Approved Project with the exception of the following:
 - o Removal of the proposed extensions of Brookside Avenue and Cherry Valley Boulevard;
 - o Reservation of PA 60 and PA 61 as open space rather than the development of 412 dwelling units;
 - o Elimination of the proposed golf course in PA 35 and PA 39 and replacement of the golf course with a recreational area to include parks and open space uses; and
 - o Modifications to Planning Area 43B.

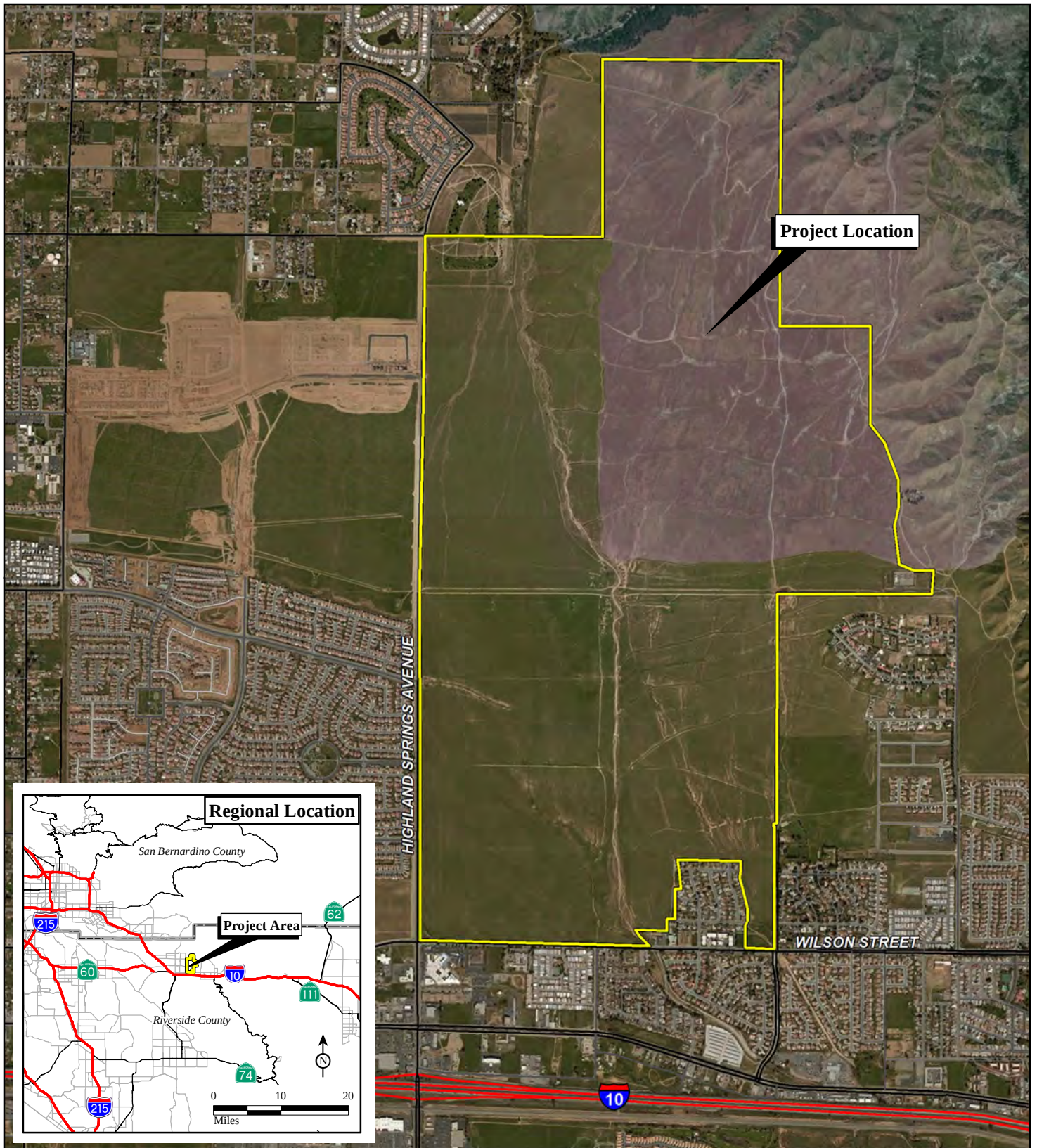
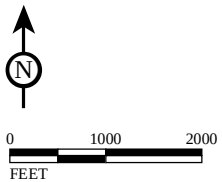


FIGURE 1

LSA



SOURCE: Bing Aerial, 2010-2015; Riverside County, 2015.

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*Revised Butterfield Specific Plan
Traffic Impact Analysis
Regional and Project Location*

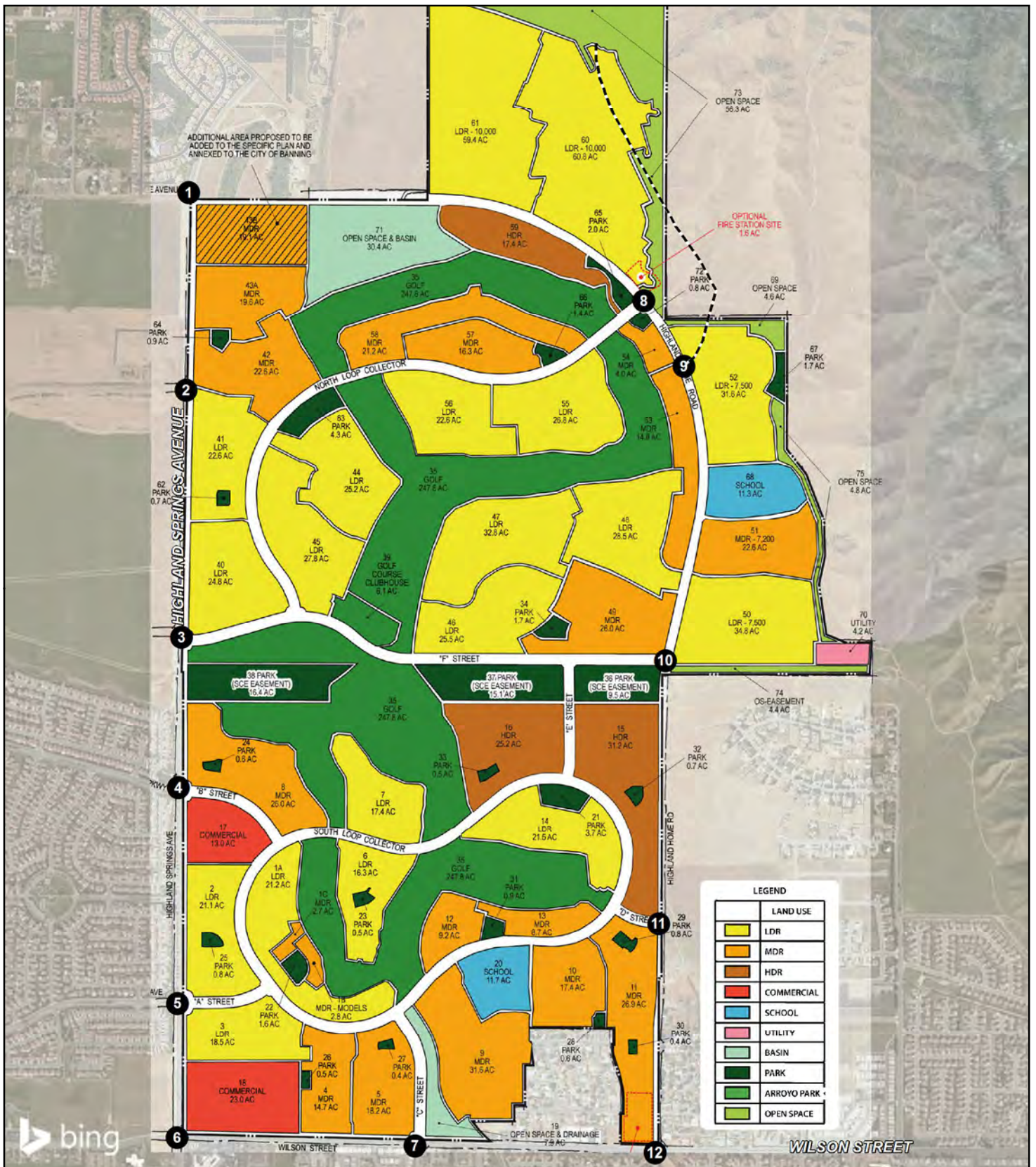
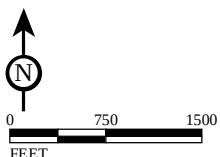


FIGURE 2

LSA

● Study Area Intersections

--- Proposed Road



SOURCE: Bing Aerial, 2010-2015; Riverside County, 2015.

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Revised Butterfield Specific Plan
Traffic Impact Analysis
Study Area Intersections - Approved Specific Plan

Table A - Land Use Summary Comparison

Land Use		Units	
Approved Project ¹			
Residential	4,182	DU	
Commercial	549	TSF	
Condominium/Townhouse	1,205	DU	
Elementary School	200	TSF	
Landscape/Recreational Area	428	ACRES	
Project Alternative 1			
Residential	3,666	DU	
Commercial	549	TSF	
Condominium/Townhouse	1,205	DU	
Elementary School	200	TSF	
Landscape/Recreational Area	428	ACRES	
Project Alternative 2			
Residential	4,296	DU	
Commercial	560	TSF	
Condominium/Townhouse	566	DU	
Elementary School	236	TSF	
Landscape/Recreational Area	496.5	ACRES	

Notes: DU=Dwelling Units, TSF=Thousand Square Feet

¹Land Use Summary for Approved Project obtained from BSPTIA.

The modifications to the site plan as listed above resulted in a reduction of the number of residential units from 5,387 dwelling units to 4,871 dwelling units. Figure 3 illustrates the site plan for Alternative 1 and shows modifications to project access roads as discussed above. Previously referenced Table A provides the land use summary by Planning Area for Project Alternative 1. As shown in Table A, due to changes in PAs 60, 61, and 43B under Project Alternative 2, single-family dwelling units are reduced from 4,182 units to 3,666 units while residential condominiums/townhomes remain the same compared to the Approved Project.

In addition to the above modifications, the project will include the following project design features:

1. Constructing Highland Springs Avenue as a 4-lane roadway according to City's General Plan designation between 8th Street-Wilson Street and Brookside Avenue. This would also include constructing single left-turn lanes at signalized intersections on Highland Springs Avenue within the above-detailed limits.
 2. Highland Springs Avenue/Brookside Avenue: Addition of a dedicated right-turn lane with overlap phasing.
 3. Highland Springs Avenue/F Street: Addition of a second southbound left-turn lane, a northbound right-turn lane with overlap phasing, and a westbound right-turn lane with overlap phasing.
 4. Highland Springs Avenue/Starlight Avenue-A Street: Addition of two westbound left-turn lanes and a westbound right-turn lane.
 5. Highland Home Road/F Street: Installation of a traffic signal, addition of two northbound left-turn lanes, a southbound right-turn lane, and an eastbound left-turn lane.
- **Project Alternative 2:** For this alternative, in addition to the modifications listed in Alternative 1, a new and slightly modified layout of the planning areas is proposed within the site plan. The reduction in the number of dwelling units will be the same as in Alternative 1. Additionally, a new site access location is proposed on Highland Springs Road north of proposed F Street. This access location will align with the existing intersection of Highland Springs Road/Cougar Way. Figure 4 illustrates the site plan for Alternative 2 and shows the modified site plan with the new project access location. Previously referenced Table A provides the land use summary by Planning Area for Project Alternative 2. As shown in Table A, due to changes in PAs 60, 61, and 43B under Project Alternative 2, single-family dwelling units are increased from 4,182 units to 4,296 units and residential condominiums/townhomes are reduced from 1,206 units to 566 units compared to the Approved Project. Additionally, compared to the Approved Project, the square footage for the Elementary Schools has increased from 200 thousand square feet (TSF) to 236 TSF, the square footage of commercial/retail uses has increased from 549 TSF to 560 TSF and the acreage for open space/recreation has increased from 428 acres to 496.5 acres.

In addition to the above modifications, the project will also include the following project design features:

1. Constructing Highland Springs Avenue as a 4-lane roadway according to City's General Plan designation between 8th Street-Wilson Street and Brookside Avenue. This would also include constructing single left-turn lanes at signalized intersections on Highland Springs Avenue within the above-detailed limits.

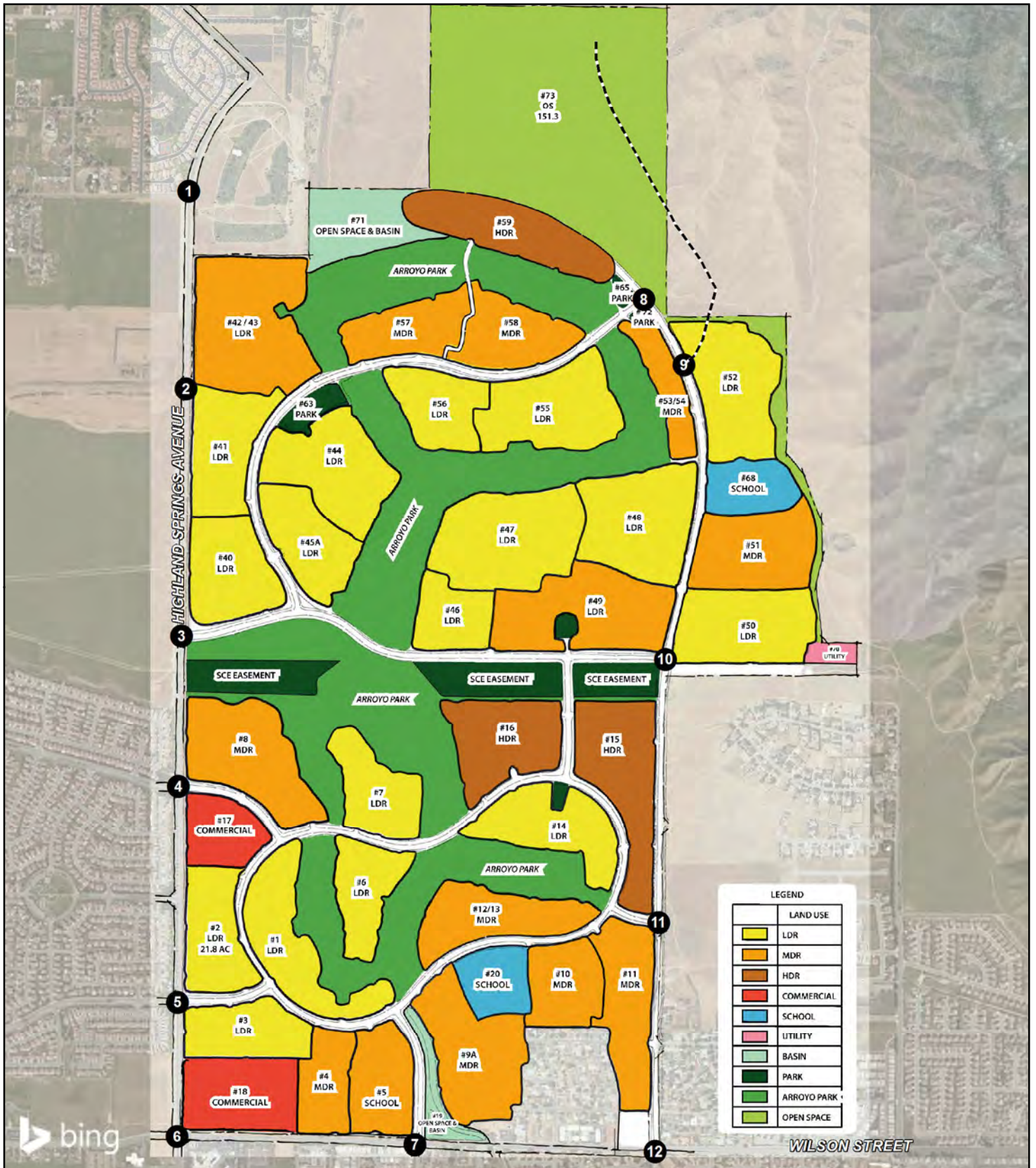


FIGURE 3

*Revised Butterfield Specific Plan
Traffic Impact Analysis*

Study Area Intersections with Conceptual Site Plan - Alternative 1

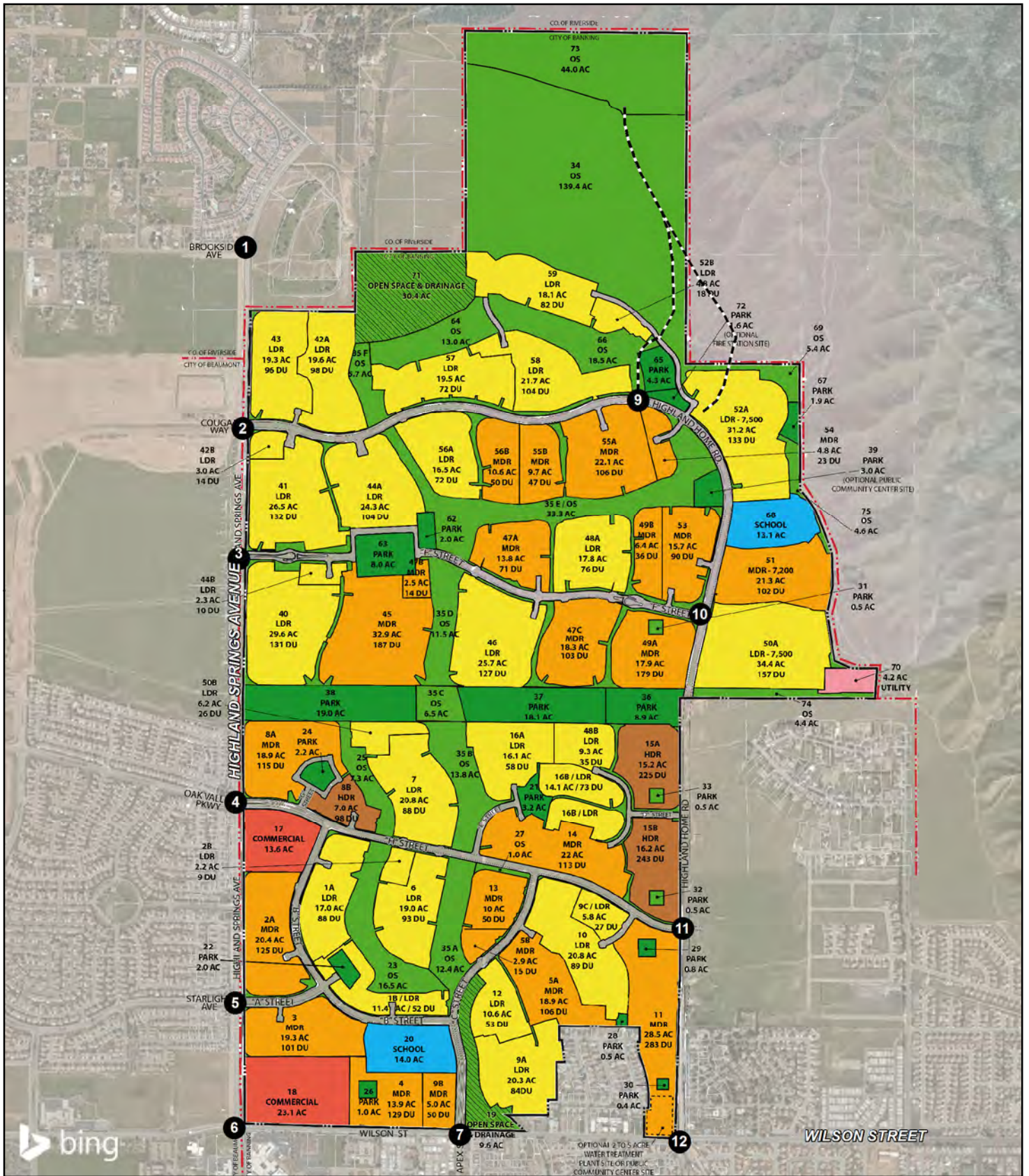
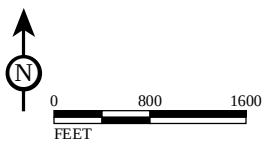


FIGURE 4

LSA



- Study Area Intersections
- Proposed Road

SOURCE: Michael Baker International, 9/20/2016;
Bing Aerial, 2010-2015; Riverside County, 2015.

Study Area Intersections with Conceptual Site Plan - Alternative 2

Revised Butterfield Specific Plan
Traffic Impact Analysis

2. Highland Springs Avenue/Brookside Avenue: Addition of a dedicated right-turn lane with overlap phasing.
3. Highland Springs Avenue/16th Street-Cougar Way: Addition of a second southbound left-turn lane, a northbound right-turn lane with overlap phasing, two westbound left-turn lanes, and one westbound right-turn with overlap phasing.
4. Highland Home Road/F Street: Installation of a traffic signal and addition of a northbound left-turn lane.

Since this report evaluates potential circulation impacts associated with the Revised Project, project impacts have been evaluated under existing and General Plan Build-out conditions for all project alternatives. Additionally, this report has been prepared consistent with Riverside County guidelines for a traffic impact study and analyzes the following eight scenarios to satisfy the requirements for the disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA).

1. Existing (Baseline) Conditions;
2. Existing (Baseline) plus Approved Project Conditions;
3. Existing (Baseline) plus Project Alternative 1 Conditions;
4. Existing (Baseline) plus Project Alternative 2 Conditions;
5. General Plan Build-out Without Project Conditions;
6. General Plan Build-out Plus Approved Project Conditions;
7. General Plan Build-out Plus Project Alternative 1 Conditions; and
8. General Plan Build-out Plus Project Alternative 2 Conditions.

Prior to preparing this TIA, a scoping agreement for the TIA was developed and submitted to the City. The objectives of the study presented in this report are as follows:

1. Existing (Baseline) Conditions: All analysis information for this scenario has been included from the previously approved BSPTIA;
2. Existing (Baseline) plus Approved Project Conditions: All analysis information for this scenario has been included from the previously approved BSPTIA;
3. Evaluate Existing (Baseline) plus Project Alternative 1 Conditions;
4. Evaluate Existing (Baseline) plus Project Alternative 2 Conditions;
5. General Plan Build-out without Project Conditions: All analysis information for this scenario has been included from the previously approved BSPTIA;
6. General Plan Build-out Plus Approved Project Conditions: All analysis information for this scenario has been included from the previously approved BSPTIA;
7. Evaluate General Plan Build-out Plus Project Alternative 1 Conditions;
8. Evaluate General Plan Build-out Plus Project Alternative 2 Conditions;

9. Determine the project-related traffic impacts for each Project Alternative scenario;
10. Identify circulation improvements as project design at study intersections that enable these intersections to operate at satisfactory levels of service under Existing and General Plan Build-out conditions plus project for each Project Alternative scenario;
11. Compare intersection levels of service with the Revised Project Alternatives to the levels of service in the BSPTIA and determine comparative impacts;
12. Identify intersection improvements or modifications as project design features to enable study intersections to operate at satisfactory levels of service; and
13. Evaluate typical street section requirements for the internal street system within the Specific Plan for all with project scenarios (Approved Project, Project Alternative 1, and Project Alternative 2) under General Plan Build-out conditions.

This study analyzes weekday a.m. and p.m. peak hour conditions. The a.m. peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 and 9:00 a.m. The p.m. peak hour is the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m.

1.2 Site Location

The proposed Butterfield Specific Plan is located on a site generally bounded by Wilson Street to the south, Highland Springs Road to the west, unincorporated Riverside County land to the north and northeast, and portions of Highland Home Road to the east. Previously referenced Figure 1 illustrates the project location.

1.3 Development Description

The proposed Butterfield Specific Plan is located in the northwest corner of the City and will include approximately 1,543 acres. Approximately 1,522 acres are currently within the Banning City limits. The remaining approximately 21 acres proposed to be added to the Specific Plan are located in the northwest corner of the project area on the east side of Highland Springs Avenue and the south side of a proposed easterly extension of Brookside Avenue in an unincorporated area of the County.

The approved Specific Plan proposed a maximum of 5,387 dwelling units in the designated residential planning areas. Planning Areas 17 and 18 (approximately 549 TSF) were designated for commercial uses. Planning Areas 20 and 68 (approximately 23 acres) were designated for elementary schools. As part of the Revised Project, two alternative plans have been proposed as detailed in the previous sections.

2.0 STUDY AREA CONDITIONS

2.1 Existing Roadway System

Figure 5 identifies the existing intersection geometrics and stop control for study area intersections.

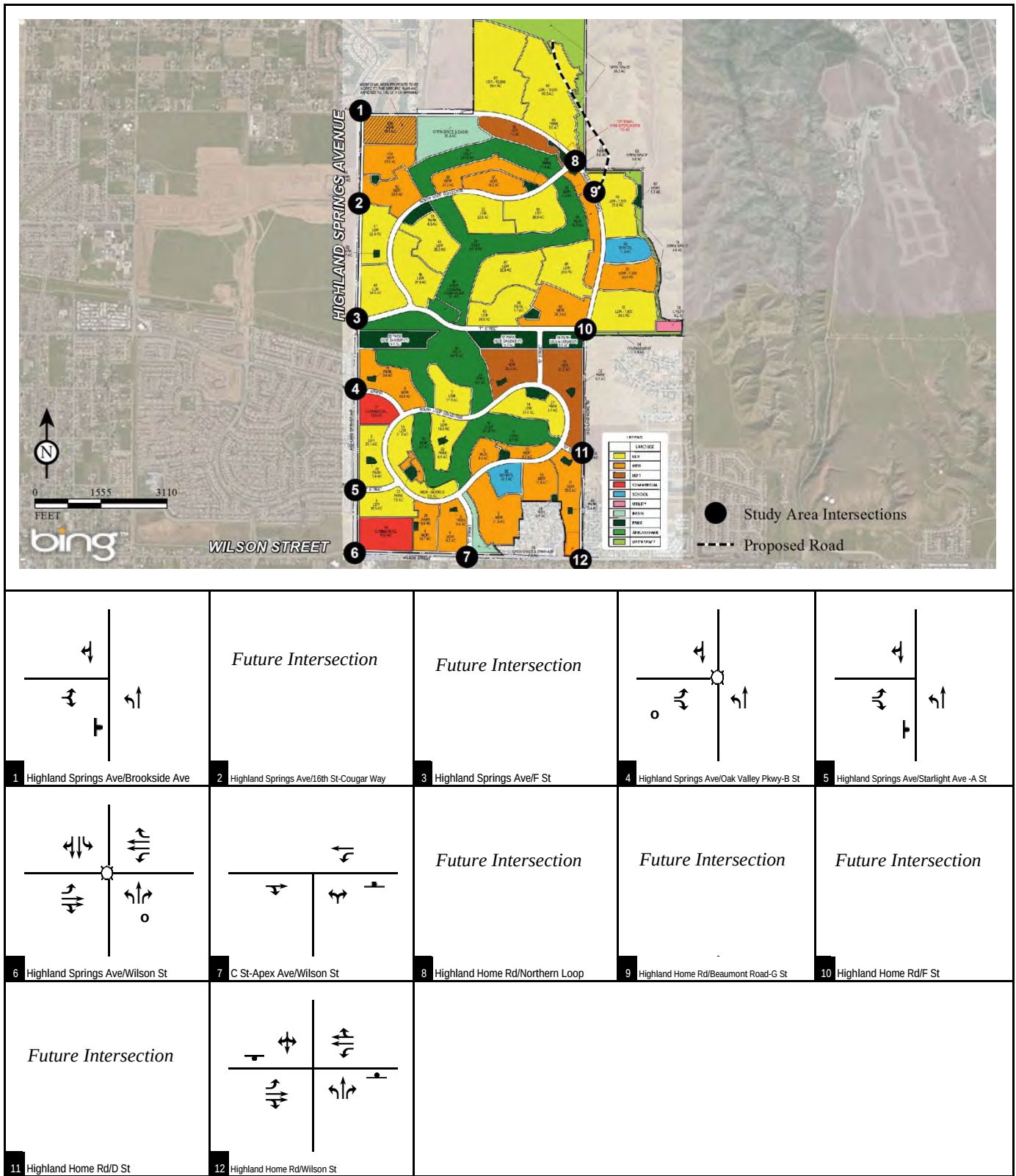


FIGURE 5

LSA

Legend
 ◻ Signalized Intersection
 ┣ Stop Sign

Revised Butterfield Specific Plan
 Traffic Impact Analysis
 Existing (Baseline) Intersection Geometrics and Stop Control

2.2 Study Area

This analysis analyzes potential circulation impacts as a result of the proposed Revised Project. Since, under both project alternatives, modifications to project planning areas result in reduction of project trip generation, no additional impacts are anticipated to occur at the study area intersections evaluated in the BSPTIA. Therefore, this TIA focuses on traffic impacts at intersections only adjacent to the project site and analyzes the following 12 intersections:

1. Highland Springs Avenue/Brookside Avenue [Riverside County];
2. Highland Springs Avenue/16th Street-Cougar Way [City of Beaumont/City of Banning];
3. Highland Springs Avenue/F Street [City of Beaumont/City of Banning];
4. Highland Springs Avenue/Oak Valley Parkway-14th Street-B Street [City of Beaumont/City of Banning];
5. Highland Springs Avenue/Starlight Avenue-A Street [City of Beaumont/City of Banning];
6. Highland Springs Avenue/8th Street-Wilson Street [City of Beaumont/City of Banning];
7. C Street-Apex Avenue/Wilson Street [City of Banning];
8. Highland Home Road/Northern Loop [City of Banning];
9. Highland Home Road/Beaumont Avenue-G Street [City of Banning];
10. Highland Home Road/F Street [City of Banning];
11. Highland Home Road/D Street [City of Banning]; and
12. Highland Home Road/Wilson Street [City of Banning].

2.3 Intersection Levels of Service: Definition and Criteria

Roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of levels of service, or LOS, which are defined using the letter grades A through F. These levels recognize that, while an absolute limit exists as to the amount of traffic traveling through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorate as traffic approaches the absolute capacity. Under such conditions, congestion is experienced. There is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. An upstream queue will then form and continue to expand in length until the demand volume again declines.

A complete description of the meaning of level of service can be found in the Transportation Research Board Special Report 209, *Highway Capacity Manual*, which establishes levels of service A through F. Table B shows brief descriptions of the six levels of service, as abstracted from the Manual.

Table B: Level of Service Definitions

LOS	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Table C shows the level of service criteria for unsignalized and signalized intersections.

Table C: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Consistent with the methodology followed in the BSPTIA, all study area intersections were analyzed using the 2000 *Highway Capacity Manual* (HCM 2000) analysis methodologies. Levels of service at all intersections were calculated using Traffix 7.8 software.

LOS Standard. The project study area spans three jurisdictions: City of Banning, City of Beaumont, and the County of Riverside (County). The City of Beaumont uses LOS D as the threshold of acceptability during peak hours. The County uses LOS D as the threshold of acceptability in community development areas and LOS C in all other areas.

According to the City of Banning General Plan Amendment Change in Level of Service Policy dated September 2012, the City considers LOS D as the upper limit of satisfactory operations. Mitigation is required for any intersection where project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an already existing deficient intersection; therefore, a conservative criterion was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars would constitute a significant project impact. This criterion was applied to study intersections in all the jurisdictions.

3.0 EXISTING CONDITIONS

3.1 Existing Traffic Controls and Intersection Geometrics

Existing intersection geometrics and control are illustrated in previously referenced Figure 5.

3.2 Existing Traffic Volumes

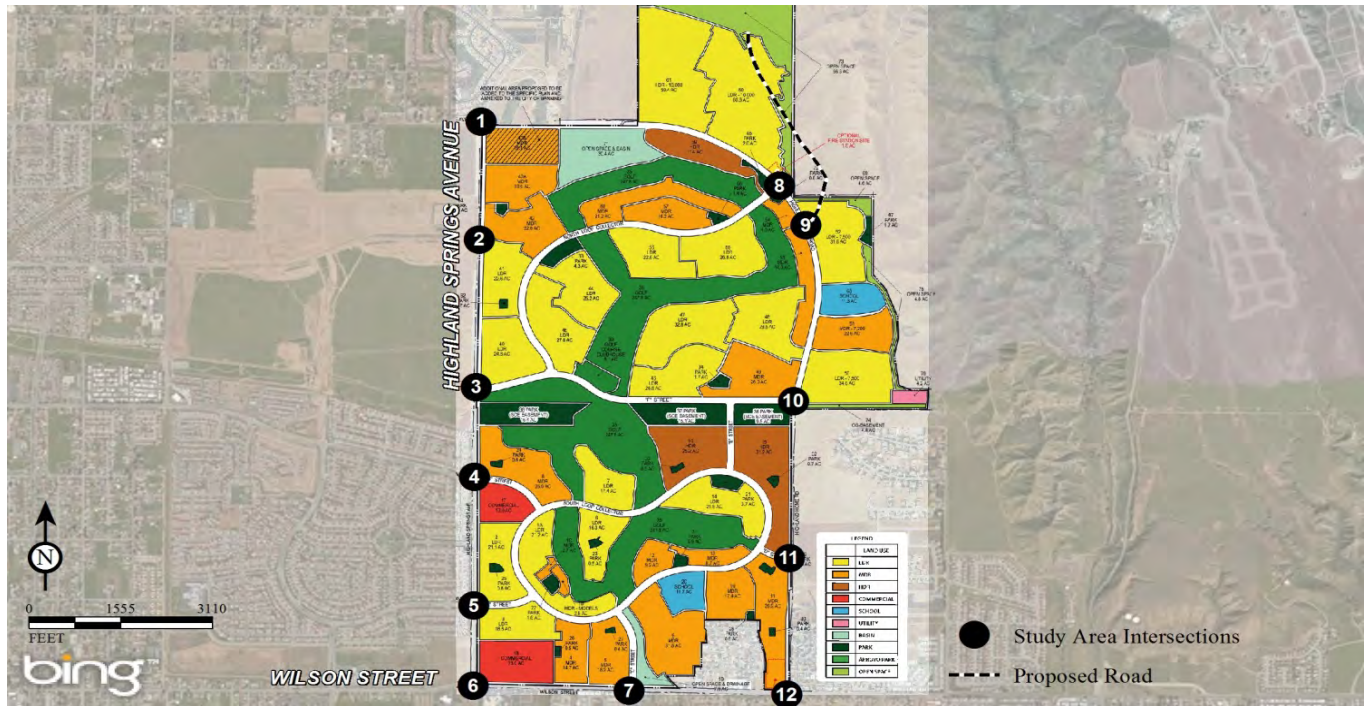
Existing a.m. and p.m. peak hour intersection traffic volumes have been obtained from the BSPTIA and are shown in Figure 6.

3.3 Existing (Baseline) Conditions Levels of Service

LOS analysis for existing conditions at the study intersections was obtained from the BSPTIA. Table D summarizes the results of this analysis and shows all study intersections operate satisfactorily under existing conditions. LOS worksheets are included in Appendix A.

3.4 Project Traffic

Trip Generation. Trip Generation for the Approved Project was obtained from the BSPTIA. Trip generation for the two proposed project alternatives was calculated using the same rates as used for the Approved Project. The trip generation for the Approved Project was calculated using rates for Land Use 210 ("Single Family Detached Housing"), Land Use 230 ("Residential Condominium/Townhomes"), Land Use 820 ("Shopping Center"), Land Use 430 ("Golf Course"), and Land Use 520 ("Elementary School"), from the Institute of Transportation Engineers (ITE) *Trip Generation*, 8th Edition. Retail establishments typically draw some trips from traffic passing the site on an adjacent street. These trips are not "new" trips and were already occurring on the adjacent street system prior to the development of the commercial site but enter the commercial site en route to some other destination. These trips are referred to as "pass-by" trips and only affect traffic at the project driveways. Pass-by trips were adjusted from the total gross trips by taking pass-by trip percentages for the proposed commercial land uses from the ITE *Trip Generation Handbook* (2004) for Land Use 820 ("Shopping Center"). As is typical of most mixed-use projects, a percentage of trips generated by the project will be trips entirely within the project itself, such as a trip from a retail store to a residence within the project or a trip from home (residence) to school with the project. These trips are referred to as "internal trips" and do not affect the surrounding street traffic or even the project driveways. Internal trips were calculated using the project select zone model plots obtained from the Pass Area Model (PAM; used for City of Banning General Plan Update, June 2005).



1 / 0 185 / 113 176 / 151 27 / 98	Future Intersection	Future Intersection	9 / 3 6 / 3 204 / 122 124 / 204 185 / 233	20 / 3 17 / 2 169 / 75 515 / 342 26 / 145 287 / 541
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar Way	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy-B St	5 Highland Springs Ave/Starlight Ave -A St
93 / 11 398 / 317 150 / 93 19 / 11 94 / 63 101 / 49 116 / 117 88 / 62 141 / 135 57 / 47 149 / 541 116 / 179	316 / 289 303 / 363 1 / 4 6 / 1	Future Intersection	Future Intersection	Future Intersection
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G St	10 Highland Home Rd/F St
Future Intersection	7 / 3 7 / 2 5 / 4 2 / 5 252 / 262 41 / 30 10 / 6 241 / 307 18 / 6 14 / 18 1 / 7 30 / 40			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

LSA

FIGURE 6

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan
Traffic Impact Analysis
Existing (Baseline) Peak Hour Traffic Volumes

Table D - Existing (Baseline) and plus Project Intersection Levels of Service

Intersection	Control	LOS STD.	Jurisdiction	A.M. Peak Hour												P.M. Peak Hour																			
				Existing (Baseline)			Existing plus Approved Project			Existing plus Project Alternative 1			Existing plus Project Alternative 2			Existing (Baseline)			Existing plus Approved Project			Existing plu Project Alternative 1			Existing plus Project Alternative 2										
				V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS					
1 . Highland Springs Avenue/Brookside Avenue	TWSC	C	Riverside County	-	9.9	A	-	>100	F	*	-	12.4	B	-	12.8	B	-	9.2	A	-	>100	F	*	-	14.0	B	-	14.5	B						
2 . Highland Springs Avenue/16th Street-Cougar Way	TWSC	D	Beaumont/Banning	Future Intersection			Future Intersection			Future Intersection			-	25.2	D	Future Intersection			Future Intersection			Future Intersection			-	93.1	F	*							
3 . Highland Springs Avenue/F Street	TWSC	D	Beaumont/Banning	Future Intersection			>100			F	*	1.59	>100	F	*	1.27	>100	F	*	Future Intersection			>100			F	*	3.20	>100	F	*	2.11	>100	F	*
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	Signal	D	Beaumont/Banning	0.44	20.8	C	1.25	>100	F	*	0.85	34.0	C	0.91	38.0	D	0.34	17.2	B	1.20	96.6	F	*	0.75	30.4	C	0.80	32.4	C						
5 . Highland Springs Avenue/Starlight Avenue -A Street	TWSC	D	Beaumont/Banning	-	17.6	C	-	>100	F	*	-	>100	F	*	-	>100	F	*	-	11.4	B	-	>100	F	*	-	>100	F	*	-	>100	F	*		
6 . Highland Springs Avenue/Wilson Street	Signal	D	Beaumont/Banning	0.42	30.1	C	0.88	41.3	D		0.86	39.4	D	0.89	42.8	D	0.59	27.1	C	1.31	>100	F	*	1.29	>100	F	*	1.33	>100	F	*				
7 . C Street-Apex Avenue/Wilson Street	TWSC	D	Banning	-	14.3	B	-	>100	F	*	-	>100	F	*	-	>100	F	*	-	14.2	B	-	>100	F	*	-	>100	F	*	-	>100	F	*		
8 . Highland Home Road/Northern Loop	TWSC	D	Banning	Future Intersection			42.5			E	*	0.25	9.8	A	Does Not Exist			Future Intersection			>100			F	*	0.20	9.4	A	Does Not Exist						
9 . Highland Home Road/Beaumont Road-G St	TWSC	D	Banning	Future Intersection			12.7			B		0.03	12.1	B	0.03	12.5	B	Future Intersection			16.7			C		0.07	13.8	B	0.08	14.3	B				
10 . Highland Home Road/F Street	Signal	D	Banning	Future Intersection			12.7			B		0.34	15.8	B	0.44	15.6	B	Future Intersection			11.5			B		0.43	33.9	C	0.42	15.2	B				
11 . Highland Home Road/D Street	TWSC	D	Banning	Future Intersection			22.4			C		0.32	19.6	C	0.26	21.6	C	Future Intersection			27.7			D		0.23	22.4	C	0.22	25.0	C				
12 . Highland Home Road/Wilson Street	Signal	D	Banning	-	13.2	B	-	>100	F	*	-	>100	F	*	-	>100	F	*	-	13.2	B	-	>100	F	*	-	>100	F	*	-	>100	F	*		

* Exceeds LOS standard.

Notes:
V/C = Volume/Capacity Ratio
LOS = Level of Service
TWSC = Two-Way Stop Control

Table E summarizes the trip generation for the Approved Project, Project Alternative 1 and Project Alternative 2. As shown in Table E, the Approved Project is expected to generate 4,626 trips during the a.m. peak hour, 5,998 trips during the p.m. peak hour, and 62,263 daily trips; Project Alternative 1 is expected to generate 4,241 trips during the a.m. peak hour, 5,483 trips during the p.m. peak hour, and 57,239 daily trips; and Project Alternative 2 is expected to generate 4,587 trips during the a.m. peak hour, 5,778 trips during the p.m. peak hour, and 60,087 daily trips. Therefore, both proposed project alternatives will generate fewer daily and peak hour trips, thereby reducing circulation and traffic impacts for the project.

Trip Distribution and Assignment. Project trip distribution patterns for the Approved Project were developed using the PAM (used for City of Banning General Plan Update, June 2005) select zone trip assignment and are included in the BSPTIA. Trip distribution patterns for Project Alternatives 1 and 2 were generally based on the Approved Project trip distribution and were modified based on the changes in land use and circulation for each project alternative. The west leg of the intersection of Highland Springs Avenue/Cougar Way, which is part of the Sundance Specific Plan, does not exist under existing conditions. The west leg has since been constructed and will exist under General Plan build-out conditions. Therefore, as was analyzed in the BSPTIA, two separate trip distribution patterns have been developed for the two project alternatives to reflect existing and General Plan build-out conditions.

Figure 7 illustrates the trip distribution pattern for the Existing plus Approved Project scenario. Figure 8 illustrates the trip distribution pattern for the Existing plus Project Alternative 1 scenario. Figure 9 illustrates the trip distribution pattern the for Existing plus Project Alternative 2 scenario. Figure 10 illustrates the trip distribution pattern for the General Plan Build-out plus Approved Project scenario. Figure 11 illustrates the trip distribution pattern for the General Plan Build-out plus Project Alternative 1 scenario. Figure 12 illustrates the trip distribution pattern for the General Plan Build-out plus Project Alternative 2 scenario. Figure 13 illustrates the a.m. and p.m. peak hour project trips for existing plus Approved Project conditions at the study area intersections. Figure 14 illustrates the a.m. and p.m. peak hour project trips for existing plus Project Alternative 1 conditions at the study area intersections. Figure 15 illustrates the a.m. and p.m. peak hour project trips for existing plus Project Alternative 2 conditions at the study area intersections. Figure 16 illustrates the a.m. and p.m. peak hour project trips for General Plan Build-out plus Approved Project conditions at the study area intersections. Figure 17 illustrates the a.m. and p.m. peak hour project trips for General Plan Build-out plus Project Alternative 1 conditions at the study area intersections. Figure 18 illustrates the a.m. and p.m. peak hour project trips for General Plan Build-out plus Project Alternative 2 conditions at the study area intersections.

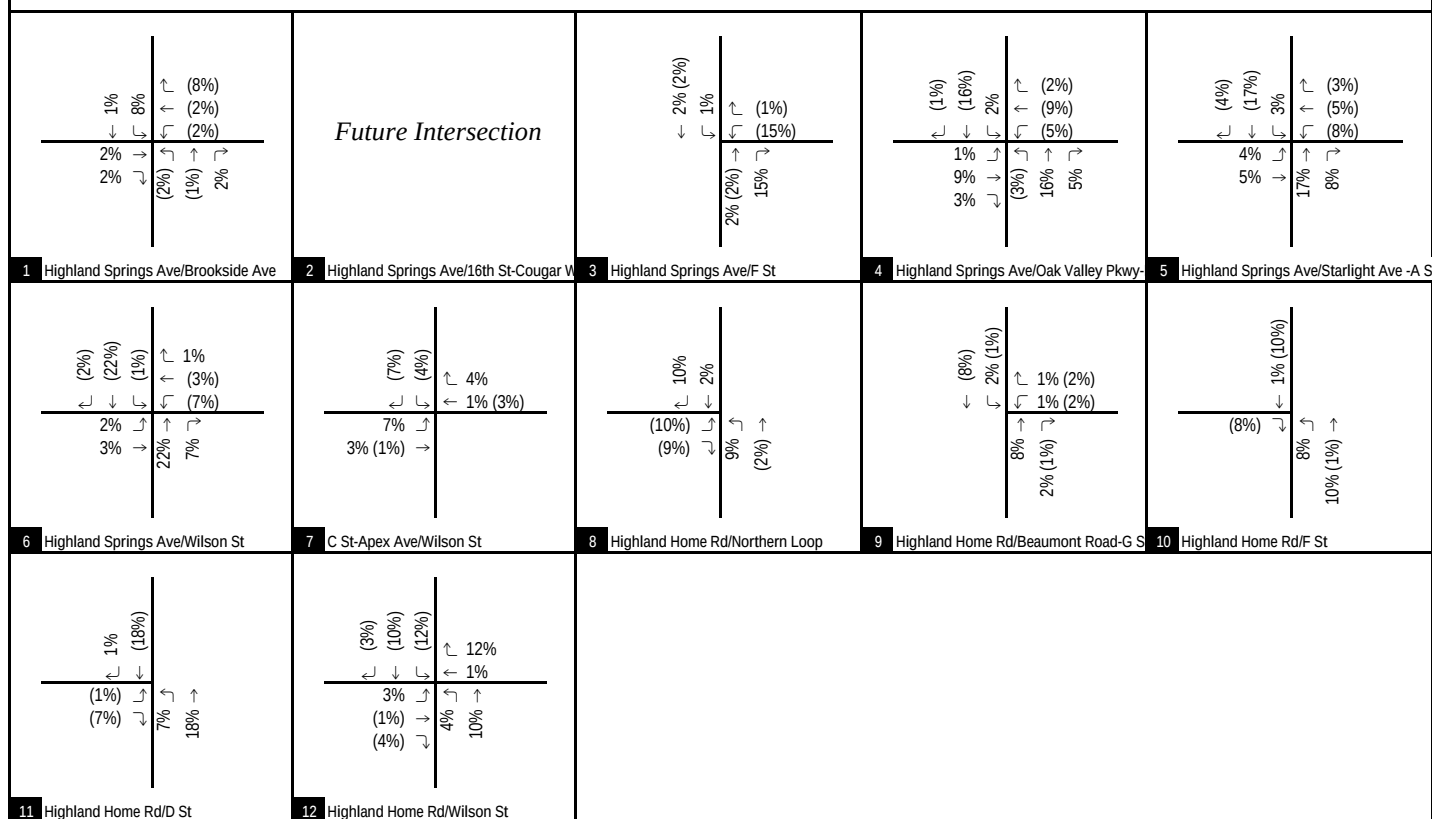
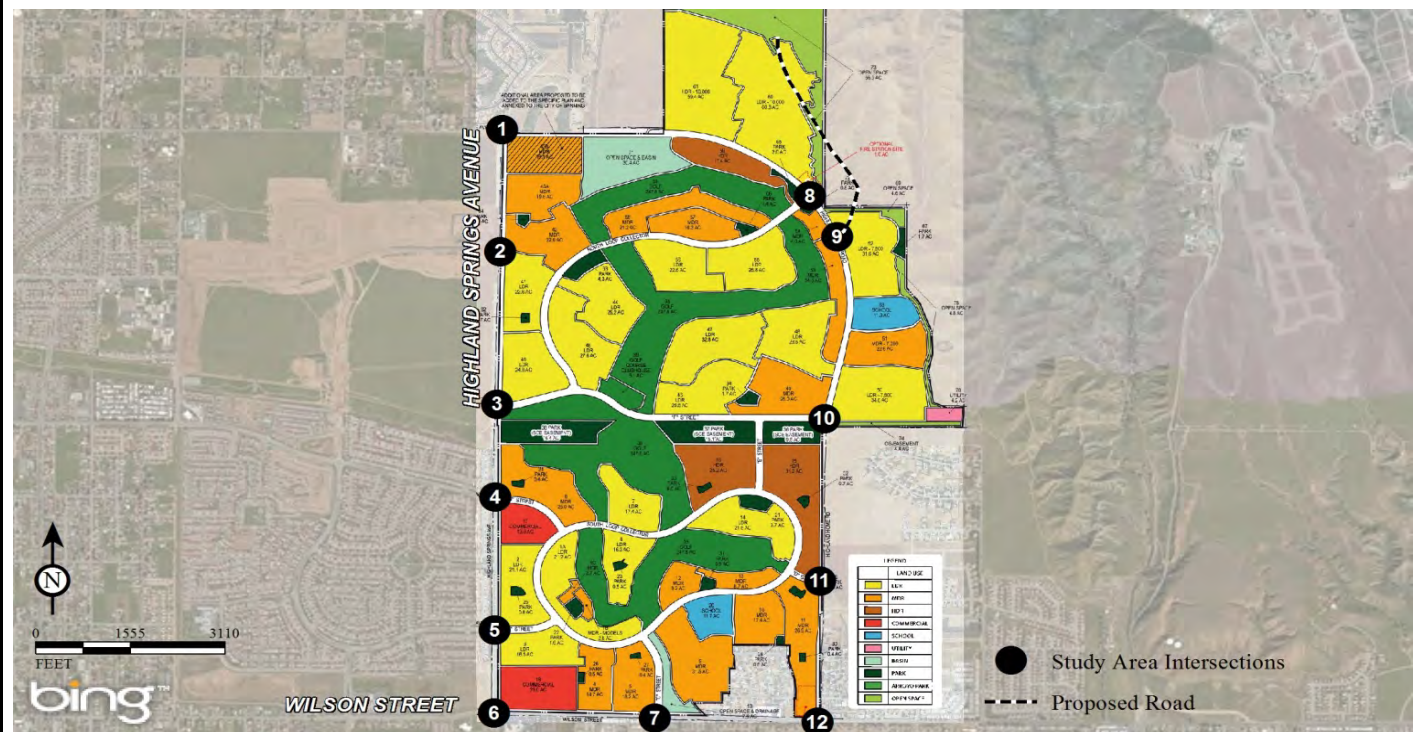
3.5 Existing plus Project Traffic Volumes

Existing plus Approved Project Condition Traffic Volumes. Existing plus Approved Project traffic volumes were obtained from the previously approved BSPTIA. Figure 19 illustrates the Existing plus Approved Project a.m. and p.m. peak hour traffic volumes at each of the study intersections.

Table E - Project Trip Generation Comparison

Land Use				A.M. Peak Hour			P.M. Peak Hour			Daily
				In	Out	Total	In	Out	Total	
Approved Project ¹										
Residential ²	4,182	DU		794	2,341	3,135	2,634	1,591	4,225	40,022
Commercial ³	549	TSF		257	136	393	841	920	1,761	18,423
Condominium/Townhouse ⁴	1,205	DU		90	440	530	420	207	627	7,001
Elementary School ⁵	200	TSF		584	458	1,042				3,092
Golf Course ⁶	18	Holes		32	8	40	23	28	51	643
Internal Trip Capture ⁷	10%			(176)	(338)	(514)	(392)	(275)	(666)	(6,918)
Approved Project Total Trip Generation				1,582	3,044	4,626	3,526	2,471	5,998	62,263
Project Alternative 1										
Residential ²	3,666	DU		696	2,051	2,747	2,309	1,395	3,704	35,084
Commercial ³	549	TSF		257	136	393	841	920	1,761	18,423
Condominium/Townhouse ⁴	1,205	DU		90	440	530	420	207	627	7,001
Elementary School ⁵	200	TSF		584	458	1,042				3,092
Internal Trip Capture ⁷	10%			(163)	(308)	(471)	(357)	(252)	(609)	(6,360)
Project Alternative 1 Total Trip Generation				1,465	2,776	4,241	3,213	2,270	5,483	57,239
Project Alternative 2										
Residential ²	4,296	DU		819	2,403	3,222	2,704	1,631	4,335	41,113
Commercial ³	560	TSF		261	137	399	855	935	1,791	18,719
Condominium/Townhouse ⁴	566	DU		42	207	249	197	97	294	3,288
Elementary School ⁵	236	TSF		687	540	1,227				3,643
Internal Trip Capture ⁷	10%			(181)	(329)	(510)	(376)	(266)	(642)	(6,676)
Project Alternative 2 Total Trip Generation				1,628	2,958	4,587	3,381	2,397	5,778	60,087

¹Trip Generation for Approved Project obtained from BSPTIA.²Rates based on Land Use 210 - Single Family Detached Housing from Institute of Transportation Engineers (ITE) Trip Generation, 8th Edition.³Trip Generation rates based on Land Use 820 - Shopping Center from ITE Trip Generation, 8th Edition and Pass-By Rates based on Land Use 820 - Shopping Center from ITE Trip Generation Handbook, 2nd Edition.⁴Rates based on Land Use 230 - Residential Condominium/Townhomes from ITE Trip Generation, 8th Edition.⁵Rates based on Land Use 520 - Elementary School from ITE Trip Generation, 8th Edition.⁶Rates based on Land Use 430 - Golf Course from ITE Trip Generation, 8th Edition.⁷Internal Trip Capture Rates based on Project Select Zone from the Pass Area Model



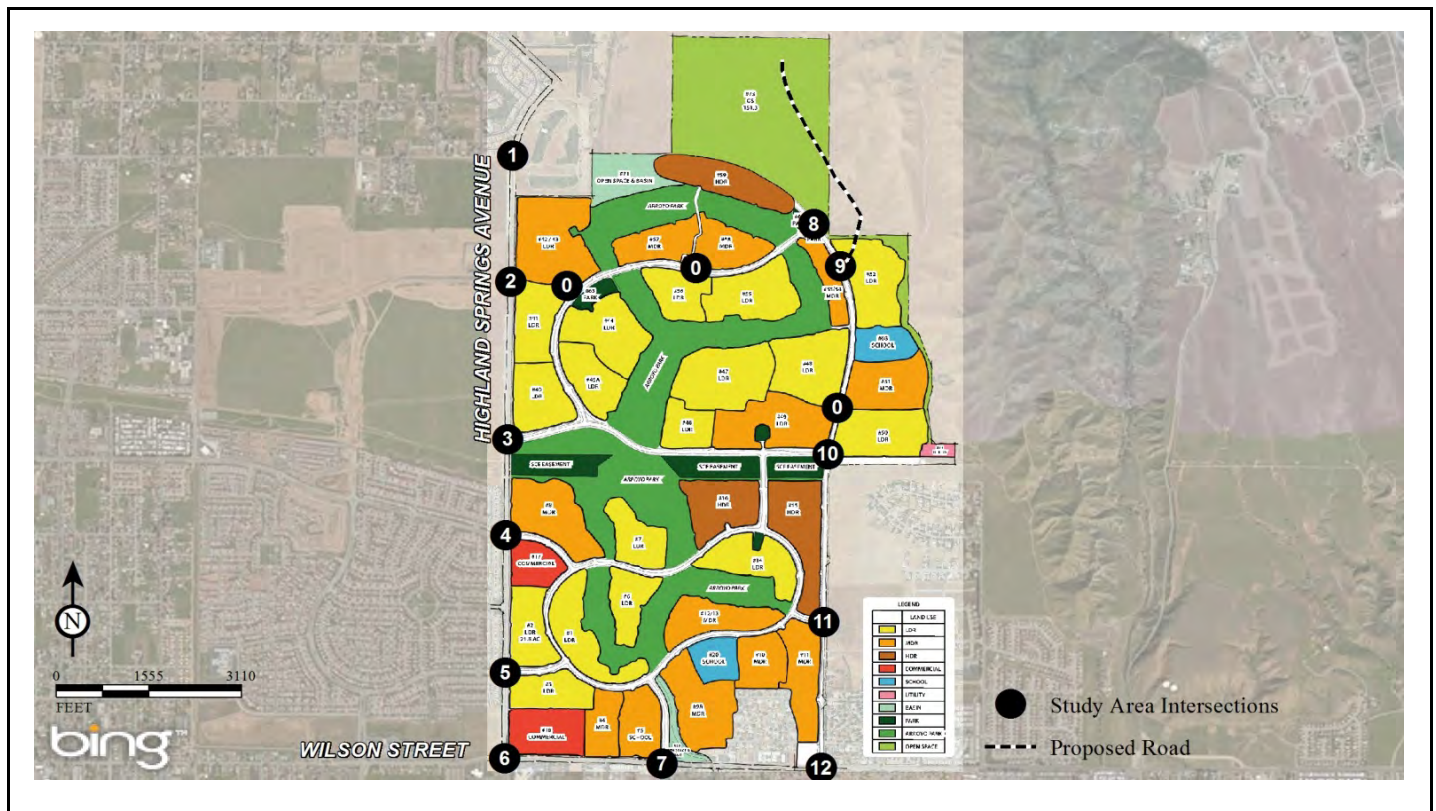
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FIGURE 7

XX (YY%) Inbound% (Outbound%) Distribution

Revised Butterfield Specific Plan
Traffic Impact Analysis

Project Trip Distribution - Existing (Baseline) plus Approved Project



	<i>Future Intersection</i>			
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar V	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy	5 Highland Springs Ave/Starlight Ave -A S
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G S	10 Highland Home Rd/F St
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

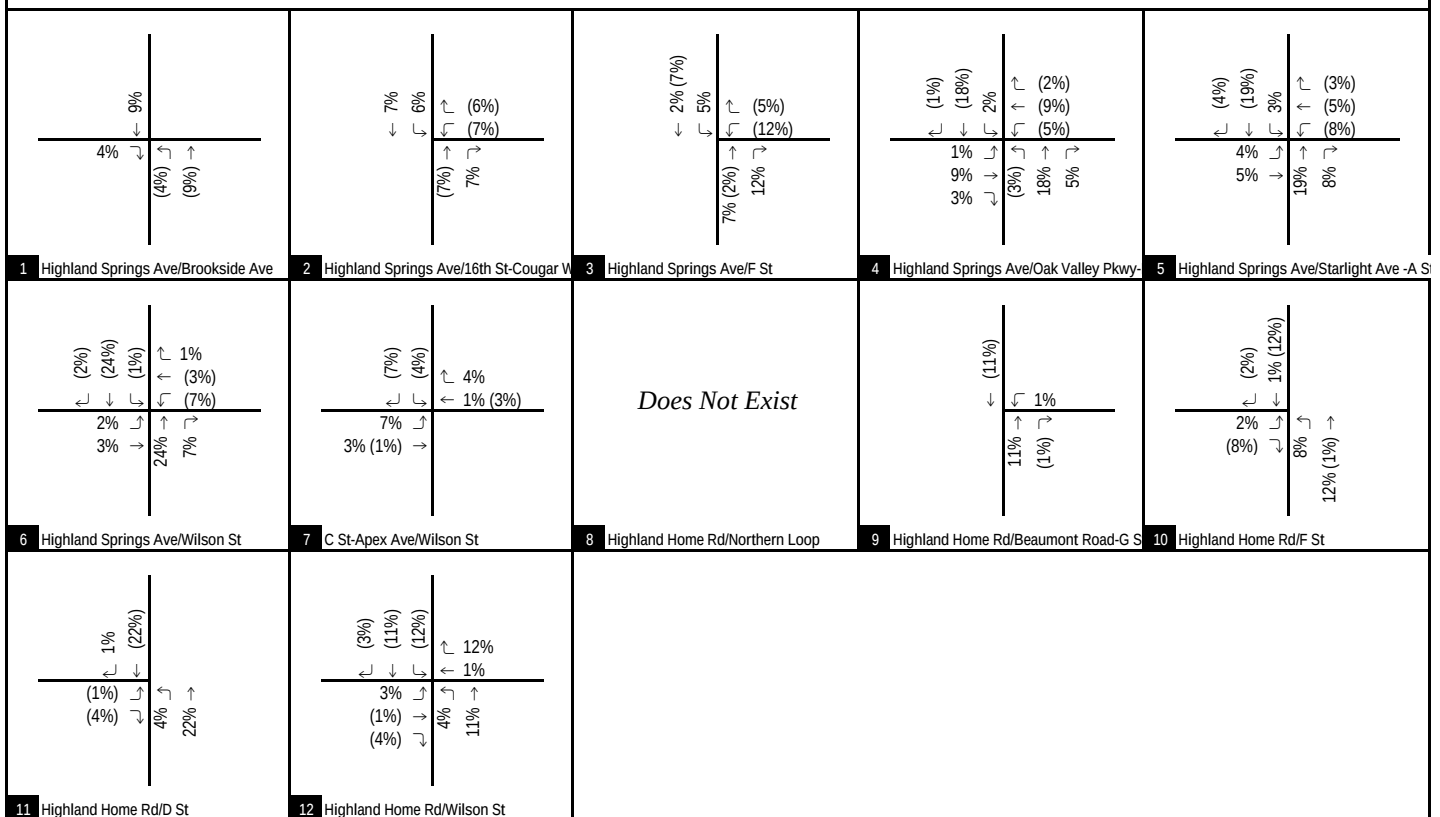
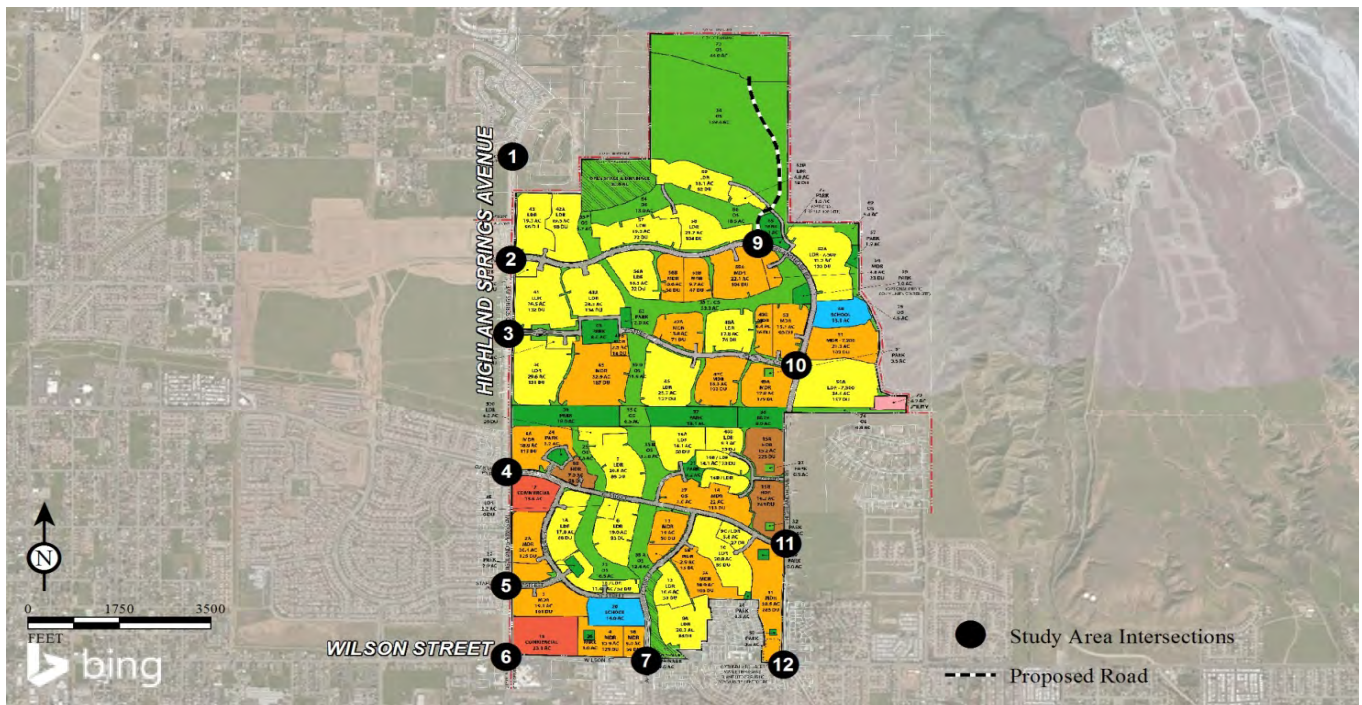
LSA

FIGURE 8

XX (YY%) Inbound% (Outbound%) Distribution

Revised Butterfield Specific Plan
Traffic Impact Analysis

Project Trip Distribution - Existing (Baseline) plus Project Alternative I



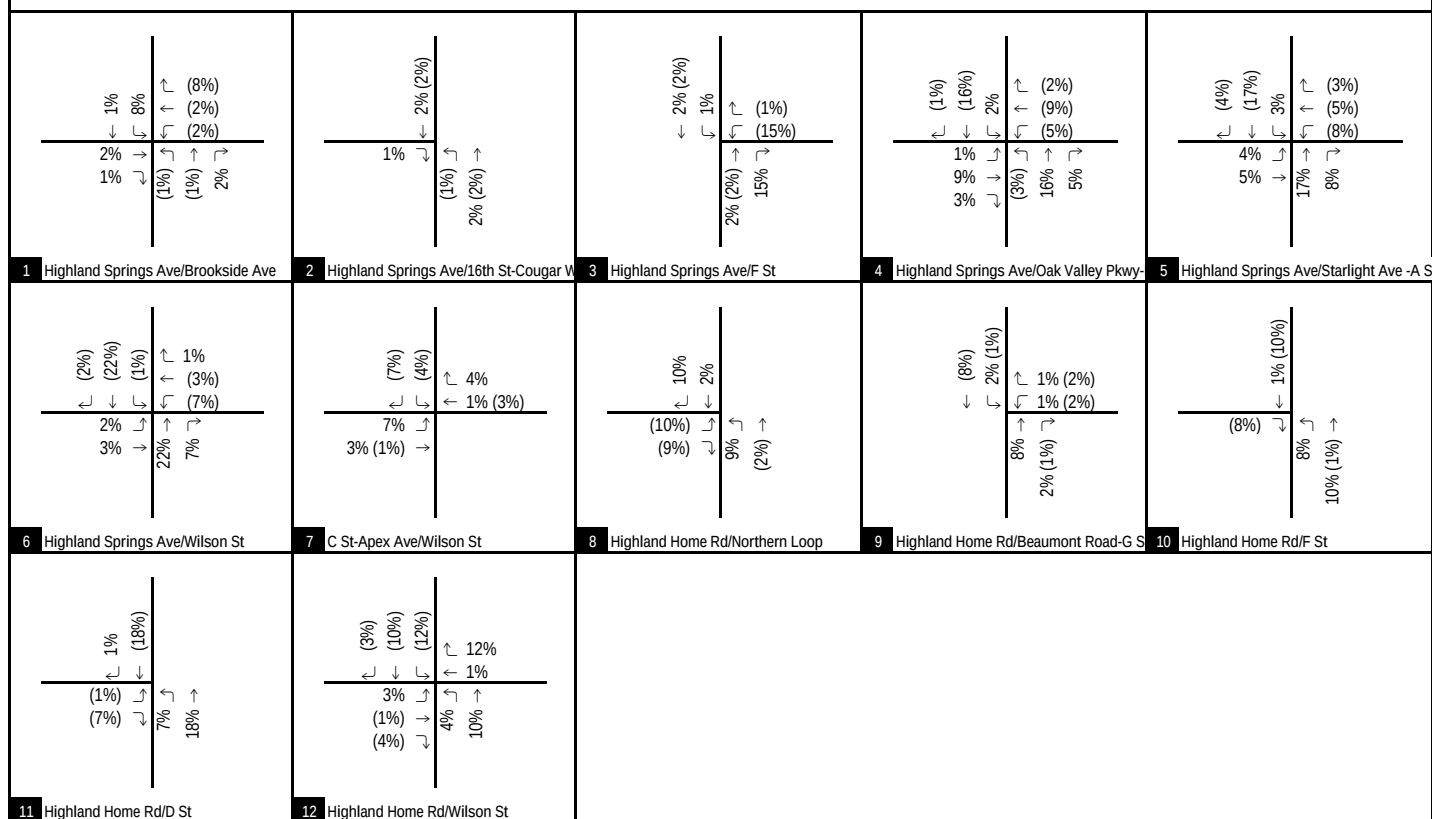
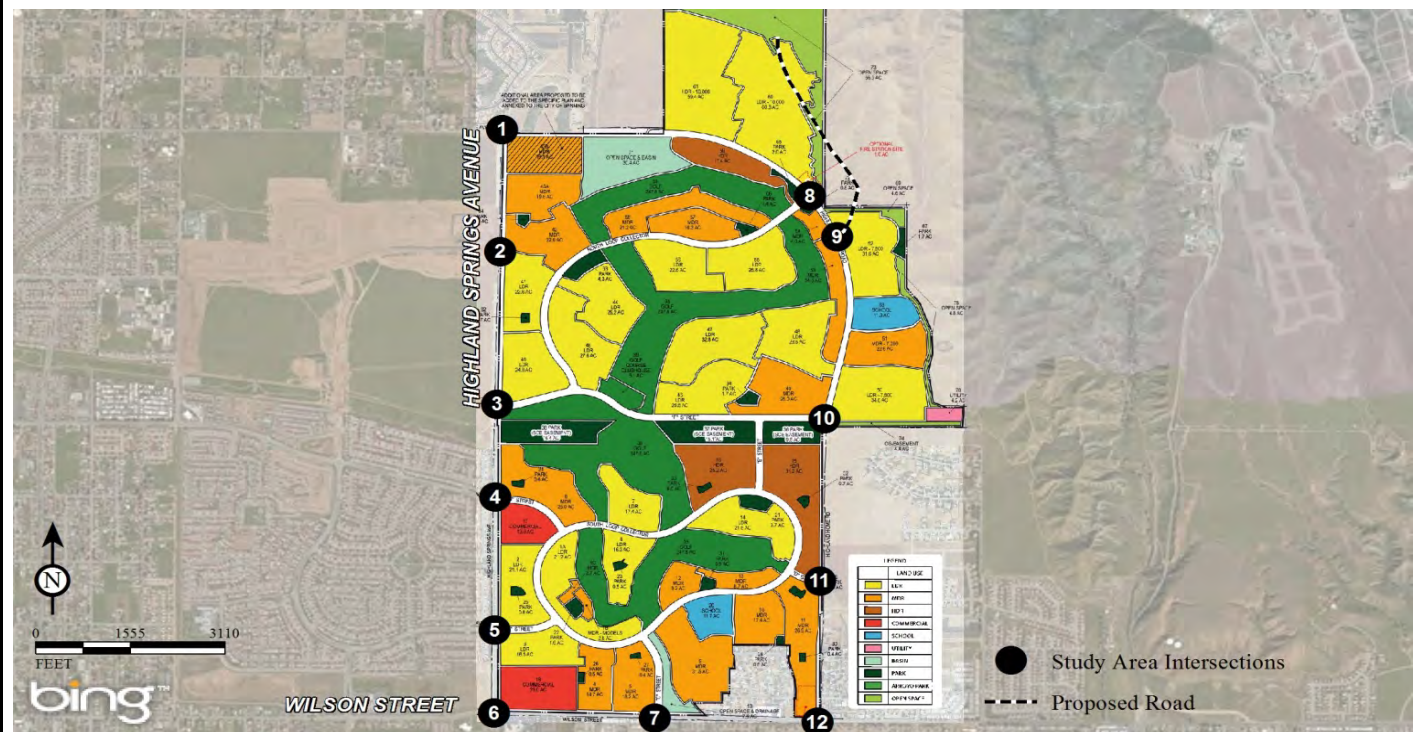
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FIGURE 9

XX% (YY%) Inbound% (Outbound%) Distribution

Revised Butterfield Specific Plan
Traffic Impact Analysis

Project Trip Distribution - Existing (Baseline) plus Project Alternative 2



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FIGURE 10

XX (YY%) Inbound% (Outbound%) Distribution

Revised Butterfield Specific Plan
Traffic Impact Analysis

Project Trip Distribution - General Plan Build-out plus Approved Project

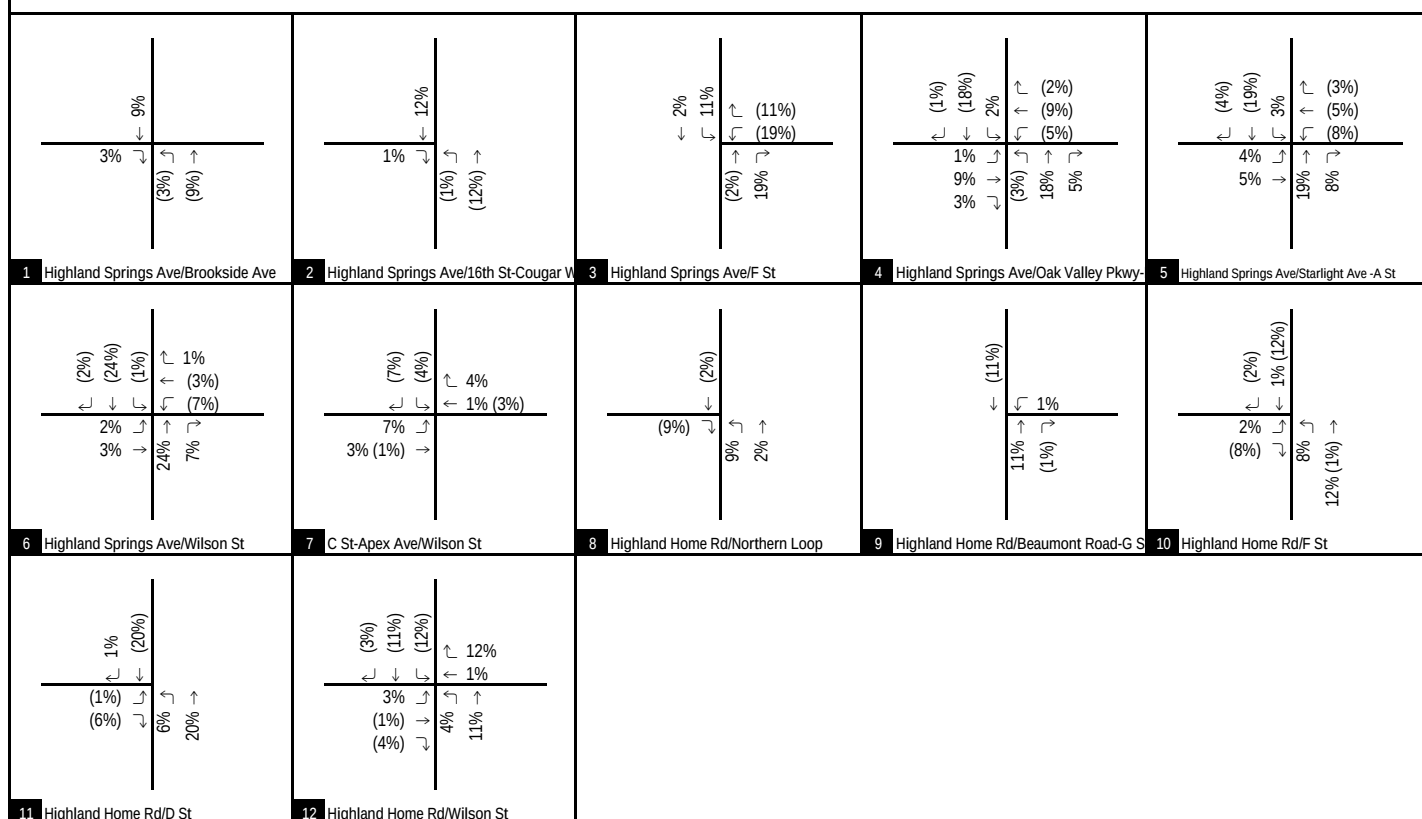
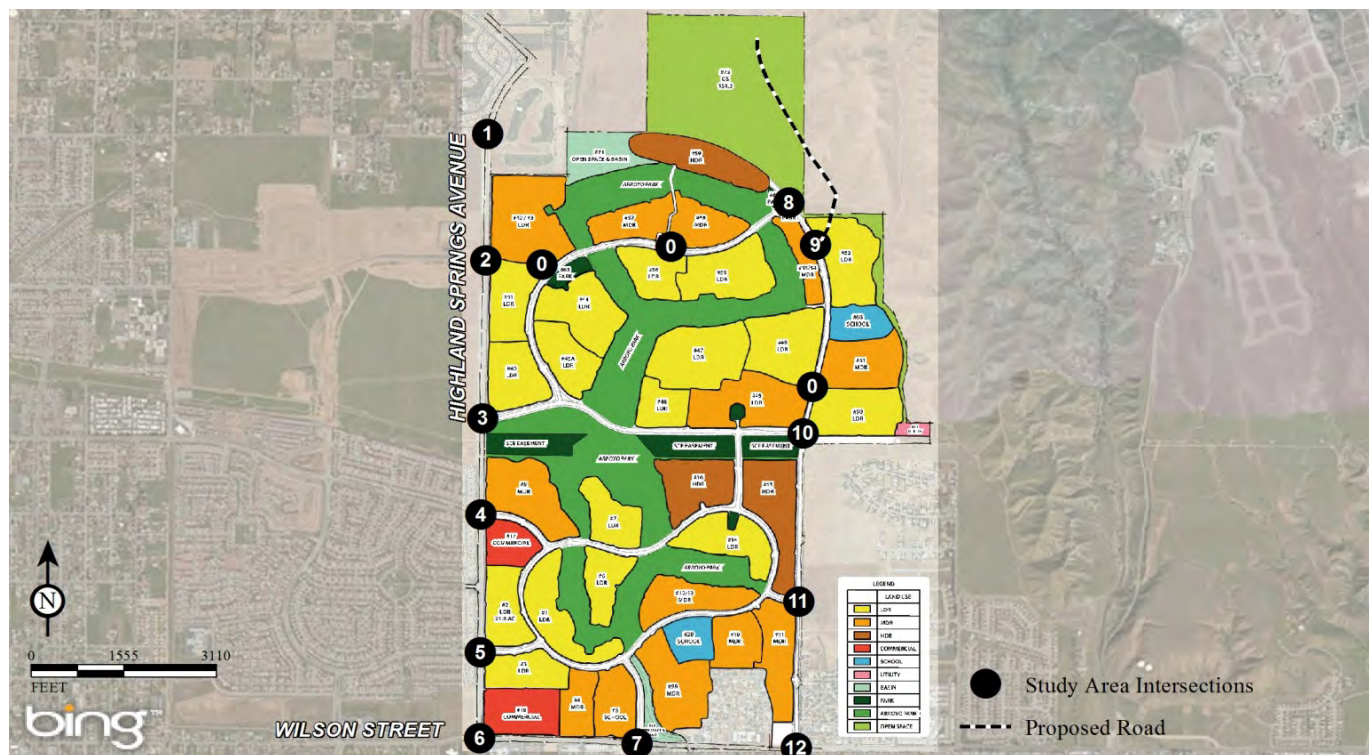
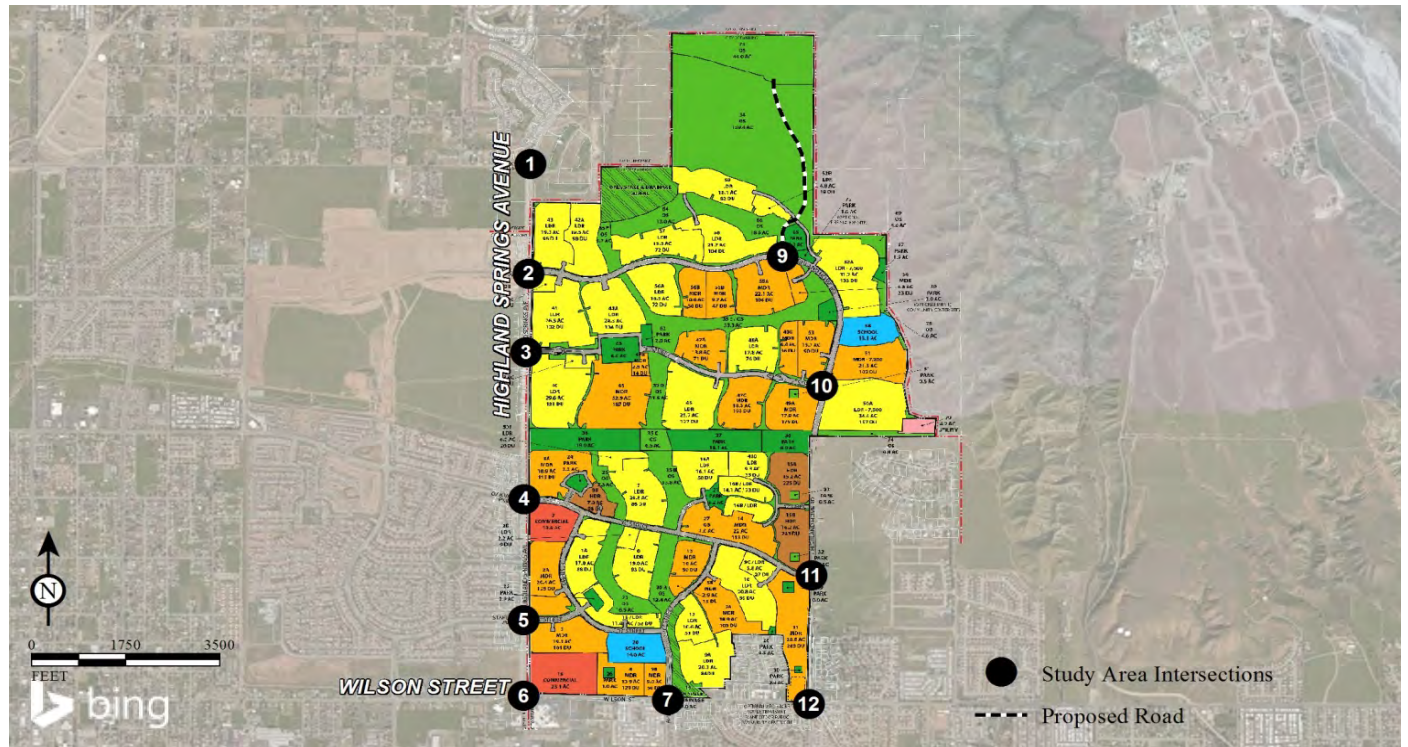


FIGURE 11

XX% (YY%) Inbound% (Outbound%) Distribution

*Revised Butterfield Specific Plan
Traffic Impact Analysis*

Project Trip Distribution - General Plan Build-out plus Project Alternative I



		Does Not Exist		

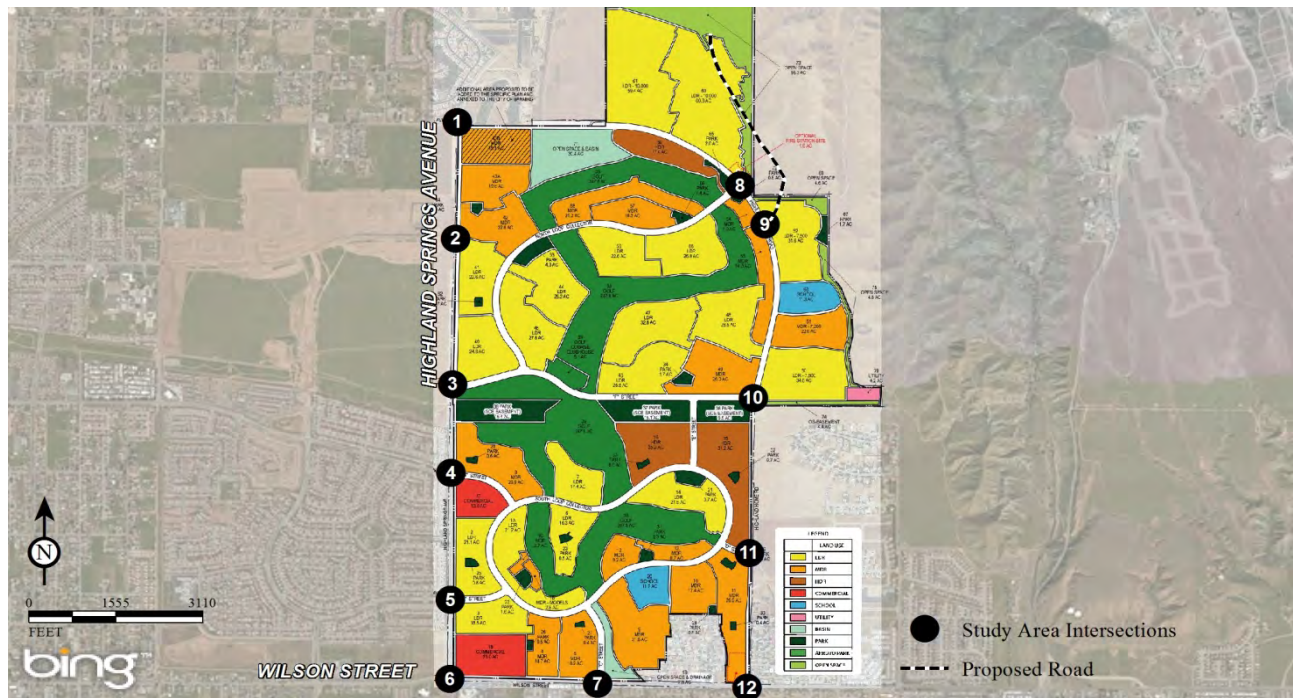
LSA

FIGURE 12

XX (YY%) Inbound% (Outbound%) Distribution

Revised Butterfield Specific Plan
Traffic Impact Analysis

Project Trip Distribution - General Plan Build-out plus Project Alternative 2



16 / 35 32 / 71 32 / 71 61 / 49 30 / 25 32 / 71 244 / 198 61 / 49 61 / 49	Future Intersection	93 / 120 16 / 35 30 / 25 457 / 371 93 / 120 237 / 529	30 / 25 487 / 395 32 / 71 61 / 49 274 / 222 152 / 124 16 / 35 142 / 317 47 / 106 91 / 74 253 / 564 79 / 176	122 / 99 518 / 420 47 / 106 91 / 74 152 / 124 244 / 198 63 / 141 79 / 176 269 / 599 127 / 282
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy	5 Highland Springs Ave/Starlight Ave-A
61 / 49 670 / 544 30 / 25 16 / 35 91 / 74 213 / 173 32 / 71 47 / 106 348 / 776 111 / 247	213 / 173 122 / 99 63 / 141 107 / 109 111 / 247 77 / 131	158 / 353 32 / 71 304 / 247 274 / 222 142 / 317 61 / 49	244 / 198 62 / 96 77 / 84 77 / 84 127 / 282 62 / 96	320 / 282 244 / 198 127 / 282 188 / 378
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G	10 Highland Home Rd/F St
16 / 35 548 / 445 30 / 25 213 / 173 111 / 247 285 / 635	91 / 74 304 / 247 365 / 297 190 / 423 16 / 35 47 / 106 30 / 25 122 / 99 63 / 141 158 / 353			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

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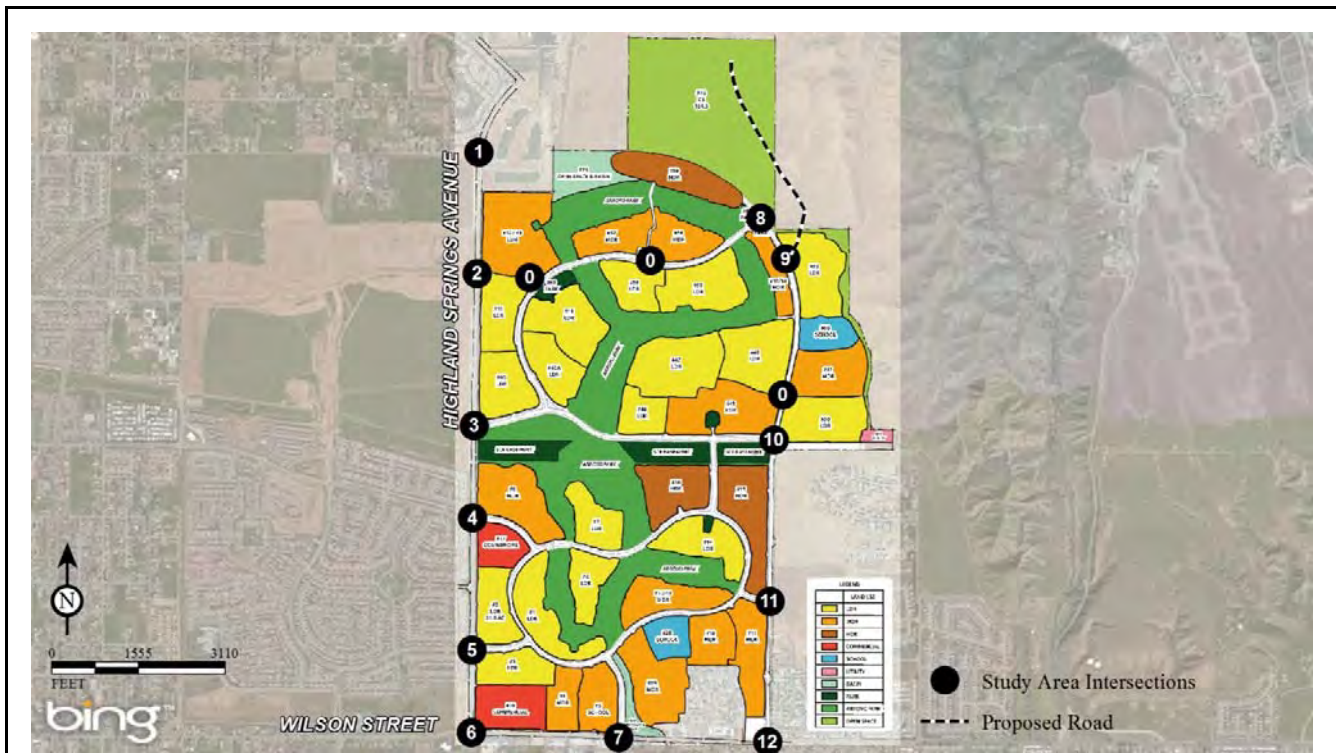
FIGURE 13

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan

Traffic Impact Analysis

Project Trip Assignment - Existing (Baseline) plus Approved Project



	<i>Future Intersection</i>			
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy	5 Highland Springs Ave/Starlight Ave-A
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G	10 Highland Home Rd/F St
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

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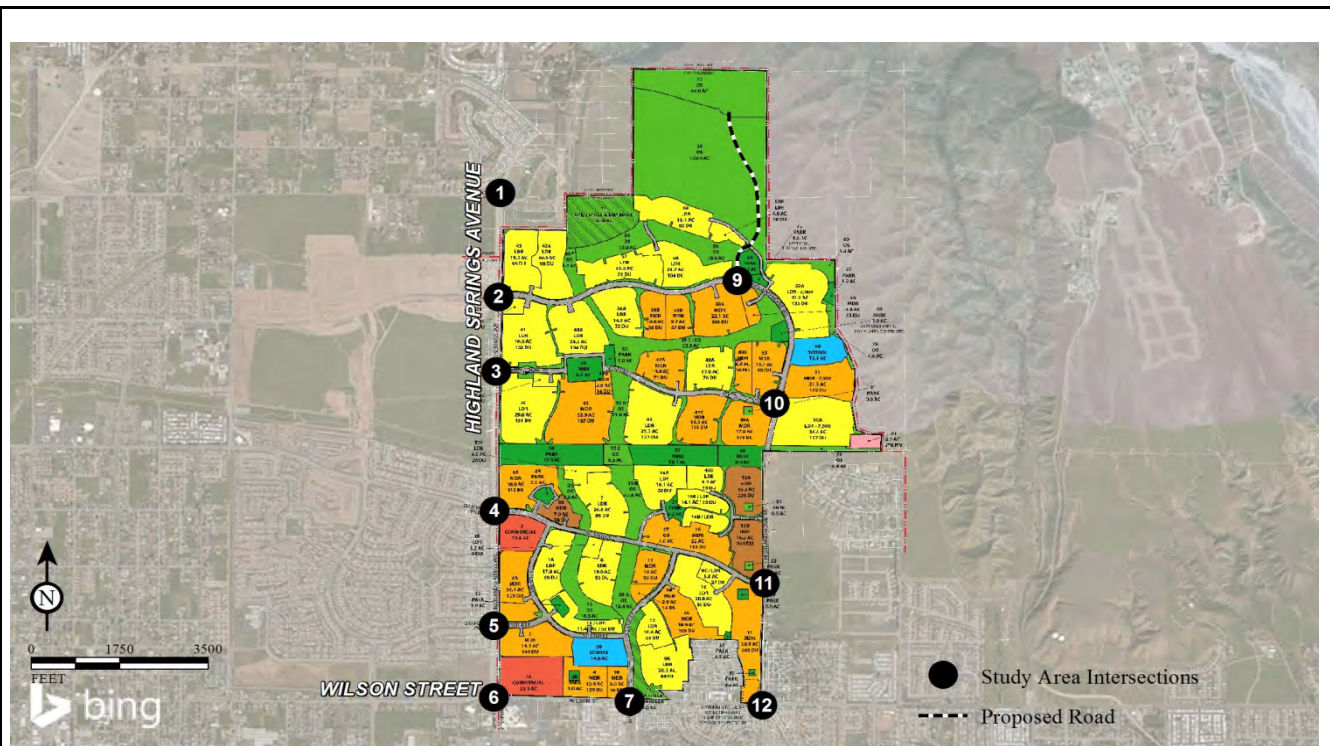
FIGURE 14

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan

Traffic Impact Analysis

Project Trip Assignment - Existing (Baseline) plus Project Alternative I



1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy	5 Highland Springs Ave/Starlight Ave-A
		Does Not Exist		
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G	10 Highland Home Rd/F St
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

LSA

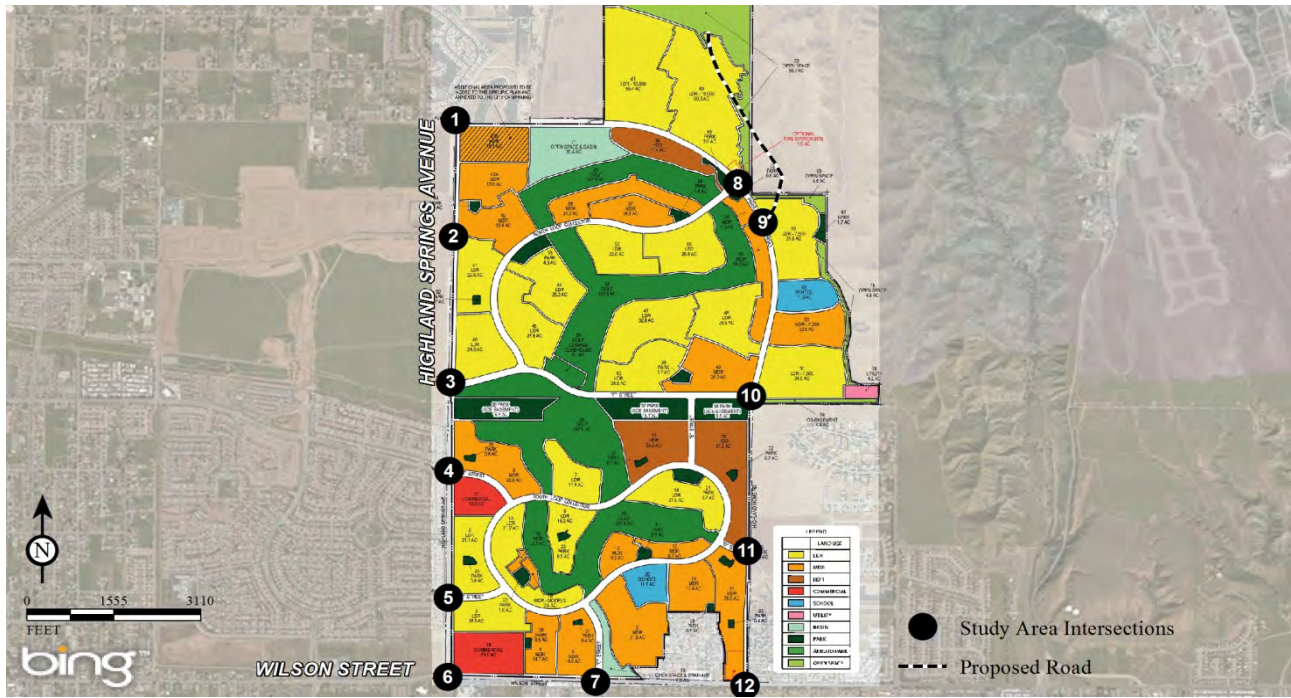
FIGURE 15

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan

Traffic Impact Analysis

Project Trip Assignment - Existing (Baseline) plus Project Alternative 2



16 / 35 32 / 71 16 / 35 127 / 282 244 / 198 61 / 49 61 / 49 30 / 25 30 / 25 32 / 71	93 / 120 16 / 35 30 / 25 93 / 120	93 / 120 16 / 35 30 / 25 457 / 371 93 / 120 237 / 529	30 / 25 16 / 35 142 / 317 47 / 106 487 / 395 32 / 71 61 / 49 274 / 222 152 / 124 91 / 74 253 / 564 79 / 176	122 / 99 63 / 141 79 / 176 518 / 420 47 / 106 91 / 74 152 / 124 244 / 198 269 / 599 127 / 282
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar Way	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy-B St	5 Highland Springs Ave/Starlight Ave-A St
61 / 49 32 / 71 47 / 106 670 / 544 30 / 25 16 / 35 91 / 74 213 / 173 348 / 776 111 / 247	213 / 173 111 / 247 77 / 131 122 / 99 63 / 141 107 / 109	158 / 353 304 / 247 274 / 222 32 / 71 142 / 317 61 / 49	244 / 198 62 / 96 77 / 84 77 / 84 127 / 282 62 / 96	320 / 282 244 / 198 127 / 282 188 / 378
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G St	10 Highland Home Rd/F St
16 / 35 30 / 25 213 / 173 548 / 445 111 / 247 285 / 635	91 / 74 47 / 106 30 / 25 122 / 99 304 / 247 365 / 297 190 / 423 16 / 35 63 / 141 158 / 353			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

LSA

FIGURE 16

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan

Traffic Impact Analysis

Project Trip Assignment - General Plan Build-out plus Approved Project

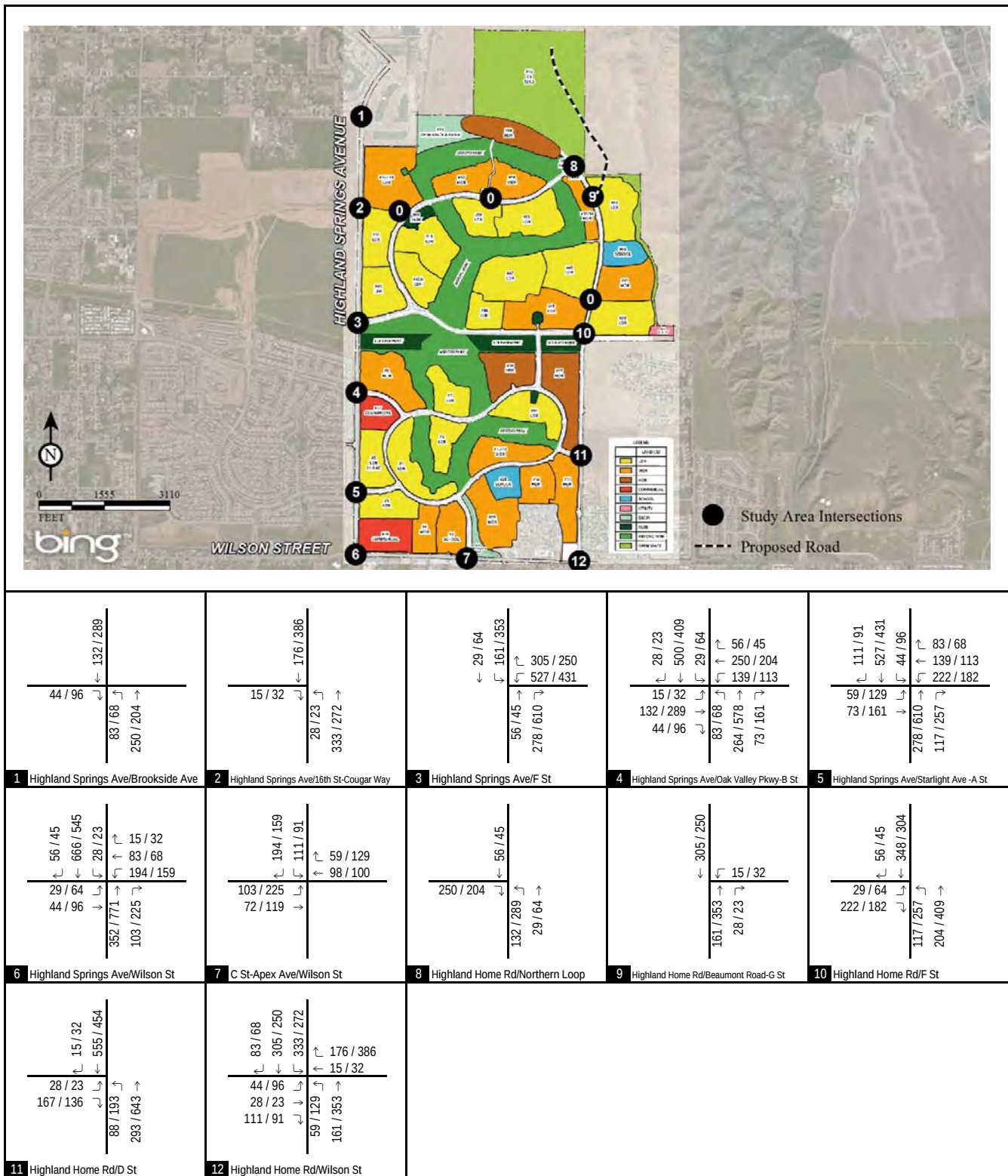


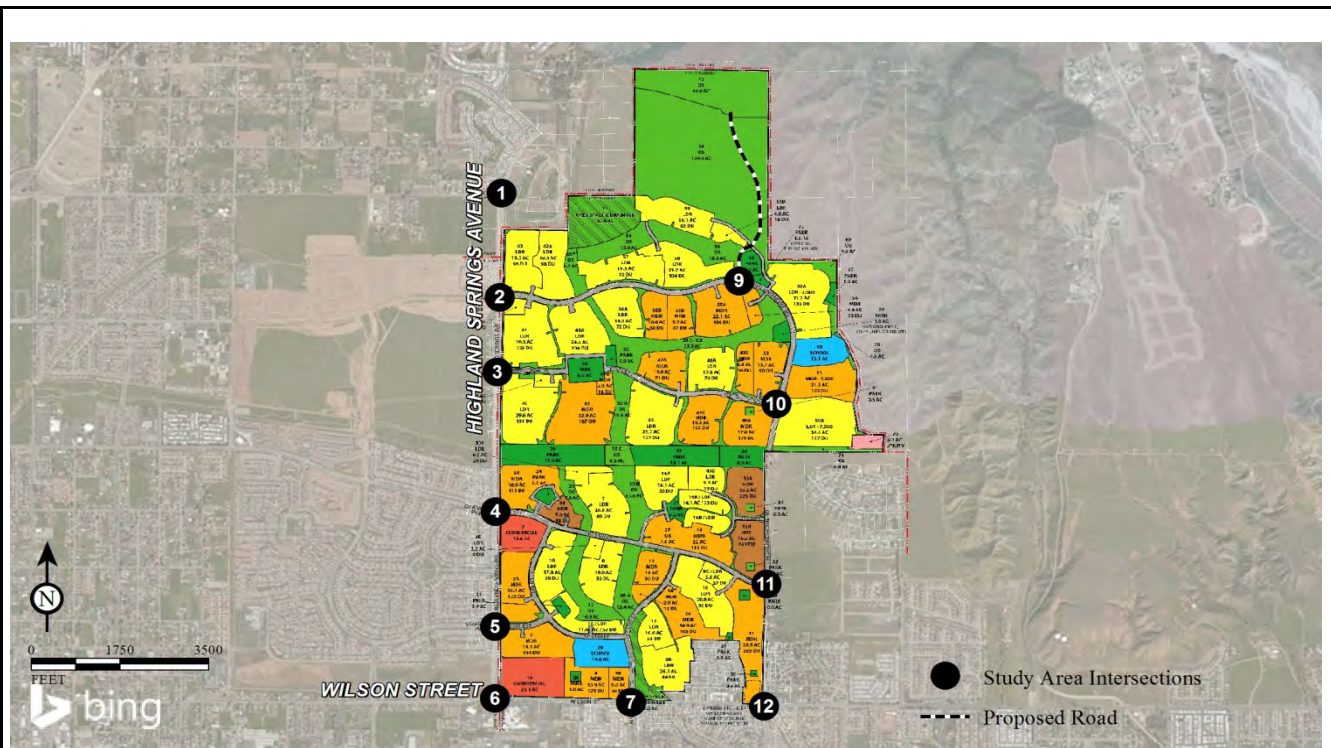
FIGURE 17

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan

Traffic Impact Analysis

Project Trip Assignment - General Plan Build-out plus Project Alternative I



1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar Way	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy-B St	5 Highland Springs Ave/Starlight Ave-A St
		Does Not Exist		
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G St	10 Highland Home Rd/F St
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

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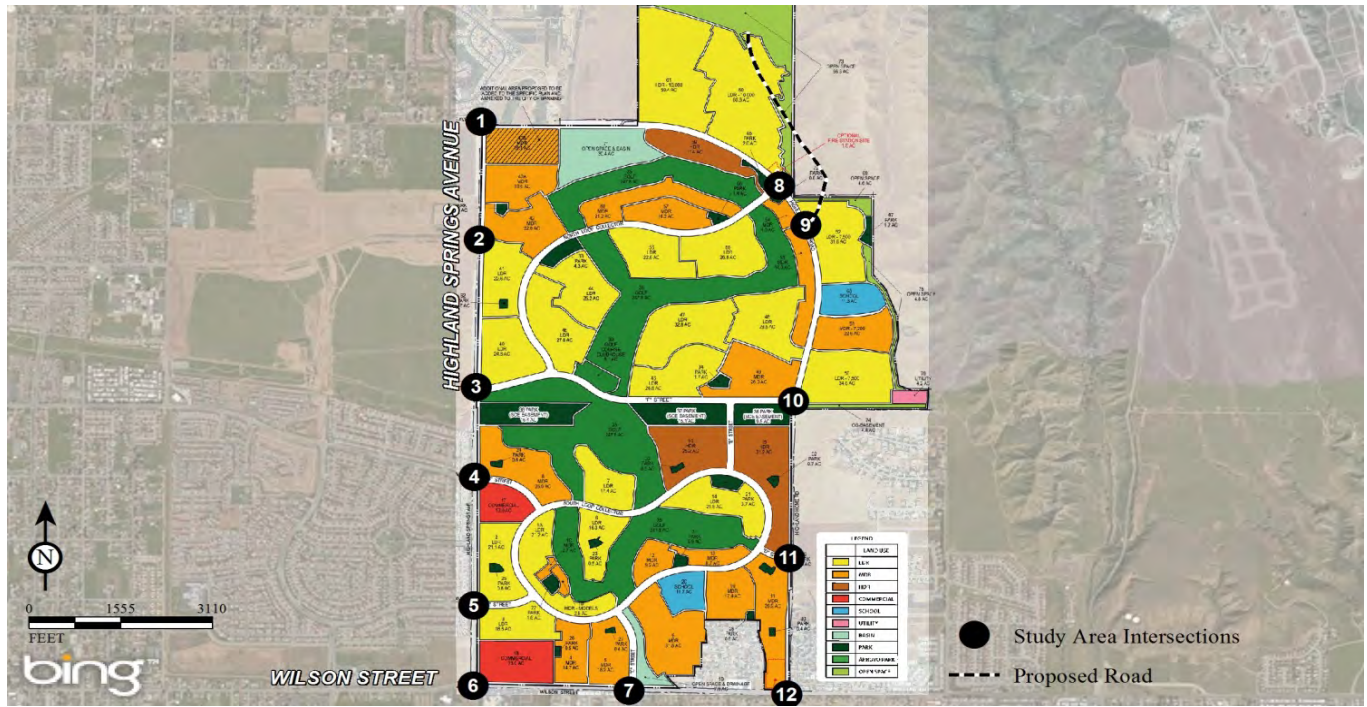
FIGURE 18

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan

Traffic Impact Analysis

Project Trip Assignment - General Plan Build-out plus Project Alternative 2



1/0 ← 84 / 93 ↑ 244 / 198 ← 61 / 49 ← 61 / 49 1/2 32 / 71 217 / 184 237 / 200 57 / 123 32 / 71	Future Intersection	336 / 278 ← 16 / 35 ← 30 / 25 ← 457 / 371 284 / 356 237 / 529	39 / 28 ← 721 / 550 ← 32 / 71 ← 61 / 49 ← 274 / 222 ← 152 / 124 22 / 38 142 / 317 251 / 228 215 / 278 438 / 797 79 / 176	142 / 102 ← 1033 / 762 ← 47 / 106 ← 91 / 74 ← 152 / 124 ← 244 / 198 80 / 143 79 / 176 169 / 75 26 / 145 556 / 1140 127 / 282
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar Way	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy-B St	5 Highland Springs Ave/Starlight Ave-A St
154 / 60 ← 1068 / 861 ← 180 / 118 51 / 82 141 / 169 101 / 49 57 / 47 497 / 1317 227 / 426	213 / 173 ← 122 / 99 ← 63 / 141 ← 423 / 398 111 / 247 380 / 494 1 / 4 6 / 1	158 / 353 ← 51 / 80 304 / 247 274 / 222 142 / 317 74 / 67	263 / 207 ← 62 / 96 ← 77 / 84 ← 77 / 84 140 / 300 62 / 96	339 / 291 244 / 198 127 / 282 201 / 396
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G St	10 Highland Home Rd/F St
16 / 35 ← 567 / 454 30 / 25 213 / 173 111 / 247 298 / 653	98 / 77 ← 311 / 249 ← 370 / 301 ← 192 / 428 ← 268 / 297 ← 41 / 30 57 / 112 271 / 332 140 / 105 77 / 159 159 / 360 30 / 40			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

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FIGURE 19

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan
Traffic Impact Analysis

Existing (Baseline) plus Approved Project Peak Hour Traffic Volumes

Existing plus Project Alternative 1 Condition Traffic Volumes. Existing plus Project Alternative 1 traffic volumes were obtained by adding Project Alternative 1 trips to the existing without project traffic volumes. Figure 20 illustrates the Existing plus Project Alternative 1 a.m. and p.m. peak hour traffic volumes at each of the study intersections.

Existing plus Project Alternative 2 Condition Traffic Volumes. Existing plus Project Alternative 2 traffic volumes were obtained by adding Project Alternative 2 trips to the existing without project traffic volumes. Figure 21 illustrates the Existing plus Project Alternative 2 a.m. and p.m. peak hour traffic volumes at each of the study intersections.

4.0 GENERAL PLAN BUILD-OUT CONDITIONS

The General Plan Build-out conditions at all study area intersections were analyzed based on existing intersection configurations. The traffic volumes for the future without project and with Approved Project conditions were obtained from the BSPTIA. These volumes were developed based on the City of Banning General Plan traffic model and include the General Plan land use data and a proposed circulation system consistent with the City of Beaumont General Plan Circulation Element (Revised December 2004) and the Pass Area Circulation Plan, which is part of the Riverside County Integrated Project (RCIP).

4.1 Roadway Network

General Plan Build-out conditions without project geometrics and stop control are illustrated in previously referenced Figure 5.

4.2 General Plan Build-out Without Project Condition Traffic Volumes

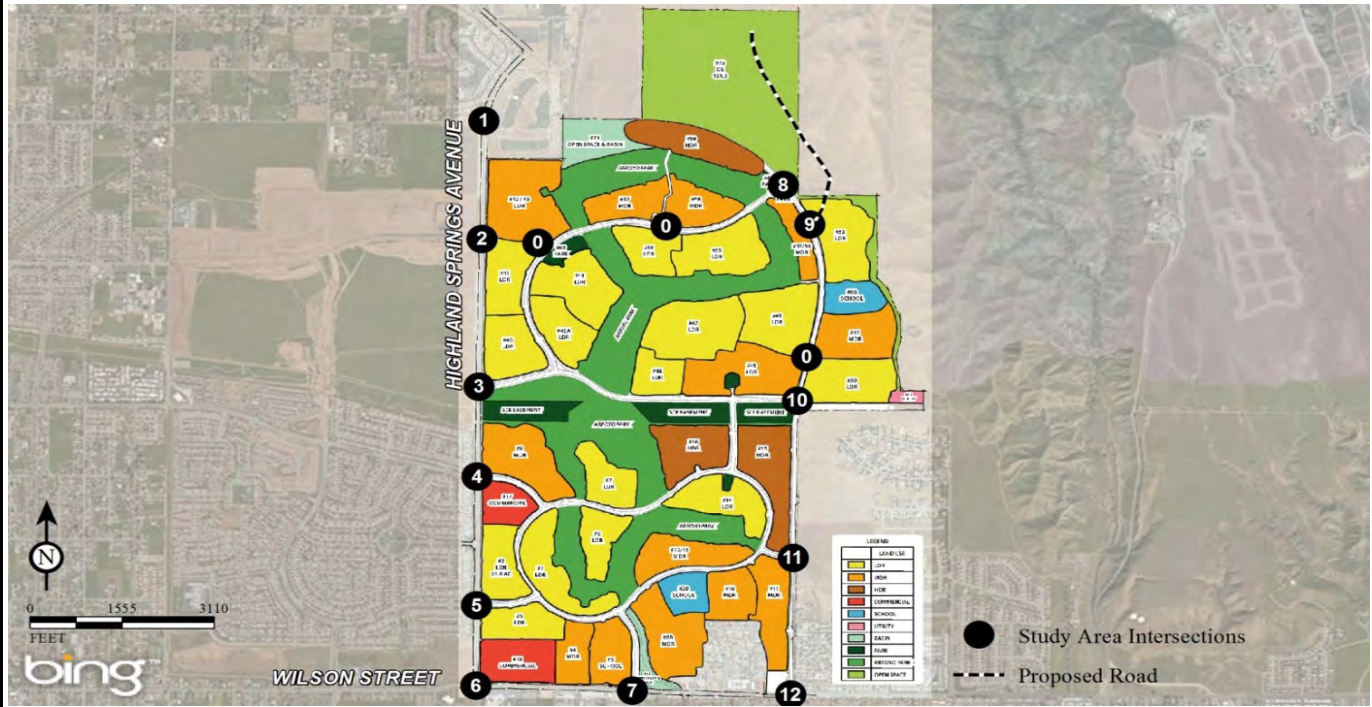
Figure 22 illustrates the General Plan Build-out a.m. and p.m. peak hour without project traffic volumes at each of the study area intersections.

4.3 General Plan Build-out plus Approved Project Condition Traffic Volumes

General Plan Build-out plus Approved Project traffic volumes were obtained from the previously approved BSPTIA. Figure 23 illustrates the General Plan Build-out plus Approved Project a.m. and p.m. peak hour traffic volumes at each of the study intersections.

4.4 General Plan Build-out plus Project Alternative 1 Condition Traffic Volumes

General Plan Build-out plus Project Alternative 1 traffic volumes were obtained by adding Project Alternative 1 trips to the existing without project traffic volumes. Figure 24 illustrates the General Plan Build-out plus Project Alternative 1 a.m. and p.m. peak hour traffic volumes at each of the study intersections.



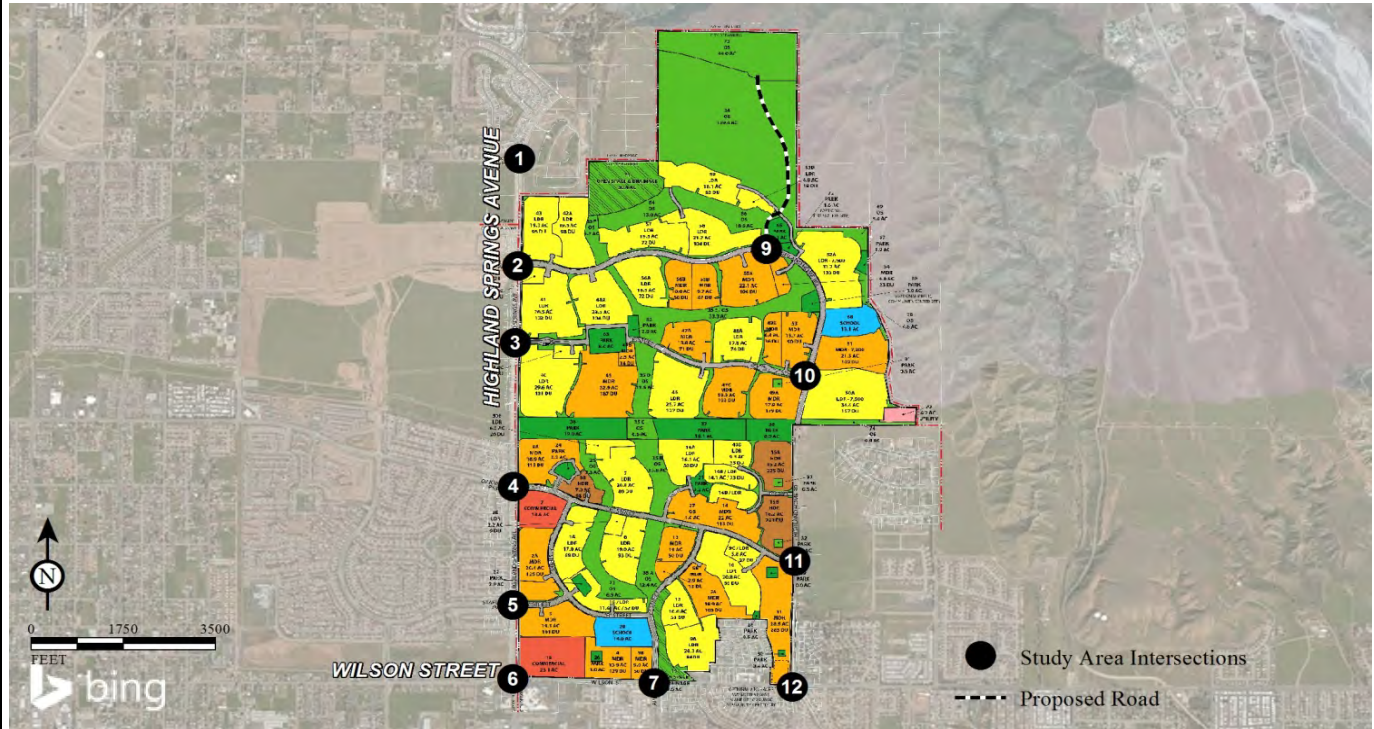
1 / 0 1 / 2 244 / 242 287 / 242 277 / 302 200 / 347	<i>Future Intersection</i>	272 / 222 161 / 353 305 / 250 527 / 431 247 / 281 278 / 610	37 / 26 734 / 564 29 / 64 56 / 45 250 / 204 139 / 113 21 / 35 132 / 289 248 / 218 207 / 272 449 / 811 73 / 161	131 / 94 1042 / 773 44 / 96 83 / 68 139 / 113 222 / 182 76 / 131 73 / 161 169 / 75 26 / 145 565 / 1151 117 / 257
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar Way	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy-B St	5 Highland Springs Ave/Starlight Ave-A St
149 / 56 1064 / 862 178 / 116 48 / 75 138 / 159 101 / 49 57 / 47 501 / 1312 219 / 404 131 / 149 171 / 130 335 / 294	194 / 159 111 / 91 59 / 129 414 / 389 103 / 225 375 / 482 1 / 4 6 / 1	250 / 204 132 / 289 42 / 82 75 / 54	324 / 259 15 / 32 174 / 371 28 / 23	56 / 45 367 / 313 29 / 64 222 / 182 117 / 257 217 / 427
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G St	10 Highland Home Rd/F St
15 / 32 574 / 463 28 / 23 167 / 136 88 / 193 306 / 661	90 / 71 312 / 252 338 / 276 54 / 102 269 / 330 129 / 97 73 / 147 162 / 360 30 / 40 178 / 391 267 / 294 41 / 30			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

LSA

FIGURE 20

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan
Traffic Impact Analysis
Existing (Baseline) plus Project Alternative I Peak Hour Traffic Volumes



1 / 0 1 / 2 250 / 248 1 / 0 215 / 362 294 / 247 293 / 314	367 / 408 98 / 203 178 / 144 207 / 168 410 / 417 114 / 237	483 / 394 81 / 169 148 / 120 355 / 288 364 / 521 195 / 406	39 / 27 767 / 586 33 / 68 59 / 48 266 / 216 148 / 120 22 / 37 147 / 304 253 / 223 213 / 276 478 / 842 81 / 169	138 / 99 1077 / 797 49 / 101 89 / 72 148 / 120 237 / 192 82 / 137 81 / 169 169 / 75 26 / 145 596 / 1183 130 / 270
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy	5 Highland Springs Ave/Starlight Ave -A
152 / 59 1108 / 892 180 / 117 52 / 79 143 / 164 101 / 49 57 / 47 540 / 1352 230 / 416	207 / 168 118 / 96 65 / 135 421 / 395 114 / 237 382 / 488 1 / 4 6 / 1	Not Analyzed	344 / 273 16 / 34 192 / 390 30 / 24	59 / 48 390 / 331 33 / 68 237 / 192 130 / 270 238 / 448
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G	10 Highland Home Rd/F St
16 / 34 670 / 536 30 / 24 118 / 96 65 / 135 371 / 762	96 / 75 332 / 266 360 / 292 197 / 411 268 / 296 41 / 30 59 / 107 271 / 331 136 / 102 79 / 153 180 / 379 30 / 40			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

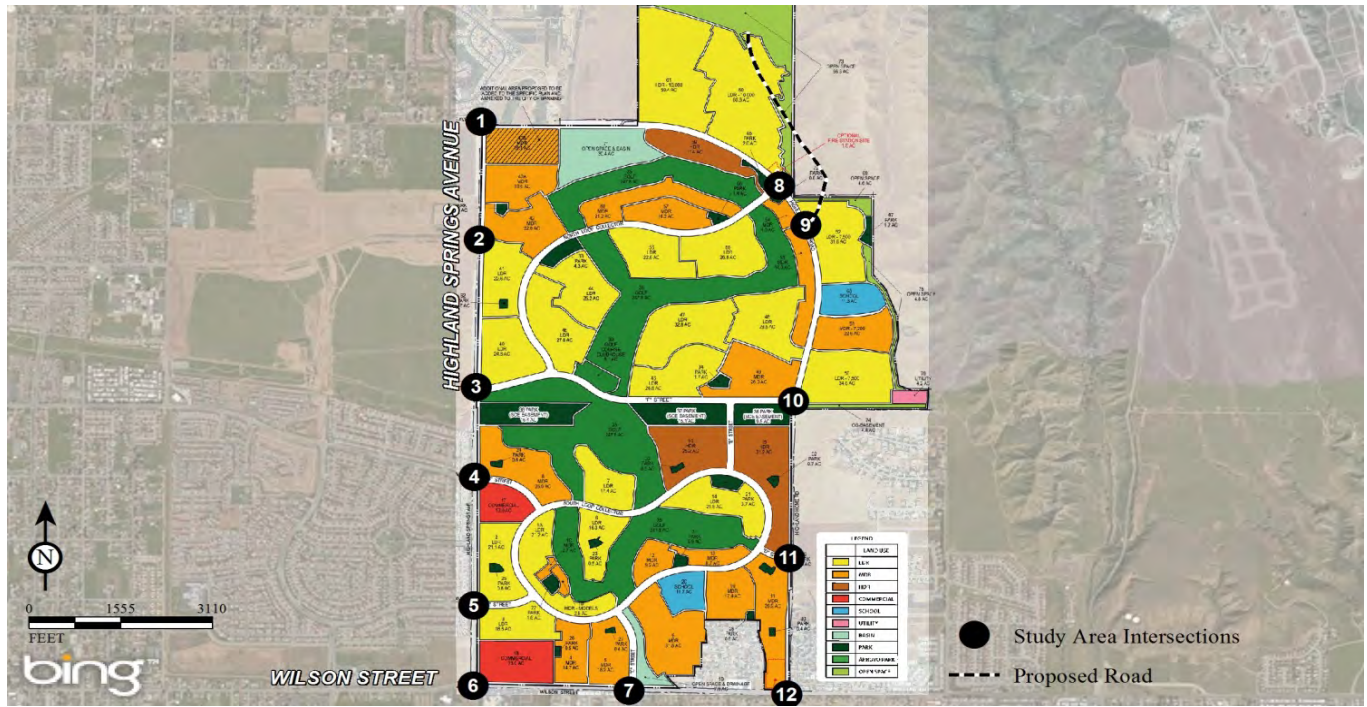
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FIGURE 21

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan
Traffic Impact Analysis

Existing plus Project Alternative 2 Peak Hour Traffic Volumes



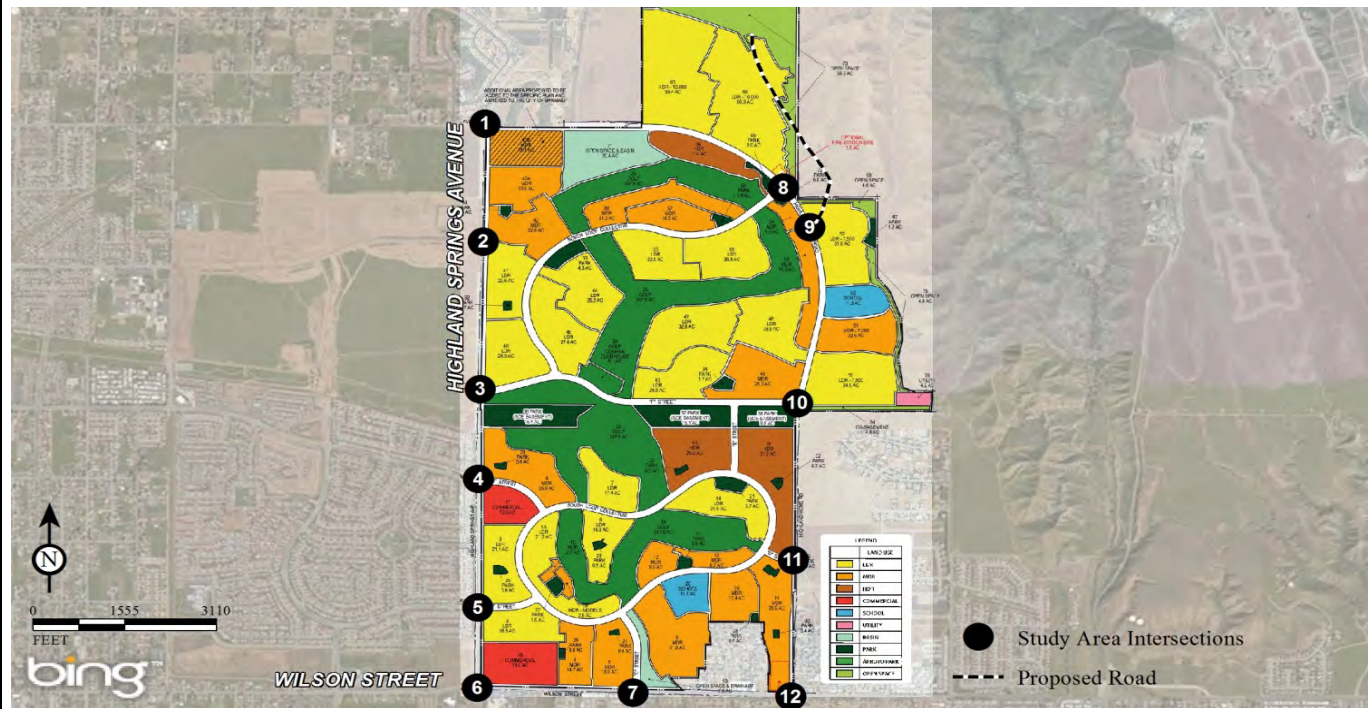
113 / 102 46 / 225 188 / 391 185 / 113 90 / 179 362 / 378 213 / 267 176 / 151 150 / 712 71 / 452 1 Highland Springs Ave/Brookside Ave	48 / 111 25 / 202 1 / 1 331 / 281 2 / 1 203 / 478 2 Highland Springs Ave/16th St-Cougar Way	Future Intersection 3 Highland Springs Ave/F St	9 / 5 6 / 107 521 / 635 376 / 307 276 / 777 185 / 446 4 Highland Springs Ave/Oak Valley Pkwy-B St	212 / 187 22 / 178 330 / 219 705 / 835 219 / 319 423 / 1119 5 Highland Springs Ave/Starlight Ave-A St
93 / 110 33 / 96 115 / 603 101 / 49 536 / 411 174 / 336 517 / 160 123 / 323 199 / 438 57 / 26 343 / 706 155 / 179 6 Highland Springs Ave/Wilson St	439 / 1152 1 / 4 915 / 991 6 / 1 7 C St-Apex Ave/Wilson St	Future Intersection 8 Highland Home Rd/Northern Loop	Future Intersection 9 Highland Home Rd/Beaumont Road-G St	Future Intersection 10 Highland Home Rd/F St
Future Intersection 11 Highland Home Rd/D St	59 / 39 264 / 270 112 / 13 259 / 975 58 / 146 250 / 241 49 / 369 879 / 830 118 / 43 14 / 87 65 / 315 30 / 196 12 Highland Home Rd/Wilson St			

LSA

FIGURE 22

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan
Traffic Impact Analysis
General Plan Build-out without Project Peak Hour Traffic Volumes



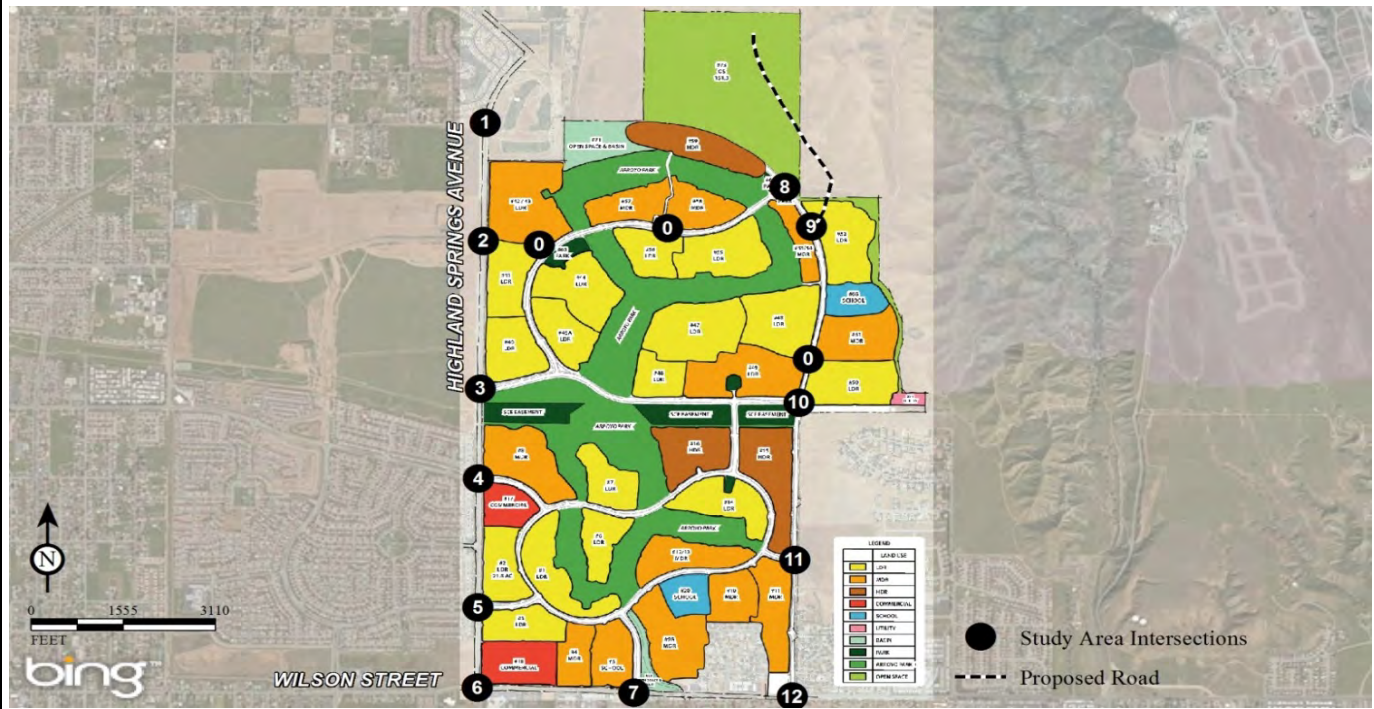
113 / 102 46 / 225 220 / 462 201 / 148 334 / 377 423 / 427 274 / 316 206 / 176 180 / 737 103 / 523	48 / 111 25 / 202 17 / 36 424 / 401 32 / 26 296 / 598	491 / 448 16 / 35 30 / 25 457 / 371 284 / 676 237 / 529	39 / 30 22 / 142 142 / 317 568 / 741 863 / 702 32 / 71 61 / 49 274 / 222 152 / 124 367 / 851 438 / 1010 79 / 176	334 / 286 85 / 319 79 / 176 330 / 219 1223 / 1255 47 / 106 91 / 74 152 / 124 244 / 198 219 / 319 692 / 1718 127 / 282
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar Way	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy-B St	5 Highland Springs Ave/Starlight Ave-A St
154 / 159 65 / 167 162 / 709 101 / 49 1206 / 955 204 / 361 139 / 358 290 / 512 730 / 333 57 / 26 691 / 1482 266 / 426	213 / 173 111 / 247 516 / 1283 1 / 4 122 / 99 63 / 141 1022 / 1100 6 / 1	158 / 353 304 / 247 274 / 222 400 / 1082 142 / 317 702 / 862	506 / 586 167 / 720 555 / 406 371 / 263 290 / 774 139 / 326	903 / 849 244 / 198 127 / 282 414 / 1029
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G St	10 Highland Home Rd/F St
16 / 35 30 / 25 213 / 173 1121 / 996 111 / 247 511 / 1331	150 / 113 588 / 517 159 / 119 289 / 1000 180 / 245 615 / 538 239 / 792 895 / 865 118 / 43 77 / 228 223 / 666 30 / 196			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

LSA

FIGURE 23

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan
Traffic Impact Analysis
General Plan Build-out plus Approved Project Peak Hour Traffic Volumes



113 / 102 46 / 225 417 / 600 591 / 573 482 / 1084	37 / 75 25 / 202 16 / 33 41 / 60 879 / 820	622 / 700 260 / 628 600 / 455 617 / 535 306 / 502 349 / 1062	39 / 30 1159 / 1127 29 / 64 56 / 45 250 / 204 139 / 113 359 / 845 579 / 1377 73 / 161	373 / 339 1464 / 1616 44 / 96 83 / 68 139 / 113 222 / 182 81 / 307 73 / 161 330 / 219 219 / 319 831 / 2082 117 / 257
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar Way	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy-B St	5 Highland Springs Ave/Starlight Ave-A St
115 / 62 1131 / 952 397 / 667 194 / 699 305 / 580 772 / 346 93 / 167 128 / 692 101 / 49 57 / 26 737 / 1479 216 / 402	194 / 159 111 / 91 59 / 129 1153 / 1536 103 / 225 632 / 1571 1 / 4 6 / 1	56 / 45 250 / 204 132 / 289 29 / 64	305 / 250 787 / 533 161 / 353 210 / 877	422 / 240 754 / 610 134 / 688 287 / 285 136 / 371 281 / 639
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G St	10 Highland Home Rd/F St
15 / 32 1026 / 862 28 / 23 167 / 136 88 / 193 369 / 987	201 / 569 918 / 1048 118 / 43 201 / 569 918 / 1048 118 / 43 226 / 208 473 / 392 483 / 398 82 / 100 392 / 1155 259 / 388 105 / 374 194 / 510 30 / 196			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

LSA

FIGURE 24

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan
Traffic Impact Analysis
General Plan Build-out plus Project Alternative I Peak Hour Traffic Volumes

4.5 General Plan Build-out plus Project Alternative 2 Condition Traffic Volumes

General Plan Build-out plus Project Alternative 2 traffic volumes were obtained by adding Project Alternative 2 trips to the existing without project traffic volumes. Figure 25 illustrates the General Plan Build-out plus Project Alternative 2 a.m. and p.m. peak hour traffic volumes at each of the study intersections.

5.0 TRAFFIC ANALYSIS

Level of service analysis was conducted for the study area intersections for all the analysis scenarios. The following sections report the results of those analyses.

5.1 Existing (Baseline) plus Approved Project Intersection Levels of Service

Existing plus Approved Project intersection levels of service were obtained from the BSPTIA. Previously referenced Table D summarizes the results of this analysis and shows eight intersections exceed LOS thresholds.

5.2 Existing (Baseline) plus Project Alternative 1 Intersection Levels of Service

A level of service analysis was conducted to evaluate existing (baseline) plus Project Alternative 1 a.m. and p.m. peak hour traffic operations at the study area intersections. Previously referenced Table D summarizes the results of this analysis and shows five intersections exceed LOS thresholds. Level of service worksheets are included in Appendix A.

5.3 Existing (Baseline) plus Project Alternative 2 Intersection Levels of Service

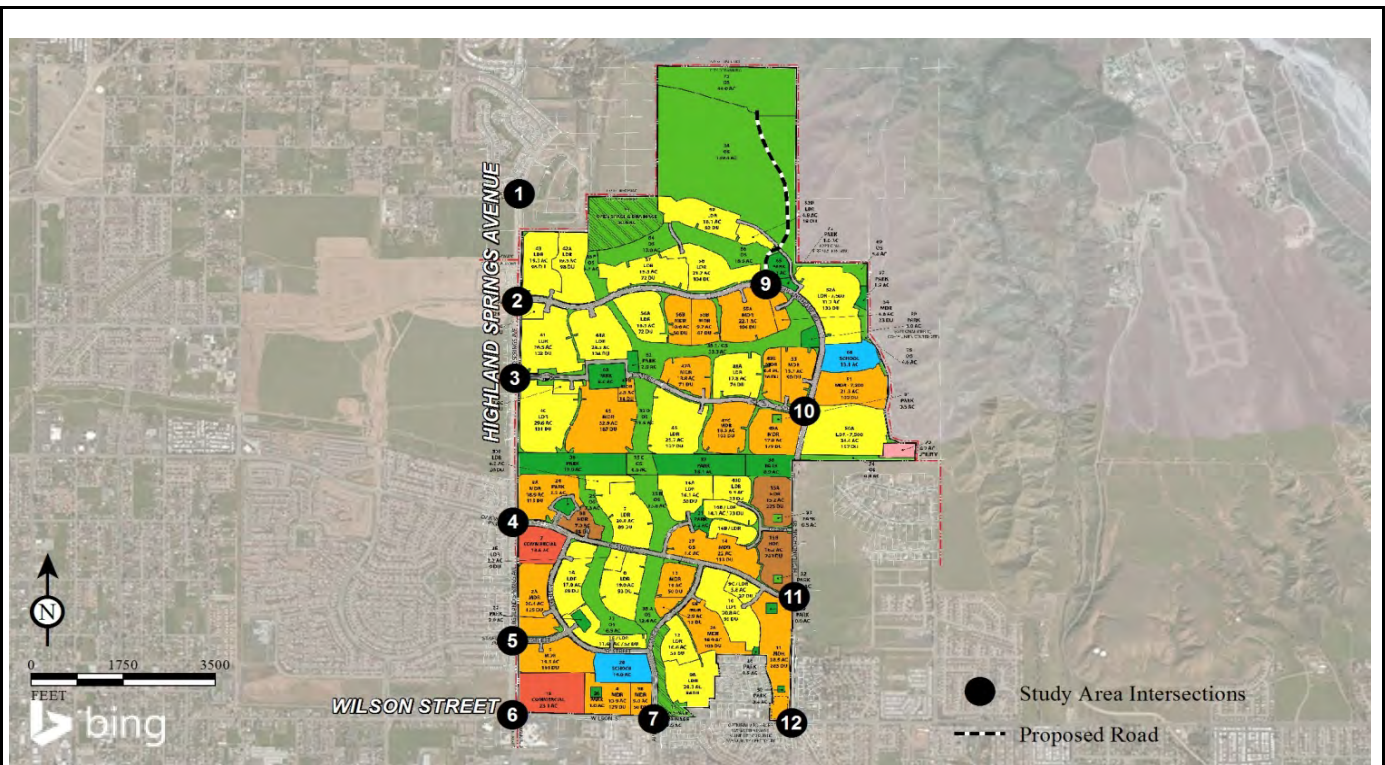
A level of service analysis was conducted to evaluate existing (baseline) plus Project Alternative 2 a.m. and p.m. peak hour traffic operations at the study area intersections. Previously referenced Table D summarizes the results of this analysis and shows six intersections exceed LOS thresholds. Level of service worksheets are included in Appendix A.

5.4 General Plan Build-out Year Without Project Conditions Intersection Levels of Service

General Plan Build-out without Project intersection levels of service were obtained from the BSPTIA. Table F summarizes the results of the analysis and shows seven intersections exceed LOS thresholds. Level of service worksheets are included in Appendix A.

5.5 General Plan Build-out plus Approved Project Intersection Levels of Service

General Plan Build-out Plus Approved Project intersection levels of service were obtained from the BSPTIA. Table F summarizes the results of this analysis and shows all 12 study intersections exceed LOS thresholds.



113 / 102 46 / 225 328 / 410 446 / 412 506 / 1107 506	48 / 111 429 / 484 298 / 591 25 / 202 94 / 196 17 / 35 32 / 25 381 / 622 185 / 689	638 / 564 81 / 169 148 / 120 355 / 288 364 / 841 195 / 406	39 / 29 909 / 738 33 / 68 22 / 141 147 / 304 570 / 736 59 / 48 266 / 216 148 / 120 365 / 849 478 / 1055 81 / 169	330 / 283 1267 / 1290 49 / 101 89 / 72 148 / 120 237 / 192 87 / 313 81 / 169 330 / 219 219 / 319 732 / 1761 130 / 270
1 Highland Springs Ave/Brookside Ave	2 Highland Springs Ave/16th St-Cougar Way	3 Highland Springs Ave/F St	4 Highland Springs Ave/Oak Valley Pkwy-B St	5 Highland Springs Ave/Starlight Ave-A St
152 / 158 1246 / 986 204 / 360 66 / 164 164 / 704 101 / 49 139 / 357 288 / 510 724 / 328 57 / 26 734 / 1517 269 / 416	207 / 168 118 / 96 65 / 135 1020 / 1097 114 / 237 518 / 1277 1 / 4 6 / 1	Not Analyzed	587 / 652 105 / 624 478 / 322 310 / 213 342 / 864 107 / 254	59 / 48 954 / 889 33 / 68 237 / 192 130 / 270 451 / 1081
6 Highland Springs Ave/Wilson St	7 C St-Apex Ave/Wilson St	8 Highland Home Rd/Northern Loop	9 Highland Home Rd/Beaumont Road-G St	10 Highland Home Rd/F St
16 / 34 1224 / 1078 30 / 24 118 / 96 65 / 135 584 / 1440	148 / 111 589 / 534 605 / 529 244 / 775 895 / 864 118 / 43 161 / 114 289 / 999 176 / 242 79 / 222 244 / 687 30 / 196			
11 Highland Home Rd/D St	12 Highland Home Rd/Wilson St			

FIGURE 25

LSA

XXX / YYY AM / PM Peak Hour Traffic Volumes

Revised Butterfield Specific Plan
Traffic Impact Analysis
General Plan Build-out plus Project Alternative 2 Peak Hour Traffic Volumes

Table F - General Plan Build-out without and plus Project Intersection Levels of Service

Intersection	Control	LOS STD.	Jurisdiction	A.M. Peak Hour								P.M. Peak Hour																						
				General Plan Build-out Without Project			General Plan Build-out Plus Approved Project			General Plan Build-out Plus Project Alternative 1			General Plan Build-out Plus Project Alternative 2			General Plan Build-out Without Project			General Plan Build-out Plus Approved Project			General Plan Build-out Plus Project Alternative 1			General Plan Build-out Plus Project Alternative 2									
				V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS				
				(sec)			(sec)			(sec)			(sec)			(sec)			(sec)			(sec)			(sec)			(sec)						
1. Highland Springs Avenue/Brookside Avenue	TWSC	C	Riverside County	>100	F	*	>100	F	*	>100	F	*	73.6	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*				
2. Highland Springs Avenue/16th Street-Cougar Way	TWSC	D	Beaumont/Banning	12.70	B		14.50	B		27.6	D		>100	F	*	28.6	D		83.3	F	*	>100	F	*	>100	F	*	>100	F	*				
3. Highland Springs Avenue/F Street	TWSC	D	Beaumont/Banning	Future Intersection			>100	F	*	>100	F	*	1.43	>100	F	*	Future Intersection			>100	F	*	>100	F	*	4.18	>100	F	*	>100	F	*		
4. Highland Springs Avenue/Oak Valley Parkway-B Street	Signal	D	Beaumont/Banning	0.77	35.0	C	0.94	>100	F	*	0.78	57.1	E	*	0.70	57.4	E	*	1.12	88.2	F	*	1.46	>100	F	*	1.31	98.4	F	*	1.20	74.1	E	*
5. Highland Springs Avenue/Starlight Avenue -A Street	TWSC	D	Beaumont/Banning	52.2	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	
6. Highland Springs Avenue/Wilson Street	Signal	D	Beaumont/Banning	0.75	36.0	D	1.14	93.2	F	*	1.31	>100	F	*	1.17	96.8	F	*	0.99	58.9	E	*	1.64	>100	F	*	1.99	>100	F	*	1.66	>100	F	*
7. C Street-Apex Avenue/Wilson Street	TWSC	D	Banning	27.4	D		>100	F	*	>100	F	*	>100	F	*	>100	F	*	72.8	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	
8. Highland Home Road/Northern Loop	TWSC	D	Banning	Future Intersection			>100	F	*	9.7	A		Not Analyzed			Future Intersection			>100	F	*	>100	F	*	9.4	A		Not Analyzed						
9. Highland Home Road/Beaumont Road-G St	TWSC	D	Banning	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	
10. Highland Home Road/F Street	Signal	D	Banning	Future Intersection			38.8	E	*	23.9	C		29.7	C		Future Intersection			26.1	D		44.1	D		32.3	C								
11. Highland Home Road/D Street	TWSC	D	Banning	Future Intersection			>100	F	*	71.7	F	*	>100	F	*	>100	F	*	Future Intersection			>100	F	*	>100	F	*	>100	F	*	>100	F	*	
12. Highland Home Road/Wilson Street	Signal	D	Banning	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	>100	F	*	

* Exceeds LOS standard.

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

5.6 General Plan Build-out plus Project Alternative 1 Intersection Levels of Service

A level of service analysis was conducted to evaluate General Plan Build-out plus Project Alternative 1 a.m. and p.m. peak hour traffic operations at the study area intersections. Previously referenced Table F summarizes the results of this analysis and shows 10 intersections exceed LOS thresholds. Level of service worksheets are included in Appendix A.

5.7 General Plan Build-out plus Project Alternative 2 Intersection Levels of Service

A level of service analysis was conducted to evaluate General Plan Build-out plus Project Alternative 2 a.m. and p.m. peak hour traffic operations at the study area intersections. Previously referenced Table F summarizes the results of this analysis and shows 10 intersections exceed LOS thresholds. Level of service worksheets are included in Appendix A.

6.0 RECOMMENDED IMPROVEMENTS

At any intersection that is projected to operate at an unsatisfactory level of service, the City of Banning, City of Beaumont, and County of Riverside require that improvements be identified to maintain conformance with LOS standards. The City of Banning does not have an adopted criterion that defines significant impact at an existing deficient intersection; therefore, a conservative criterion (based on CEQA) was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars would constitute a significant project impact. This criterion was applied to study intersections in all the jurisdictions.

This analysis focuses on evaluating all intersections that are either adjacent to the Specific Plan or serve as project access locations; therefore, all improvements recommended in this section will be included as project design features and will be constructed as part of the project.

6.1 Existing plus Approved Project Improvement Requirements

Under existing plus Approved Project conditions, the following circulation improvements are recommended so that study intersections operate at satisfactory levels of service:

1. **Highland Springs Avenue/Brookside Avenue:** Convert two-way stop control to all-way stop control. Add a westbound right-turn lane.
2. **Highland Springs Avenue/F Street:** Install a traffic signal.
3. **Highland Springs Avenue/Oak Valley Parkway-14th Street-B Street:** Add one westbound left-turn lane and one dedicated northbound right-turn lane.
4. **Highland Springs Avenue/Starlight Avenue-A Street:** Install a traffic signal. Add one northbound through lane, one southbound left-turn lane, one southbound through lane, and one westbound left-turn lane.
5. **Highland Springs Avenue/8th Street-Wilson Street:** Add one northbound through lane.

6. **C Street-Apex Avenue/Wilson Street:** Install a traffic signal and add one eastbound left-turn lane.
7. **Highland Home Road/Northern Loop:** Install a traffic signal.
8. **Highland Home Road/Wilson Street:** Install a traffic signal. Add one southbound left-turn lane.

Existing plus Approved Project conditions with improvements traffic operations were obtained from the previously approved BSPTIA. Table G summarizes the results of the analysis and shows all study area intersections are projected to operate at satisfactory levels of service. Figure 26 illustrates the resulting intersection geometrics with the identified improvements.

6.2 Existing plus Project Alternative 1 Improvement Requirements

Under existing plus Project Alternative 1 conditions, no additional improvements are required compared to the Approved Project. At three of the study intersections, Project Alternative 1 would require no improvements compared to the Approved Project.

A level of service analysis was conducted to evaluate existing plus Project Alternative 1 conditions with improvements traffic operations at the study area intersections during the a.m. and p.m. peak hours. Table H summarizes the results of the analysis and demonstrates all study area intersections are projected to operate at satisfactory levels of service. Level of service worksheets are included in Appendix A. Figure 27 illustrates the resulting intersection geometrics with the identified improvements.

A signal warrant analysis was conducted for this scenario to determine if a signal is warranted at any of the study area intersections where a signal has been recommended as mitigation. As shown in Appendix B, all intersections where a signal has been recommended as mitigation warrant signals. Thus, the proposed mitigation measures at these intersections are consistent with the signal warrant analysis using the *Manual on Uniform Traffic Control Devices* (MUTCD) Section 4C.04 Warrant 3-B (2003 Edition) Peak Hour Signal Warrant criteria.

6.3 Existing Plus Project Alternative 2 Improvement Requirements

Under existing plus Project Alternative 2 conditions, no additional improvements are required compared to the Approved Project. At two of the study intersections, Project Alternative 2 would require fewer or no improvements compared to the Approved Project.

A level of service analysis was conducted to evaluate existing plus Project Alternative 2 conditions with improvements traffic operations at the study area intersections during the a.m. and p.m. peak hours. Table I summarizes the results of the analysis and demonstrates all study area intersections are projected to operate at satisfactory levels of service. Level of service worksheets are included in Appendix A. Figure 28 illustrates the resulting intersection geometrics with the identified improvements.

A signal warrant analysis was conducted for this scenario to determine if a signal is warranted at any of the study area intersections where a signal has been recommended as mitigation. As shown in Appendix B, all intersections where a signal has been recommended as mitigation warrant signals.

Table G - Existing (Baseline) plus Approved Project With Improvements Intersection Levels of Service

Intersection	Control	LOS STD.	Jurisdiction	With Project						With Project With Improvements					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1 . Highland Springs Avenue/Brookside Avenue	AWSC	C	Riverside County	-	>100	F *	-	>100	F *	-	19.9	C	-	24.5	C
3 . Highland Springs Avenue/F Street	Signal	D	Beaumont/Banning		>100	F *		>100	F *	0.61	20.5	C	0.79	21.3	C
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	Signal	D	Beaumont/Banning	1.25	>100	F *	1.20	96.6	F *	0.96	43.6	D	0.85	33.9	C
5 . Highland Springs Avenue/Starlight Avenue -A Street	Signal	D	Beaumont/Banning	-	>100	F *	-	>100	F *	0.85	31.8	C	0.87	30.9	C
6 . Highland Springs Avenue/Wilson Street	Signal	D	Beaumont/Banning	0.88	41.3	D	1.31	>100	F *	0.88	39.2	D	0.88	33.3	C
7 . C Street-Apex Avenue/Wilson Street	Signal	D	Banning	-	>100	F *	-	>100	F *	0.72	27.6	C	0.78	28.9	C
8 . Highland Home Road/Northern Loop	Signal	D	Banning		42.5	E *		>100	F *	0.52	18.9	B	0.65	21.2	C
12 . Highland Home Road/Wilson Street	Signal	D	Banning	-	>100	F *	-	>100	F *	0.56	28.3	C	0.83	34.4	C

* Exceeds LOS standard.

Notes:

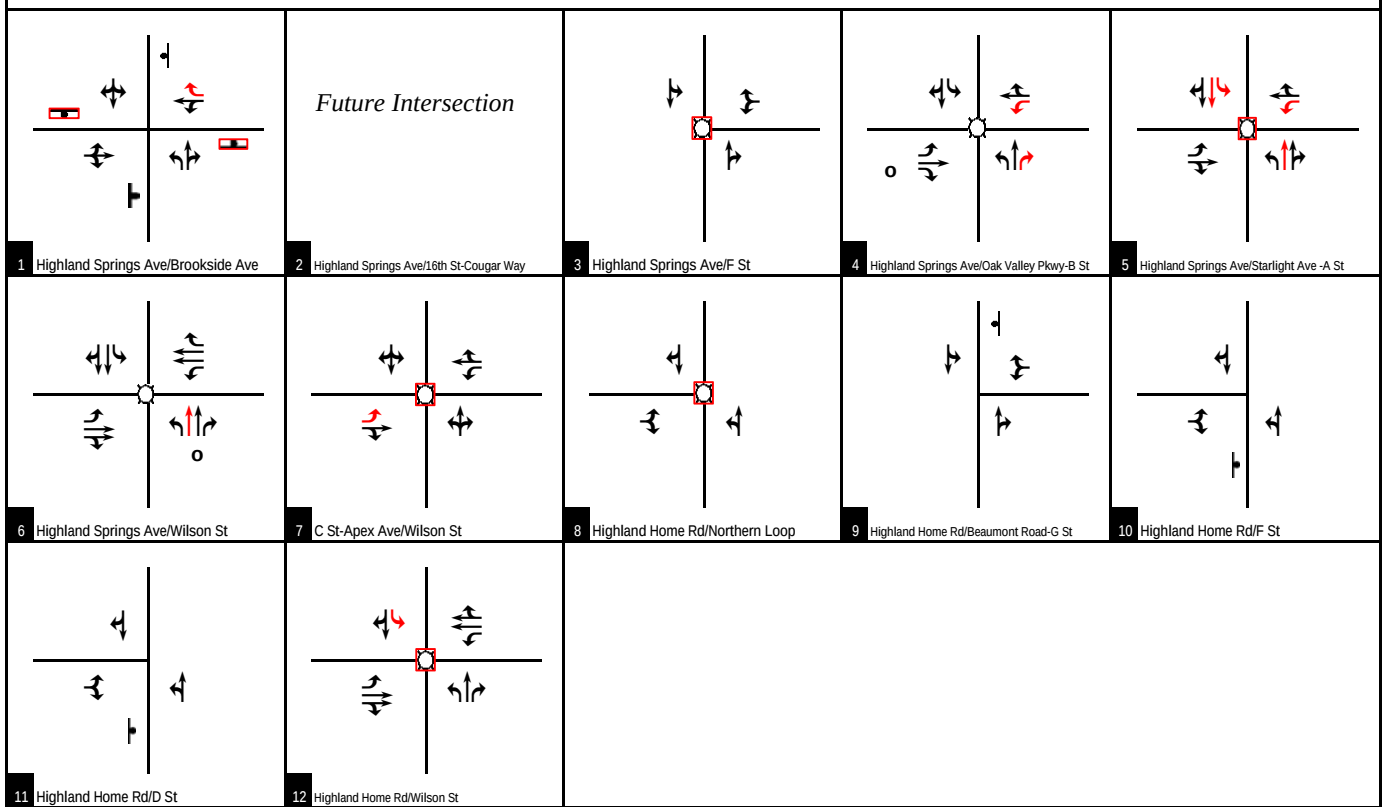
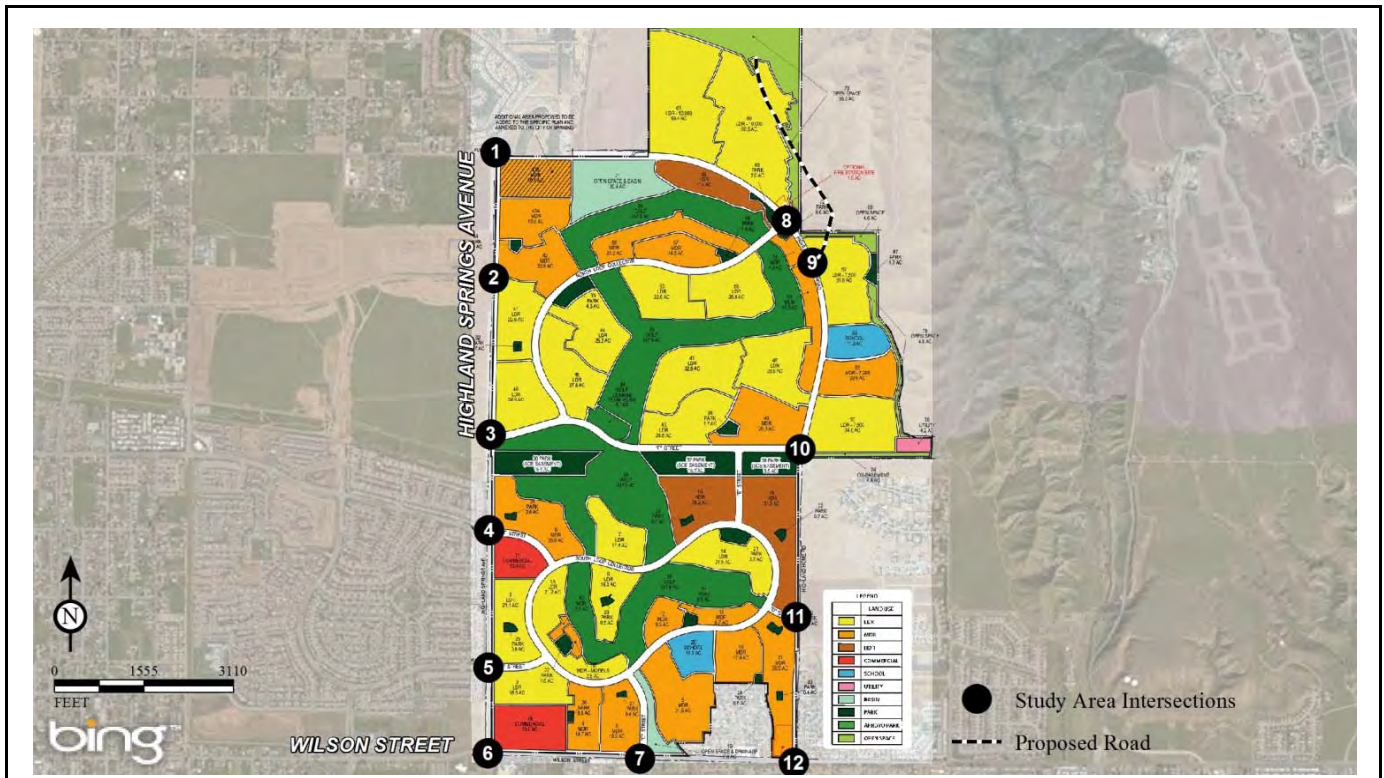
V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC=All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.



LSA

FIGURE 26

- Legend
- ◻ Signalized Intersection
 - ⊥ Stop Sign
 - ↗ Improvements

Existing (Baseline) plus Approved Project With Improvements Intersection Geometrics and Stop Control

Revised Butterfield Specific Plan
Traffic Impact Analysis

Table H - Existing (Baseline) plus Project Alternative 1 With Improvements Intersection Levels of Service

Intersection	Control	LOS STD.	Jurisdiction	With Project						With Project With Improvements					
				AM Peak Hour			PM Peak H our			AM Peak Hour			PM Peak H our		
				V/C	Delay (sec)	LOS		V/C	Delay (sec)	LOS		V/C	Delay (sec)	LOS	
3 . Highland Springs Avenue/F Street	Signal	D	Beaumont/Banning	1.59	>100	F	*	3.20	>100	F	*	0.46	18.2	B	
5 . Highland Springs Avenue/Starlight Avenue -A Street	Signal	D	Beaumont/Banning	-	>100	F	*	-	>100	F	*	0.86	39.8	D	
6 . Highland Springs Avenue/Wilson Street	Signal	D	Beaumont/Banning	0.86	39.4	D		1.29	>100	F	*	0.86	37.4	D	
7 . C Street-Apex Avenue/Wilson Street	Signal	D	Banning	-	>100	F	*	-	>100	F	*	0.68	28.4	C	
12 . Highland Home Road/Wilson Street	Signal	D	Banning	-	>100	F	*	-	>100	F	*	0.52	27.4	C	

* Exceeds LOS standard.

Notes:

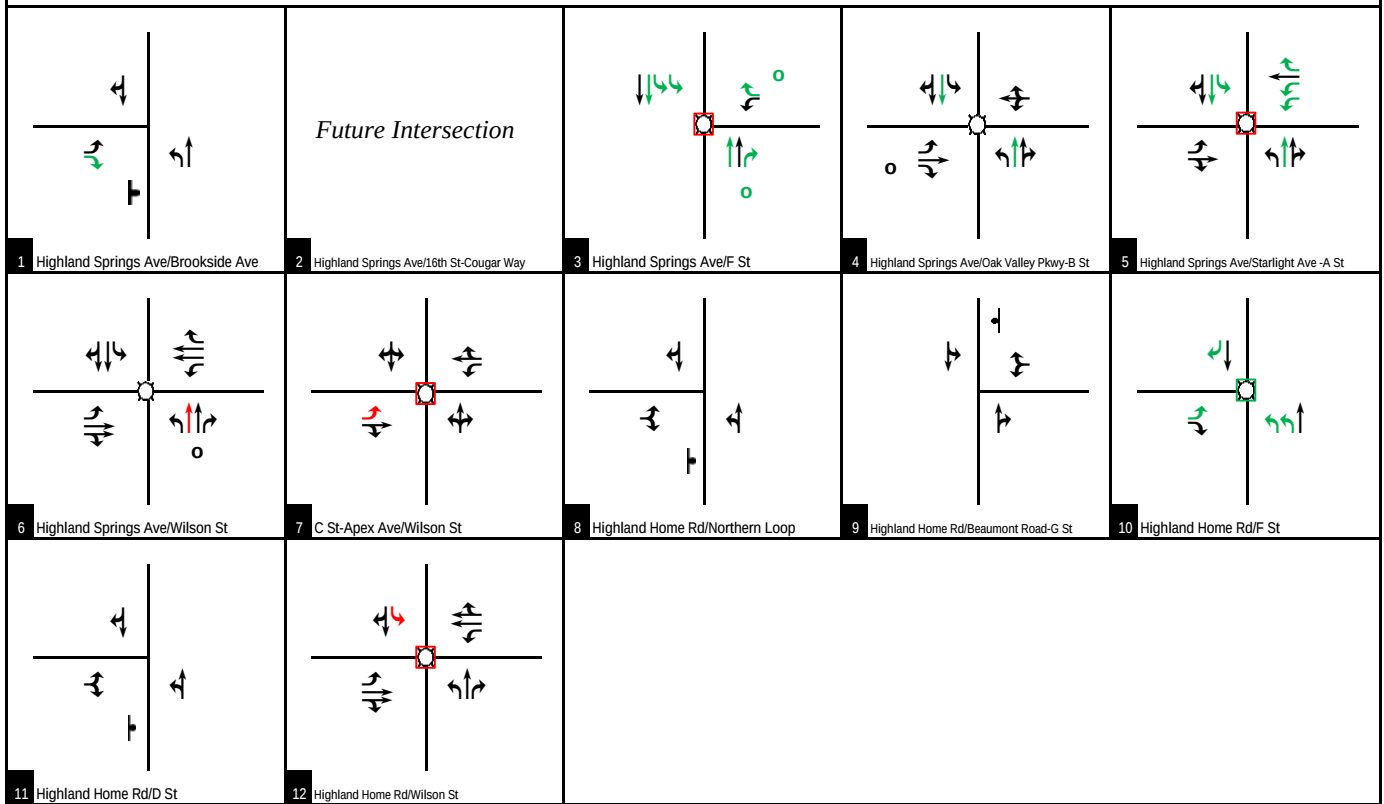
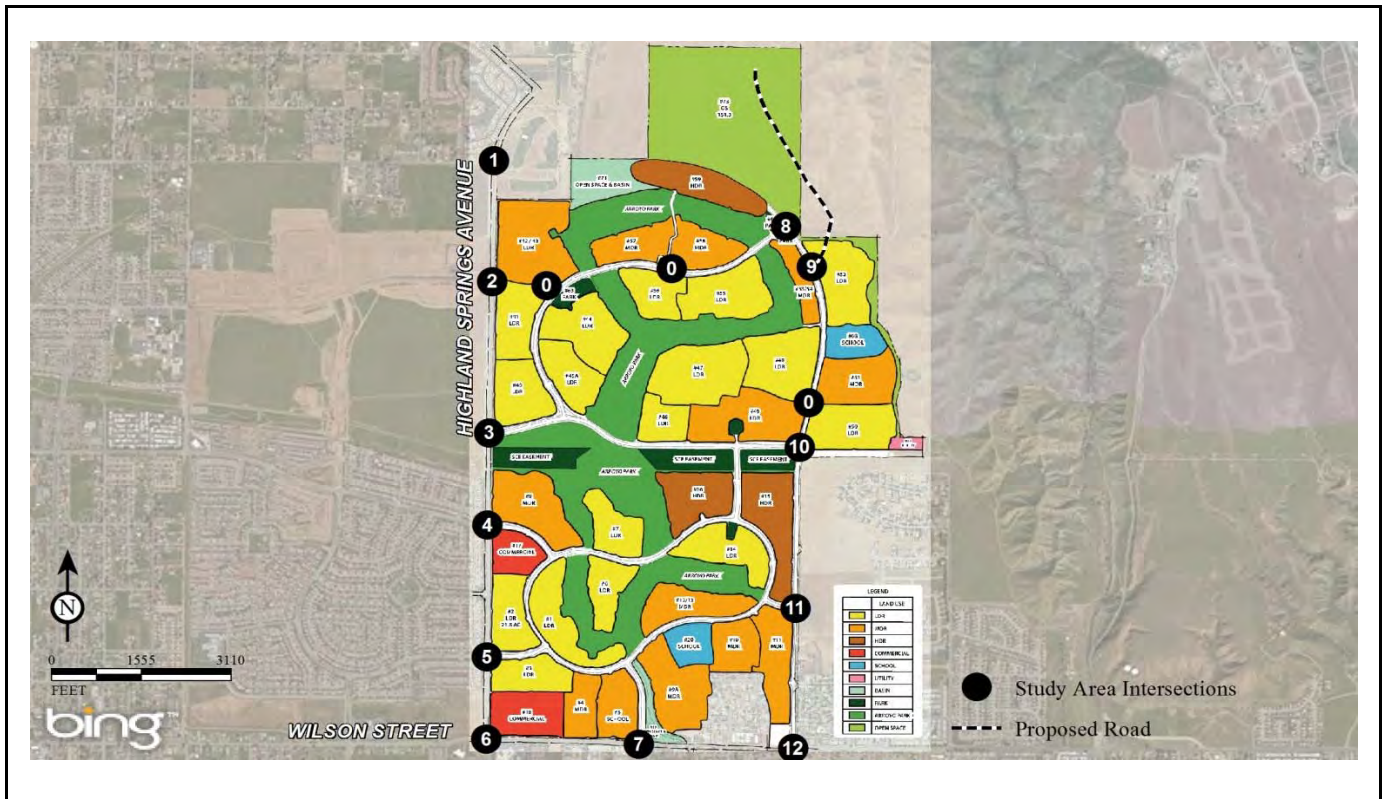
V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC=All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.



LSA

FIGURE 27

Legend  Project Design Features

 Signalized Intersection

 Stop Sign

 Improvements

Existing (Baseline) plus Project Alternative 1 With Improvements Intersection Geometrics and Stop Control

Revised Butterfield Specific Plan

Traffic Impact Analysis

Table I - Existing (Baseline) plus Project Alternative 2 With Improvements Intersection Levels of Service

Intersection	Control	LOS STD.	Jurisdiction	With Project						With Project With Improvements					
				AM Peak Hour			PM Peak H our			AM Peak Hour			PM Peak H our		
				V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
2 . Highland Springs Avenue/16th Street-Cougar Way	Signal	D	Beaumont/Banning	-	25.2	D	-	93.1	F *	-	22.7	C	-	22.3	C
3 . Highland Springs Avenue/F Street	Signal	D	Beaumont/Banning	1.27	>100	F *	2.11	>100	F *	0.49	22	C	0.65	16.9	B
5 . Highland Springs Avenue/Starlight Avenue -A Street	Signal	D	Beaumont/Banning	-	>100	F *	-	>100	F *	0.89	44.0	D	0.91	39.8	D
6 . Highland Springs Avenue/Wilson Street	Signal	D	Beaumont/Banning	0.89	42.8	D	1.33	>100	F *	0.89	39.7	D	0.89	33.4	C
7 . C Street-Apex Avenue/Wilson Street	Signal	D	Banning	-	>100	F *	-	>100	F *	0.72	29.9	C	0.75	30.4	C
12 . Highland Home Road/Wilson Street	Signal	D	Banning	-	>100	F *	-	>100	F *	0.57	28.6	C	0.82	34.1	C

* Exceeds LOS standard.

Notes:

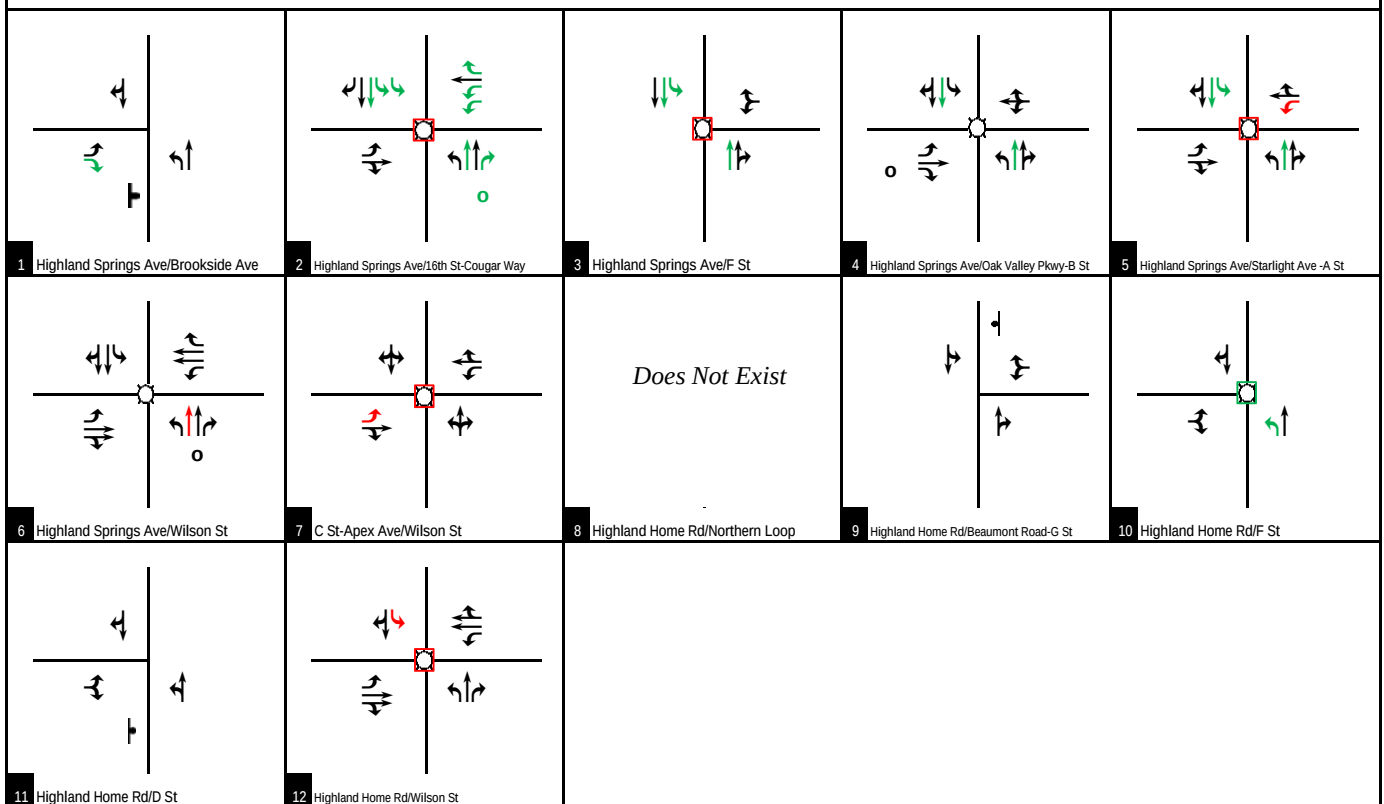
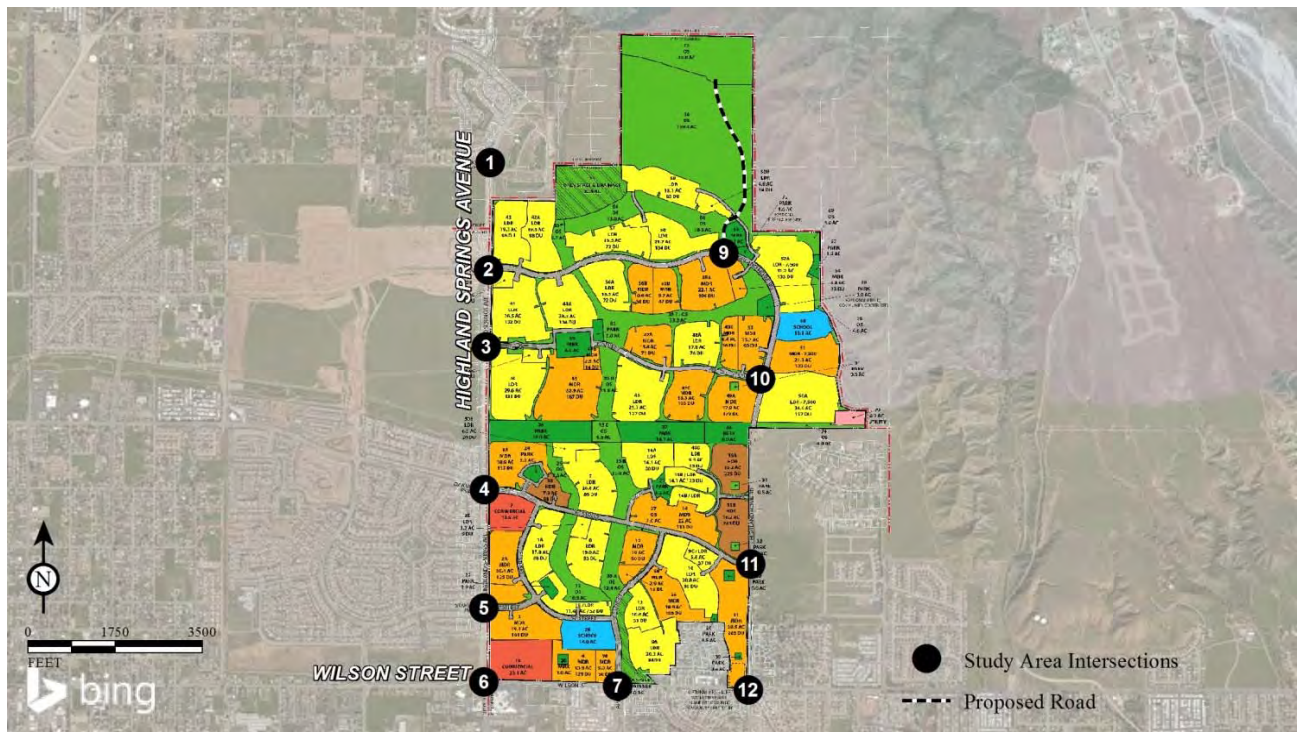
V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC=All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.



LSA

FIGURE 28

Legend Project Design Features

Signalized Intersection

Stop Sign

Improvements

Existing (Baseline) plus Project Alternative 2 With Improvements Intersection Geometrics and Stop Control

Revised Butterfield Specific Plan

Traffic Impact Analysis

Thus, the proposed mitigation measures at these intersections are consistent with the signal warrant analysis using the *Manual on Uniform Traffic Control Devices* (MUTCD) Section 4C.04 Warrant 3-B (2003 Edition) Peak Hour Signal Warrant criteria.

Table J provides a comparison of improvements between the Approved Project and two proposed project alternatives under existing plus project conditions.

6.4 General Plan Build-out plus Approved Project Improvement Requirements

Under General Plan Build-out plus Approved Project conditions, the following circulation improvements are recommended so that study intersections operate at satisfactory levels of service:

1. **Highland Springs Avenue/Brookside Avenue:** Install a traffic signal. Add one northbound through lane, one northbound right-turn lane with overlap phasing, one southbound left-turn lane, one southbound through lane, one eastbound left-turn lane, one eastbound through lane, one westbound left-turn lane, one westbound through lane, and one westbound right-turn lane.
2. **Highland Springs Avenue/16th Street-Cougar Way:** Install a traffic signal.
3. **Highland Springs Avenue/F Street:** Install a traffic signal.
4. **Highland Springs Avenue/Oak Valley Parkway:** Add one northbound through lane, one northbound left-turn lane, and one southbound through lane.
5. **Highland Springs Avenue/Starlight Avenue-A Street:** Install a traffic signal. Add one northbound through lane, one northbound right-turn lane, one southbound left-turn lane, one southbound through lane, one southbound right-turn lane, one eastbound right-turn lane, and one westbound left-turn lane.
6. **Highland Springs Avenue/8th Street-Wilson Street:** Add one northbound through lane, one southbound right-turn lane, one southbound left-turn lane, one westbound left-turn lane, and one eastbound right-turn lane.
7. **C Street-Apex Avenue/Wilson Street:** Install a traffic signal. Add one eastbound left-turn lane and one westbound through lane.
8. **Highland Home Road/Northern Loop:** Install a traffic signal. Add one northbound left-turn lane and one southbound through lane.
9. **Highland Home Road/Beaumont Road-G Street:** Install a traffic signal. Add one northbound through lane, one northbound right-turn lane, one southbound left-turn lane, and one westbound left-turn lane.
10. **Highland Home Road/F Street:** Install a traffic signal. Add one northbound left-turn lane.
11. **Highland Home Road/D Street:** Install a traffic signal. Add one northbound left-turn lane.
12. **Highland Home Road/Wilson Street:** Install a traffic signal. Restripe northbound right-turn lane to a northbound through/right-turn lane, add two southbound left-turn lanes, one southbound through lane, and one westbound right-turn lane with overlap phasing.

General Plan Build-out plus Approved Project conditions with improvements traffic operations were obtained from the previously approved BSPTIA. Table K summarizes the results of the analysis and

Table J - Existing With Improvements Comparison

Intersection	Approved Project	Project Alternative 1		Project Alternative 2	
		Additional Improvements	Improvements Not Required	Additional Improvements	Improvements Not Required
1 . Highland Springs Avenue/Brookside Avenue	Convert to AWSC. Add WBR.		Convert to AWSC. Add WBR.		Convert to AWSC. Add WBR.
2 . Highland Springs Avenue/16th Street-Cougar Way					
3 . Highland Springs Avenue/F Street	Install a traffic signal.				
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	NBR, WBL		NBR, WBL		NBR
5 . Highland Springs Avenue/Starlight Avenue -A Street	Install a traffic signal. Add NBT, SBL, SBT, WBL.				
6 . Highland Springs Avenue/Wilson Street	NBT				
7 . C Street-Apex Avenue/Wilson Street	Install a traffic signal. Add EBL				
8 . Highland Home Road/Northern Loop	Install a traffic signal.		Install a traffic signal.	Intersection Does Not Exist	
9 . Highland Home Road/Beaumont Road-G St					
10 . Highland Home Road/F Street					
11 . Highland Home Road/D Street					
12 . Highland Home Road/Wilson Street	Install a traffic signal. SBL				

Notes:

NBL= northbound left-turn lane ; NBT = northbound through lane; NBR = northbound right-turn lane; NBTR =shared northbound through/right-turn lane

SBL= southbound left-turn lane ; SBT = southbound through lane; SBR = southbound right-turn lane; SBTR = shared southbound through/right-turn lane

EBL= eastbound left-turn lane ; EBT = eastbound through lane; EBR = eastbound right-turn lane; EBTL = shared eastbound through/left-turn lane;

EBLTR = shared eastbound left/through/right-turn lane; EBTR = shared eastbound through/right-turn lane

WBL= westbound left-turn lane ; WBT = westbound through lane; WBR = westbound right-turn lane; WBTR = shared westbound through/right-turn lane.

Table K - General Plan Build-out plus Approved Project With Improvements Intersection Levels of Service

Intersection	Control	LOS STD.	Jurisdiction	With Project						With Project With Improvements					
				AM Peak Hour			PM Peak H our			AM Peak Hour			PM Peak H our		
				V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1 . Highland Springs Avenue/Brookside Avenue	Signal	C	Riverside County		>100	F *		>100	F *	0.63	32.8	C	0.97	51.8	D
2 . Highland Springs Avenue/16th Street-Cougar Way	Signal	D	Beaumont/Banning		14.50	B		83.30	F *	0.30	3.9	A	0.51	12.8	B
3 . Highland Springs Avenue/F Street	Signal	D	Beaumont/Banning		>100	F *		>100	F *	0.61	21	C	0.97	35.3	D
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	Signal	D	Beaumont/Banning	0.94	>100	F *	1.46	>100	F *	0.69	30.0	C	0.75	30.3	C
5 . Highland Springs Avenue/Starlight Avenue -A Street	Signal	D	Beaumont/Banning		>100	F *		>100	F *	0.95	46.6	D	0.98	52.0	D
6 . Highland Springs Avenue/Wilson Street	Signal	D	Beaumont/Banning	1.14	93.2	F *	1.64	>100	F *	0.76	31.5	C	0.99	48.4	D
7 . C Street-Apex Avenue/Wilson Street	Signal	D	Banning		>100	F *		>100	F *	0.66	25.8	C	0.97	47.1	D
8 . Highland Home Road/Northern Loop	Signal	D	Banning		>100	F *		>100	F *	0.80	43.1	D	0.85	34.5	C
9 . Highland Home Road/Beaumont Road-G St	Signal	D	Banning		>100	F *		>100	F *	0.69	32.3	C	0.98	52.6	D
10 . Highland Home Road/F Street	Signal	D	Banning		38.8	E *		26.1	D	0.79	24.1	C	0.82	24.6	C
11 . Highland Home Road/D Street	Signal	D	Banning		>100	F *		>100	F *	0.81	14.9	B	0.89	15.0	B
12 . Highland Home Road/Wilson Street	Signal	D	Banning		>100	F *		>100	F *	0.69	25.2	C	0.84	33.4	C

* Exceeds LOS standard.

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

shows all study area intersections are projected to operate at satisfactory levels of service. Figure 29 illustrates the resulting intersection geometrics with the identified improvements.

6.5 General Plan Build-out plus Project Alternative 1 Improvement Requirements

Under General Plan Build-out plus Project Alternative 1 conditions, the following additional circulation improvements are required compared to improvements required for Approved Project so that study intersections operate at satisfactory levels of service:

1. **Highland Springs Avenue/8th Street-Wilson Street:** Add a third northbound through lane, and add overlap phasing to the westbound right-turn lane.
2. **C Street-Apex Avenue/Wilson Street:** Add one eastbound through lane.

A level of service analysis was conducted to evaluate General Plan Build-out plus Project Alternative 1 conditions with improvements traffic operations at the study area intersections during the a.m. and p.m. peak hours. Table L summarizes the results of the analysis and shows all study area intersections are projected to operate at satisfactory levels of service. Level of service worksheets are included in Appendix A. Figure 30 illustrates the resulting intersection geometrics with the identified improvements.

A signal warrant analysis was conducted for this scenario to determine if a signal is warranted at any of the study area intersections where a signal has been recommended as mitigation. As shown in Appendix B, all intersections where a signal has been recommended as mitigation warrant signals.

Thus, the proposed mitigation measures at these intersections are consistent with the signal warrant analysis using the *Manual on Uniform Traffic Control Devices* (MUTCD) Section 4C.04 Warrant 3-B (2003 Edition) Peak Hour Signal Warrant criteria.

6.6 General Plan Build-out plus Project Alternative 2 Improvement Requirements

Under General Plan Build-out plus Project Alternative 2 conditions, no additional improvements are required compared to the Approved Project. At two of the study intersections, Project Alternative 2 would require fewer improvements compared to the Approved Project.

A level of service analysis was conducted to evaluate General Plan Build-out plus Project Alternative 2 conditions with improvements traffic operations at the study area intersections during the a.m. and p.m. peak hours. Table M summarizes the results of the analysis and shows all study area intersections are projected to operate at satisfactory levels of service. Level of service worksheets are included in Appendix A. Figure 31 illustrates the resulting intersection geometrics with the identified improvements.

A signal warrant analysis was conducted for this scenario to determine if a signal is warranted at any of the study area intersections where a signal has been recommended as mitigation. As shown in Appendix B, all intersections where a signal has been recommended as mitigation warrant signals. Thus, the proposed mitigation measures at these intersections are consistent with the signal warrant analysis using the *Manual on Uniform Traffic Control Devices* (MUTCD) Section 4C.04 Warrant 3-B (2003 Edition) Peak Hour Signal Warrant criteria.

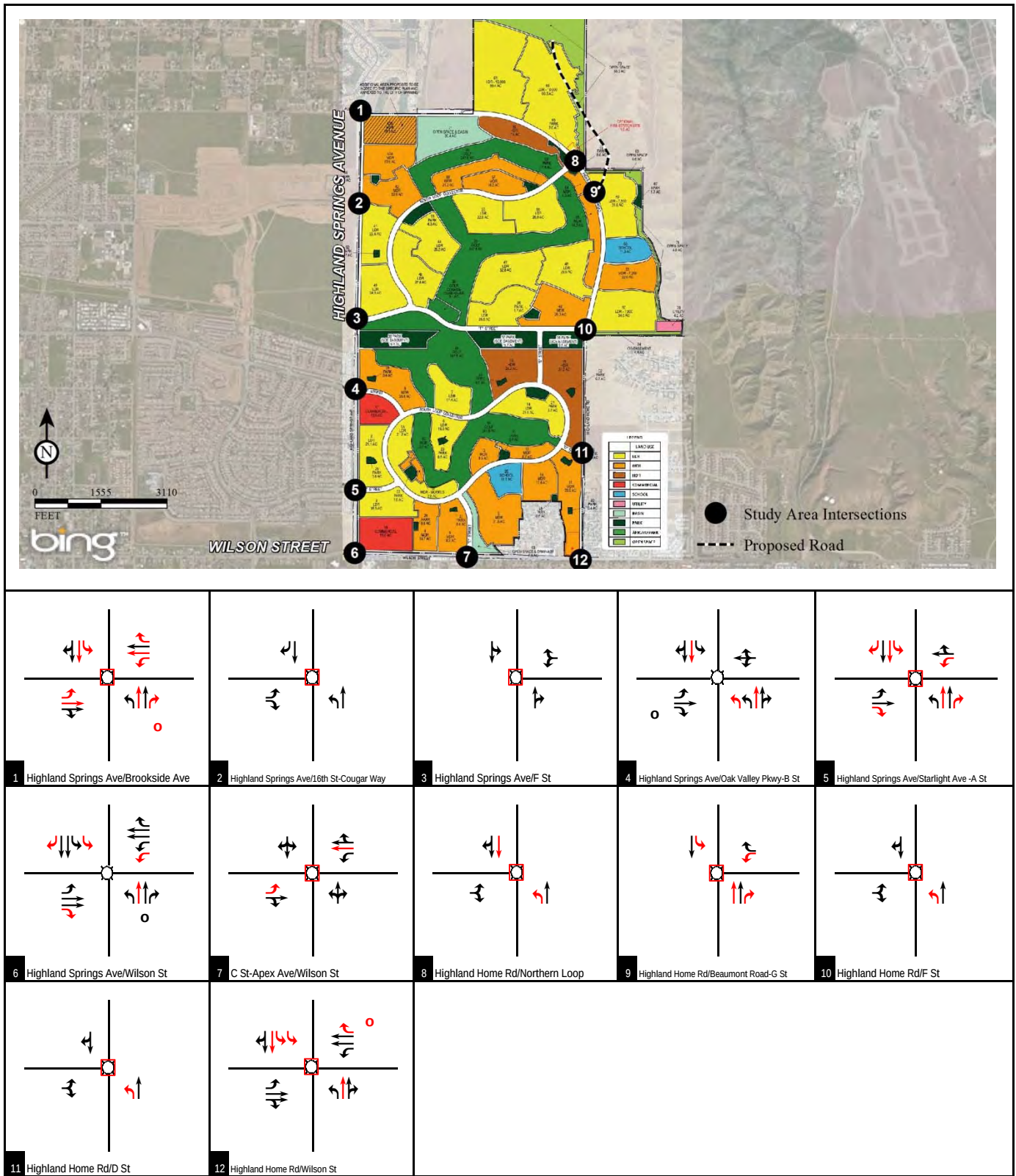


FIGURE 29

Revised Butterfield Specific Plan
Traffic Impact Analysis

Table L - General Plan Build-out Plus Project Alternative 1 With Improvements Intersection Levels of Service

Intersection	Control	LOS STD.	Jurisdiction	With Project						With Project With Improvements					
				AM Peak Hour			PM Peak H our			AM Peak Hour			PM Peak H our		
				V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1 . Highland Springs Avenue/Brookside Avenue	Signal	C	Riverside County		>100	F *		>100	F *	0.63	20.4	C	0.79	28.5	C
2 . Highland Springs Avenue/16th Street-Cougar Way	Signal	D	Beaumont/Banning		27.60	D		>100	F *	0.28	2.5	A	0.50	9.4	A
3 . Highland Springs Avenue/F Street	Signal	D	Beaumont/Banning		>100	F *		>100	F *	0.58	21.6	C	0.95	35.8	D
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	Signal	D	Beaumont/Banning	0.78	57.1	E *	1.31	98.4	F *	0.78	31.5	C	0.88	36.0	D
5 . Highland Springs Avenue/Starlight Avenue -A Street	Signal	D	Beaumont/Banning		>100	F *		>100	F *	0.92	43.3	D	0.99	54.2	D
6 . Highland Springs Avenue/Wilson Street	Signal	D	Beaumont/Banning	1.31	>100	F *	1.99	>100	F *	0.75	32.6	C	0.97	46.8	D
7 . C Street-Apex Avenue/Wilson Street	Signal	D	Banning		>100	F *		>100	F *	0.68	23.9	C	0.86	25.5	C
9 . Highland Home Road/Beaumont Road-G St	Signal	D	Banning		>100	F *		>100	F *	0.43	23.1	C	0.79	26.4	C
11 . Highland Home Road/D Street	Signal	D	Banning		71.7	F *		>100	F *	0.81	21.3	C	0.77	19.1	B
12 . Highland Home Road/Wilson Street	Signal	D	Banning		>100	F *		>100	F *	0.68	27.9	C	0.99	47.1	D

* Exceeds LOS standard.

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

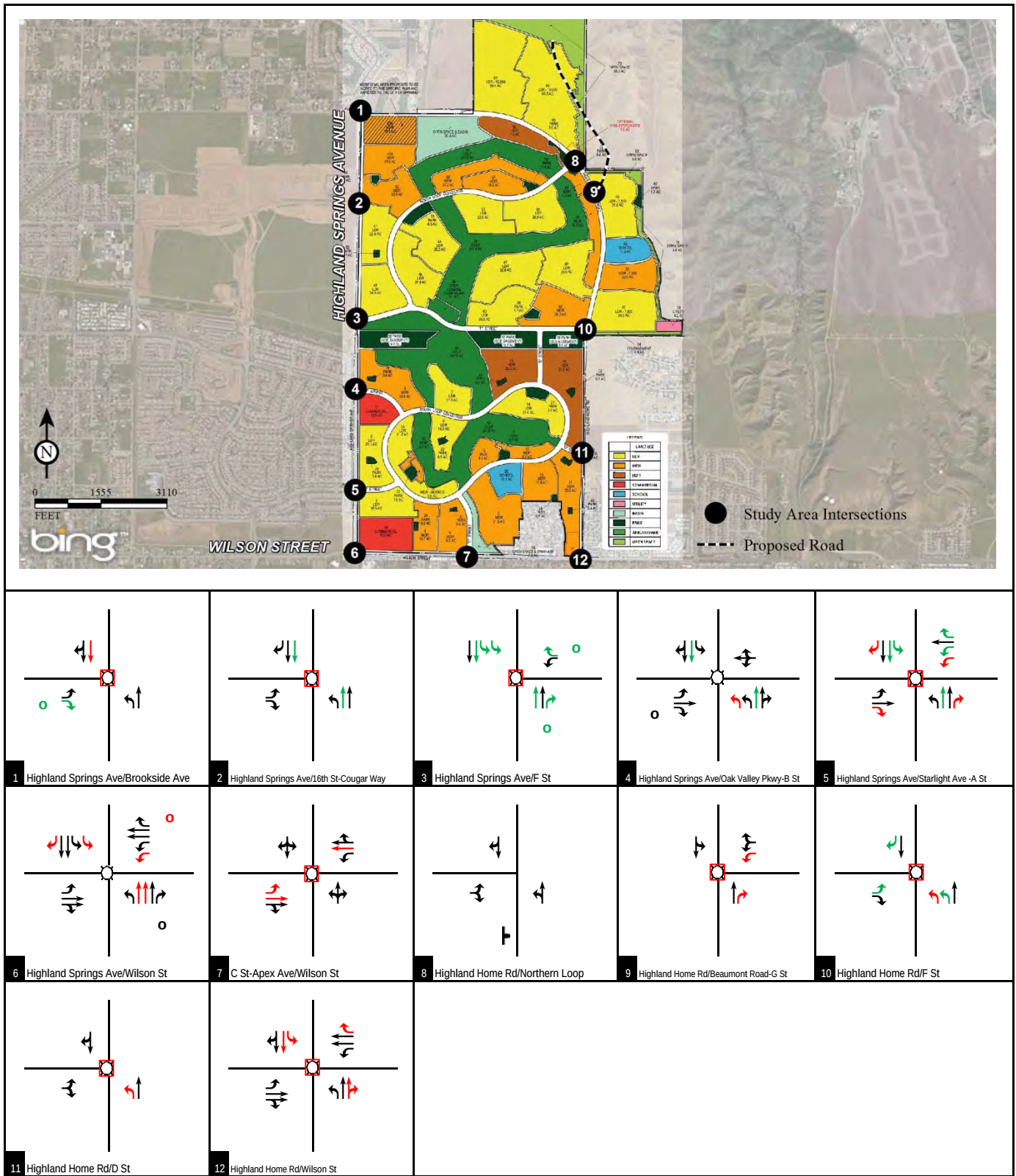


FIGURE 30

Revised Butterfield Specific Plan
Traffic Impact Analysis

Table M - General Plan Build-out plus Project Alternative 2 With Improvements Intersection Levels of Service

Intersection	Control	LOS STD.	Jurisdiction	With Project						With Project With Improvements					
				AM Peak Hour			PM Peak H our			AM Peak Hour			PM Peak H our		
				V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1 . Highland Springs Avenue/Brookside Avenue	Signal	C	Riverside County		73.6	F *		>100	F *	-	19.4	B	-	26.8	C
2 . Highland Springs Avenue/16th Street-Cougar Way	Signal	D	Beaumont/Banning		>100	F *		>100	F *	-	28.1	C	-	40	D
3 . Highland Springs Avenue/F Street	Signal	D	Beaumont/Banning	1.43	>100	F *	4.18	>100	F *	0.50	22.2	C	0.83	17.8	B
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	Signal	D	Beaumont/Banning	0.70	57.4	E *	1.20	74.1	E *	0.70	29.9	C	0.76	30.2	C
5 . Highland Springs Avenue/Starlight Avenue -A Street	Signal	D	Beaumont/Banning		>100	F *		>100	F *	0.96	47.2	D	0.98	52.5	D
6 . Highland Springs Avenue/Wilson Street	Signal	D	Beaumont/Banning	1.17	96.8	F *	1.66	>100	F *	0.85	35.3	D	0.99	52.0	D
7 . C Street-Apex Avenue/Wilson Street	Signal	D	Banning		>100	F *		>100	F *	0.66	25.5	C	0.96	44.9	D
8 . Highland Home Road/Northern Loop	Signal	D	Banning	<i>Not Analyzed</i>			<i>Not Analyzed</i>			<i>Not Analyzed</i>			<i>Not Analyzed</i>		
9 . Highland Home Road/Beaumont Road-G St	Signal	D	Banning		>100	F *		>100	F *	0.69	31.2	C	0.89	36.7	D
11 . Highland Home Road/D Street	Signal	D	Banning		>100	F *		>100	F *	0.81	10.8	B	0.90	12.4	B
12 . Highland Home Road/Wilson Street	Signal	D	Banning		>100	F *		>100	F *	0.70	25.5	C	0.83	33.6	C

* Exceeds LOS standard.

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

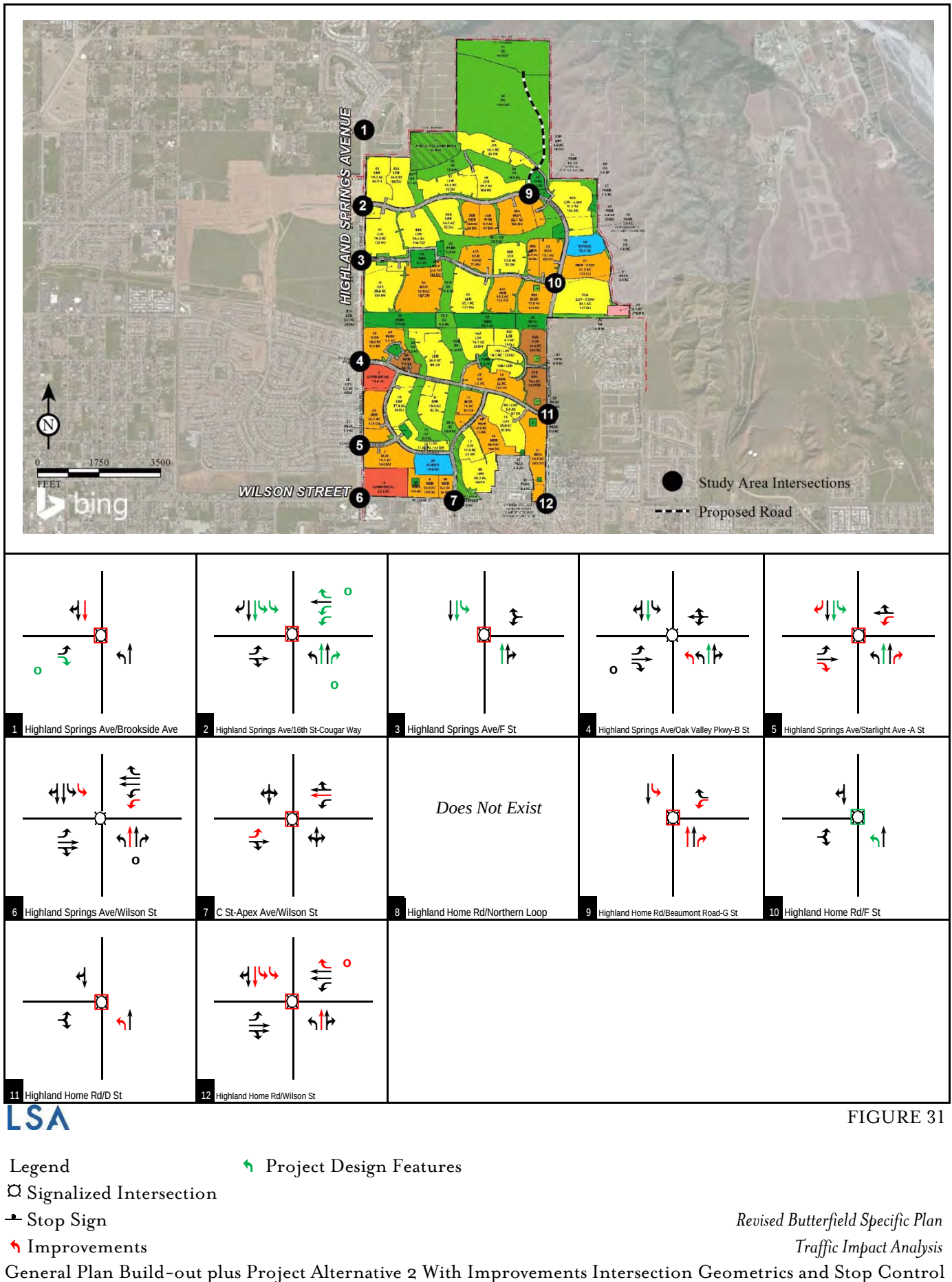


FIGURE 31

Revised Butterfield Specific Plan
Traffic Impact Analysis

As noted earlier, the recommended improvements required to maintain satisfactory levels of service for study area intersections are in conformance with the City of Banning General Plan Circulation Element (updated June 2005), City of Banning General Plan Circulation Element (updated June 2005), City of Banning General Plan Amendment Change in Level of Service Policy dated September 2012, City of Beaumont General Plan Circulation Element (revised December 2004), and the Pass Area Circulation Plan, which is part of the RCIP.

Table N provides a comparison of improvements between the Approved Project and two proposed project alternatives under General Plan build-out plus project conditions.

7.0 INTERNAL CIRCULATION

Previously referenced Figures 2, 3, and 4 illustrate the internal street network for the Approved Project and Alternatives 1 and 2. The street network for each alternative has several internal intersections. The a.m. and p.m. peak hour intersection volumes were developed for each alternative under General Plan Build-out conditions for the internal intersections. Each intersection was analyzed as an unsignalized intersection with one lane for each approach. Table O shows that all the intersections operate acceptably at LOS D or better in a.m. and p.m. peak hours, with the exception of F Street/Northern Loop under Alternative 1. Appendix C contains all level of service worksheets for internal intersections. A signal warrant analysis was conducted at the intersections where a signal has been recommended as mitigation. As shown in Appendix B, all intersections where a signal has been recommended as mitigation warrant signals.

Table N - General Plan Build-out With Improvements Comparison

Intersection	Approved Project	Project Alternative 1		Project Alternative 2	
		Additional Improvements	Improvements Not Required	Additional Improvements	Improvements Not Required
1 . Highland Springs Avenue/Brookside Avenue	Install a traffic signal. Add NBT, NBR with overlap phasing, SBL, SBT, EBL, EBT, WBL, WBT, WBR.		NBT, NBR with overlap phasing, SBL, EBL, EBT, WBL, WBT, WBR.		NBT, NBR with overlap phasing, SBL, EBL, EBT, WBL, WBT, WBR.
2 . Highland Springs Avenue/16th Street-Cougar Way	Install a traffic signal.				
3 . Highland Springs Avenue/F Street	Install a traffic signal.				
4 . Highland Springs Avenue/Oak Valley Parkway-B Street	Add 2nd NBL, NBT, SBT.				
5 . Highland Springs Avenue/Starlight Avenue -A Street	Install a traffic signal. Add NBT, NBR, SBL, SBT, SBR, EBR, WBL.				
6 . Highland Springs Avenue/Wilson Street	NBT, 2nd SBL, SBR, EBR, 2nd WBL	NBT, overlap phasing to WBR	EBR		SBR, EBR
7 . C Street-Apex Avenue/Wilson Street	Install a traffic signal. Add EBL, WBT.	EBT			
8 . Highland Home Road/Northern Loop	Install a traffic signal. Add a NBL, SBT		Install a traffic signal. Add a NBL, SBT	Intersection Does Not Exist	
9 . Highland Home Road/Beaumont Road-G St	Install a traffic signal. Add NBT, NBR, SBL, WBL.		NBT, SBL.		
10 . Highland Home Road/F Street	Install a traffic signal. Add NBL.				
11 . Highland Home Road/D Street	Install a traffic signal. Add NBL.				
12 . Highland Home Road/Wilson Street	Install a traffic signal. Re-stripe NBR to NBTR, 2 SBL, SBT, WBR with overlap phasing.		SBL		

Notes:

NBL= northbound left-turn lane ; NBT = northbound through lane; NBR = northbound right-turn lane; NBTR =shared northbound through/right-turn lane
SBL= southbound left-turn lane ; SBT = southbound through lane; SBR = southbound right-turn lane; SBTR = shared southbound through/right-turn lane
EBL= eastbound left-turn lane ; EBT = eastbound through lane; EBR = eastbound right-turn lane; EBTL = shared eastbound through/left-turn lane;
EBLTR = shared eastbound left/through/right-turn lane; EBTR = shared eastbound through/right-turn lane
WBL= westbound left-turn lane ; WBT = westbound through lane; WBR = westbound right-turn lane; WBTR = shared westbound through/right-turn lane.

Table O: Internal Intersections Level of Service Summary

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay	LOS	Delay	LOS
Approved Project					
F Street/Northern Loop	TWSC	12.3	B	13.7	B
E Street/F Street	TWSC	9.2	A	10.1	B
E Street/Southern Loop	TWSC	9.1	A	10.9	B
D Street/Southern Loop	TWSC	10.6	B	12.1	B
C Street/Southern Loop	TWSC	9.1	A	9.6	A
A Street/Southern Loop	TWSC	11.8	B	20.4	C
B Street/Southern Loop	TWSC	11.3	B	15.5	C
Project Alternative 1					
F Street/Northern Loop	TWSC	>100	F	>100	F
E Street/F Street	TWSC	12.0	B	14.9	B
E Street/Southern Loop	TWSC	9.2	A	9.4	A
D Street/Southern Loop	TWSC	9.4	A	10.0	B
C Street/Southern Loop	TWSC	15.5	C	31.1	D
A Street/Southern Loop	TWSC	11.8	B	15.1	C
B Street/Southern Loop	TWSC	11.8	B	15.4	C
Project Alternative 2					
G Street/Oak Valley Parkway	TWSC	13.0	B	13.7	B
B Street/Oak Valley Parkway	TWSC	12.9	B	15.3	C
B Street/A Street	AWSC	11.0	B	18.0	C
E Street/Oak Valley Parkway	TWSC	10.9	B	11.6	B
C Street/Oak Valley Parkway	TWSC	11.1	B	12.2	B
C Street/B Street	TWSC	11.8	B	17.6	C
H Street/Oak Valley Parkway	TWSC	10.4	B	11.1	B
Highland Home Road/D Street	TWSC	25.5	D	21.0	C

Notes: TWSC = Two-Way Stop Control, AWSC = All-Way Stop Control

APPENDIX A

LEVEL OF SERVICE CALCULATION WORKSHEETS

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - AM Peak Hour

Scenario Report

Scenario:	Existing AM
Command:	Existing AM
Volume:	Existing AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing AM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 7.0 Worst Case Level Of Service: A[9.9]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0
Volume Module:												
Base Vol:	176	27	0	0	68	1	1	0	185	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	176	27	0	0	68	1	1	0	185	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
PHF Volume:	220	34	0	0	85	1	1	0	231	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	220	34	0	0	85	1	1	0	231	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	86	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	559	559	86	xxxx	xxxx	xxxxxx
Potent Cap.:	1523	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	494	441	979	xxxx	xxxx	xxxxxx
Move Cap.:	1523	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	439	377	979	xxxx	xxxx	xxxxxx
Volume/Cap:	0.14	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	0.00	0.00	0.24	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Control Del:	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	972	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.9	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.9	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.9	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	A	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.442

Loss Time (sec): 12 Average Delay (sec/veh): 20.8

Optimal Cycle: 40 Level Of Service: C

Street Name: Highland Springs Ave. Oak Valley Pkwy.-14th St.-F St.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Permitted Split Phase Split Phase

Rights: Include Include Ovl Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 124 185 0 0 234 9 6 0 204 0 0 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 124 185 0 0 234 9 6 0 204 0 0 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83

PHF Volume: 149 222 0 0 281 11 7 0 245 0 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 149 222 0 0 281 11 7 0 245 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 149 222 0 0 281 11 7 0 245 0 0 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.85 1.00 1.00 1.00

Lanes: 1.00 1.00 0.00 0.00 0.96 0.04 1.00 0.00 1.00 0.00 0.00 0.00

Final Sat.: 1805 1900 0 0 1820 70 1805 0 1615 0 0 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.08 0.12 0.00 0.00 0.15 0.15 0.00 0.00 0.15 0.00 0.00 0.00

Crit Moves: ****

Green/Cycle: 0.19 0.54 0.00 0.00 0.35 0.35 0.34 0.00 0.53 0.00 0.00 0.00

Volume/Cap: 0.44 0.22 0.00 0.00 0.44 0.44 0.01 0.00 0.29 0.00 0.00 0.00

Delay/Veh: 37.0 12.3 0.0 0.0 25.5 25.5 21.6 0.0 13.2 0.0 0.0 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 37.0 12.3 0.0 0.0 25.5 25.5 21.6 0.0 13.2 0.0 0.0 0.0

LOS by Move: D B A A C C C A B A A A

HCM2kAvgQ: 4 3 0 0 7 7 0 0 4 0 0 0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: C[17.6]

Street Name:	Highland Springs Ave.						Starlight Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	0	1	0	0	0	1	0	0	0

Volume Module:	Highland Springs Ave. NB			Highland Springs Ave. SB			Starlight Ave. EB			Starlight Ave. WB		
Base Vol:	26	287	0	0	515	20	17	0	169	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	287	0	0	515	20	17	0	169	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	31	340	0	0	609	24	20	0	200	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	31	340	0	0	609	24	20	0	200	0	0	0

Critical Gap Module:	Highland Springs Ave. NB			Highland Springs Ave. SB			Starlight Ave. EB			Starlight Ave. WB		
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:	Highland Springs Ave. NB			Highland Springs Ave. SB			Starlight Ave. EB			Starlight Ave. WB		
Cnflct Vol:	633	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1022	xxxx	621	xxxx	xxxx	xxxxxx
Potent Cap.:	959	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	264	xxxx	491	xxxx	xxxx	xxxxxx
Move Cap.:	959	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	257	xxxx	491	xxxx	xxxx	xxxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	0.41	xxxx	xxxx	xxxx

Level Of Service Module:	Highland Springs Ave. NB			Highland Springs Ave. SB			Starlight Ave. EB			Starlight Ave. WB		
2Way95thQ:	0.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.3	xxxx	2.0	xxxx	xxxx	xxxxxx
Control Del:	8.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	20.2	xxxx	17.3	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	C	*	C	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			17.6			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.424
Loss Time (sec): 16 Average Delay (sec/veh): 30.1
Optimal Cycle: 44 Level Of Service: C

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	57	149	116	150	398	93	19	94	101	141	88	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	149	116	150	398	93	19	94	101	141	88	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	65	171	133	172	457	107	22	108	116	162	101	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	171	133	172	457	107	22	108	116	162	101	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	65	171	133	172	457	107	22	108	116	162	101	133

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.92	0.92	0.95	0.88	0.88	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.62	0.38	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	2844	665	1805	1664	1664	1805	3610	1615

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.04	0.09	0.08	0.10	0.16	0.16	0.01	0.06	0.07	0.09	0.03	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.09	0.23	0.44	0.24	0.38	0.38	0.17	0.16	0.16	0.21	0.20	0.20
Volume/Cap:	0.42	0.40	0.19	0.40	0.42	0.42	0.07	0.39	0.42	0.42	0.14	0.41
Delay/Veh:	45.3	33.6	17.4	32.6	23.2	23.2	34.8	37.8	38.1	34.9	32.7	35.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.3	33.6	17.4	32.6	23.2	23.2	34.8	37.8	38.1	34.9	32.7	35.4
LOS by Move:	D	C	B	C	C	C	C	D	D	C	C	D
HCM2kAvgQ:	2	5	3	4	6	6	1	3	4	5	1	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[14.3]

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*****
Street Name:          C St.                      Wilson St.
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:            L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:              Stop Sign        Stop Sign        Uncontrolled    Uncontrolled
Rights:               Include          Include          Include         Include
Lanes:                1  0  0  0  0      0  0  0  0  0      0  0  0  1  0      1  0  1  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:             6    0    0    0    0    0    0    303    1    0    316    0
Growth Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:          6    0    0    0    0    0    0    303    1    0    316    0
User Adj:             1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:              0.86 0.86  0.86  0.86 0.86  0.86  0.86 0.86  0.86  0.86 0.86  0.86
PHF Volume:           7    0    0    0    0    0    0    354    1    0    370    0
Reduct Vol:           0    0    0    0    0    0    0    0    0    0    0    0
FinalVolume:          7    0    0    0    0    0    0    354    1    0    370    0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          6.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:          3.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:           725 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.:          395 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.:            395 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap:           0.02 xxxx xxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           0.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:          14.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
LOS by Move:          B    *    *    *    *    *    *    *    *    *    *    *    *
Movement:            LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:          xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:          xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS:           *    *    *    *    *    *    *    *    *    *    *    *    *
ApproachDel:          14.3                xxxxxx                xxxxxx                xxxxxx
ApproachLOS:          B                    *                    *                    *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: B[13.2]

Highland Home Rd.						Wilson St.							
North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1	0
Volume Module:													
Base Vol:	14	1	30	5	7	7	10	241	18	41	252	2	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	14	1	30	5	7	7	10	241	18	41	252	2	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	
PHF Volume:	16	1	35	6	8	8	12	281	21	48	294	2	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Final Volume:	16	1	35	6	8	8	12	281	21	48	294	2	
Critical Gap Module:													
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	
Capacity Module:													
Cnflct Vol:	561	706	151	555	716	148	296	xxxx	xxxxx	302	xxxx	xxxxx	
Potent Cap.:	415	363	875	419	358	878	1277	xxxx	xxxxx	1271	xxxx	xxxxx	
Move Cap.:	389	346	875	387	342	878	1277	xxxx	xxxxx	1271	xxxx	xxxxx	
Volume/Cap:	0.04	0.00	0.04	0.02	0.02	0.01	0.01	xxxx	xxxx	0.04	xxxx	xxxx	
Level Of Service Module:													
2Way95thQ:	0.1	0.0	0.1	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	
Control Del:	14.7	15.4	9.3	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.9	xxxx	xxxxx	
LOS by Move:	B	C	A	*	*	*	A	*	*	A	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	459	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*	
ApproachDel:	11.1			13.2			xxxxxx			xxxxxx			
ApproachLOS:	B			B			*			*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - PM Peak Hour

Scenario Report

Scenario: Existing PM
Command: Existing PM
Volume: Existing PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Existing PM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 5.2 Worst Case Level Of Service: A[9.2]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	151	98	0	0	58	0	2	0	113	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	151	98	0	0	58	0	2	0	113	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	166	108	0	0	64	0	2	0	124	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	166	108	0	0	64	0	2	0	124	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	64	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	504	504	64	xxxx	xxxx	xxxxxx
Potent Cap.:	1552	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	531	473	1006	xxxx	xxxx	xxxxxx
Move Cap.:	1552	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	488	423	1006	xxxx	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	0.00	0.00	0.12	xxxx	xxxx	xxxxxx
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Control Del:	7.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	988	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.2	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.2			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.338
Loss Time (sec): 12 Average Delay (sec/veh): 17.2
Optimal Cycle: 40 Level Of Service: B

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	204	233	0	0	155	3	3	0	122	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	204	233	0	0	155	3	3	0	122	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	223	255	0	0	170	3	3	0	133	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	223	255	0	0	170	3	3	0	133	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	223	255	0	0	170	3	3	0	133	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.98	0.02	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1858	36	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.12	0.13	0.00	0.00	0.09	0.09	0.00	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.37	0.64	0.00	0.00	0.27	0.27	0.24	0.00	0.61	0.00	0.00	0.00
Volume/Cap:	0.34	0.21	0.00	0.00	0.34	0.34	0.01	0.00	0.14	0.00	0.00	0.00
Delay/Veh:	23.3	7.8	0.0	0.0	29.7	29.7	28.6	0.0	8.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.3	7.8	0.0	0.0	29.7	29.7	28.6	0.0	8.3	0.0	0.0	0.0
LOS by Move:	C	A	A	A	C	C	C	A	A	A	A	A
HCM2kAvgQ:	5	3	0	0	4	4	0	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: B[11.4]

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	0	0	0	1	0	0
Volume Module:												
Base Vol:	145	541	0	0	342	3	2	0	75	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	541	0	0	342	3	2	0	75	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	157	584	0	0	369	3	2	0	81	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	157	584	0	0	369	3	2	0	81	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	373	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1268	xxxx	371	xxxx	xxxx	xxxxxx
Potent Cap.:	1197	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	188	xxxx	679	xxxx	xxxx	xxxxxx
Move Cap.:	1197	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	169	xxxx	679	xxxx	xxxx	xxxxxx
Volume/Cap:	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	0.12	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	0.4	xxxx	xxxx	xxxxxx
Control Del:	8.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	26.6	xxxx	11.0	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	D	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.4			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.588
Loss Time (sec): 16 Average Delay (sec/veh): 27.1
Optimal Cycle: 56 Level Of Service: C

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:	Highland Springs Ave.			8th St.-Wilson St.		
Base Vol:	47	541	179	93	317	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	541	179	93	317	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	52	602	199	103	353	12
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	52	602	199	103	353	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	602	199	103	353	12

Saturation Flow Module:	Highland Springs Ave.			8th St.-Wilson St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	1.93	0.07
Final Sat.:	1805	1900	1615	1805	3471	120

Capacity Analysis Module:	Highland Springs Ave.			8th St.-Wilson St.		
Vol/Sat:	0.03	0.32	0.12	0.06	0.10	0.10
Crit Moves:	****	****	****	****	****	****
Green/Cycle:	0.26	0.53	0.67	0.10	0.37	0.37
Volume/Cap:	0.11	0.59	0.18	0.59	0.27	0.27
Delay/Veh:	28.5	16.9	6.2	48.7	22.0	22.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.5	16.9	6.2	48.7	22.0	22.0
LOS by Move:	C	B	A	D	C	C
HCM2kAvgQ:	1	13	2	3	4	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: B[14.2]

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*****
Street Name:          C St.                      Wilson St.
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:             L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:              Stop Sign        Stop Sign        Uncontrolled    Uncontrolled
Rights:               Include          Include          Include         Include
Lanes:                1  0  0  0  0      0  0  0  0  0      0  0  0  1  0      1  0  1  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:             1    0    0    0    0    0    0    363    4    0    289    0
Growth Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:          1    0    0    0    0    0    0    363    4    0    289    0
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume:           1    0    0    0    0    0    0    405    4    0    323    0
Reduct Vol:           0    0    0    0    0    0    0    0    0    0    0    0
FinalVolume:          1    0    0    0    0    0    0    405    4    0    323    0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          6.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:          3.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:           730 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.:          392 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.:            392 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap:           0.00 xxxx xxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:          14.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
LOS by Move:          B    *    *    *    *    *    *    *    *    *    *    *    *
Movement:             LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:          xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:          xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS:           *    *    *    *    *    *    *    *    *    *    *    *    *
ApproachDel:          14.2                xxxxxx                xxxxxx                xxxxxx
ApproachLOS:          B                    *                    *                    *
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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[13.2]

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*****
Street Name:          Highland Home Rd.          Wilson St.
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Stop Sign            Stop Sign            Uncontrolled        Uncontrolled
Rights:               Include              Include              Include              Include
Lanes:                1 0 1 0 1            0 0 1! 0 0          1 0 1 1 0          1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:             18    7    40          4    2    3          6 307    6    30 262    5
Growth Adj:           1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
Initial Bse:          18    7    40          4    2    3          6 307    6    30 262    5
User Adj:             1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Adj:              0.88 0.88 0.88        0.88 0.88 0.88        0.88 0.88 0.88        0.88 0.88 0.88
PHF Volume:           20    8    45          5    2    3          7 349    7    34 298    6
Reduct Vol:           0    0    0            0    0    0          0    0    0          0    0    0
FinalVolume:          20    8    45          5    2    3          7 349    7    34 298    6
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          7.5 6.5 6.9          7.5 6.5 6.9          4.1 xxxx xxxxx        4.1 xxxx xxxxx
FollowUpTim:          3.5 4.0 3.3          3.5 4.0 3.3          2.2 xxxx xxxxx        2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:           584 738 178          561 738 152          303 xxxx xxxxx        356 xxxx xxxxx
Potent Cap.:          399 348 841          415 348 874          1269 xxxx xxxxx        1214 xxxx xxxxx
Move Cap.:            386 337 841          376 336 874          1269 xxxx xxxxx        1214 xxxx xxxxx
Volume/Cap:           0.05 0.02 0.05          0.01 0.01 0.00        0.01 xxxx xxxxx        0.03 xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           0.2 0.1 0.2          xxxx xxxx xxxxx        0.0 xxxx xxxxx        0.1 xxxx xxxxx
Control Del:          14.9 16.0 9.5          xxxx xxxx xxxxx        7.9 xxxx xxxxx        8.1 xxxx xxxxx
LOS by Move:          B    C    A            *    *    *          A    *    *          A    *    *
Movement:            LT - LTR - RT          LT - LTR - RT          LT - LTR - RT          LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxx        xxxx 449 xxxxx        xxxx xxxx xxxxx        xxxx xxxx xxxxx
SharedQueue:          xxxxx xxxx xxxxx        xxxxx 0.1 xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
Shrd ConDel:          xxxxx xxxx xxxxx        xxxxx 13.2 xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
Shared LOS:           *    *    *            *    B    *          *    *    *          *    *    *
ApproachDel:          11.7                13.2                xxxxxx                xxxxxx
ApproachLOS:          B                B                *                *
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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Scenario Report

Scenario:	Existing w PR am
Command:	Existing w PR am
Volume:	Existing w PR am
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing AM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 162.2 Worst Case Level Of Service: F[489.5]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	237	57	32	127	84	1	1	32	217	61	61	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	237	57	32	127	84	1	1	32	217	61	61	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
PHF Volume:	296	71	40	159	105	1	1	40	271	76	76	305
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	296	71	40	159	105	1	1	40	271	76	76	305

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	106	xxxx	xxxxxx	111	xxxx	xxxxxx	1296	1125	105	1261	1106	91
Potent Cap.:	1498	xxxx	xxxxxx	1491	xxxx	xxxxxx	140	207	954	148	212	972
Move Cap.:	1498	xxxx	xxxxxx	1491	xxxx	xxxxxx	46	147	954	66	150	972
Volume/Cap:	0.20	xxxx	xxxx	0.11	xxxx	xxxx	0.03	0.27	0.28	1.16	0.51	0.31

Level Of Service Module:

2Way95thQ:	0.7	xxxx	xxxxxx	0.4	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	8.0	xxxx	xxxxxx	7.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	535	xxxxxx	xxxx	231	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	3.7	xxxxxx	xxxxxx	33.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	20.7	xxxxxx	xxxxxx	489	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			20.7			489.5		
ApproachLOS:	*			*			C			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Average Delay (sec/veh): 64.2 Worst Case Level Of Service: F[179.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	284	237	16	336	0	0	0	0	457	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	284	237	16	336	0	0	0	0	457	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	284	237	16	336	0	0	0	0	457	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	284	237	16	336	0	0	0	0	457	0	30

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTime:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Conflict Vol:	xxxx	xxxx	xxxxx	521	xxxx	xxxxx	xxxx	xxxx	xxxxx	771	771	403
Potent Cap.:	xxxx	xxxx	xxxxx	1056	xxxx	xxxxx	xxxx	xxxx	xxxxx	371	333	652
Move Cap.:	xxxx	xxxx	xxxxx	1056	xxxx	xxxxx	xxxx	xxxx	xxxxx	367	328	652
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	1.24	0.00	0.05

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	377	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	22.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	179	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			179.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.180
Loss Time (sec): 12 Average Delay (sec/veh): 89.7
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	0	0	1

Volume Module:

Base Vol:	215	438	79	32	721	39	22	142	251	152	274	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	215	438	79	32	721	39	22	142	251	152	274	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	258	526	95	38	867	47	26	171	302	183	329	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	526	95	38	867	47	26	171	302	183	329	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	258	526	95	38	867	47	26	171	302	183	329	73

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.99	0.99	0.80	1.00	0.85	0.75	0.75	0.75
Lanes:	1.00	0.85	0.15	1.00	0.95	0.05	1.00	1.00	1.00	0.31	0.56	0.13
Final Sat.:	1805	1573	284	1805	1788	97	1518	1900	1615	445	802	178

Capacity Analysis Module:

Vol/Sat:	0.14	0.33	0.33	0.02	0.48	0.48	0.02	0.09	0.19	0.41	0.41	0.41
Crit Moves:	****			****						****		
Green/Cycle:	0.12	0.44	0.44	0.09	0.41	0.41	0.35	0.35	0.47	0.35	0.35	0.35
Volume/Cap:	1.18	0.76	0.76	0.23	1.18	1.18	0.05	0.26	0.40	1.18	1.18	1.18
Delay/Veh:	162.0	27.8	27.8	42.8	124	123.7	21.7	23.6	17.7	132.9	133	132.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	162.0	27.8	27.8	42.8	124	123.7	21.7	23.6	17.7	132.9	133	132.9
LOS by Move:	F	C	C	D	F	F	C	C	B	F	F	F
HCM2kAvgQ:	13	15	15	1	48	48	1	4	6	32	32	32

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.					Starlight Ave.				
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Lanes:	1	0	0	1	0	0	1	0	0	

Volume Module:

Base Vol:	26	556	127	47	1033	142	80	79	169	244	152	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	556	127	47	1033	142	80	79	169	244	152	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	31	658	150	56	1222	168	95	93	200	289	180	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	31	658	150	56	1222	168	95	93	200	289	180	108

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1391	xxxx	xxxxxx	808	xxxx	xxxxxx	2356	2288	1307	2359	2296	733
Potent Cap.:	498	xxxx	xxxxxx	826	xxxx	xxxxxx	25	40	197	25	39	424
Move Cap.:	498	xxxx	xxxxxx	826	xxxx	xxxxxx	0	35	197	0	34	424
Volume/Cap:	0.06	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	2.68	1.01	xxxx	5.23	0.25

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxxx	0.2	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	12.7	xxxx	xxxxxx	9.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	79	xxxx	0	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	30.4	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1323	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx			xxxxxx			+Inf			xxxxxx		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.881
Loss Time (sec): 16 Average Delay (sec/veh): 41.3
Optimal Cycle: 109 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	57	497	227	180	1068	154	51	141	101	354	179	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	497	227	180	1068	154	51	141	101	354	179	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	65	571	261	207	1226	177	59	162	116	406	206	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	571	261	207	1226	177	59	162	116	406	206	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	571	261	207	1226	177	59	162	116	406	206	152

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.89	0.89	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.75	0.25	1.00	1.17	0.83	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3095	446	1805	1971	1412	1805	3610	1615

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.04	0.30	0.16	0.11	0.40	0.40	0.03	0.08	0.08	0.23	0.06	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.36	0.61	0.14	0.43	0.43	0.14	0.09	0.09	0.25	0.19	0.19
Volume/Cap:	0.52	0.82	0.26	0.82	0.91	0.91	0.23	0.91	0.91	0.91	0.30	0.49
Delay/Veh:	48.6	36.8	9.2	61.2	35.3	35.3	38.3	75.4	75.4	59.8	34.8	37.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	36.8	9.2	61.2	35.3	35.3	38.3	75.4	75.4	59.8	34.8	37.2
LOS by Move:	D	D	A	E	D	D	D	E	E	E	C	D
HCM2kAvgQ:	3	18	4	6	20	20	2	8	8	16	3	5

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 70.4 Worst Case Level Of Service: F[273.0]

C St.						Wilson St.						
North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	0	1	0
Volume Module:												
Base Vol:	6	0	0	122	0	213	111	380	1	0	423	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	122	0	213	111	380	1	0	423	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	7	0	0	143	0	249	130	444	1	0	495	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	0	0	143	0	249	130	444	1	0	495	74
Critical Gap Module:												
Critical Gp:	7.1	xxxx	xxxxxx	7.1	6.5	6.2	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	1361	xxxx	xxxxxx	1236	1237	532	568	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	127	xxxx	xxxxxx	154	177	552	1014	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	62	xxxx	xxxxxx	138	153	552	1014	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	xxxx	1.03	0.00	0.45	0.13	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.4	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	70.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	F	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	264	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	22.5	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	273	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	70.2			273.0			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 25.6 Worst Case Level Of Service: E[42.5]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	142	74	0	0	51	158	304	0	274	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	142	74	0	0	51	158	304	0	274	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	142	74	0	0	51	158	304	0	274	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	142	74	0	0	51	158	304	0	274	0	0	0

Critical Gap Module:	Highland Home Rd.						Northern Loop					
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:	Highland Home Rd.						Northern Loop					
Cnflct Vol:	209	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	488	488	130	xxxx	xxxx	xxxxxx
Potent Cap.:	1374	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	543	483	925	xxxx	xxxx	xxxxxx
Move Cap.:	1374	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	496	429	925	xxxx	xxxx	xxxxxx
Volume/Cap:	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	0.61	0.00	0.30	xxxx	xxxx	xxxx

Level Of Service Module:	Highland Home Rd.						Northern Loop					
2Way95thQ:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	636	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	11.6	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	7.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	42.5	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	E	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			42.5			xxxxxx		
ApproachLOS:	*			*			E			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St*****
Average Delay (sec/veh): 3.6 Worst Case Level Of Service: B[12.7]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	0	140	62	62	263	0	0	0	0	77	0	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	140	62	62	263	0	0	0	0	77	0	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	140	62	62	263	0	0	0	0	77	0	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	140	62	62	263	0	0	0	0	77	0	77

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	202	xxxx	xxxxx	xxxx	xxxx	xxxxx	558	558	171
Potent Cap.:	xxxx	xxxx	xxxxx	1382	xxxx	xxxxx	xxxx	xxxx	xxxxx	494	441	878
Move Cap.:	xxxx	xxxx	xxxxx	1382	xxxx	xxxxx	xxxx	xxxx	xxxxx	477	420	878
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.16	0.00	0.09

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	618	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	12.7	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				12.7	
ApproachLOS:	*			*			*				B	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: B[12.7]

Street Name:	Highland Home Rd.				F St.				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	1	0	0	0	0	0	0	0
Volume Module:									
Base Vol:	127	201	0	0	339	0	0	0	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	201	0	0	339	0	0	0	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	201	0	0	339	0	0	0	244
Reduct Vol:	0	0	0	0	0	0	0	0	0
FinalVolume:	127	201	0	0	339	0	0	0	244

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	339	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	339	xxxxxx	xxxxxx	xxxxxx
Potent Cap.:	1231	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	708	xxxxxx	xxxxxx	xxxxxx
Move Cap.:	1231	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	708	xxxxxx	xxxxxx	xxxxxx
Volume/Cap:	0.10	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.34	xxxxxx	xxxxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.3	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	1.5	xxxxxx	xxxxxx	xxxxxx				
Control Del:	8.3	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	12.7	xxxxxx	xxxxxx	xxxxxx				
LOS by Move:	A	*	*	*	*	*	*	B	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
SharedQueue:	0.3	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shrd ConDel:	8.3	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			12.7		xxxxxx						
ApproachLOS:	*			*			B		*						

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 5.2 Worst Case Level Of Service: C[22.4]

Street Name:	Highland Home Rd.						D St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	111	298	0	0	567	16	30	0	213	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	111	298	0	0	567	16	30	0	213	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	111	298	0	0	567	16	30	0	213	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	111	298	0	0	567	16	30	0	213	0	0	0

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	583	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1095	1095	575	xxxx	xxxx	xxxxxx
Potent Cap.:	1001	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	239	215	521	xxxx	xxxx	xxxxxx
Move Cap.:	1001	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	217	190	521	xxxx	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.14	0.00	0.41	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Control Del:	9.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	444	xxxxxx	xxxxxx	xxxxxx	xxxxxx
SharedQueue:	0.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	3.2	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:	9.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	22.4	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	C	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	22.4	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	C	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Highland Home Rd.						Wilson St.							
North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1	0
Volume Module:													
Base Vol:	77	159	30	370	311	98	57	271	140	41	268	192	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	77	159	30	370	311	98	57	271	140	41	268	192	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	
PHF Volume:	90	185	35	431	362	114	66	316	163	48	312	224	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Final Volume:	90	185	35	431	362	114	66	316	163	48	312	224	
Critical Gap Module:													
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	
Capacity Module:													
Cnflct Vol:	963	1162	240	903	1132	268	536	xxxx	xxxxx	479	xxxx	xxxxx	
Potent Cap.:	213	197	768	235	205	736	1042	xxxx	xxxxx	1094	xxxx	xxxxx	
Move Cap.:	0	176	768	0	183	736	1042	xxxx	xxxxx	1094	xxxx	xxxxx	
Volume/Cap:	xxxx	1.05	0.05	xxxx	1.98	0.16	0.06	xxxx	xxxx	0.04	xxxx	xxxx	
Level Of Service Module:													
2Way95thQ:	xxxx	8.9	0.1	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx	
Control Del:	xxxxx	136	9.9	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	8.4	xxxx	xxxxx	
LOS by Move:	*	F	A	*	*	*	A	*	*	A	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	+Inf			xxxxxx			xxxxxx			xxxxxx			
ApproachLOS:	F			F			*			*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Scenario Report

Scenario:	Existing w PR pm
Command:	Existing w PR pm
Volume:	Existing w PR pm
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing PM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 355.6 Worst Case Level Of Service: F[1450.7]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	1	0	0	0	1	0	0	0	0

Volume Module:

Base Vol:	200	123	71	282	93	0	2	71	184	49	49	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	123	71	282	93	0	2	71	184	49	49	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	220	135	78	310	102	0	2	78	202	54	54	218
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	220	135	78	310	102	0	2	78	202	54	54	218

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	102	xxxx	xxxxxx	213	xxxx	xxxxxx	1473	1376	102	1477	1337	174
Potent Cap.:	1502	xxxx	xxxxxx	1369	xxxx	xxxxxx	106	146	958	105	155	874
Move Cap.:	1502	xxxx	xxxxxx	1369	xxxx	xxxxxx	32	91	958	17	96	874
Volume/Cap:	0.15	xxxx	xxxx	0.23	xxxx	xxxx	0.07	0.86	0.21	3.18	0.56	0.25

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxxx	0.9	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.8	xxxx	xxxxxx	8.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	248	xxxxxx	xxxx	82	xxxxxx
Shared Queue:	xxxxxx	xxxx	xxxxxx	0.9	xxxx	xxxxxx	xxxxxx	12.7	xxxxxx	xxxxxx	34.1	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	8.4	xxxx	xxxxxx	xxxxxx	143	xxxxxx	xxxxxx	1451	xxxxxx
Shared LOS:	*	*	*	A	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	142.9		1450.7			
ApproachLOS:	*	*	*	*	*	*	F		F		F	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street
*****Average Delay (sec/veh): 59.2 Worst Case Level Of Service: F[237.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module:												
Base Vol:	0	356	529	35	278	0	0	0	0	371	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	356	529	35	278	0	0	0	0	371	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	356	529	35	278	0	0	0	0	371	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	356	529	35	278	0	0	0	0	371	0	25

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	885	xxxx	xxxxx	xxxx	xxxx	xxxxx	969	969	621
Potent Cap.:	xxxx	xxxx	xxxxx	773	xxxx	xxxxx	xxxx	xxxx	xxxxx	284	256	491
Move Cap.:	xxxx	xxxx	xxxxx	773	xxxx	xxxxx	xxxx	xxxx	xxxxx	274	244	491
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	1.36	0.00	0.05

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	282	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	21.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	237	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			237.3		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.197
Loss Time (sec): 12 Average Delay (sec/veh): 96.6
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	0	0	1

Volume Module:

Base Vol:	278	797	176	71	550	28	38	317	228	124	222	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	278	797	176	71	550	28	38	317	228	124	222	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	304	872	193	78	602	31	42	347	249	136	243	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	304	872	193	78	602	31	42	347	249	136	243	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	304	872	193	78	602	31	42	347	249	136	243	54

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.97	0.95	0.99	0.99	0.75	1.00	0.85	0.52	0.52	0.52
Lanes:	1.00	0.82	0.18	1.00	0.95	0.05	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	1805	1514	334	1805	1795	91	1419	1900	1615	313	559	123

Capacity Analysis Module:

Vol/Sat:	0.17	0.58	0.58	0.04	0.34	0.34	0.03	0.18	0.15	0.43	0.43	0.43
Crit Moves:	****			****						****		
Green/Cycle:	0.18	0.46	0.46	0.07	0.35	0.35	0.35	0.35	0.53	0.35	0.35	0.35
Volume/Cap:	0.95	1.25	1.25	0.61	0.95	0.95	0.08	0.52	0.29	1.25	1.25	1.25
Delay/Veh:	77.0	148	147.8	53.9	54.0	54.0	22.0	26.8	13.5	165.6	166	165.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	77.0	148	147.8	53.9	54.0	54.0	22.0	26.8	13.5	165.6	166	165.6
LOS by Move:	E	F	F	D	D	D	C	C	B	F	F	F
HCM2kAvgQ:	9	56	56	3	24	24	1	9	4	26	26	26

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.						Starlight Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	145	1140	282	106	762	102	143	176	75	198	124	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	1140	282	106	762	102	143	176	75	198	124	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	157	1231	305	114	823	110	154	190	81	214	134	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	157	1231	305	114	823	110	154	190	81	214	134	80

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	933	xxxx	xxxxxx	1536	xxxx	xxxxxx	2910	2956	878	2939	2859	1383
Potent Cap.:	742	xxxx	xxxxxx	439	xxxx	xxxxxx	10	15	350	9	17	178
Move Cap.:	742	xxxx	xxxxxx	439	xxxx	xxxxxx	0	8	350	0	10	178
Volume/Cap:	0.21	xxxx	xxxx	0.26	xxxx	xxxx	xxxxx	22.60	0.23	xxxxx	13.75	0.45

Level Of Service Module:

2Way95thQ:	0.8	xxxx	xxxxxx	1.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	11.1	xxxx	xxxxxx	16.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	12	xxxx	0	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	35.3	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	10440	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx	xxxxxx			+Inf			xxxxxx				
ApproachLOS:	*	*			F			F				

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.313
Loss Time (sec): 16 Average Delay (sec/veh): 109.8
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	47	1317	426	118	861	60	82	169	49	308	136	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	1317	426	118	861	60	82	169	49	308	136	152
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	52	1465	474	131	958	67	91	188	55	343	151	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	1465	474	131	958	67	91	188	55	343	151	169
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	1465	474	131	958	67	91	188	55	343	151	169

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.94	0.94	0.95	0.92	0.92	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.87	0.13	1.00	1.55	0.45	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3341	233	1805	2703	784	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.77	0.29	0.07	0.29	0.29	0.05	0.07	0.07	0.19	0.04	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.12	0.56	0.70	0.07	0.51	0.51	0.08	0.07	0.07	0.14	0.12	0.12
Volume/Cap:	0.23	1.37	0.42	1.04	0.56	0.56	0.61	0.99	0.99	1.37	0.34	0.84
Delay/Veh:	40.1	196	6.6	137.3	17.4	17.4	51.1	102	102.1	234.1	40.4	68.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.1	196	6.6	137.3	17.4	17.4	51.1	102	102.1	234.1	40.4	68.3
LOS by Move:	D	F	A	F	B	B	D	F	F	F	D	E
HCM2kAvgQ:	2	94	6	5	11	11	4	7	7	24	3	8

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 104.5 Worst Case Level Of Service: F[588.8]

C St.						Wilson St.						
North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	0	1	0
Volume Module:												
Base Vol:	1	0	0	99	0	173	247	494	4	0	398	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	99	0	173	247	494	4	0	398	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	1	0	0	110	0	193	276	551	4	0	444	157
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	0	0	110	0	193	276	551	4	0	444	157
Critical Gap Module:												
Critical Gp:	7.1	xxxx	xxxxxx	7.1	6.5	6.2	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	1724	xxxx	xxxxxx	1628	1630	523	602	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	71	xxxx	xxxxxx	83	103	558	986	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	34	xxxx	xxxxxx	61	69	558	986	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.03	xxxx	xxxx	1.80	0.00	0.35	0.28	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	113.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	10.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	F	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	142	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	24.8	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	589	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	113.1			588.8			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 92.5 Worst Case Level Of Service: F[247.3]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	1	0	0	0
Volume Module:												
Base Vol:	317	67	0	0	80	353	247	0	222	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	317	67	0	0	80	353	247	0	222	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	317	67	0	0	80	353	247	0	222	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	317	67	0	0	80	353	247	0	222	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	433	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	958	958	257	xxxx	xxxx	xxxxxx
Potent Cap.:	1137	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	288	260	787	xxxx	xxxx	xxxxxx
Move Cap.:	1137	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	212	172	787	xxxx	xxxx	xxxxxx
Volume/Cap:	0.28	xxxx	xxxx	xxxxxx	xxxx	xxxx	1.16	0.00	0.28	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	9.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	325	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	1.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	25.1	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	9.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	247	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			247.3			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C[16.7]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	300	96	96	207	0	0	0	0	84	0	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	300	96	96	207	0	0	0	0	84	0	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	300	96	96	207	0	0	0	0	84	0	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	300	96	96	207	0	0	0	0	84	0	84

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	396	xxxx	xxxxx	xxxx	xxxx	xxxxx	747	747	348
Potent Cap.:	xxxx	xxxx	xxxxx	1174	xxxx	xxxxx	xxxx	xxxx	xxxxx	383	344	700
Move Cap.:	xxxx	xxxx	xxxxx	1174	xxxx	xxxxx	xxxx	xxxx	xxxxx	358	314	700
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	0.23	0.00	0.12

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	474	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	16.7	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				16.7	
ApproachLOS:	*			*			*				C	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: B[11.5]

Street Name:	Highland Home Rd.				F St.				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	1	0	0	0	0	0	0	0

Volume Module:	North Bound		South Bound		East Bound		West Bound	
Base Vol:	282	396	0	0	291	0	0	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	282	396	0	0	291	0	0	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	282	396	0	0	291	0	0	198
Reduct Vol:	0	0	0	0	0	0	0	0
Final Volume:	282	396	0	0	291	0	0	198

Critical Gap Module:	North Bound		South Bound		East Bound		West Bound	
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	3.3

Capacity Module:	North Bound		South Bound		East Bound		West Bound	
Cnflct Vol:	291	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	291	xxxx
Potent Cap.:	1282	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	753	xxxx
Move Cap.:	1282	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	753	xxxx
Volume/Cap:	0.22	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.26	xxxx

Level Of Service Module:	North Bound		South Bound		East Bound		West Bound	
2Way95thQ:	0.8	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	1.1	xxxx
Control Del:	8.6	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	11.5	xxxxxx
LOS by Move:	A	*	*	*	*	*	B	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared Queue:	0.8	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:	8.6	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.5	xxxxxx
ApproachLOS:	*			*			B	*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: D[27.7]

Street Name:	Highland Home Rd.						D St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	247	653	0	0	454	35	25	0	173	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	247	653	0	0	454	35	25	0	173	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	247	653	0	0	454	35	25	0	173	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	247	653	0	0	454	35	25	0	173	0	0	0

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	489	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1619	1619	472	xxxx	xxxx	xxxxxx
Potent Cap.:	1085	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	115	104	596	xxxx	xxxx	xxxxxx
Move Cap.:	1085	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	91	77	596	xxxx	xxxx	xxxxxx
Volume/Cap:	0.23	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.27	0.00	0.29	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	0.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	9.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	352	xxxxxx	xxxx	xxxx	xxxxxx
Shared Queue:	0.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	3.3	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	9.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	27.7	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	D	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			27.7			xxxxxx		
ApproachLOS:	*			*			D			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

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*****
Street Name:          Highland Home Rd.          Wilson St.
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:            L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Stop Sign              Stop Sign              Uncontrolled          Uncontrolled
Rights:               Include                Include                Include                Include
Lanes:                1 0 1 0 1            0 0 1! 0 0            1 0 1 1 0            1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:             159 360            40 301 249            77 112 332            105 30 297            428
Growth Adj:           1.00 1.00            1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
Initial Bse:          159 360            40 301 249            77 112 332            105 30 297            428
User Adj:             1.00 1.00            1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Adj:              0.88 0.88            0.88 0.88 0.88        0.88 0.88 0.88        0.88 0.88 0.88
PHF Volume:           181 409            45 342 283            88 127 377            119 34 338            486
Reduct Vol:           0 0                0 0                0 0                0 0
FinalVolume:          181 409            45 342 283            88 127 377            119 34 338            486
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          7.5 6.5            6.9 7.5 6.5            6.9 4.1 xxxx          xxxx 4.1 xxxx          xxxxx
FollowUpTim:          3.5 4.0            3.3 3.5 4.0            3.3 2.2 xxxx          xxxx 2.2 xxxx          xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:           1070 1584            248 1297 1400          412 824 xxxx          xxxxx 497 xxxx          xxxxx
Potent Cap.:          178 110            758 121 142            595 815 xxxx          xxxxx 1078 xxxx          xxxxx
Move Cap.:            0 90                758 0 116            595 815 xxxx          xxxxx 1078 xxxx          xxxxx
Volume/Cap:           xxxx 4.57            0.06 xxxx 2.44          0.15 0.16 xxxx          xxx 0.03 xxxx          xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           xxxx 43.5            0.2 xxxx xxxx          xxxxx 0.6 xxxx          xxxxx 0.1 xxxx          xxxxx
Control Del:xxxxxx 1700            10.1 xxxxx xxxx          xxxxx 10.2 xxxx          xxxxx 8.4 xxxx          xxxxx
LOS by Move:          * F                B * *                * B *                * A *                *
Movement:            LT - LTR - RT            LT - LTR - RT            LT - LTR - RT            LT - LTR - RT
Shared Cap.:          xxxx xxxx          xxxxx xxxx 0 xxxxx          xxxx xxxx          xxxxx xxxx xxxx          xxxxx
SharedQueue:xxxxxx          xxxx xxxxx          xxxxx xxxx xxxxx          xxxxx xxxx          xxxxx xxxxx          xxxxx
Shrd ConDel:xxxxxx          xxxx xxxxx          xxxxx xxxx xxxxx          xxxxx xxxx          xxxxx xxxxx          xxxxx
Shared LOS:           * *                * *                * *                * *                *
ApproachDel:          +Inf                xxxxxx                xxxxxx                xxxxxx
ApproachLOS:          F                F                *                *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Scenario Report

Scenario:	Existing w PR am
Command:	Existing w PR am
Volume:	Existing w PR am
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing AM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: B[12.4]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	287	277	0	0	200	1	1	0	244	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	287	277	0	0	200	1	1	0	244	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
PHF Volume:	358	346	0	0	250	1	1	0	305	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	358	346	0	0	250	1	1	0	305	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	251	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1313	xxxx	250	xxxx	xxxx	xxxxxx
Potent Cap.:	1326	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	177	xxxx	793	xxxx	xxxx	xxxxxx
Move Cap.:	1326	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	140	xxxx	793	xxxx	xxxx	xxxxxx
Volume/Cap:	0.27	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	0.38	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	1.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	1.8	xxxx	xxxx	xxxxxx
Control Del:	8.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	31.0	xxxx	12.3	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	D	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Shared Queue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			12.4			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Average Delay (sec/veh): 93.5 Worst Case Level Of Service: F[199.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	2	0	1		2	0	2	0	0	
	0	0	0	0	0		0	0	0	0	0	

Volume Module:

Base Vol:	0	247	278	161	272	0	0	0	0	527	0	305
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	247	278	161	272	0	0	0	0	527	0	305
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	247	278	161	272	0	0	0	0	527	0	305
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	247	278	161	272	0	0	0	0	527	0	305

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	525	xxxx	xxxxx	xxxx	xxxx	xxxxx	705	xxxx	124
Potent Cap.:	xxxx	xxxx	xxxxx	1052	xxxx	xxxxx	xxxx	xxxx	xxxxx	375	xxxx	911
Move Cap.:	xxxx	xxxx	xxxxx	1052	xxxx	xxxxx	xxxx	xxxx	xxxxx	331	xxxx	911
Volume/Cap:	xxxx	xxxx	xxxx	0.15	xxxx	xxxx	xxxx	xxxx	xxxx	1.59	xxxx	0.33

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	30.9	xxxx	1.5
Control Del:	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	308.6	xxxx	10.9
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	B

Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	199.5
ApproachLOS:	*	*	*	F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.853
Loss Time (sec): 12 Average Delay (sec/veh): 34.0
Optimal Cycle: 91 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	207	449	73	29	734	37	21	132	248	139	250	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	207	449	73	29	734	37	21	132	248	139	250	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	249	540	88	35	882	44	25	159	298	167	300	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	249	540	88	35	882	44	25	159	298	167	300	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	249	540	88	35	882	44	25	159	298	167	300	67

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.94	0.94	0.69	1.00	0.85	0.80	0.80	0.80
Lanes:	1.00	1.72	0.28	1.00	1.90	0.10	1.00	1.00	1.00	0.31	0.56	0.13
Final Sat.:	1805	3040	494	1805	3413	172	1317	1900	1615	472	849	190

Capacity Analysis Module:

Vol/Sat:	0.14	0.18	0.18	0.02	0.26	0.26	0.02	0.08	0.18	0.35	0.35	0.35
Crit Moves:	****			****						****		
Green/Cycle:	0.16	0.33	0.33	0.13	0.30	0.30	0.42	0.42	0.58	0.42	0.42	0.42
Volume/Cap:	0.85	0.53	0.53	0.15	0.85	0.85	0.05	0.20	0.32	0.85	0.85	0.85
Delay/Veh:	61.5	27.5	27.5	38.7	39.4	39.4	17.5	18.8	11.2	37.4	37.4	37.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.5	27.5	27.5	38.7	39.4	39.4	17.5	18.8	11.2	37.4	37.4	37.4
LOS by Move:	E	C	C	D	D	D	B	B	B	D	D	D
HCM2kAvgQ:	8	8	8	1	17	17	0	3	5	18	18	18

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	1	0	0	1	0	2

Volume Module:

Base Vol:	26	565	117	44	1042	131	76	73	169	222	139	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	565	117	44	1042	131	76	73	169	222	139	83
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	31	669	138	52	1233	155	90	86	200	263	164	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	31	669	138	52	1233	155	90	86	200	263	164	98

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1388	xxxx	xxxxxx	807	xxxx	xxxxxx	1893	2283	694	1563	2292	404
Potent Cap.:	500	xxxx	xxxxxx	827	xxxx	xxxxxx	44	40	390	77	40	602
Move Cap.:	500	xxxx	xxxxxx	827	xxxx	xxxxxx	0	35	390	0	35	602
Volume/Cap:	0.06	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	2.45	0.51	xxxx	4.71	0.16

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxxx	0.2	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	19.4	0.6
Control Del:	12.7	xxxx	xxxxxx	9.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	1902	12.1
LOS by Move:	B	*	*	A	*	*	*	*	*	*	F	B
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	97	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	27.6	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	976.9	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx	xxxxxx			+Inf			+Inf				
ApproachLOS:	*	*			F			F				

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.861
Loss Time (sec): 16 Average Delay (sec/veh): 39.4
Optimal Cycle: 103 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	57	501	219	178	1064	149	48	138	101	335	171	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	501	219	178	1064	149	48	138	101	335	171	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	65	575	251	204	1222	171	55	158	116	385	196	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	575	251	204	1222	171	55	158	116	385	196	150
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	575	251	204	1222	171	55	158	116	385	196	150

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.89	0.89	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.75	0.25	1.00	1.15	0.85	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3110	435	1805	1953	1429	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.04	0.30	0.16	0.11	0.39	0.39	0.03	0.08	0.08	0.21	0.05	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.37	0.61	0.14	0.44	0.44	0.14	0.09	0.09	0.24	0.19	0.19
Volume/Cap:	0.52	0.82	0.26	0.82	0.89	0.89	0.22	0.89	0.89	0.89	0.29	0.49
Delay/Veh:	48.6	35.6	9.1	60.1	32.7	32.7	38.4	71.1	71.1	57.0	35.1	37.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	35.6	9.1	60.1	32.7	32.7	38.4	71.1	71.1	57.0	35.1	37.6
LOS by Move:	D	D	A	E	C	C	D	E	E	E	D	D
HCM2kAvgQ:	3	18	4	6	21	21	2	7	7	15	3	5

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 46.5 Worst Case Level Of Service: F[188.5]

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*****
Street Name:          C St.                      Wilson St.
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Stop Sign            Stop Sign            Uncontrolled        Uncontrolled
Rights:               Include              Include              Include              Include
Lanes:                1 0 0 0 0            0 0 1! 0 0          0 0 1! 0 0          1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:             6    0    0          111    0    194    103    375    1    0    414    59
Growth Adj:           1.00 1.00 1.00        1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Initial Bse:          6    0    0          111    0    194    103    375    1    0    414    59
User Adj:             1.00 1.00 1.00        1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:              0.86 0.86 0.86        0.86 0.86 0.86    0.86 0.86 0.86    0.86 0.86 0.86
PHF Volume:           7    0    0          130    0    227    120    439    1    0    484    69
Reduct Vol:           0    0    0            0    0    0        0    0    0        0    0    0
FinalVolume:          7    0    0          130    0    227    120    439    1    0    484    69
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          7.1 xxxx xxxxx        7.1 6.5 6.2    4.1 xxxx xxxxx    xxxxx xxxx xxxxx
FollowUpTim:          3.5 xxxx xxxxx        3.5 4.0 3.3    2.2 xxxx xxxxx    xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:           1312 xxxx xxxxx        1199 1199 519    553 xxxx xxxxx    xxxxx xxxx xxxxx
Potent Cap.:          137 xxxx xxxxx        164 187 561    1027 xxxx xxxxx    xxxxx xxxx xxxxx
Move Cap.:            74 xxxx xxxxx        148 163 561    1027 xxxx xxxxx    xxxxx xxxx xxxxx
Volume/Cap:           0.10 xxxx xxxxx        0.88 0.00 0.40    0.12 xxxx xxxxx    xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           0.3 xxxx xxxxx        xxxx xxxx xxxxx    0.4 xxxx xxxxx    xxxxx xxxx xxxxx
Control Del:          59.0 xxxx xxxxx        xxxxx xxxx xxxxx    9.0 xxxx xxxxx    xxxxx xxxx xxxxx
LOS by Move:          F    *    *            *    *    *        A    *    *        *    *    *
Movement:             LT - LTR - RT        LT - LTR - RT        LT - LTR - RT        LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxx        xxxx 278 xxxxx    xxxx xxxx xxxxx    xxxx xxxx xxxxx
SharedQueue:          xxxxx xxxx xxxxx        xxxxx 17.5 xxxxx    xxxxx xxxx xxxxx    xxxxx xxxx xxxxx
Shrd ConDel:          xxxxx xxxx xxxxx        xxxxx 188 xxxxx    xxxxx xxxx xxxxx    xxxxx xxxx xxxxx
Shared LOS:           *    *    *            *    F    *        *    *    *        *    *    *
ApproachDel:          59.0                    188.5                xxxxxx                xxxxxx
ApproachLOS:          F                    F                    *                    *
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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 6.9 Worst Case Level Of Service: A[9.8]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	0	0	0	0
Volume Module:												
Base Vol:	132	42	0	0	75	0	0	0	250	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	42	0	0	75	0	0	0	250	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	132	42	0	0	75	0	0	0	250	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	132	42	0	0	75	0	0	0	250	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	75	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	75	xxxx	xxxx	xxxxxx
Potent Cap.:	1537	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	992	xxxx	xxxx	xxxxxx
Move Cap.:	1537	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	992	xxxx	xxxx	xxxxxx
Volume/Cap:	0.09	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.25	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1.0	xxxx	xxxx	xxxxxx
Control Del:	7.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.8	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	A	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	7.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.8		xxxxxx			
ApproachLOS:	*			*			A		*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[12.1]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	174	28	0	324	0	0	0	0	15	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	174	28	0	324	0	0	0	0	15	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	174	28	0	324	0	0	0	0	15	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	174	28	0	324	0	0	0	0	15	0	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	512	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	525	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	525	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.1	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.1					
ApproachLOS:	*			*			*			B					

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.414
Loss Time (sec):	12	Average Delay (sec/veh):	24.6
Optimal Cycle:	40	Level Of Service:	C

Street Name:	Highland Home Rd.						F St.								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	2	0	1	0	0	0	0	1	0	1	1	0	0	0	1

Volume Module:												
Base Vol:	117	217	0	0	367	56	29	0	222	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	217	0	0	367	56	29	0	222	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	217	0	0	367	56	29	0	222	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	217	0	0	367	56	29	0	222	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	117	217	0	0	367	56	29	0	222	0	0	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	1.00	1.00	1.00	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3502	1900	0	0	1900	1615	1805	0	1615	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.00	0.00	0.19	0.03	0.02	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.08	0.34	0.00	0.00	0.47	0.47	0.20	0.00	0.33	0.00	0.00	0.00
Volume/Cap:	0.41	0.34	0.00	0.00	0.41	0.07	0.08	0.00	0.41	0.00	0.00	0.00
Delay/Veh:	44.7	24.9	0.0	0.0	17.9	14.8	32.5	0.0	26.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.7	24.9	0.0	0.0	17.9	14.8	32.5	0.0	26.4	0.0	0.0	0.0
LOS by Move:	D	C	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	2	5	0	0	7	1	1	0	5	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: C[19.6]

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*****
Street Name:      Highland Home Rd.                      D St.
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:          Include          Include          Include          Include
Lanes:           0  1  0  0  0      0  0  0  1  0      0  0  1! 0  0      0  0  0  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:        88  306      0      0  574  15      28  0  167      0  0  0
Growth Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:     88  306      0      0  574  15      28  0  167      0  0  0
User Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:      88  306      0      0  574  15      28  0  167      0  0  0
Reduct Vol:      0  0      0      0  0  0      0  0  0      0  0  0
FinalVolume:     88  306      0      0  574  15      28  0  167      0  0  0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:     4.1 xxxx xxxxx xxxxx xxxx xxxxx      6.4  6.5  6.2 xxxxx xxxx xxxxx
FollowUpTim:     2.2 xxxx xxxxx xxxxx xxxx xxxxx      3.5  4.0  3.3 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      589 xxxx xxxxx xxxxx xxxx xxxxx      1064 1064  582 xxxx xxxx xxxxx
Potent Cap.:     996 xxxx xxxxx xxxxx xxxx xxxxx      249  225  517 xxxx xxxx xxxxx
Move Cap.:       996 xxxx xxxxx xxxxx xxxx xxxxx      231  204  517 xxxx xxxx xxxxx
Volume/Cap:      0.09 xxxx xxxx xxxxx xxxx xxxxx      0.12 0.00 0.32 xxxx xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:       0.3 xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:     9.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:     A  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
Movement:        LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:     xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 439 xxxxx xxxx xxxx xxxxx
SharedQueue:     0.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 2.2 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:     9.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 19.6 xxxxx xxxxx xxxx xxxxx
Shared LOS:      A  *  *  *  *  *  *  *  C  *  *  *  *  *
ApproachDel:     xxxxxx          xxxxxx          19.6          xxxxxx
ApproachLOS:      *  *  *  *  *  *  C  *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

```

*****
Street Name:      Highland Home Rd.      Wilson St.
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:          Include      Include      Include      Include
Lanes:           1 0 1 0 1      0 0 1! 0 0      1 0 1 1 0      1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:        73 162 30      338 312 90      54 269 129      41 267 178
Growth Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:     73 162 30      338 312 90      54 269 129      41 267 178
User Adj:        1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:         0.86 0.86 0.86      0.86 0.86 0.86      0.86 0.86 0.86      0.86 0.86 0.86
PHF Volume:      85 189 35      394 364 105      63 314 150      48 311 207
Reduct Vol:      0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume:     85 189 35      394 364 105      63 314 150      48 311 207
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:     7.5 6.5 6.9      7.5 6.5 6.9      4.1 xxxx xxxxx      4.1 xxxx xxxxx
FollowUpTim:     3.5 4.0 3.3      3.5 4.0 3.3      2.2 xxxx xxxxx      2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      948 1129 232      888 1100 259      519 xxxx xxxxx      464 xxxx xxxxx
Potent Cap.:     219 206 776      242 214 746      1058 xxxx xxxxx      1108 xxxx xxxxx
Move Cap.:       0 185 776      0 193 746      1058 xxxx xxxxx      1108 xxxx xxxxx
Volume/Cap:      xxxx 1.02 0.05      xxxx 1.89 0.14      0.06 xxxx xxxx      0.04 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:      xxxx 8.6 0.1      xxxx xxxx xxxxx      0.2 xxxx xxxxx      0.1 xxxx xxxxx
Control Del:xxxxx 123 9.9      xxxxx xxxx xxxxx      8.6 xxxx xxxxx      8.4 xxxx xxxxx
LOS by Move:     * F A      * * *      A * *      A * *
Movement:       LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:     xxxx xxxx xxxxx      xxxx 0 xxxxx      xxxx xxxx xxxxx      xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx
Shared LOS:      * * *      * * *      * * *      * * *
ApproachDel:     +Inf      xxxxxx      xxxxxx      xxxxxx
ApproachLOS:     F      F      *      *
*****

```

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Scenario Report

Scenario:	Existing w PR pm
Command:	Existing w PR pm
Volume:	Existing w PR pm
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing PM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: B[14.0]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	242	302	0	0	347	0	2	0	242	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	242	302	0	0	347	0	2	0	242	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	266	332	0	0	382	0	2	0	266	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	266	332	0	0	382	0	2	0	266	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	382	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1246	xxxx	382	xxxx	xxxxxx	xxxxxx
Potent Cap.:	1188	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	194	xxxx	670	xxxx	xxxxxx	xxxxxx
Move Cap.:	1188	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	160	xxxx	670	xxxx	xxxxxx	xxxxxx
Volume/Cap:	0.22	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	0.40	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	1.9	xxxx	xxxxxx	xxxxxx
Control Del:	8.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	27.8	xxxx	13.9	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	D	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			14.0			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Average Delay (sec/veh): 216.2 Worst Case Level Of Service: F[674.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	2	0	1		2	0	2	0	0	
	0	0	0	0	0		0	0	0	0	0	

Volume Module:

Base Vol:	0	281	610	353	222	0	0	0	0	431	0	250
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	281	610	353	222	0	0	0	0	431	0	250
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	281	610	353	222	0	0	0	0	431	0	250
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	281	610	353	222	0	0	0	0	431	0	250

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	891	xxxx	xxxxx	xxxx	xxxx	xxxxx	1098	xxxx	141
Potent Cap.:	xxxx	xxxx	xxxxx	769	xxxx	xxxxx	xxxx	xxxx	xxxxx	210	xxxx	888
Move Cap.:	xxxx	xxxx	xxxxx	769	xxxx	xxxxx	xxxx	xxxx	xxxxx	135	xxxx	888
Volume/Cap:	xxxx	xxxx	xxxx	0.46	xxxx	xxxx	xxxx	xxxx	xxxx	3.20	xxxx	0.28

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	41.0	xxxx	1.2	
Control Del:	xxxxx	xxxx	xxxxx	13.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1059	xxxx	10.6	
LOS by Move:	*	*	*	B	*	*	*	*	*	F	*	B	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			674.4			
ApproachLOS:	*			*			*			F			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.745
Loss Time (sec): 12 Average Delay (sec/veh): 30.4
Optimal Cycle: 66 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	272	811	161	64	564	26	35	289	218	113	204	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	272	811	161	64	564	26	35	289	218	113	204	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	298	887	176	70	617	28	38	316	239	124	223	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	298	887	176	70	617	28	38	316	239	124	223	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	298	887	176	70	617	28	38	316	239	124	223	49

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.94	0.94	0.68	1.00	0.85	0.66	0.66	0.66
Lanes:	1.00	1.67	0.33	1.00	1.91	0.09	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	1805	2937	583	1805	3427	158	1296	1900	1615	393	709	156

Capacity Analysis Module:

Vol/Sat:	0.16	0.30	0.30	0.04	0.18	0.18	0.03	0.17	0.15	0.31	0.31	0.31
Crit Moves:	****			****						****		
Green/Cycle:	0.22	0.40	0.40	0.07	0.24	0.24	0.41	0.41	0.64	0.41	0.41	0.41
Volume/Cap:	0.74	0.76	0.76	0.55	0.74	0.74	0.07	0.40	0.23	0.76	0.76	0.76
Delay/Veh:	43.2	28.6	28.6	50.3	38.3	38.3	17.8	21.0	7.9	31.6	31.6	31.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.2	28.6	28.6	50.3	38.3	38.3	17.8	21.0	7.9	31.6	31.6	31.6
LOS by Move:	D	C	C	D	D	D	B	C	A	C	C	C
HCM2kAvgQ:	8	14	14	3	11	11	1	7	3	12	12	12

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	1	0	0	1	0	2
Volume Module:												
Base Vol:	145	1151	257	96	773	94	131	161	75	182	113	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	1151	257	96	773	94	131	161	75	182	113	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	157	1243	278	104	835	102	141	174	81	197	122	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	157	1243	278	104	835	102	141	174	81	197	122	73
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflct Vol:	936	xxxx	xxxxxx	1521	xxxx	xxxxxx	2089	2927	468	2407	2839	760
Potent Cap.:	740	xxxx	xxxxxx	445	xxxx	xxxxxx	31	15	547	18	18	353
Move Cap.:	740	xxxx	xxxxxx	445	xxxx	xxxxxx	0	9	547	0	11	353
Volume/Cap:	0.21	xxxx	xxxx	0.23	xxxx	xxxx	xxxx	18.63	0.15	xxxx	11.45	0.21
Level Of Service Module:												
2Way95thQ:	0.8	xxxx	xxxxxx	0.9	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	16.7	0.8
Control Del:	11.2	xxxx	xxxxxx	15.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	5390	17.9
LOS by Move:	B	*	*	C	*	*	*	*	*	*	F	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	14	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	33.1	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	8539	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx			xxxxxx			+Inf			+Inf		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.294

Loss Time (sec): 16 Average Delay (sec/veh): 106.1

Optimal Cycle: 180 Level Of Service: F

Street Name: Highland Springs Ave. 8th St.-Wilson St.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Ovl Include Include Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 47 1312 404 116 862 56 75 159 49 294 130 149

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 47 1312 404 116 862 56 75 159 49 294 130 149

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90

PHF Volume: 52 1459 449 129 959 62 83 177 55 327 145 166

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 52 1459 449 129 959 62 83 177 55 327 145 166

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 52 1459 449 129 959 62 83 177 55 327 145 166

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 1.00 0.85 0.95 0.94 0.94 0.95 0.92 0.92 0.95 0.95 0.85

Lanes: 1.00 1.00 1.00 1.00 1.88 0.12 1.00 1.53 0.47 1.00 2.00 1.00

Final Sat.: 1805 1900 1615 1805 3359 218 1805 2663 821 1805 3610 1615

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.77 0.28 0.07 0.29 0.29 0.05 0.07 0.07 0.18 0.04 0.10

Crit Moves: **** *

Green/Cycle: 0.13 0.57 0.70 0.07 0.51 0.51 0.08 0.07 0.07 0.13 0.12 0.12

Volume/Cap: 0.23 1.36 0.40 1.02 0.56 0.56 0.56 0.95 0.95 1.36 0.33 0.85

Delay/Veh: 39.9 188 6.5 132.3 17.1 17.1 48.9 89.8 89.8 228.2 40.7 70.7

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 39.9 188 6.5 132.3 17.1 17.1 48.9 89.8 89.8 228.2 40.7 70.7

LOS by Move: D F A F B B D F F F D E

HCM2kAvgQ: 2 92 6 5 11 11 3 7 7 23 2 8

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 67.6 Worst Case Level Of Service: F[391.3]

```

*****
Street Name:          C St.                      Wilson St.
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Stop Sign            Stop Sign            Uncontrolled          Uncontrolled
Rights:               Include              Include              Include              Include
Lanes:                1 0 0 0 0            0 0 1! 0 0          0 0 1! 0 0          1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:             1    0    0          91    0    159    225  482    4    0  389  129
Growth Adj:           1.00 1.00  1.00      1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
Initial Bse:          1    0    0          91    0    159    225  482    4    0  389  129
User Adj:             1.00 1.00  1.00      1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Adj:              0.90 0.90  0.90      0.90 0.90  0.90    0.90 0.90  0.90    0.90 0.90  0.90
PHF Volume:           1    0    0          102   0    177    251  538    4    0  434  144
Reduct Vol:           0    0    0            0    0    0        0    0    0        0    0    0
FinalVolume:          1    0    0          102   0    177    251  538    4    0  434  144
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          7.1 xxxx xxxxx      7.1  6.5  6.2    4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:          3.5 xxxx xxxxx      3.5  4.0  3.3    2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:          1637 xxxx xxxxx      1549 1551  506    578 xxxx xxxxx xxxxx xxxx xxxxx
Potent Cap.:          81 xxxx xxxxx        94  115  570    1006 xxxx xxxxx xxxxx xxxx xxxxx
Move Cap.:           43 xxxx xxxxx        73   81  570    1006 xxxx xxxxx xxxxx xxxx xxxxx
Volume/Cap:           0.03 xxxx xxxxx      1.40 0.00  0.31    0.25 xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           0.1 xxxx xxxxx      xxxx xxxx xxxxx    1.0 xxxx xxxxx xxxxx xxxx xxxxx
Control Del:          90.0 xxxx xxxxx      xxxxx xxxx xxxxx    9.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:          F    *    *          *    *    *        A    *    *        *    *    *
Movement:             LT - LTR - RT        LT - LTR - RT        LT - LTR - RT        LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxx      xxxx 164 xxxxx    xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:          xxxxx xxxx xxxxx      xxxxx 19.7 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:          xxxxx xxxx xxxxx      xxxxx 391 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:           *    *    *          *    F    *        *    *    *        *    *    *
ApproachDel:          90.0                  391.3            xxxxxx            xxxxxx
ApproachLOS:          F                    F                *                *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 6.6 Worst Case Level Of Service: A[9.4]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	289	82	0	0	54	0	0	0	204	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	289	82	0	0	54	0	0	0	204	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	289	82	0	0	54	0	0	0	204	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	289	82	0	0	54	0	0	0	204	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	54	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	54	xxxx	xxxx	xxxxxx
Potent Cap.:	1564	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1019	xxxx	xxxx	xxxxxx
Move Cap.:	1564	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1019	xxxx	xxxx	xxxxxx
Volume/Cap:	0.18	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.20	xxxx	xxxx	xxxxxx
Level Of Service Module:												
2Way95thQ:	0.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.7	xxxx	xxxx	xxxxxx
Control Del:	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.4	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	A	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	0.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.4		xxxxxx			
ApproachLOS:	*			*			A		*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[13.8]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	0	371	23	0	259	0	0	0	0	32	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	371	23	0	259	0	0	0	0	32	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	371	23	0	259	0	0	0	0	32	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	371	23	0	259	0	0	0	0	32	0	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	642	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	442	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	442	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	13.8	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			13.8			
ApproachLOS:	*			*			*			B			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.383
Loss Time (sec):	12	Average Delay (sec/veh):	23.5
Optimal Cycle:	40	Level Of Service:	C

Street Name:	Highland Home Rd.						F St.								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	2	0	1	0	0	0	0	1	0	1	1	0	0	0	1

Volume Module:

Base Vol:	257	427	0	0	313	45	64	0	182	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	257	427	0	0	313	45	64	0	182	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	257	427	0	0	313	45	64	0	182	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	427	0	0	313	45	64	0	182	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	257	427	0	0	313	45	64	0	182	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	1.00	1.00	1.00	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3502	1900	0	0	1900	1615	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.07	0.22	0.00	0.00	0.16	0.03	0.04	0.00	0.11	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.19	0.54	0.00	0.00	0.42	0.42	0.17	0.00	0.27	0.00	0.00	0.00
Volume/Cap:	0.39	0.42	0.00	0.00	0.39	0.07	0.21	0.00	0.42	0.00	0.00	0.00
Delay/Veh:	36.0	14.0	0.0	0.0	20.3	17.2	36.0	0.0	30.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.0	14.0	0.0	0.0	20.3	17.2	36.0	0.0	30.6	0.0	0.0	0.0
LOS by Move:	D	B	A	A	C	B	D	A	C	A	A	A
HCM2kAvgQ:	4	8	0	0	7	1	2	0	5	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: C[22.4]

Street Name:	Highland Home Rd.						D St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	193	661	0	0	463	32	23	0	136	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	193	661	0	0	463	32	23	0	136	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	193	661	0	0	463	32	23	0	136	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	193	661	0	0	463	32	23	0	136	0	0	0

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	495	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1526	1526	479	xxxx	xxxx	xxxxxx
Potent Cap.:	1079	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	131	119	591	xxxx	xxxx	xxxxxx
Move Cap.:	1079	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	111	95	591	xxxx	xxxx	xxxxxx
Volume/Cap:	0.18	xxxx	xxxx	xxxx	xxxx	xxxx	0.21	0.00	0.23	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Control Del:	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT					LT - LTR - RT	LT - LTR - RT				
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	363	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	0.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	2.2	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	22.4	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	C	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx					22.4	xxxxxx				
ApproachLOS:	*	*					C	*				

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

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*****
Street Name:      Highland Home Rd.      Wilson St.
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:          Include      Include      Include      Include
Lanes:           1 0 1 0 1      0 0 1! 0 0      1 0 1 1 0      1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:        147 360      40      276 252      71      102 330      97      30 294      391
Growth Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Initial Bse:     147 360      40      276 252      71      102 330      97      30 294      391
User Adj:        1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:         0.88 0.88      0.88      0.88 0.88      0.88      0.88 0.88      0.88      0.88 0.88      0.88
PHF Volume:      167 409      45      314 286      81      116 375      110      34 334      444
Reduct Vol:      0 0      0      0 0      0      0 0      0      0 0      0
FinalVolume:     167 409      45      314 286      81      116 375      110      34 334      444
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:     7.5 6.5      6.9      7.5 6.5      6.9      4.1 xxxx xxxxx      4.1 xxxx xxxxx
FollowUpTim:     3.5 4.0      3.3      3.5 4.0      3.3      2.2 xxxx xxxxx      2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:     1040 1509      243      1248 1341      389      778 xxxx xxxxx      485 xxxx xxxxx
Potent Cap.:    187 122      764      132 154      615      847 xxxx xxxxx      1088 xxxx xxxxx
Move Cap.:      0 102      764      0 128      615      847 xxxx xxxxx      1088 xxxx xxxxx
Volume/Cap:     xxxx 4.02      0.06      xxxx 2.23      0.13      0.14 xxxx xxxxx      0.03 xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:      xxxx 42.1      0.2      xxxx xxxx xxxxx      0.5 xxxx xxxxx      0.1 xxxx xxxxx
Control Del:xxxxx 1444      10.0      xxxxx xxxx xxxxx      9.9 xxxx xxxxx      8.4 xxxx xxxxx
LOS by Move:    * F      B      * *      *      A *      *      A *      *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:    xxxx xxxx xxxxx      xxxx 0 xxxxx      xxxx xxxx xxxxx      xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx
Shared LOS:    * *      *      * *      *      * *      *      * *      *
ApproachDel:    +Inf      xxxxxx      xxxxxx      xxxxxx
ApproachLOS:    F      F      *      *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Scenario Report

Scenario:	Existing w PR am
Command:	Existing w PR am
Volume:	Existing w PR am
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing AM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: B[12.8]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	0	0	0	1	0	0
Volume Module:												
Base Vol:	294	293	0	0	215	1	1	0	250	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	294	293	0	0	215	1	1	0	250	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
PHF Volume:	367	366	0	0	268	1	1	0	312	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	367	366	0	0	268	1	1	0	312	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	270	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1369	xxxx	269	xxxx	xxxx	xxxxxx
Potent Cap.:	1306	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	163	xxxx	774	xxxx	xxxx	xxxxxx
Move Cap.:	1306	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	128	xxxx	774	xxxx	xxxx	xxxxxx
Volume/Cap:	0.28	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	0.40	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.2	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	2.0	xxxx	xxxx	xxxxxx
Control Del:	8.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	33.5	xxxx	12.8	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	D	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			12.8			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): 7.7 Worst Case Level Of Service: D[25.2]

Street Name:		Highland Springs Ave.				16th St.				
Approach:	North Bound	South Bound			East Bound			West Bound		
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	
Control:	Uncontrolled	Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include	Include			Include			Include		
Lanes:	1 0 2 0 1	2 0 2 0 1			1 0 0 1 0			2 0 1 0 1		
Volume Module:										
Base Vol:	0 410 114	98 367 0			0 0 0			207 0 178		
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
Initial Bse:	0 410 114	98 367 0			0 0 0			207 0 178		
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
PHF Volume:	0 410 114	98 367 0			0 0 0			207 0 178		
Reduct Vol:	0 0 0	0 0 0			0 0 0			0 0 0		
FinalVolume:	0 410 114	98 367 0			0 0 0			207 0 178		
Critical Gap Module:										
Critical Gp:	xxxxx xxxx xxxxx	4.1 xxxx xxxxx			7.5 6.5 6.9			6.8 6.5 6.9		
FollowUpTim:	xxxxx xxxx xxxxx	2.2 xxxx xxxxx			3.5 4.0 3.3			3.5 4.0 3.3		
Capacity Module:										
Cnflct Vol:	xxxx xxxx xxxxx	524 xxxx xxxxx			768 1087 184			790 973 205		
Potent Cap.:	xxxx xxxx xxxxx	1053 xxxx xxxxx			295 218 834			332 254 808		
Move Cap.:	xxxx xxxx xxxxx	1053 xxxx xxxxx			213 198 834			308 230 808		
Volume/Cap:	xxxx xxxx xxxxx	0.09 xxxx xxxxx			0.00 0.00 0.00			0.67 0.00 0.22		
Level Of Service Module:										
2Way95thQ:	xxxx xxxx xxxxx	0.3 xxxx xxxxx			xxxx xxxx xxxxx			3.8 xxxx 0.8		
Control Del:	xxxxx xxxx xxxxx	8.8 xxxx xxxxx			xxxxx xxxx xxxxx			37.7 xxxx 10.7		
LOS by Move:	* * *	A *			* *			E * B		
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx	xxxx xxxx xxxxx			xxxx xxxx 0			xxxx xxxx xxxxx		
SharedQueue:	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shrd ConDel:	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shared LOS:	* * *	* *			* *			* *		
ApproachDel:	xxxxxx	xxxxxx			xxxxxx			25.2		
ApproachLOS:	*	*			*			D		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Average Delay (sec/veh): 80.7 Worst Case Level Of Service: F[259.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	1	0	2	0	0	0
Volume Module:												
Base Vol:	0	364	195	81	483	0	0	0	0	355	0	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	364	195	81	483	0	0	0	0	355	0	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	364	195	81	483	0	0	0	0	355	0	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	364	195	81	483	0	0	0	0	355	0	148

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	559	xxxx	xxxxx	xxxx	xxxx	xxxxx	865	1107	280
Potent Cap.:	xxxx	xxxx	xxxxx	1022	xxxx	xxxxx	xxxx	xxxx	xxxxx	297	212	724
Move Cap.:	xxxx	xxxx	xxxxx	1022	xxxx	xxxxx	xxxx	xxxx	xxxxx	279	195	724
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	1.27	0.00	0.20

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	340	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	27.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	259	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			259.3		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.908

Loss Time (sec): 12 Average Delay (sec/veh): 38.0

Optimal Cycle: 113 Level Of Service: D

Street Name: Highland Springs Ave. Oak Valley Pkwy.-14th St.-F St.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 0 1! 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 213 478 81 33 767 39 22 147 253 148 266 59

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 213 478 81 33 767 39 22 147 253 148 266 59

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83

PHF Volume: 256 575 97 40 922 47 26 177 304 178 320 71

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 256 575 97 40 922 47 26 177 304 178 320 71

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 256 575 97 40 922 47 26 177 304 178 320 71

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 0.93 0.93 0.95 0.94 0.94 0.69 1.00 0.85 0.77 0.77 0.77

Lanes: 1.00 1.71 0.29 1.00 1.90 0.10 1.00 1.00 1.00 0.31 0.57 0.12

Final Sat.: 1805 3019 512 1805 3411 173 1305 1900 1615 460 827 183

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Capacity Analysis Module:

Vol/Sat: 0.14 0.19 0.19 0.02 0.27 0.27 0.02 0.09 0.19 0.39 0.39 0.39

Crit Moves: ****

Green/Cycle: 0.16 0.33 0.33 0.12 0.30 0.30 0.43 0.43 0.58 0.43 0.43 0.43

Volume/Cap: 0.91 0.57 0.57 0.18 0.91 0.91 0.05 0.22 0.32 0.91 0.91 0.91

Delay/Veh: 72.2 28.3 28.3 39.8 44.9 44.9 16.8 18.3 10.9 43.9 43.9 43.9

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 72.2 28.3 28.3 39.8 44.9 44.9 16.8 18.3 10.9 43.9 43.9 43.9

LOS by Move: E C C D D D B B B D D D

HCM2kAvgQ: 8 8 8 1 19 19 0 3 5 20 20 20

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.						Starlight Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	26	596	130	49	1077	138	82	81	169	237	148	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	596	130	49	1077	138	82	81	169	237	148	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	31	705	154	58	1275	163	97	96	200	280	175	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	31	705	154	58	1275	163	97	96	200	280	175	105

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1438	xxxx	xxxxxx	859	xxxx	xxxxxx	1974	2393	719	1645	2398	430
Potent Cap.:	478	xxxx	xxxxxx	791	xxxx	xxxxxx	38	34	376	67	34	579
Move Cap.:	478	xxxx	xxxxxx	791	xxxx	xxxxxx	0	30	376	0	29	579
Volume/Cap:	0.06	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	3.23	0.53	xxxx	5.95	0.18

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxxx	0.2	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	
Control Del:	13.0	xxxx	xxxxxx	9.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	79	xxxx	xxxx	46	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	30.8	xxxxxx	xxxx	32.6	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1355	xxxxxx	xxxx	2482	
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	F	
ApproachDel:	xxxxxx			xxxxxx			+Inf			+Inf			
ApproachLOS:	*			*			F			F			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.891
Loss Time (sec): 16 Average Delay (sec/veh): 42.8
Optimal Cycle: 113 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	57	540	230	180	1108	152	52	143	101	348	177	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	540	230	180	1108	152	52	143	101	348	177	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	65	620	264	207	1272	175	60	164	116	400	203	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	620	264	207	1272	175	60	164	116	400	203	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	620	264	207	1272	175	60	164	116	400	203	152

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.89	0.89	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.76	0.24	1.00	1.17	0.83	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3117	428	1805	1985	1402	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.04	0.33	0.16	0.11	0.41	0.41	0.03	0.08	0.08	0.22	0.06	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.38	0.62	0.13	0.44	0.44	0.14	0.09	0.09	0.24	0.19	0.19
Volume/Cap:	0.52	0.86	0.26	0.86	0.92	0.92	0.24	0.92	0.92	0.92	0.30	0.50
Delay/Veh:	48.6	39.1	8.9	68.3	36.1	36.1	38.7	77.9	77.9	62.8	35.2	37.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	39.1	8.9	68.3	36.1	36.1	38.7	77.9	77.9	62.8	35.2	37.6
LOS by Move:	D	D	A	E	D	D	D	E	E	E	D	D
HCM2kAvgQ:	3	20	4	6	22	22	2	8	8	16	3	5

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 65.6 Worst Case Level Of Service: F[260.7]

C St.						Wilson St.						
North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	0	1	0
Volume Module:												
Base Vol:	6	0	0	118	0	207	114	382	1	0	421	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	118	0	207	114	382	1	0	421	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	7	0	0	138	0	242	133	447	1	0	492	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	0	0	138	0	242	133	447	1	0	492	76
Critical Gap Module:												
Critical Gp:	7.1	xxxx	xxxxxx	7.1	6.5	6.2	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	1365	xxxx	xxxxxx	1244	1245	530	568	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	126	xxxx	xxxxxx	152	175	553	1014	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	63	xxxx	xxxxxx	136	151	553	1014	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	xxxx	1.02	0.00	0.44	0.13	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.5	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	69.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	F	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	261	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	21.5	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	261	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	69.2			260.7			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[12.5]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	192	30	0	344	0	0	0	0	16	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	192	30	0	344	0	0	0	0	16	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	192	30	0	344	0	0	0	0	16	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	192	30	0	344	0	0	0	0	16	0	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	551	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	499	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	499	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.5	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.5					
ApproachLOS:	*			*			*			B					

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.438
Loss Time (sec):	8	Average Delay (sec/veh):	15.6
Optimal Cycle:	29	Level Of Service:	B

Street Name:	Highland Home Rd.												F St.							
Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted				Permitted				Split Phase				Split Phase							
Rights:	Include				Include				Include				Include							
Min. Green:	7	7	7		7	7	7		7	7	7		7	7	7					
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0					
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0

Volume Module:

Base Vol:	130	238	0	0	390	59	33	0	237	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	238	0	0	390	59	33	0	237	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	238	0	0	390	59	33	0	237	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	238	0	0	390	59	33	0	237	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	130	238	0	0	390	59	33	0	237	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.60	1.00	1.00	1.00	0.98	0.98	0.88	1.00	0.88	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	0.12	0.00	0.88	0.00	0.00	0.00
Final Sat.:	1132	1900	0	0	1621	245	203	0	1460	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.11	0.13	0.00	0.00	0.24	0.24	0.16	0.00	0.16	0.00	0.00	0.00
Crit Moves:	*****											
Green/Cycle:	0.55	0.55	0.00	0.00	0.55	0.55	0.37	0.00	0.37	0.00	0.00	0.00
Volume/Cap:	0.21	0.23	0.00	0.00	0.44	0.44	0.44	0.00	0.44	0.00	0.00	0.00
Delay/Veh:	11.6	11.7	0.0	0.0	13.7	13.7	24.1	0.0	24.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.6	11.7	0.0	0.0	13.7	13.7	24.1	0.0	24.1	0.0	0.0	0.0
LOS by Move:	B	B	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	2	4	0	0	8	8	6	0	6	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: C[21.6]

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*****
Street Name:      Highland Home Rd.                      D St.
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:          Include          Include          Include          Include
Lanes:           0  1  0  0  0      0  0  0  1  0      0  0  1! 0  0      0  0  0  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:        65  371      0      0  670      16      30      0      118      0      0      0
Growth Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Initial Bse:     65  371      0      0  670      16      30      0      118      0      0      0
User Adj:        1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:         1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      65  371      0      0  670      16      30      0      118      0      0      0
Reduct Vol:      0      0      0      0      0      0      0      0      0      0      0      0
FinalVolume:     65  371      0      0  670      16      30      0      118      0      0      0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:     4.1 xxxx xxxxx xxxxx xxxx xxxxx      6.4  6.5      6.2 xxxxx xxxx xxxxx
FollowUpTim:     2.2 xxxx xxxxx xxxxx xxxx xxxxx      3.5  4.0      3.3 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      686 xxxx xxxxx xxxxx xxxxx xxxxx      1179 1179      678 xxxx xxxx xxxxx
Potent Cap.:     917 xxxx xxxxx xxxxx xxxxx xxxxx      212  192      456 xxxx xxxx xxxxx
Move Cap.:       917 xxxx xxxxx xxxxx xxxxx xxxxx      201  178      456 xxxx xxxx xxxxx
Volume/Cap:      0.07 xxxx xxxxx xxxxx xxxxx xxxxx      0.15 0.00 0.26 xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:       0.2 xxxx xxxxx xxxxx xxxxx xxxxx      xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:     9.2 xxxx xxxxx xxxxx xxxxx xxxxx      xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:      A      *      *      *      *      *      *      *      *      *      *      *
Movement:        LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:     xxxx xxxx xxxxx xxxxx xxxxx xxxxx      xxxx 362 xxxxx xxxx xxxx xxxxx
SharedQueue:     0.2 xxxx xxxxx xxxxx xxxxx xxxxx      xxxxx 1.9 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:     9.2 xxxx xxxxx xxxxx xxxxx xxxxx      xxxxx 21.6 xxxxx xxxxx xxxx xxxxx
Shared LOS:       A      *      *      *      *      *      *      *      *      *      *      *
ApproachDel:     xxxxxx      xxxxxx      21.6      xxxxxx
ApproachLOS:      *      *      C      *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
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Existing With Project Alt. 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

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*****
Street Name:      Highland Home Rd.      Wilson St.
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:          Include      Include      Include      Include
Lanes:           1 0 1 0 1      0 0 1! 0 0      1 0 1 1 0      1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:        79 180      30      360 332      96      59 271      136      41 268      197
Growth Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Initial Bse:     79 180      30      360 332      96      59 271      136      41 268      197
User Adj:        1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:         0.86 0.86      0.86      0.86 0.86      0.86      0.86 0.86      0.86      0.86 0.86      0.86
PHF Volume:      92 210      35      420 387      112      69 316      159      48 312      230
Reduct Vol:      0 0      0      0 0      0      0 0      0      0 0      0
FinalVolume:     92 210      35      420 387      112      69 316      159      48 312      230
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:     7.5 6.5      6.9      7.5 6.5      6.9      4.1 xxxx      xxxxx      4.1 xxxx      xxxxx
FollowUpTim:     3.5 4.0      3.3      3.5 4.0      3.3      2.2 xxxx      xxxxx      2.2 xxxx      xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:     978 1170      237      923 1135      271      542 xxxx      xxxxx      474 xxxx      xxxxx
Potent Cap.:    208 194      770      228 204      733      1037 xxxx      xxxxx      1098 xxxx      xxxxx
Move Cap.:       0 174      770      0 182      733      1037 xxxx      xxxxx      1098 xxxx      xxxxx
Volume/Cap:     xxxx 1.21      0.05      xxxx 2.12      0.15      0.07 xxxx      xxxxx      0.04 xxxx      xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:      xxxx 11.4      0.1      xxxx xxxx      xxxxx      0.2 xxxx      xxxxx      0.1 xxxx      xxxxx
Control Del:xxxxx 189      9.9      xxxxx xxxx      xxxxx      8.7 xxxx      xxxxx      8.4 xxxx      xxxxx
LOS by Move:     * F      A      * *      *      A *      *      A *      *
Movement:       LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:    xxxx xxxx      xxxxx      xxxx 0      xxxxx      xxxx xxxx      xxxxx      xxxx xxxx      xxxxx
SharedQueue:xxxxx xxxx      xxxxx      xxxxx xxxx      xxxxx      xxxxx xxxx      xxxxx      xxxxx xxxx      xxxxx
Shrd ConDel:xxxxx xxxx      xxxxx      xxxxx xxxx      xxxxx      xxxxx xxxx      xxxxx      xxxxx xxxx      xxxxx
Shared LOS:      * *      *      * *      *      * *      *      * *      *
ApproachDel:     +Inf      xxxxxx      xxxxxx      xxxxxx
ApproachLOS:     F      F      *      *
*****

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Note: Queue reported is the number of cars per lane.

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City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Scenario Report

Scenario:	Existing w PR pm
Command:	Existing w PR pm
Volume:	Existing w PR pm
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing PM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 5.0 Worst Case Level Of Service: B[14.5]

Street Name:	Highland Springs Ave.						Brookside Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	0	0	1	0	0	0	1	0	0
Volume Module:													
Base Vol:	247	314	0	0	362	0	2	0	248	0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	247	314	0	0	362	0	2	0	248	0	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	
PHF Volume:	272	345	0	0	398	0	2	0	273	0	0	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	272	345	0	0	398	0	2	0	273	0	0	0	
Critical Gap Module:													
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	
Capacity Module:													
Cnflct Vol:	398	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1287	xxxx	398	xxxx	xxxxxx	xxxxxx	
Potent Cap.:	1171	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	183	xxxx	656	xxxx	xxxxxx	xxxxxx	
Move Cap.:	1171	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	150	xxxx	656	xxxx	xxxxxx	xxxxxx	
Volume/Cap:	0.23	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.01	xxxx	0.42	xxxx	xxxxxx	xxxxxx	
Level Of Service Module:													
2Way95thQ:	0.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	2.0	xxxx	xxxxxx	xxxxxx	
Control Del:	9.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	29.3	xxxx	14.3	xxxxxx	xxxx	xxxxxx	
LOS by Move:	A	*	*	*	*	*	D	*	B	*	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			14.5			xxxxxx			
ApproachLOS:	*			*			B			*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): 19.8 Worst Case Level Of Service: F[93.1]

Street Name: Highland Springs Ave.					16th St.						
Approach: North Bound			South Bound			East Bound			West Bound		
Movement: L - T - R			L - T - R			L - T - R			L - T - R		
Control: Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights: Include			Include			Include			Include		
Lanes: 1 0 2 0 1			2 0 2 0 1			1 0 0 1 0			2 0 1 0 1		

Volume Module:

Base Vol:	0	417	237	203	408	0	0	0	0	168	0	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	417	237	203	408	0	0	0	0	168	0	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	456	259	222	446	0	0	0	0	184	0	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	456	259	222	446	0	0	0	0	184	0	158

Critical Gap Module:

Critical Gp:xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	6.8	6.5	6.9
FollowUpTim:xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	716	xxxx	xxxxx	1119	1606	223	1124	1347	228
Potent Cap.:	xxxx	xxxx	xxxxx	894	xxxx	xxxxx	164	106	786	202	153	781
Move Cap.:	xxxx	xxxx	xxxxx	894	xxxx	xxxxx	106	80	786	164	115	781
Volume/Cap:	xxxx	xxxx	xxxx	0.25	xxxx	xxxx	0.00	0.00	0.00	1.12	0.00	0.20

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	1.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	6.5	xxxx	0.8
Control Del:xxxxx	xxxx	xxxx	xxxxx	10.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	163.7	xxxx	10.8
LOS by Move:	*	*	*	B	*	*	*	*	*	F	*	B
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0	xxxx	xxxx	xxxxx
SharedQueue:xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			93.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Average Delay (sec/veh): 142.3 Worst Case Level Of Service: F[657.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	1	0	2	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	521	406	169	394	0	0	0	0	288	0	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	521	406	169	394	0	0	0	0	288	0	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	521	406	169	394	0	0	0	0	288	0	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	521	406	169	394	0	0	0	0	288	0	120

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTime:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Conflict Vol:	xxxx	xxxx	xxxxx	927	xxxx	xxxxx	xxxx	xxxx	xxxxx	1259	1456	464
Potent Cap.:	xxxx	xxxx	xxxxx	746	xxxx	xxxxx	xxxx	xxxx	xxxxx	165	131	551
Move Cap.:	xxxx	xxxx	xxxxx	746	xxxx	xxxxx	xxxx	xxxx	xxxxx	136	101	551
Volume/Cap:	xxxx	xxxx	xxxx	0.23	xxxx	xxxx	xxxx	xxxx	xxxx	2.11	0.00	0.22

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	175	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	33.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	657	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			657.2		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795
Loss Time (sec): 12 Average Delay (sec/veh): 32.4
Optimal Cycle: 76 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	276	842	169	68	586	27	37	304	223	120	216	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	276	842	169	68	586	27	37	304	223	120	216	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	302	921	185	74	641	30	40	333	244	131	236	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	302	921	185	74	641	30	40	333	244	131	236	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	302	921	185	74	641	30	40	333	244	131	236	53

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.94	0.94	0.68	1.00	0.85	0.64	0.64	0.64
Lanes:	1.00	1.67	0.33	1.00	1.91	0.09	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	1805	2931	588	1805	3427	158	1283	1900	1615	381	686	152

Capacity Analysis Module:

Vol/Sat:	0.17	0.31	0.31	0.04	0.19	0.19	0.03	0.18	0.15	0.34	0.34	0.34
Crit Moves:	****			****						****		
Green/Cycle:	0.22	0.39	0.39	0.07	0.24	0.24	0.42	0.42	0.64	0.42	0.42	0.42
Volume/Cap:	0.78	0.81	0.81	0.59	0.78	0.78	0.07	0.41	0.24	0.81	0.81	0.81
Delay/Veh:	46.5	31.3	31.3	52.2	39.9	39.9	17.2	20.5	7.8	34.9	34.9	34.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.5	31.3	31.3	52.2	39.9	39.9	17.2	20.5	7.8	34.9	34.9	34.9
LOS by Move:	D	C	C	D	D	D	B	C	A	C	C	C
HCM2kAvgQ:	8	15	15	3	12	12	1	7	3	14	14	14

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1
Volume Module:												
Base Vol:	145	1183	270	101	797	99	137	169	75	192	120	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	1183	270	101	797	99	137	169	75	192	120	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	157	1278	292	109	861	107	148	183	81	207	130	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	157	1278	292	109	861	107	148	183	81	207	130	78
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflct Vol:	968	xxxx	xxxxxx	1569	xxxx	xxxxxx	2149	3015	484	2476	2922	785
Potent Cap.:	720	xxxx	xxxxxx	426	xxxx	xxxxxx	28	14	534	16	16	340
Move Cap.:	720	xxxx	xxxxxx	426	xxxx	xxxxxx	0	8	534	0	9	340
Volume/Cap:	0.22	xxxx	xxxx	0.26	xxxx	xxxx	xxxxx	23.19	0.15	xxxxx	14.32	0.23
Level Of Service Module:												
2Way95thQ:	0.8	xxxx	xxxxxx	1.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	11.4	xxxx	xxxxxx	16.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	11	xxxx	xxxx	14
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	34.4	xxxxxx	xxxx	27.0
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	10701	xxxxxx	xxxx	6615
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	F
ApproachDel:	xxxxxx			xxxxxx			+Inf			+Inf		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.331
Loss Time (sec): 16 Average Delay (sec/veh): 114.4
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	47	1352	416	117	892	59	79	164	49	303	134	151
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	1352	416	117	892	59	79	164	49	303	134	151
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	52	1504	463	130	992	66	88	182	55	337	149	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	1504	463	130	992	66	88	182	55	337	149	168
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	1504	463	130	992	66	88	182	55	337	149	168

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.94	0.94	0.95	0.92	0.92	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.88	0.12	1.00	1.54	0.46	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3356	222	1805	2685	802	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.79	0.29	0.07	0.30	0.30	0.05	0.07	0.07	0.19	0.04	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.12	0.57	0.70	0.07	0.51	0.51	0.08	0.07	0.07	0.13	0.12	0.12
Volume/Cap:	0.24	1.40	0.41	1.03	0.57	0.57	0.59	0.97	0.97	1.40	0.34	0.85
Delay/Veh:	40.3	206	6.5	134.8	17.2	17.2	50.7	95.6	95.6	245.4	40.7	71.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.3	206	6.5	134.8	17.2	17.2	50.7	95.6	95.6	245.4	40.7	71.8
LOS by Move:	D	F	A	F	B	B	D	F	F	F	D	E
HCM2kAvgQ:	2	99	6	5	11	11	4	7	7	24	2	8

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 88.1 Worst Case Level Of Service: F[499.3]

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*****
Street Name:          C St.                      Wilson St.
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Stop Sign            Stop Sign            Uncontrolled        Uncontrolled
Rights:               Include              Include              Include              Include
Lanes:                1 0 0 0 0            0 0 1! 0 0          0 0 1! 0 0          1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:             1    0    0          96    0    168    237  488    4    0  395  135
Growth Adj:           1.00 1.00  1.00      1.00 1.00  1.00    1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:          1    0    0          96    0    168    237  488    4    0  395  135
User Adj:             1.00 1.00  1.00      1.00 1.00  1.00    1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:              0.90 0.90  0.90      0.90 0.90  0.90    0.90 0.90  0.90  0.90 0.90  0.90
PHF Volume:           1    0    0          107   0    188    265  545    4    0  441  151
Reduct Vol:           0    0    0            0    0    0        0    0    0    0    0    0
FinalVolume:          1    0    0          107   0    188    265  545    4    0  441  151
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          7.1 xxxx xxxxx      7.1  6.5  6.2    4.1 xxxx xxxxx  xxxxx xxxx xxxxx
FollowUpTim:          3.5 xxxx xxxxx      3.5  4.0  3.3    2.2 xxxx xxxxx  xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:           1686 xxxx xxxxx      1592 1594  516    592 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:           75 xxxx xxxxx        88  108  563    994 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:            38 xxxx xxxxx        66   74  563    994 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:           0.03 xxxx xxxxx      1.61 0.00  0.33  0.27 xxxx xxxxx  xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:            0.1 xxxx xxxxx      xxxx xxxx xxxxx    1.1 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:102.4 xxxx xxxxx  xxxxx xxxx xxxxx    9.9 xxxx xxxxx  xxxxx xxxx xxxxx
LOS by Move:          F    *    *            *    *    *        A    *    *            *    *    *
Movement:            LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxx      xxxx 151 xxxxx    xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxxx xxxx xxxxx  xxxxx 22.8 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd ConDel:xxxxxx xxxx xxxxx  xxxxx 499 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:           *    *    *            *    F    *        *    *    *            *    *    *
ApproachDel:          102.4                499.3                xxxxxx                xxxxxx
ApproachLOS:          F                    F                    *                    *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: B[14.3]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.							
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	0	0	0	1	0	0	0	0	0	0	1	0	0
Volume Module:													
Base Vol:	0	390	24	0	273	0	0	0	0	34	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	390	24	0	273	0	0	0	0	34	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0	390	24	0	273	0	0	0	0	34	0	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Final Volume:	0	390	24	0	273	0	0	0	0	34	0	0	

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	675	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	422	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	422	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.3	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			14.3			
ApproachLOS:	*			*			*			B			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.424
Loss Time (sec): 8 Average Delay (sec/veh): 15.2
Optimal Cycle: 29 Level Of Service: B

Street Name:	Highland Home Rd.						F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	270	448	0	0	331	48	68	0	192	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	270	448	0	0	331	48	68	0	192	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	270	448	0	0	331	48	68	0	192	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	270	448	0	0	331	48	68	0	192	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	270	448	0	0	331	48	68	0	192	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.61	1.00	1.00	1.00	0.98	0.98	0.89	1.00	0.89	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	0.26	0.00	0.74	0.00	0.00	0.00
Final Sat.:	1153	1900	0	0	1631	237	441	0	1246	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.23	0.24	0.00	0.00	0.20	0.20	0.15	0.00	0.15	0.00	0.00	0.00
Crit Moves:	****						****					
Green/Cycle:	0.56	0.56	0.00	0.00	0.56	0.56	0.36	0.00	0.36	0.00	0.00	0.00
Volume/Cap:	0.42	0.42	0.00	0.00	0.36	0.36	0.42	0.00	0.42	0.00	0.00	0.00
Delay/Veh:	13.3	13.1	0.0	0.0	12.6	12.6	24.4	0.0	24.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.3	13.1	0.0	0.0	12.6	12.6	24.4	0.0	24.4	0.0	0.0	0.0
LOS by Move:	B	B	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	5	8	0	0	6	6	6	0	6	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: D[25.0]

Street Name:	Highland Home Rd.						D St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	135	762	0	0	536	34	24	0	96	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	762	0	0	536	34	24	0	96	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	135	762	0	0	536	34	24	0	96	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	135	762	0	0	536	34	24	0	96	0	0	0

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	570	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1585	1585	553	xxxx	xxxx	xxxxxx
Potent Cap.:	1013	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	120	109	537	xxxx	xxxx	xxxxxx
Move Cap.:	1013	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	107	94	537	xxxx	xxxx	xxxxxx
Volume/Cap:	0.13	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.22	0.00	0.18	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	0.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	298	xxxxxx	xxxx	xxxx	xxxxxx
Shared Queue:	0.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	1.9	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	25.0	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	D	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			25.0			xxxxxx		
ApproachLOS:	*			*			D			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

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*****
Street Name:      Highland Home Rd.      Wilson St.
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:          Include      Include      Include      Include
Lanes:           1 0 1 0 1      0 0 1! 0 0      1 0 1 1 0      1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:        153 379 40 292 266 75 107 331 102 30 296 411
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:     153 379 40 292 266 75 107 331 102 30 296 411
User Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
PHF Volume:      174 431 45 332 302 85 122 376 116 34 336 467
Reduct Vol:      0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:     174 431 45 332 302 85 122 376 116 34 336 467
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:     7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:     3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:     1065 1549 246 1285 1373 402 803 xxxx xxxxx 492 xxxx xxxxx
Potent Cap.:    180 115 760 124 147 604 829 xxxx xxxxx 1082 xxxx xxxxx
Move Cap.:      0 95 760 0 122 604 829 xxxx xxxxx 1082 xxxx xxxxx
Volume/Cap:     xxxx 4.53 0.06 xxxx 2.49 0.14 0.15 xxxx xxxx 0.03 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:      xxxx 45.5 0.2 xxxx xxxx xxxxx 0.5 xxxx xxxxx 0.1 xxxx xxxxx
Control Del:xxxx 1677 10.0 xxxxx xxxx xxxxx 10.1 xxxx xxxxx 8.4 xxxx xxxxx
LOS by Move:    * F B * * * B * * A * *
Movement:      LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:    xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     * * * * * * * * * *
ApproachDel:    +Inf xxxxxx xxxxxx xxxxxx
ApproachLOS:    F F * *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Scenario Report

Scenario: buildout np am
Command: buildout np am
Volume: buildout np am
Geometry: buildout np
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	176	150	71	106	350	113	46	188	185	213	362	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	176	150	71	106	350	113	46	188	185	213	362	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	176	150	71	106	350	113	46	188	185	213	362	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	176	150	71	106	350	113	46	188	185	213	362	90

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	463	xxxx	xxxxxx	221	xxxx	xxxxxx	1382	1192	407	1343	1213	186
Potent Cap.:	1109	xxxx	xxxxxx	1360	xxxx	xxxxxx	122	189	649	130	184	862
Move Cap.:	1109	xxxx	xxxxxx	1360	xxxx	xxxxxx	0	146	649	0	142	862
Volume/Cap:	0.16	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	1.29	0.29	xxxx	2.56	0.10

Level Of Service Module:

2Way95thQ:	0.6	xxxx	xxxxxx	0.3	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	8.9	xxxx	xxxxxx	7.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	0	xxxxxx	xxxx	0	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	F	F	F	F	F	F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[12.7]

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	2	203	0	0	331	48	25	0	1	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	203	0	0	331	48	25	0	1	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	203	0	0	331	48	25	0	1	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	2	203	0	0	331	48	25	0	1	0	0	0

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	379	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	562	562	355	xxxx	xxxx	xxxxxx
Potent Cap.:	1191	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	492	439	693	xxxx	xxxx	xxxxxx
Move Cap.:	1191	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	491	438	693	xxxx	xxxx	xxxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.05	0.00	0.00	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Control Del:	8.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	497	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	0.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	8.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	12.7	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx			12.7			xxxxxx			xxxxxx	
ApproachLOS:	*	*			B			*			*	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.771
Loss Time (sec): 12 Average Delay (sec/veh): 35.0
Optimal Cycle: 71 Level Of Service: D

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	276	185	0	0	376	9	6	0	521	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	276	185	0	0	376	9	6	0	521	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	276	185	0	0	376	9	6	0	521	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	276	185	0	0	376	9	6	0	521	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	276	185	0	0	376	9	6	0	521	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.98	0.02	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1850	44	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.15	0.10	0.00	0.00	0.20	0.20	0.00	0.00	0.32	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.20	0.46	0.00	0.00	0.26	0.26	0.42	0.00	0.42	0.00	0.00	0.00
Volume/Cap:	0.77	0.21	0.00	0.00	0.77	0.77	0.01	0.00	0.77	0.00	0.00	0.00
Delay/Veh:	47.9	16.2	0.0	0.0	41.3	41.3	17.0	0.0	30.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.9	16.2	0.0	0.0	41.3	41.3	17.0	0.0	30.4	0.0	0.0	0.0
LOS by Move:	D	B	A	A	D	D	B	A	C	A	A	A
HCM2kAvgQ:	8	3	0	0	13	13	0	0	15	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): 11.0 Worst Case Level Of Service: F[52.2]

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	0	1	0	0	0	1	0

Volume Module:	Highland Springs Ave.						Starlight Ave.					
Base Vol:	219	423	0	0	705	212	22	0	330	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	219	423	0	0	705	212	22	0	330	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	219	423	0	0	705	212	22	0	330	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	219	423	0	0	705	212	22	0	330	0	0	0

Critical Gap Module:	Highland Springs Ave.						Starlight Ave.					
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:	Highland Springs Ave.						Starlight Ave.					
Cnflct Vol:	917	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1672	xxxx	811	xxxx	xxxx	xxxxxx
Potent Cap.:	752	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	107	xxxx	383	xxxx	xxxx	xxxxxx
Move Cap.:	752	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	83	xxxx	383	xxxx	xxxx	xxxxxx
Volume/Cap:	0.29	xxxx	xxxx	xxxx	xxxx	xxxx	0.27	xxxx	0.86	xxxx	xxxx	xxxx

Level Of Service Module:	Highland Springs Ave.						Starlight Ave.					
2Way95thQ:	1.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1.0	xxxx	8.3	xxxx	xxxx	xxxxxx
Control Del:	11.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	63.8	xxxx	51.4	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	F	*	F	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			52.2			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.747
Loss Time (sec): 16 Average Delay (sec/veh): 36.0
Optimal Cycle: 76 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	57	343	155	174	536	93	33	115	101	517	199	123
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	343	155	174	536	93	33	115	101	517	199	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	343	155	174	536	93	33	115	101	517	199	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	343	155	174	536	93	33	115	101	517	199	123
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	343	155	174	536	93	33	115	101	517	199	123

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.88	0.88	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.70	0.30	1.00	1.06	0.94	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3009	522	1805	1787	1570	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.18	0.10	0.10	0.18	0.18	0.02	0.06	0.06	0.29	0.06	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.10	0.24	0.62	0.13	0.27	0.27	0.22	0.09	0.09	0.38	0.24	0.24
Volume/Cap:	0.30	0.75	0.15	0.75	0.67	0.67	0.08	0.75	0.75	0.75	0.23	0.31
Delay/Veh:	42.3	41.7	7.9	54.5	34.7	34.7	30.7	54.9	54.9	31.1	30.3	31.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.3	41.7	7.9	54.5	34.7	34.7	30.7	54.9	54.9	31.1	30.3	31.3
LOS by Move:	D	D	A	D	C	C	C	D	D	C	C	C
HCM2kAvgQ:	2	11	2	5	9	9	1	5	5	15	3	3

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: D[27.4]

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*****
Street Name:          C St.                      Wilson St.
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:            L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:              Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:               Include      Include      Include      Include
Lanes:                1 0 0 0 0      0 0 0 0 0      0 0 0 1 0      1 0 1 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:              6      0      0      0      0      0      0 439      1      0 915      0
Growth Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:           6      0      0      0      0      0      0 439      1      0 915      0
User Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:               1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:            6      0      0      0      0      0      0 439      1      0 915      0
Reduct Vol:            0      0      0      0      0      0      0      0      0      0      0      0
FinalVolume:           6      0      0      0      0      0      0 439      1      0 915      0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:           6.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:           3.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:            1355 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
Potent Cap.:           167 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
Move Cap.:             167 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
Volume/Cap:            0.04 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:             0.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
Control Del:           27.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:           D      *      *      *      *      *      *      *      *      *      *      *
Movement:              LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:           xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
SharedQueue:           xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:           xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:            *      *      *      *      *      *      *      *      *      *      *      *
ApproachDel:           27.4          xxxxxx          xxxxxx          xxxxxx
ApproachLOS:           D              *              *              *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 96.9 Worst Case Level Of Service: F[171.9]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound		East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled		Stop Sign			Stop Sign			
Rights:	Include			Include		Include			Include			
Lanes:	0	0	0	1	0	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	163	77	105	262	0	0	0	0	294	0	478
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	163	77	105	262	0	0	0	0	294	0	478
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	163	77	105	262	0	0	0	0	294	0	478
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	163	77	105	262	0	0	0	0	294	0	478

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	240	xxxx	xxxxx	xxxx	xxxx	xxxxx	674	674	202
Potent Cap.:	xxxx	xxxx	xxxxx	1339	xxxx	xxxxx	xxxx	xxxx	xxxxx	423	379	844
Move Cap.:	xxxx	xxxx	xxxxx	1339	xxxx	xxxxx	xxxx	xxxx	xxxxx	396	347	844
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	0.74	0.00	0.57

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	590	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	31.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	172	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				171.9	
ApproachLOS:	*			*			*				F	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Home Rd. Wilson St.

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	0	1	0	0	1	0	1	1	0

Volume Module:

Base Vol:	14	65	30	250	264	59	112	259	58	118	879	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	65	30	250	264	59	112	259	58	118	879	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	65	30	250	264	59	112	259	58	118	879	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	14	65	30	250	264	59	112	259	58	118	879	49

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1320	1676	159	1526	1681	464	928	xxxx	xxxxx	317	xxxx	xxxxx
Potent Cap.:	117	96	865	82	96	550	745	xxxx	xxxxx	1255	xxxx	xxxxx
Move Cap.:	0	74	865	17	74	550	745	xxxx	xxxxx	1255	xxxx	xxxxx
Volume/Cap:	xxxx	0.88	0.03	14.64	3.59	0.11	0.15	xxxx	xxxx	0.09	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	4.4	0.1	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	xxxxx	167	9.3	xxxxx	xxxx	xxxxx	10.7	xxxx	xxxxx	8.2	xxxx	xxxxx
LOS by Move:	*	F	A	*	*	*	B	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	31	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	70.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	8040	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	+Inf			8040.0			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - PM Peak Hour

Scenario Report

Scenario: buildout np pm
Command: buildout np pm
Volume: buildout np pm
Geometry: buildout np
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.					Brookside Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	151	712	452	192	369	102	225	391	113	267	378	179
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	151	712	452	192	369	102	225	391	113	267	378	179
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	151	712	452	192	369	102	225	391	113	267	378	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	151	712	452	192	369	102	225	391	113	267	378	179

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	471	xxxx	xxxxxx	1164	xxxx	xxxxxx	2323	2270	420	2296	2095	938
Potent Cap.:	1101	xxxx	xxxxxx	607	xxxx	xxxxxx	27	41	638	28	53	323
Move Cap.:	1101	xxxx	xxxxxx	607	xxxx	xxxxxx	0	23	638	0	29	323
Volume/Cap:	0.14	xxxx	xxxx	0.32	xxxx	xxxx	xxxxx	17.12	0.18	xxxxx	12.83	0.55

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxxx	1.4	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	8.8	xxxx	xxxxxx	13.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT				
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	0	xxxxxx	xxxx	0	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx			xxxxxx			xxxxxx				
ApproachLOS:	*	*			F			F				

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: D[28.6]

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	1	478	0	0	281	111	202	0	1	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	478	0	0	281	111	202	0	1	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	478	0	0	281	111	202	0	1	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	1	478	0	0	281	111	202	0	1	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	392	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	817	817	337	xxxx	xxxx	xxxxxx
Potent Cap.:	1178	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	349	313	710	xxxx	xxxx	xxxxxx
Move Cap.:	1178	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	349	313	710	xxxx	xxxx	xxxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	0.58	0.00	0.00	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Control Del:	8.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	350	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	0.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	3.5	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	8.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	28.6	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	D	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			28.6		xxxxxx			
ApproachLOS:	*			*			D		*			*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.123
Loss Time (sec): 12 Average Delay (sec/veh): 88.2
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	777	446	0	0	307	5	107	0	635	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	777	446	0	0	307	5	107	0	635	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	777	446	0	0	307	5	107	0	635	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	777	446	0	0	307	5	107	0	635	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	777	446	0	0	307	5	107	0	635	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.98	0.02	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1866	30	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.43	0.23	0.00	0.00	0.16	0.16	0.06	0.00	0.39	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.38	0.53	0.00	0.00	0.15	0.15	0.35	0.00	0.35	0.00	0.00	0.00
Volume/Cap:	1.12	0.44	0.00	0.00	1.12	1.12	0.17	0.00	1.12	0.00	0.00	0.00
Delay/Veh:	104.1	14.8	0.0	0.0	134	134.0	22.6	0.0	108.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	104.1	14.8	0.0	0.0	134	134.0	22.6	0.0	108.9	0.0	0.0	0.0
LOS by Move:	F	B	A	A	F	F	C	A	F	A	A	A
HCM2kAvgQ:	33	8	0	0	17	17	2	0	32	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): 326.8 Worst Case Level Of Service: F[2339.6]

Street Name:	Highland Springs Ave.						Starlight Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	0	1	0	0	0	1	0	0	0

Volume Module:

Base Vol:	319	1119	0	0	835	187	178	0	219	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	319	1119	0	0	835	187	178	0	219	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	319	1119	0	0	835	187	178	0	219	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	319	1119	0	0	835	187	178	0	219	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1022	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2686	xxxx	929	xxxx	xxxx	xxxxxx
Potent Cap.:	687	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	24	xxxx	327	xxxx	xxxx	xxxxxx
Move Cap.:	687	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	16	xxxx	327	xxxx	xxxx	xxxxxx
Volume/Cap:	0.46	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	11.44	xxxx	0.67	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	2.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	23.2	xxxx	4.5	xxxx	xxxx	xxxxxx
Control Del:	14.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	5174	xxxx	35.6	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	F	*	E	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			2339.6		xxxxxx			
ApproachLOS:	*			*			F		*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.987
Loss Time (sec): 16 Average Delay (sec/veh): 58.9
Optimal Cycle: 166 Level Of Service: E

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	26	706	179	336	411	110	96	603	49	160	438	323
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	706	179	336	411	110	96	603	49	160	438	323
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	706	179	336	411	110	96	603	49	160	438	323
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	706	179	336	411	110	96	603	49	160	438	323
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	706	179	336	411	110	96	603	49	160	438	323

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.92	0.92	0.95	0.94	0.94	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.58	0.42	1.00	1.85	0.15	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	2757	738	1805	3302	268	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.37	0.11	0.19	0.15	0.15	0.05	0.18	0.18	0.09	0.12	0.20
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.38	0.47	0.19	0.38	0.38	0.07	0.19	0.19	0.09	0.20	0.20
Volume/Cap:	0.08	0.99	0.24	0.99	0.39	0.39	0.75	0.99	0.99	0.99	0.60	0.98
Delay/Veh:	34.2	61.2	16.2	85.5	22.4	22.4	66.6	72.2	72.2	112.0	37.4	84.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.2	61.2	16.2	85.5	22.4	22.4	66.6	72.2	72.2	112.0	37.4	84.3
LOS by Move:	C	E	B	F	C	C	E	E	E	F	D	F
HCM2kAvgQ:	1	28	3	10	6	6	5	16	16	9	7	15

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: F[72.8]

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*****
Street Name:          C St.                      Wilson St.
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Stop Sign            Stop Sign            Uncontrolled        Uncontrolled
Rights:               Include              Include              Include              Include
Lanes:                1 0 0 0 0            0 0 0 0 0            0 0 0 1 0            1 0 1 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:             1 0 0 0 0            0 0 0 0 0            0 1152 4            0 991 0
Growth Adj:           1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
Initial Bse:          1 0 0 0 0            0 0 0 0 0            0 1152 4            0 991 0
User Adj:             1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Volume:           1 0 0 0 0            0 0 0 0 0            0 1152 4            0 991 0
Reduct Vol:           0 0 0 0 0            0 0 0 0 0            0 0 0 0 0            0 0 0 0 0
FinalVolume:          1 0 0 0 0            0 0 0 0 0            0 1152 4            0 991 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          6.4 xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
FollowUpTim:          3.5 xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:           2145 xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
Potent Cap.:          54 xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
Move Cap.:            54 xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
Volume/Cap:           0.02 xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           0.1 xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
Control Del:          72.8 xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
LOS by Move:          F * * * * *          * * * * *          * * * * *          * * * * *
Movement:            LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxx        xxxx xxxx xxxxx        xxxx xxxx xxxxx        xxxx xxxx xxxxx
SharedQueue:          xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
Shrd ConDel:          xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx        xxxxx xxxx xxxxx
Shared LOS:           * * * * *          * * * * *          * * * * *          * * * * *
ApproachDel:          72.8                xxxxxx                xxxxxx                xxxxxx
ApproachLOS:          F * * * * *          * * * * *          * * * * *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year Without Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Home Rd. Wilson St.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	87	315	198	241	270	39	13	975	146	43	830	369
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	87	315	198	241	270	39	13	975	146	43	830	369
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	87	315	198	241	270	39	13	975	146	43	830	369
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	87	315	198	241	270	39	13	975	146	43	830	369

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1710	2359	561	1772	2248	600	1199	xxxx	xxxxx	1121	xxxx	xxxxx
Potent Cap.:	60	36	476	54	42	449	589	xxxx	xxxxx	631	xxxx	xxxxx
Move Cap.:	0	33	476	0	39	449	589	xxxx	xxxxx	631	xxxx	xxxxx
Volume/Cap:	xxxx	9.62	0.42	xxxx	7.00	0.09	0.02	xxxx	xxxx	0.07	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	38.4	2.0	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	4111	17.8	xxxxx	xxxx	xxxxx	11.2	xxxx	xxxxx	11.1	xxxx	xxxxx
LOS by Move:	*	F	C	*	*	*	B	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	+Inf			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Scenario Report

Scenario: buildout wp am
Command: buildout wp am
Volume: buildout wp am
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.					Brookside Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	206	180	103	233	366	113	46	220	201	274	423	334
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	180	103	233	366	113	46	220	201	274	423	334
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	180	103	233	366	113	46	220	201	274	423	334
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	206	180	103	233	366	113	46	220	201	274	423	334

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	479	xxxx	xxxxx	283	xxxx	xxxxx	1911	1584	423	1743	1589	232
Potent Cap.:	1094	xxxx	xxxxx	1291	xxxx	xxxxx	52	110	636	69	109	813
Move Cap.:	1094	xxxx	xxxxx	1291	xxxx	xxxxx	0	71	636	0	70	813
Volume/Cap:	0.19	xxxx	xxxx	0.18	xxxx	xxxx	xxxx	3.12	0.32	xxxx	6.04	0.41

Level Of Service Module:

2Way95thQ:	0.7	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:	9.1	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*	
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	0	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*	*			F			F			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B[14.5]

Street Name: Highland Springs Ave. 16th St.
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 32 296 0 0 424 48 25 0 17 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 32 296 0 0 424 48 25 0 17 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 32 296 0 0 424 48 25 0 17 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 32 296 0 0 424 48 25 0 17 0 0 0
 -----|-----|-----|-----|

Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx
 FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx
 -----|-----|-----|-----|

Capacity Module:
 Cnflct Vol: 472 xxxx xxxxx xxxx xxxx xxxxx 808 808 448 xxxx xxxx xxxxx
 Potent Cap.: 1100 xxxx xxxxx xxxx xxxx xxxxx 353 317 615 xxxx xxxx xxxxx
 Move Cap.: 1100 xxxx xxxxx xxxx xxxx xxxxx 345 308 615 xxxx xxxx xxxxx
 Volume/Cap: 0.03 xxxx xxxx xxxx xxxx xxxxx 0.07 0.00 0.03 xxxx xxxx xxxxx
 -----|-----|-----|-----|

Level Of Service Module:
 2Way95thQ: 0.1 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Control Del: 8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 LOS by Move: A * * * * * * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 420 xxxxx xxxx xxxx xxxxx
 SharedQueue: 0.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.3 xxxxx xxxxx xxxx xxxxx
 Shrd ConDel: 8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 14.5 xxxxx xxxxx xxxx xxxxx
 Shared LOS: A * * * * * * B * * * * *
 ApproachDel: xxxxxx xxxxxx 14.5 xxxxxx
 ApproachLOS: * * B *

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Average Delay (sec/veh): 98.9 Worst Case Level Of Service: F[307.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	284	237	16	491	0	0	0	0	457	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	284	237	16	491	0	0	0	0	457	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	284	237	16	491	0	0	0	0	457	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	284	237	16	491	0	0	0	0	457	0	30

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	521	xxxx	xxxxx	xxxx	xxxx	xxxxx	926	926	403
Potent Cap.:	xxxx	xxxx	xxxxx	1056	xxxx	xxxxx	xxxx	xxxx	xxxxx	301	271	652
Move Cap.:	xxxx	xxxx	xxxxx	1056	xxxx	xxxxx	xxxx	xxxx	xxxxx	297	267	652
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	1.54	0.00	0.05

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	308	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	28.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	307	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			307.4		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.942
Loss Time (sec): 12 Average Delay (sec/veh): 117.5
Optimal Cycle: 134 Level Of Service: F

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	0	0	1

Volume Module:

Base Vol:	367	438	79	32	863	39	22	142	568	152	274	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	367	438	79	32	863	39	22	142	568	152	274	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	367	438	79	32	863	39	22	142	568	152	274	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	367	438	79	32	863	39	22	142	568	152	274	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	367	438	79	32	863	39	22	142	568	152	274	61

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.99	0.99	0.73	1.00	0.85	0.81	0.81	0.81
Lanes:	1.00	0.85	0.15	1.00	0.96	0.04	1.00	1.00	1.00	0.31	0.56	0.13
Final Sat.:	1805	1573	284	1805	1807	82	1389	1900	1615	479	863	192

Capacity Analysis Module:

Vol/Sat:	0.20	0.28	0.28	0.02	0.48	0.48	0.02	0.07	0.35	0.32	0.32	0.32
Crit Moves:	****			****			****					
Green/Cycle:	0.22	0.58	0.58	0.15	0.51	0.51	0.16	0.16	0.37	0.16	0.16	0.16
Volume/Cap:	0.94	0.48	0.48	0.12	0.94	0.94	0.10	0.47	0.94	2.02	2.02	2.02
Delay/Veh:	69.8	12.7	12.7	37.4	40.2	40.2	36.3	39.6	53.6	514.2	514	514.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.8	12.7	12.7	37.4	40.2	40.2	36.3	39.6	53.6	514.2	514	514.2
LOS by Move:	E	B	B	D	D	D	D	D	D	F	F	F
HCM2kAvgQ:	11	8	8	1	31	31	1	4	22	46	46	46

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.					Starlight Ave.				
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Lanes:	1	0	0	1	0	0	1	0	0	

Volume Module:

Base Vol:	219	692	127	47	1223	334	85	79	330	244	152	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	219	692	127	47	1223	334	85	79	330	244	152	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	219	692	127	47	1223	334	85	79	330	244	152	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	219	692	127	47	1223	334	85	79	330	244	152	91

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1557	xxxx	xxxxxx	819	xxxx	xxxxxx	2799	2741	1390	2882	2845	756
Potent Cap.:	431	xxxx	xxxxxx	818	xxxx	xxxxxx	12	20	176	10	17	412
Move Cap.:	431	xxxx	xxxxxx	818	xxxx	xxxxxx	0	9	176	0	8	412
Volume/Cap:	0.51	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	8.37	1.87	xxxx	18.81	0.22

Level Of Service Module:

2Way95thQ:	2.8	xxxx	xxxxxx	0.2	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	
Control Del:	21.7	xxxx	xxxxxx	9.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
LOS by Move:	C	*	*	A	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	40	xxxx	0	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	49.2	xxxxxx	xxxx	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	4353	xxxxxx	xxxx	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			+Inf			xxxxxx			
ApproachLOS:	*			*			F			F			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.141
Loss Time (sec):	16	Average Delay (sec/veh):	93.2
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Highland Springs Ave.						8th St.-Wilson St.								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Ovl			Include			Include			Include					
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0	2	0	1

Volume Module:

Base Vol:	57	691	266	204	1206	154	65	162	101	730	290	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	691	266	204	1206	154	65	162	101	730	290	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	691	266	204	1206	154	65	162	101	730	290	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	691	266	204	1206	154	65	162	101	730	290	139
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	691	266	204	1206	154	65	162	101	730	290	139

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.89	0.89	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.77	0.23	1.00	1.23	0.77	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3147	402	1805	2095	1306	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.36	0.16	0.11	0.38	0.38	0.04	0.08	0.08	0.40	0.08	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.32	0.67	0.10	0.35	0.35	0.19	0.07	0.07	0.35	0.23	0.23
Volume/Cap:	0.45	1.14	0.25	1.14	1.11	1.11	0.19	1.10	1.10	1.14	0.34	0.37
Delay/Veh:	47.2	117	6.6	156.6	92.5	92.5	34.3	136	135.8	114.9	32.2	32.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	117	6.6	156.6	92.5	92.5	34.3	136	135.8	114.9	32.2	32.8
LOS by Move:	D	F	A	F	F	F	C	F	F	F	C	C
HCM2kAvgQ:	2	35	3	9	30	30	2	9	9	37	4	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 163.0 Worst Case Level Of Service: F[985.8]

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*****
Street Name:          C St.                      Wilson St.
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:            L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:             Stop Sign            Stop Sign            Uncontrolled        Uncontrolled
Rights:              Include              Include              Include              Include
Lanes:               1 0 0 0 0            0 0 1! 0 0          0 0 1! 0 0          1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:            6    0    0          122    0    213    111 516    1    0 1022    63
Growth Adj:          1.00 1.00 1.00        1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Initial Bse:          6    0    0          122    0    213    111 516    1    0 1022    63
User Adj:            1.00 1.00 1.00        1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:             1.00 1.00 1.00        1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Volume:          6    0    0          122    0    213    111 516    1    0 1022    63
Reduct Vol:          0    0    0            0    0    0        0    0    0        0    0    0
FinalVolume:         6    0    0          122    0    213    111 516    1    0 1022    63
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:         7.1 xxxx xxxxx        7.1 6.5 6.2    4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:         3.5 xxxx xxxxx        3.5 4.0 3.3    2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:          1899 xxxx xxxxx        1792 1793 1054 1085 xxxx xxxxx xxxxx xxxx xxxxx
Potent Cap.:          53 xxxx xxxxx          63 82 277    651 xxxx xxxxx xxxxx xxxx xxxxx
Move Cap.:           11 xxxx xxxxx          55 67 277    651 xxxx xxxxx xxxxx xxxx xxxxx
Volume/Cap:          0.56 xxxx xxxxx        2.24 0.00 0.77 0.17 xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           1.2 xxxx xxxxx        xxxx xxxx xxxxx    0.6 xxxx xxxxx xxxxx xxxx xxxxx
Control Del:555.4 xxxx xxxxx xxxxx xxxx xxxxx 11.7 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:         F    *    *            *    *    *        B    *    *        *    *    *
Movement:            LT - LTR - RT        LT - LTR - RT        LT - LTR - RT        LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxx        xxxx 111 xxxxx    xxxx xxxx xxxxx xxxxx xxxx xxxxx
SharedQueue:xxxxxx xxxx xxxxx xxxxx 31.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxxx xxxx xxxxx xxxxx 986 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:          *    *    *            *    F    *        *    *    *        *    *    *
ApproachDel:          555.4                985.8                xxxxxx                xxxxxx
ApproachLOS:          F                    F                    *                    *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 261.2 Worst Case Level Of Service: F[892.5]

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*****
Street Name:      Highland Home Rd.      Northern Loop
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:          Include          Include          Include          Include
Lanes:           0  1  0  0  0      0  0  0  1  0      0  0  1! 0  0      0  0  0  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:        142  702      0      0  400  158      304  0  274      0  0  0
Growth Adj:      1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:     142  702      0      0  400  158      304  0  274      0  0  0
User Adj:        1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:         1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:      142  702      0      0  400  158      304  0  274      0  0  0
Reduct Vol:      0  0  0      0  0  0      0  0  0      0  0  0
FinalVolume:     142  702      0      0  400  158      304  0  274      0  0  0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:     4.1 xxxx xxxxx xxxxx xxxx xxxxx      6.4  6.5  6.2 xxxxx xxxx xxxxx
FollowUpTim:     2.2 xxxx xxxxx xxxxx xxxx xxxxx      3.5  4.0  3.3 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      558 xxxx xxxxx xxxxx xxxxx xxxxx      1465 1465  479 xxxxx xxxx xxxxx
Potent Cap.:     1023 xxxx xxxxx xxxxx xxxxx xxxxx      143  129  591 xxxxx xxxx xxxxx
Move Cap.:       1023 xxxx xxxxx xxxxx xxxxx xxxxx      126  110  591 xxxxx xxxx xxxxx
Volume/Cap:      0.14 xxxx xxxxx xxxxx xxxxx xxxxx      2.41 0.00  0.46 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:       0.5 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del:     9.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move:     A  *  *  *  *  *  *  *  *  *  *  *  *
Movement:        LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:     xxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 201 xxxxx xxxx xxxx xxxxx
SharedQueue:     0.5 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 51.3 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:     9.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 893 xxxxx xxxxx xxxx xxxxx
Shared LOS:      A  *  *  *  *  *  *  *  F  *  *  *  *
ApproachDel:     xxxxxx xxxxxx xxxxxx 892.5 xxxxxx
ApproachLOS:     *  *  *  *  *  *  F  *
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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 396.9 Worst Case Level Of Service: F[867.6]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound		East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled		Stop Sign			Stop Sign			
Rights:	Include			Include		Include			Include			
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	290	139	167	506	0	0	0	0	371	0	555
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	290	139	167	506	0	0	0	0	371	0	555
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	290	139	167	506	0	0	0	0	371	0	555
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	290	139	167	506	0	0	0	0	371	0	555

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	429	xxxx	xxxxx	xxxx	xxxx	xxxxx	1200	1200	360
Potent Cap.:	xxxx	xxxx	xxxxx	1141	xxxx	xxxxx	xxxx	xxxx	xxxxx	207	187	689
Move Cap.:	xxxx	xxxx	xxxxx	1141	xxxx	xxxxx	xxxx	xxxx	xxxxx	181	157	689
Volume/Cap:	xxxx	xxxx	xxxx	0.15	xxxx	xxxx	xxxx	xxxx	xxxx	2.05	0.00	0.81

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	324	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	79.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	868	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			867.6		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Average Delay (sec/veh): 6.4 Worst Case Level Of Service: E[38.8]

Street Name:	Highland Home Rd.				F St.				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	1	0	0	0	0	0	0	0
Volume Module:									
Base Vol:	127	414	0	0	903	0	0	0	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	414	0	0	903	0	0	0	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	414	0	0	903	0	0	0	244
Reduct Vol:	0	0	0	0	0	0	0	0	0
FinalVolume:	127	414	0	0	903	0	0	0	244
Critical Gap Module:									
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	3.3
Capacity Module:									
Cnflct Vol:	903	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	903
Potent Cap.:	761	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	339
Move Cap.:	761	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	339
Volume/Cap:	0.17	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.72
Level Of Service Module:									
2Way95thQ:	0.6	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	5.3
Control Del:	10.7	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	38.8
LOS by Move:	B	*	*	*	*	*	*	*	E
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
SharedQueue:	0.6	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:	10.7	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:	B	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			38.8		xxxxxx
ApproachLOS:	*			*			E		*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 26.2 Worst Case Level Of Service: F[210.1]

Street Name:		Highland Home Rd.				D St.			
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	1	0	0	0	0	1	0	0
Volume Module:									
Base Vol:	111	511	0	0	1121	16	30	0	213
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	111	511	0	0	1121	16	30	0	213
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	111	511	0	0	1121	16	30	0	213
Reduct Vol:	0	0	0	0	0	0	0	0	0
Final Volume:	111	511	0	0	1121	16	30	0	213
Critical Gap Module:									
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3
Capacity Module:									
Cnflct Vol:	1137	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	1862	1862	1129
Potent Cap.:	622	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	81	74	251
Move Cap.:	622	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	69	60	251
Volume/Cap:	0.18	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.43	0.00	0.85
Level Of Service Module:									
2Way95thQ:	0.6	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	12.0	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	189	xxxxxx
Shared Queue:	0.6	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	13.5	xxxxxx
Shrd ConDel:	12.0	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	210	xxxxxx
Shared LOS:	B	*	*	*	*	*	F	*	*
ApproachDel:	xxxxxx			xxxxxx			210.1		xxxxxx
ApproachLOS:	*			*			F		*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Home Rd. Wilson St.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	77	223	30	615	568	150	159	289	180	118	895	239
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	223	30	615	568	150	159	289	180	118	895	239
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	223	30	615	568	150	159	289	180	118	895	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	77	223	30	615	568	150	159	289	180	118	895	239

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1665	2067	235	1825	2038	567	1134	xxxx	xxxxx	469	xxxx	xxxxx
Potent Cap.:	65	55	773	49	57	472	623	xxxx	xxxxx	1103	xxxx	xxxxx
Move Cap.:	0	37	773	0	38	472	623	xxxx	xxxxx	1103	xxxx	xxxxx
Volume/Cap:	xxxx	6.09	0.04	xxxx	14.87	0.32	0.26	xxxx	xxxx	0.11	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	26.5	0.1	xxxx	xxxx	xxxxx	1.0	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	2507	9.8	xxxxx	xxxx	xxxxx	12.7	xxxx	xxxxx	8.7	xxxx	xxxxx
LOS by Move:	*	F	A	*	*	*	B	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	+Inf			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Scenario Report

Scenario: buildout wp pm
Command: buildout wp pm
Volume: buildout wp pm
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.					Brookside Ave.				
Approach:	North Bound		South Bound			East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled			Stop Sign		Stop Sign		
Rights:	Include		Include			Include		Include		
Lanes:	1	0	0	1	0	0	0	0	1	

Volume Module:	Highland Springs Ave.					Brookside Ave.				
Base Vol:	176	737	523	474	404	102	225	462	148	316
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	176	737	523	474	404	102	225	462	148	316
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	176	737	523	474	404	102	225	462	148	316
Reduct Vol:	0	0	0	0	0	0	0	0	0	0
Final Volume:	176	737	523	474	404	102	225	462	148	316

Critical Gap Module:	Highland Springs Ave.					Brookside Ave.				
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5

Capacity Module:	Highland Springs Ave.					Brookside Ave.				
Cnflct Vol:	506	xxxx	xxxxxx	1260	xxxx	xxxxxx	3156	3015	455	3059
Potent Cap.:	1069	xxxx	xxxxxx	559	xxxx	xxxxxx	7	14	609	8
Move Cap.:	1069	xxxx	xxxxxx	559	xxxx	xxxxxx	0	0	609	0
Volume/Cap:	0.16	xxxx	xxxx	0.85	xxxx	xxxx	xxxx	xxxx	0.24	xxxx

Level Of Service Module:	Highland Springs Ave.					Brookside Ave.				
2Way95thQ:	0.6	xxxx	xxxxxx	9.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx
Control Del:	9.0	xxxx	xxxxxx	37.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx
LOS by Move:	A	*	*	E	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	0	xxxxxx	xxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx
ApproachLOS:	*			*			F			F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): 14.6 Worst Case Level Of Service: F[83.3]

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	26	598	0	0	401	111	202	0	36	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	598	0	0	401	111	202	0	36	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	598	0	0	401	111	202	0	36	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	26	598	0	0	401	111	202	0	36	0	0	0

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	512	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1107	1107	457	xxxx	xxxx	xxxxxx
Potent Cap.:	1064	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	235	212	608	xxxx	xxxx	xxxxxx
Move Cap.:	1064	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	230	207	608	xxxx	xxxx	xxxxxx
Volume/Cap:	0.02	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	0.88	0.00	0.06	xxxx	xxxx	xxxxxx

Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Control Del:	8.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	254	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	0.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	8.5	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	8.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	83.3	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			83.3			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Average Delay (sec/veh): 165.3 Worst Case Level Of Service: F[869.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	676	529	35	448	0	0	0	0	371	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	676	529	35	448	0	0	0	0	371	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	676	529	35	448	0	0	0	0	371	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	676	529	35	448	0	0	0	0	371	0	25

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1205	xxxx	xxxxx	xxxx	xxxx	xxxxx	1459	1459	941
Potent Cap.:	xxxx	xxxx	xxxxx	586	xxxx	xxxxx	xxxx	xxxx	xxxxx	144	131	322
Move Cap.:	xxxx	xxxx	xxxxx	586	xxxx	xxxxx	xxxx	xxxx	xxxxx	137	123	322
Volume/Cap:	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	2.70	0.00	0.08

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	142	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	35.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	11.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	869	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			869.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.460
Loss Time (sec): 12 Average Delay (sec/veh): 156.8
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	0	0	1

Volume Module:

Base Vol:	851	1010	176	71	702	30	142	317	741	124	222	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	851	1010	176	71	702	30	142	317	741	124	222	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	851	1010	176	71	702	30	142	317	741	124	222	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	851	1010	176	71	702	30	142	317	741	124	222	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	851	1010	176	71	702	30	142	317	741	124	222	49

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.99	0.99	0.81	1.00	0.85	0.49	0.49	0.49
Lanes:	1.00	0.85	0.15	1.00	0.96	0.04	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	1805	1582	276	1805	1811	77	1533	1900	1615	291	522	115

Capacity Analysis Module:

Vol/Sat:	0.47	0.64	0.64	0.04	0.39	0.39	0.09	0.17	0.46	0.43	0.43	0.43
Crit Moves:	****			****						****		
Green/Cycle:	0.32	0.52	0.52	0.07	0.27	0.27	0.29	0.29	0.61	0.29	0.29	0.29
Volume/Cap:	1.46	1.23	1.23	0.56	1.46	1.46	0.32	0.57	0.75	1.46	1.46	1.46
Delay/Veh:	250.1	137	137.2	50.7	254	254.4	28.1	31.6	16.9	261.6	262	261.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	250.1	137	137.2	50.7	254	254.4	28.1	31.6	16.9	261.6	262	261.6
LOS by Move:	F	F	F	D	F	F	C	C	B	F	F	F
HCM2kAvgQ:	57	61	61	3	52	52	4	9	17	29	29	29

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.					Starlight Ave.							
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	319	1718	282	106	1255	286	319	176	219	198	124	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	319	1718	282	106	1255	286	319	176	219	198	124	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	319	1718	282	106	1255	286	319	176	219	198	124	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	319	1718	282	106	1255	286	319	176	219	198	124	74

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1541	xxxx	xxxxxx	2000	xxxx	xxxxxx	4206	4248	1398	4305	4250	1859
Potent Cap.:	437	xxxx	xxxxxx	291	xxxx	xxxxxx	1	2	174	1	2	92
Move Cap.:	437	xxxx	xxxxxx	291	xxxx	xxxxxx	0	0	174	0	0	92
Volume/Cap:	0.73	xxxx	xxxx	0.36	xxxx	xxxx	xxxx	xxxx	1.26	xxxx	xxxx	0.80

Level Of Service Module:

2Way95thQ:	5.8	xxxx	xxxxxx	1.6	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	32.5	xxxx	xxxxxx	24.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	D	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	1	xxxx	0	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	52.1	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	+Inf	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	F	F	F	F	F	F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.639
Loss Time (sec): 16 Average Delay (sec/veh): 205.4
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	26	1482	426	361	955	159	167	709	49	333	512	358
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	1482	426	361	955	159	167	709	49	333	512	358
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	1482	426	361	955	159	167	709	49	333	512	358
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1482	426	361	955	159	167	709	49	333	512	358
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	1482	426	361	955	159	167	709	49	333	512	358

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.94	0.94	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.71	0.29	1.00	1.87	0.13	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3030	504	1805	3343	231	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.78	0.26	0.20	0.32	0.32	0.09	0.21	0.21	0.18	0.14	0.22
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.48	0.59	0.12	0.49	0.49	0.07	0.13	0.13	0.11	0.17	0.17
Volume/Cap:	0.13	1.64	0.45	1.64	0.64	0.64	1.30	1.64	1.64	1.64	0.83	1.30
Delay/Veh:	40.6	319	11.8	351.0	19.9	19.9	226.2	341	340.6	353.0	49.4	199.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.6	319	11.8	351.0	19.9	19.9	226.2	341	340.6	353.0	49.4	199.8
LOS by Move:	D	F	B	F	B	B	F	F	F	F	D	F
HCM2kAvgQ:	1	116	7	28	12	12	12	33	33	28	11	24

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 744.3 Worst Case Level Of Service: F[8312.0]

C St.						Wilson St.						
North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	1
Volume Module:												
Base Vol:	1	0	0	99	0	173	247	1283	4	0	1100	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	99	0	173	247	1283	4	0	1100	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	0	0	99	0	173	247	1283	4	0	1100	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	1	0	0	99	0	173	247	1283	4	0	1100	141

Critical Gap Module:

Critical Gp:	7.1	xxxx	xxxxxx	7.1	6.5	6.2	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	3036	xxxx	xxxxxx	2950	2952	1171	1241	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	8	xxxx	xxxxxx	9	15	237	568	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	1	xxxx	xxxxxx	6	7	237	568	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.76	xxxx	xxxx	17.64	0.00	0.73	0.43	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	0.6	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	3677	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	16.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	F	*	*	*	*	*	C	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	15	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	35.1	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	8312	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	3677.1			8312.0			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 2385.5 Worst Case Level Of Service: F[15663.7]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	317	862	0	0	1082	353	247	0	222	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	317	862	0	0	1082	353	247	0	222	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	317	862	0	0	1082	353	247	0	222	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	317	862	0	0	1082	353	247	0	222	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	1435	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2755	2755	1259	xxxx	xxxx	xxxxxx
Potent Cap.:	479	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	22	20	210	xxxx	xxxx	xxxxxx
Move Cap.:	479	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7	4	210	xxxx	xxxx	xxxxxx
Volume/Cap:	0.66	xxxx	xxxx	xxxxxx	xxxx	xxxx	33.55	0.00	1.05	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	4.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	26.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	D	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	14	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	4.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	59.9	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	26.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	D	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	774	326	720	586	0	0	0	0	263	0	406
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	774	326	720	586	0	0	0	0	263	0	406
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	774	326	720	586	0	0	0	0	263	0	406
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	774	326	720	586	0	0	0	0	263	0	406

Critical Gap Module:

Critical Gp:xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1100	xxxx	xxxxx	xxxx	xxxx	xxxxx	2963	2963	937
Potent Cap.:	xxxx	xxxx	xxxxx	642	xxxx	xxxxx	xxxx	xxxx	xxxxx	16	15	324
Move Cap.:	xxxx	xxxx	xxxxx	642	xxxx	xxxxx	xxxx	xxxx	xxxxx	0	0	324
Volume/Cap:	xxxx	xxxx	xxxx	1.12	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.25

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	22.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:xxxxx	xxxx	xxxx	xxxxx	97.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	F	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:xxxxx	xxxx	xxxx	xxxxx	22.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:xxxxx	xxxx	xxxx	xxxxx	97.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	F	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: D[26.1]

Street Name:	Highland Home Rd.				F St.				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	1	0	0	0	0	0	0	0
Volume Module:									
Base Vol:	282	1029	0	0	849	0	0	0	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	282	1029	0	0	849	0	0	0	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	282	1029	0	0	849	0	0	0	198
Reduct Vol:	0	0	0	0	0	0	0	0	0
Final Volume:	282	1029	0	0	849	0	0	0	198

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	849	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	849	xxxx	xxxxxx	xxxxxx
Potent Cap.:	798	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	364	xxxx	xxxxxx	xxxxxx
Move Cap.:	798	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	364	xxxx	xxxxxx	xxxxxx
Volume/Cap:	0.35	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.54	xxxx	xxxxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	1.6	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	3.1	xxxx	xxxxxx	xxxxxx				
Control Del:	12.0	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	26.1	xxxxxx	xxxxxx	xxxxxx				
LOS by Move:	B	*	*	*	*	*	*	D	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shared Queue:	1.6	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shrd ConDel:	12.0	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shared LOS:	B	*	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			26.1		xxxxxx						
ApproachLOS:	*			*			D		*						

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 57.2 Worst Case Level Of Service: F[794.2]

Street Name:	Highland Home Rd.				D St.				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	1	0	0	0	0	1	0	0
Volume Module:									
Base Vol:	247	1331	0	0	996	35	25	0	173
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	247	1331	0	0	996	35	25	0	173
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	247	1331	0	0	996	35	25	0	173
Reduct Vol:	0	0	0	0	0	0	0	0	0
Final Volume:	247	1331	0	0	996	35	25	0	173

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1031	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	2839	2839	1014	xxxx	xxxx	xxxxxx
Potent Cap.:	682	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	19	18	292	xxxx	xxxx	xxxxxx
Move Cap.:	682	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	13	10	292	xxxx	xxxx	xxxxxx
Volume/Cap:	0.36	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	1.91	0.00	0.59	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	1.7	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Control Del:	13.3	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	79	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
SharedQueue:	1.7	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	18.8	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shrd ConDel:	13.3	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	794	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shared LOS:	B	*	*	*	*	*	*	F	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			794.2		xxxxxx				
ApproachLOS:	*			*			F		*			*	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	1	0	1	1	0	1

Volume Module:	Highland Home Rd.			Wilson St.		
Base Vol:	228	668	198	538	517	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	228	668	198	538	517	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	228	668	198	538	517	113
Reduct Vol:	0	0	0	0	0	0
Final Volume:	228	668	198	538	517	113

Critical Gap Module:	Highland Home Rd.			Wilson St.		
Critical Gp:	7.5	6.5	6.9	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	2.2	xxxx	xxxxx

Capacity Module:	Highland Home Rd.			Wilson St.		
Cnflct Vol:	2138	3104	623	1657	xxxx	xxxxx
Potent Cap.:	28	12	434	394	xxxx	xxxxx
Move Cap.:	0	8	434	394	xxxx	xxxxx
Volume/Cap:	xxxx87.66	0.46	xxxx44.88	0.30	xxxx	xxxx

Level Of Service Module:	Highland Home Rd.			Wilson St.		
2Way95thQ:	xxxx	85.5	2.3	1.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	20.1	18.0	xxxx	xxxxx
LOS by Move:	*	F	C	C	*	B
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*
ApproachDel:	+Inf	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	F	F	F	*	*	*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Scenario Report

Scenario: buildout wp am
Command: buildout wp am
Volume: buildout wp am
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 33.0 Worst Case Level Of Service: F[138.8]

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	0	1	0	0	0	1	0

Volume Module:

Base Vol:	591	482	0	0	588	113	46	0	417	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	591	482	0	0	588	113	46	0	417	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	591	482	0	0	588	113	46	0	417	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	591	482	0	0	588	113	46	0	417	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	701	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2309	xxxx	645	xxxx	xxxx	xxxxxx
Potent Cap.:	905	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	43	xxxx	476	xxxx	xxxx	xxxxxx
Move Cap.:	905	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	20	xxxx	476	xxxx	xxxx	xxxxxx
Volume/Cap:	0.65	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	2.27	xxxx	0.88	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	5.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.1	xxxx	9.3	xxxx	xxxx	xxxxxx
Control Del:	16.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	981.0	xxxx	45.9	xxxxxx	xxxx	xxxxxx
LOS by Move:	C	*	*	*	*	*	F	*	E	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			138.8		xxxxxx			
ApproachLOS:	*			*			F		*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: D[25.7]

Street Name:	Highland Springs Ave.				16th St.															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	T	R	L	T	R	L	T	R											
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign													
Rights:	Include		Include		Include		Include													
Lanes:	1	0	2	0	0	0	0	2	0	1	1	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	41	879	0	0	801	37	25	0	16	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	879	0	0	801	37	25	0	16	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	879	0	0	801	37	25	0	16	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	41	879	0	0	801	37	25	0	16	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.8	xxxx	6.9	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	838	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1323	xxxx	401	xxxx	xxxx	xxxxxx
Potent Cap.:	805	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	150	xxxx	605	xxxx	xxxx	xxxxxx
Move Cap.:	805	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	144	xxxx	605	xxxx	xxxx	xxxxxx
Volume/Cap:	0.05	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.17	xxxx	0.03	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.6	xxxx	0.1	xxxx	xxxx	xxxxxx			
Control Del:	9.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	35.1	xxxx	11.1	xxxxxx	xxxx	xxxxxx			
LOS by Move:	A	*	*	*	*	*	E	*	B	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx			
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx			
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			25.7		xxxxxx						
ApproachLOS:	*			*			D		*						

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Average Delay (sec/veh): 315.5 Worst Case Level Of Service: F[711.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	2	0	1		2	0	2	0	0	
	0	0	0	0	0		0	0	0	0	0	

Volume Module:

Base Vol:	0	306	349	260	622	0	0	0	0	617	0	600
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	306	349	260	622	0	0	0	0	617	0	600
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	306	349	260	622	0	0	0	0	617	0	600
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	306	349	260	622	0	0	0	0	617	0	600

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	655	xxxx	xxxxx	xxxx	xxxx	xxxxx	1137	xxxx	153
Potent Cap.:	xxxx	xxxx	xxxxx	942	xxxx	xxxxx	xxxx	xxxx	xxxxx	198	xxxx	872
Move Cap.:	xxxx	xxxx	xxxxx	942	xxxx	xxxxx	xxxx	xxxx	xxxxx	156	xxxx	872
Volume/Cap:	xxxx	xxxx	xxxx	0.28	xxxx	xxxx	xxxx	xxxx	xxxx	3.95	xxxx	0.69

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	61.4	xxxx	5.7	
Control Del:	xxxxx	xxxx	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1387	xxxx	17.7	
LOS by Move:	*	*	*	B	*	*	*	*	*	F	*	C	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			711.8			
ApproachLOS:	*			*			*			F			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.777
Loss Time (sec): 12 Average Delay (sec/veh): 57.1
Optimal Cycle: 72 Level Of Service: E

Street Name: Highland Springs Ave. Oak Valley Pkwy.-14th St.-F St.
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Ovl Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 0 1! 0 0

Volume Module:

Base Vol: 359 579 73 29 1159 39 21 132 565 139 250 56
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 359 579 73 29 1159 39 21 132 565 139 250 56
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 359 579 73 29 1159 39 21 132 565 139 250 56
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 359 579 73 29 1159 39 21 132 565 139 250 56
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 359 579 73 29 1159 39 21 132 565 139 250 56

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.93 0.93 0.95 0.95 0.95 0.73 1.00 0.85 0.84 0.84 0.84
Lanes: 1.00 1.78 0.22 1.00 1.93 0.07 1.00 1.00 1.00 0.31 0.56 0.13
Final Sat.: 1805 3151 397 1805 3475 117 1391 1900 1615 496 893 200

Capacity Analysis Module:

Vol/Sat: 0.20 0.18 0.18 0.02 0.33 0.33 0.02 0.07 0.35 0.28 0.28 0.28
Crit Moves: ****
Green/Cycle: 0.26 0.50 0.50 0.19 0.43 0.43 0.19 0.19 0.45 0.19 0.19 0.19
Volume/Cap: 0.78 0.37 0.37 0.08 0.78 0.78 0.08 0.36 0.78 1.44 1.44 1.44
Delay/Veh: 42.6 15.7 15.7 33.5 27.0 27.0 33.1 35.5 28.5 255.9 256 255.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 42.6 15.7 15.7 33.5 27.0 27.0 33.1 35.5 28.5 255.9 256 255.9
LOS by Move: D B B C C C C D C F F F
HCM2kAvgQ: 9 6 6 1 18 18 1 4 16 32 32 32

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Springs Ave.

Starlight Ave.

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

-----|-----|-----|-----|

Control: Uncontrolled

Uncontrolled

Stop Sign

Stop Sign

Rights: Include

Include

Include

Include

Lanes: 1 0 1 1 0

1 0 1 1 0

1 0 0 1 0

2 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 219 831 117 44 1464 373 81 73 330 222 139 83

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 219 831 117 44 1464 373 81 73 330 222 139 83

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 219 831 117 44 1464 373 81 73 330 222 139 83

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 219 831 117 44 1464 373 81 73 330 222 139 83

-----|-----|-----|-----|

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.5 6.5 6.9 7.5 6.5 6.9

FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: 1837 xxxx xxxxx 948 xxxx xxxxx 2662 3125 919 2184 3253 474

Potent Cap.: 336 xxxx xxxxx 732 xxxx xxxxx 11 11 278 26 9 542

Move Cap.: 336 xxxx xxxxx 732 xxxx xxxxx 0 4 278 0 3 542

Volume/Cap: 0.65 xxxx xxxx 0.06 xxxx xxxx xxxx19.48 1.19 xxxx45.10 0.15

-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: 4.3 xxxx xxxxx 0.2 xxxx xxxxx xxxx xxxx xxxxx xxxx 19.6 0.5

Control Del: 33.7 xxxx xxxxx 10.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 12.8

LOS by Move: D * * B * * * * * F B

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 19 xxxx xxxx xxxxx

SharedQueue:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 50.9 xxxxx xxxx xxxxx

Shrd ConDel:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9233 xxxxx xxxx xxxxx

Shared LOS: * * * * * * * F * *

ApproachDel: xxxxxx xxxxxx +Inf +Inf

ApproachLOS: * * F F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.314
Loss Time (sec): 16 Average Delay (sec/veh): 115.1
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	57	737	216	397	1131	115	93	128	101	772	305	194
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	737	216	397	1131	115	93	128	101	772	305	194
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	737	216	397	1131	115	93	128	101	772	305	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	737	216	397	1131	115	93	128	101	772	305	194
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	737	216	397	1131	115	93	128	101	772	305	194

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.94	0.94	0.95	0.89	0.89	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.82	0.18	1.00	1.12	0.88	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3231	329	1805	1885	1487	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.39	0.13	0.22	0.35	0.35	0.05	0.07	0.07	0.43	0.08	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.08	0.29	0.61	0.16	0.38	0.38	0.14	0.07	0.07	0.32	0.25	0.25
Volume/Cap:	0.42	1.34	0.22	1.34	0.93	0.93	0.36	0.97	0.97	1.34	0.34	0.49
Delay/Veh:	46.2	203	9.1	218.0	41.4	41.4	39.6	96.4	96.4	200.7	31.4	33.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.2	203	9.1	218.0	41.4	41.4	39.6	96.4	96.4	200.7	31.4	33.3
LOS by Move:	D	F	A	F	D	D	D	F	F	F	C	C
HCM2kAvgQ:	2	48	3	24	20	20	3	7	7	50	4	6

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 188.9 Worst Case Level Of Service: F[1369.2]

C St.						Wilson St.						
North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	0	1	0
Volume Module:												
Base Vol:	6	0	0	111	0	194	103	632	1	0	1153	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	111	0	194	103	632	1	0	1153	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	0	0	111	0	194	103	632	1	0	1153	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	6	0	0	111	0	194	103	632	1	0	1153	59
Critical Gap Module:												
Critical Gp:	7.1	xxxx	xxxxxx	7.1	6.5	6.2	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	2118	xxxx	xxxxxx	2021	2022	1183	1212	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	37	xxxx	xxxxxx	44	59	233	583	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	5	xxxx	xxxxxx	37	48	233	583	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	1.12	xxxx	xxxx	2.97	0.00	0.83	0.18	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.5	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.6	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	1288	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	12.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	F	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	80	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Shared Queue:	xxxxxx	xxxx	xxxxxx	xxxxxx	31.7	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	1369	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	1287.6			1369.2			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 7.3 Worst Case Level Of Service: A[9.7]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	0	0	0	0
Volume Module:												
Base Vol:	132	29	0	0	56	0	0	0	250	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	29	0	0	56	0	0	0	250	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	132	29	0	0	56	0	0	0	250	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	132	29	0	0	56	0	0	0	250	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	56	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	56	xxxxxx	xxxx	xxxxxx
Potent Cap.:	1562	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1016	xxxxxx	xxxx	xxxxxx
Move Cap.:	1562	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1016	xxxxxx	xxxx	xxxxxx
Volume/Cap:	0.08	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.25	xxxxxx	xxxx	xxxxxx
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1.0	xxxxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.7	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	A	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.7			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 166.6 Worst Case Level Of Service: F[309.8]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.							
Approach:	North Bound			South Bound		East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled		Stop Sign			Stop Sign				
Rights:	Include			Include		Include			Include				
Lanes:	0	0	0	1	0	0	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	161	210	0	305	0	0	0	0	787	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	161	210	0	305	0	0	0	0	787	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	161	210	0	305	0	0	0	0	787	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	161	210	0	305	0	0	0	0	787	0	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	571	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	486	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	486	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.62	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	44.3	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	309.8	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	*	*	*	F	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			309.8			
ApproachLOS:	*			*			*			F			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.697
Loss Time (sec):	12	Average Delay (sec/veh):	23.9
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Highland Home Rd.												F St.							
Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected				Protected				Protected				Protected							
Rights:	Include				Include				Include				Include							
Min. Green:	7	7	7		7	7	7		7	7	7		7	7	7					
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0					
Lanes:	2	0	1	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0

Volume Module:												
Base Vol:	136	281	0	0	754	422	134	0	287	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	136	281	0	0	754	422	134	0	287	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	136	281	0	0	754	422	134	0	287	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	281	0	0	754	422	134	0	287	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	136	281	0	0	754	422	134	0	287	0	0	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	1.00	1.00	1.00	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3502	1900	0	0	1900	1615	1805	0	1615	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.00	0.00	0.40	0.26	0.07	0.00	0.18	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.07	0.43	0.00	0.00	0.56	0.56	0.16	0.00	0.25	0.00	0.00	0.00
Volume/Cap:	0.55	0.35	0.00	0.00	0.71	0.47	0.45	0.00	0.71	0.00	0.00	0.00
Delay/Veh:	47.8	19.5	0.0	0.0	18.3	13.5	38.7	0.0	39.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.8	19.5	0.0	0.0	18.3	13.5	38.7	0.0	39.9	0.0	0.0	0.0
LOS by Move:	D	B	A	A	B	B	D	A	D	A	A	A
HCM2kAvgQ:	3	6	0	0	18	8	4	0	9	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 8.7 Worst Case Level Of Service: F[71.7]

Street Name:	Highland Home Rd.					D St.				
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Lanes:	0	1	0	0	0	0	1	0	0	

Volume Module:

Base Vol:	88	389	0	0	1026	15	28	0	167	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	88	389	0	0	1026	15	28	0	167	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	88	389	0	0	1026	15	28	0	167	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	88	389	0	0	1026	15	28	0	167	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1041	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	1599	1599	1034	xxxx	xxxx	xxxxxx
Potent Cap.:	676	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	118	107	285	xxxx	xxxx	xxxxxx
Move Cap.:	676	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	106	93	285	xxxx	xxxx	xxxxxx
Volume/Cap:	0.13	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.26	0.00	0.59	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.4	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	11.1	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	229	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	0.4	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	6.7	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:	11.1	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	71.7	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:	B	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			71.7			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Home Rd. Wilson St.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	105	194	30	493	473	226	82	392	259	118	918	201
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	194	30	493	473	226	82	392	259	118	918	201
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	194	30	493	473	226	82	392	259	118	918	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	105	194	30	493	473	226	82	392	259	118	918	201

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1617	2041	326	1712	2070	560	1119	xxxx	xxxxx	651	xxxx	xxxxx
Potent Cap.:	70	57	676	60	55	477	632	xxxx	xxxxx	945	xxxx	xxxxx
Move Cap.:	0	44	676	0	42	477	632	xxxx	xxxxx	945	xxxx	xxxxx
Volume/Cap:	xxxx	4.46	0.04	xxxx	11.33	0.47	0.13	xxxx	xxxx	0.12	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	22.1	0.1	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	1743	10.6	xxxxx	xxxx	xxxxx	11.5	xxxx	xxxxx	9.4	xxxx	xxxxx
LOS by Move:	*	F	B	*	*	*	B	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	+Inf			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Scenario Report

Scenario: buildout wp pm
Command: buildout wp pm
Volume: buildout wp pm
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 1651.3 Worst Case Level Of Service: F[6855.6]

Street Name:	Highland Springs Ave.					Brookside Ave.				
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Lanes:	1	0	1	0	0	0	1	0	0	

Volume Module:

Base Vol:	573	1084	0	0	850	102	225	0	600	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	573	1084	0	0	850	102	225	0	600	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	573	1084	0	0	850	102	225	0	600	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	573	1084	0	0	850	102	225	0	600	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	952	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	3131	xxxx	901	xxxx	xxxxxx	xxxxxx
Potent Cap.:	730	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	13	xxxx	340	xxxx	xxxxxx	xxxxxx
Move Cap.:	730	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	4	xxxx	340	xxxx	xxxxxx	xxxxxx
Volume/Cap:	0.79	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	50.98	xxxx	1.77	xxxx	xxxxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	7.8	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	30.4	xxxx	38.4	xxxx	xxxxxx	xxxxxx
Control Del:	25.5	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	24114	xxxx	383.6	xxxxxx	xxxxxx	xxxxxx
LOS by Move:	D	*	*	*	*	*	F	*	F	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			6855.6			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): 84.0 Worst Case Level Of Service: F[869.3]

Street Name: Highland Springs Ave.						16th St.					
Approach: North Bound			South Bound			East Bound			West Bound		
Movement: L - T - R			L - T - R			L - T - R			L - T - R		
Control: Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights: Include			Include			Include			Include		
Lanes: 1 0 2 0 0			0 0 2 0 1			1 0 0 0 1			0 0 0 0 0		
Volume Module:											
Base Vol: 60 820 0			0 1250 75			202 0 33			0 0 0		
Growth Adj: 1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
Initial Bse: 60 820 0			0 1250 75			202 0 33			0 0 0		
User Adj: 1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
PHF Adj: 1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
PHF Volume: 60 820 0			0 1250 75			202 0 33			0 0 0		
Reduct Vol: 0 0 0			0 0 0			0 0 0			0 0 0		
Final Volume: 60 820 0			0 1250 75			202 0 33			0 0 0		

Critical Gap Module:											
Critical Gp: 4.1 xxxx xxxxx			xxxx xxxx xxxxx			6.8 xxxx			6.9 xxxxx xxxx xxxxx		
FollowUpTim: 2.2 xxxx xxxxx			xxxx xxxx xxxxx			3.5 xxxx			3.3 xxxxx xxxx xxxxx		

Capacity Module:											
Cnflct Vol: 1325 xxxx xxxxx			xxxx xxxx xxxxx			1780 xxxx			625 xxxx xxxx xxxxx		
Potent Cap.: 528 xxxx xxxxx			xxxx xxxx xxxxx			75 xxxx			433 xxxx xxxx xxxxx		
Move Cap.: 528 xxxx xxxxx			xxxx xxxx xxxxx			68 xxxx			433 xxxx xxxx xxxxx		
Volume/Cap: 0.11 xxxx xxxxx			xxxx xxxx xxxxx			2.95 xxxx			0.08 xxxx xxxx xxxxx		

Level Of Service Module:											
2Way95thQ: 0.4 xxxx xxxxx			xxxx xxxx xxxxx			20.4 xxxx			0.2 xxxx xxxx xxxxx		
Control Del: 12.7 xxxx xxxxx			xxxxxx xxxx xxxxx			1009 xxxx			14.0 xxxxx xxxx xxxxx		
LOS by Move: B * *			* *			F *			B * *		
Movement: LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.: xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
SharedQueue:xxxxxx xxxx xxxxx			xxxxxx xxxx xxxxx			xxxxxx xxxx xxxxx			xxxxxx xxxx xxxxx		
Shrd ConDel:xxxxxx xxxx xxxxx			xxxxxx xxxx xxxxx			xxxxxx xxxx xxxxx			xxxxxx xxxx xxxxx		
Shared LOS: *			*			*			*		
ApproachDel: xxxxxx			xxxxxx			869.3			xxxxxx		
ApproachLOS: *			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	2	0	1		2	0	2	0	0	
	0	0	0	0	0		0	0	0	0	0	1

Volume Module:

Base Vol:	0	502	1062	628	700	0	0	0	0	535	0	455
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	502	1062	628	700	0	0	0	0	535	0	455
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	502	1062	628	700	0	0	0	0	535	0	455
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	502	1062	628	700	0	0	0	0	535	0	455

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1564	xxxx	xxxxx	xxxx	xxxx	xxxxx	2108	xxxx	251
Potent Cap.:	xxxx	xxxx	xxxxx	428	xxxx	xxxxx	xxxx	xxxx	xxxxx	45	xxxx	755
Move Cap.:	xxxx	xxxx	xxxxx	428	xxxx	xxxxx	xxxx	xxxx	xxxxx	0	xxxx	755
Volume/Cap:	xxxx	xxxx	xxxx	1.47	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.60

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	18.8	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	4.1
Control Del:	xxxxx	xxxx	xxxxx	247.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	16.7
LOS by Move:	*	*	*	F	*	*	*	*	*	*	*	C
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			+Inf		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.310
Loss Time (sec): 12 Average Delay (sec/veh): 98.4
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	845	1377	161	64	1127	30	139	289	731	113	204	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	845	1377	161	64	1127	30	139	289	731	113	204	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	845	1377	161	64	1127	30	139	289	731	113	204	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	845	1377	161	64	1127	30	139	289	731	113	204	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	845	1377	161	64	1127	30	139	289	731	113	204	45

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.95	0.95	0.81	1.00	0.85	0.52	0.52	0.52
Lanes:	1.00	1.79	0.21	1.00	1.95	0.05	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	1805	3180	372	1805	3502	93	1543	1900	1615	311	562	124

Capacity Analysis Module:

Vol/Sat:	0.47	0.43	0.43	0.04	0.32	0.32	0.09	0.15	0.45	0.36	0.36	0.36
Crit Moves:	****			****						****		
Green/Cycle:	0.36	0.52	0.52	0.08	0.25	0.25	0.28	0.28	0.63	0.28	0.28	0.28
Volume/Cap:	1.31	0.83	0.83	0.42	1.31	1.31	0.33	0.55	0.71	1.31	1.31	1.31
Delay/Veh:	182.6	23.8	23.8	45.4	185	185.4	29.2	32.1	14.6	199.2	199	199.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	182.6	23.8	23.8	45.4	185	185.4	29.2	32.1	14.6	199.2	199	199.2
LOS by Move:	F	C	C	D	F	F	C	C	B	F	F	F
HCM2kAvgQ:	49	19	19	2	38	38	4	8	16	24	24	24

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.					Starlight Ave.								
Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign				
Rights:	Include			Include			Include			Include				
Lanes:	1	0	1	1	0	1	1	0	0	1	0	2	0	1

Volume Module:

Base Vol:	319	2082	257	96	1616	339	307	161	219	182	113	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	319	2082	257	96	1616	339	307	161	219	182	113	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	319	2082	257	96	1616	339	307	161	219	182	113	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	319	2082	257	96	1616	339	307	161	219	182	113	68

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1955	xxxx	xxxxxx	2339	xxxx	xxxxxx	3713	4955	978	3929	4996	1170
Potent Cap.:	303	xxxx	xxxxxx	214	xxxx	xxxxxx	2	1	254	1	1	189
Move Cap.:	303	xxxx	xxxxxx	214	xxxx	xxxxxx	0	0	254	0	0	189
Volume/Cap:	1.05	xxxx	xxxx	0.45	xxxx	xxxx	xxxx	xxxx	0.86	xxxx	xxxx	0.36

Level Of Service Module:

2Way95thQ:	12.0	xxxx	xxxxxx	2.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	1.5
Control Del:	105.2	xxxx	xxxxxx	34.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	34.4
LOS by Move:	F	*	*	D	*	*	*	*	*	*	*	D
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	0	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	+Inf	+Inf	+Inf	+Inf	+Inf	+Inf
ApproachLOS:	*	*	*	*	*	*	F	F	F	F	F	F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.992
Loss Time (sec):	16	Average Delay (sec/veh):	299.3
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Highland Springs Ave.						8th St.-Wilson St.								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Ovl			Include			Include			Include					
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0	2	0	1

Volume Module:

Base Vol:	26	1479	402	667	952	62	167	692	49	346	580	699
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	1479	402	667	952	62	167	692	49	346	580	699
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	1479	402	667	952	62	167	692	49	346	580	699
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1479	402	667	952	62	167	692	49	346	580	699
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	1479	402	667	952	62	167	692	49	346	580	699

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.94	0.94	0.95	0.94	0.94	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.88	0.12	1.00	1.87	0.13	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3359	219	1805	3338	236	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.78	0.25	0.37	0.28	0.28	0.09	0.21	0.21	0.19	0.16	0.43
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.38	0.51	0.18	0.45	0.45	0.07	0.15	0.15	0.13	0.21	0.21
Volume/Cap:	0.13	2.05	0.48	2.05	0.63	0.63	1.32	1.42	1.42	1.42	0.76	2.05
Delay/Veh:	40.4	510	16.2	525.4	22.1	22.1	236.0	243	243.1	255.0	41.7	523.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.4	510	16.2	525.4	22.1	22.1	236.0	243	243.1	255.0	41.7	523.4
LOS by Move:	D	F	B	F	C	C	F	F	F	F	D	F
HCM2kAvgQ:	1	138	8	61	12	12	12	28	28	25	11	66

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	1	0	0	91	0	159	225	1571	4	0	1536	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	91	0	159	225	1571	4	0	1536	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	0	0	91	0	159	225	1571	4	0	1536	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	0	0	91	0	159	225	1571	4	0	1536	129

Critical Gap Module:

Critical Gp:	7.1	xxxx	xxxxxx	7.1	6.5	6.2	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	3703	xxxx	xxxxxx	3624	3626	1601	1665	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	3	xxxx	xxxxxx	3	5	132	391	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	0	xxxx	xxxxxx	1	2	132	391	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	xxxx	xxxx	xxxx	65.57	0.00	1.20	0.57	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	3.5	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	25.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	D	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	4	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	33.6	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 6.9 Worst Case Level Of Service: A[9.4]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	0	0	0	0

Volume Module:

Base Vol:	289	64	0	0	45	0	0	0	204	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	289	64	0	0	45	0	0	0	204	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	289	64	0	0	45	0	0	0	204	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	289	64	0	0	45	0	0	0	204	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	45	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	45	xxxxxx	xxxx	xxxxxx
Potent Cap.:	1576	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1031	xxxxxx	xxxx	xxxxxx
Move Cap.:	1576	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1031	xxxxxx	xxxx	xxxxxx
Volume/Cap:	0.18	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.20	xxxxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.7	xxxxxx	xxxx	xxxxxx
Control Del:	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.4	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	A	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared Queue:	0.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.4			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 140.0 Worst Case Level Of Service: F[528.7]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	353	877	0	250	0	0	0	0	533	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	353	877	0	250	0	0	0	0	533	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	353	877	0	250	0	0	0	0	533	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	353	877	0	250	0	0	0	0	533	0	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1042	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	257	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	257	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.08	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	39.6	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	528.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	F	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			528.7		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.918
Loss Time (sec):	12	Average Delay (sec/veh):	44.1
Optimal Cycle:	119	Level Of Service:	D

Street Name:	Highland Home Rd. F St.																			
Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected				Protected				Protected				Protected							
Rights:	Include				Include				Include				Include							
Min. Green:	7	7	7		7	7	7		7	7	7		7	7	7					
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0					
Lanes:	2	0	1	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0

Volume Module:																
Base Vol:	371	639	0		0	610	240		688	0	285		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	371	639	0		0	610	240		688	0	285		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	371	639	0		0	610	240		688	0	285		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	371	639	0		0	610	240		688	0	285		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Volume:	371	639	0		0	610	240		688	0	285		0	0	0	

Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	1.00	1.00		1.00	1.00	0.85		0.95	1.00	0.85		1.00	1.00	1.00	
Lanes:	2.00	1.00	0.00		0.00	1.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	3502	1900	0		0	1900	1615		1805	0	1615		0	0	0	

Capacity Analysis Module:																
Vol/Sat:	0.11	0.34	0.00		0.00	0.32	0.15		0.38	0.00	0.18		0.00	0.00	0.00	
Crit Moves:	****				****				****							
Green/Cycle:	0.12	0.38	0.00		0.00	0.35	0.35		0.42	0.00	0.35		0.00	0.00	0.00	
Volume/Cap:	0.92	0.87	0.00		0.00	0.92	0.43		0.92	0.00	0.51		0.00	0.00	0.00	
Delay/Veh:	69.4	39.9	0.0		0.0	49.0	25.4		43.9	0.0	26.6		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	69.4	39.9	0.0		0.0	49.0	25.4		43.9	0.0	26.6		0.0	0.0	0.0	
LOS by Move:	E	D	A		A	D	C		D	A	C		A	A	A	
HCM2kAvgQ:	9	21	0		0	22	6		24	0	7		0	0	0	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 10.7 Worst Case Level Of Service: F[136.7]

Street Name:	Highland Home Rd.						D St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	193	987	0	0	862	32	23	0	136	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	193	987	0	0	862	32	23	0	136	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	193	987	0	0	862	32	23	0	136	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	193	987	0	0	862	32	23	0	136	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	894	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2251	2251	878	xxxx	xxxx	xxxxxx
Potent Cap.:	767	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	46	42	350	xxxx	xxxx	xxxxxx
Move Cap.:	767	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	36	30	350	xxxx	xxxx	xxxxxx
Volume/Cap:	0.25	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	0.63	0.00	0.39	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	1.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	11.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	155	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	1.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	7.9	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	11.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	137	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	B	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			136.7			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Home Rd. Wilson St.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	0	0	1	0	1	1
Volume Module:												
Base Vol:	374	510	198	398	392	208	100	1155	388	43	1048	569
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	374	510	198	398	392	208	100	1155	388	43	1048	569
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	374	510	198	398	392	208	100	1155	388	43	1048	569
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	374	510	198	398	392	208	100	1155	388	43	1048	569
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflct Vol:	2355	3252	772	2451	3162	809	1617	xxxx	xxxxx	1543	xxxx	xxxxx
Potent Cap.:	19	9	347	16	11	328	408	xxxx	xxxxx	436	xxxx	xxxxx
Move Cap.:	0	6	347	0	7	328	408	xxxx	xxxxx	436	xxxx	xxxxx
Volume/Cap:	xxxx79.55	0.57	xxxx53.26	0.63	0.24	xxxx	xxxx	xxxx	xxxx	0.10	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	65.9	3.4	xxxx	xxxx	xxxxx	0.9	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	28.3	xxxxx	xxxx	xxxxx	16.6	xxxx	xxxxx	14.2	xxxx	xxxxx
LOS by Move:	*	F	D	*	*	*	C	*	*	B	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	+Inf			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Scenario Report

Scenario: buildout wp am

Command: buildout wp am
Volume: buildout wp am
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 16.3 Worst Case Level Of Service: F[73.6]

Street Name:	Highland Springs Ave.						Brookside Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	0	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	446	506	0	0	603	113	46	0	328	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	446	506	0	0	603	113	46	0	328	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	446	506	0	0	603	113	46	0	328	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	446	506	0	0	603	113	46	0	328	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	716	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2058	xxxx	660	xxxx	xxxx	xxxxxx
Potent Cap.:	894	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	61	xxxx	467	xxxx	xxxx	xxxxxx
Move Cap.:	894	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	37	xxxx	467	xxxx	xxxx	xxxxxx
Volume/Cap:	0.50	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	1.23	xxxx	0.70	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	2.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.7	xxxx	5.4	xxxx	xxxx	xxxxxx
Control Del:	13.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	391.9	xxxx	29.0	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	F	*	D	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			73.6		xxxxxx			
ApproachLOS:	*			*			F		*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.
*****Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Springs Ave. 16th St.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Ignore			Include			Include			Ignore		
Lanes:	1	0	2	0	1		2	0	2	0	1	

Volume Module:

Base Vol:	32	381	185	298	429	48	25	94	17	420	181	449
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	381	185	298	429	48	25	94	17	420	181	449
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	32	381	0	298	429	48	25	94	17	420	181	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	32	381	0	298	429	48	25	94	17	420	181	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	477	xxxx	xxxxxx	381	xxxx	xxxxxx	1370	1470	215	1303	1518	191
Potent Cap.:	1096	xxxx	xxxxxx	1189	xxxx	xxxxxx	107	129	797	120	120	825
Move Cap.:	1096	xxxx	xxxxxx	1189	xxxx	xxxxxx	0	93	797	0	87	825
Volume/Cap:	0.03	xxxx	xxxx	0.25	xxxx	xxxx	xxxx	1.01	0.02	xxxx	2.07	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	1.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	16.0	xxxxxx
Control Del:	8.4	xxxx	xxxxxx	9.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	597	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	F	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	108	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.6	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	168.5	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx	xxxxxx			+Inf			+Inf				
ApproachLOS:	*	*			F			F				

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Average Delay (sec/veh): 93.1 Worst Case Level Of Service: F[328.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	1	0	2	0	0	0

Volume Module:

Base Vol:	0	364	195	81	638	0	0	0	0	355	0	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	364	195	81	638	0	0	0	0	355	0	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	364	195	81	638	0	0	0	0	355	0	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	364	195	81	638	0	0	0	0	355	0	148

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	559	xxxx	xxxxx	xxxx	xxxx	xxxxx	943	1262	280
Potent Cap.:	xxxx	xxxx	xxxxx	1022	xxxx	xxxxx	xxxx	xxxx	xxxxx	265	172	724
Move Cap.:	xxxx	xxxx	xxxxx	1022	xxxx	xxxxx	xxxx	xxxx	xxxxx	249	158	724
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	1.43	0.00	0.20

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*

Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	308	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	30.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	328	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			328.4		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.701
Loss Time (sec): 12 Average Delay (sec/veh): 57.4
Optimal Cycle: 60 Level Of Service: E

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	365	478	81	33	909	39	22	147	570	148	266	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	365	478	81	33	909	39	22	147	570	148	266	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	365	478	81	33	909	39	22	147	570	148	266	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	365	478	81	33	909	39	22	147	570	148	266	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	365	478	81	33	909	39	22	147	570	148	266	59

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.94	0.94	0.72	1.00	0.85	0.83	0.83	0.83
Lanes:	1.00	1.71	0.29	1.00	1.92	0.08	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	1805	3019	512	1805	3441	148	1374	1900	1615	494	889	197

Capacity Analysis Module:

Vol/Sat:	0.20	0.16	0.16	0.02	0.26	0.26	0.02	0.08	0.35	0.30	0.30	0.30
Crit Moves:	****			****			****					
Green/Cycle:	0.29	0.46	0.46	0.20	0.38	0.38	0.21	0.21	0.50	0.21	0.21	0.21
Volume/Cap:	0.70	0.34	0.34	0.09	0.70	0.70	0.07	0.36	0.70	1.39	1.39	1.39
Delay/Veh:	36.0	17.4	17.4	32.4	28.1	28.1	31.4	33.9	21.8	233.2	233	233.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.0	17.4	17.4	32.4	28.1	28.1	31.4	33.9	21.8	233.2	233	233.2
LOS by Move:	D	B	B	C	C	C	C	C	C	F	F	F
HCM2kAvgQ:	9	5	5	1	14	14	1	4	14	33	33	33

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	0	1	0	0	1	0	0

Volume Module:

Base Vol:	219	732	130	49	1267	330	87	81	330	237	148	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	219	732	130	49	1267	330	87	81	330	237	148	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	219	732	130	49	1267	330	87	81	330	237	148	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	219	732	130	49	1267	330	87	81	330	237	148	89

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1597	xxxx	xxxxxx	862	xxxx	xxxxxx	2408	2830	799	2007	2930	431
Potent Cap.:	416	xxxx	xxxxxx	789	xxxx	xxxxxx	18	18	333	36	15	578
Move Cap.:	416	xxxx	xxxxxx	789	xxxx	xxxxxx	0	8	333	0	7	578
Volume/Cap:	0.53	xxxx	xxxx	0.06	xxxx	xxxx	xxxxx	10.22	0.99	xxxxx	21.71	0.15

Level Of Service Module:

2Way95thQ:	3.0	xxxx	xxxxxx	0.2	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	22.9	xxxx	xxxxxx	9.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	C	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	37	xxxx	0	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	49.9	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	4804	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	+Inf	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	F	F	F	F	F	F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.165
Loss Time (sec): 16 Average Delay (sec/veh): 96.8
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:	Highland Springs Ave.			8th St.-Wilson St.		
Base Vol:	57	734	269	204	1246	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	734	269	204	1246	152
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	734	269	204	1246	152
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	57	734	269	204	1246	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	734	269	204	1246	152

Saturation Flow Module:	Highland Springs Ave.			8th St.-Wilson St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93
Lanes:	1.00	1.00	1.00	1.00	1.78	0.22
Final Sat.:	1805	1900	1615	1805	3166	386

Capacity Analysis Module:	Highland Springs Ave.			8th St.-Wilson St.		
Vol/Sat:	0.03	0.39	0.17	0.11	0.39	0.39
Crit Moves:	****			****		
Green/Cycle:	0.07	0.33	0.67	0.10	0.36	0.36
Volume/Cap:	0.45	1.17	0.25	1.17	1.10	1.10
Delay/Veh:	47.2	126	6.5	166.2	90.3	90.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	126	6.5	166.2	90.3	90.3
LOS by Move:	D	F	A	F	F	F
HCM2kAvgQ:	2	39	3	10	32	32

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 154.3 Worst Case Level Of Service: F[959.6]

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	0	1	0

Volume Module:	C St.			C St.			Wilson St.			Wilson St.		
Base Vol:	6	0	0	118	0	207	114	518	1	0	1020	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	118	0	207	114	518	1	0	1020	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	0	0	118	0	207	114	518	1	0	1020	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	0	0	118	0	207	114	518	1	0	1020	65

Critical Gap Module:	C St.			C St.			Wilson St.			Wilson St.		
Critical Gp:	7.1	xxxx	xxxxxx	7.1	6.5	6.2	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx

Capacity Module:	C St.			C St.			Wilson St.			Wilson St.		
Cnflct Vol:	1903	xxxx	xxxxxx	1799	1800	1053	1085	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	53	xxxx	xxxxxx	63	81	278	651	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	12	xxxx	xxxxxx	54	66	278	651	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.52	xxxx	xxxx	2.20	0.00	0.75	0.18	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:	C St.			C St.			Wilson St.			Wilson St.		
2Way95thQ:	1.2	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.6	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:500.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxxxx	11.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	F	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	110	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	30.8	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	960	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	500.4			959.6			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): 259.7 Worst Case Level Of Service: F[634.6]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	342	107	105	587	0	0	0	0	310	0	478
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	342	107	105	587	0	0	0	0	310	0	478
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	342	107	105	587	0	0	0	0	310	0	478
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	342	107	105	587	0	0	0	0	310	0	478

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	449	xxxx	xxxxx	xxxx	xxxx	xxxxx	1193	1193	396
Potent Cap.:	xxxx	xxxx	xxxxx	1122	xxxx	xxxxx	xxxx	xxxx	xxxxx	209	189	658
Move Cap.:	xxxx	xxxx	xxxxx	1122	xxxx	xxxxx	xxxx	xxxx	xxxxx	193	170	658
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	xxxx	xxxx	xxxx	xxxx	1.61	0.00	0.73

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	337	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	61.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	635	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			634.6		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.877
Loss Time (sec): 12 Average Delay (sec/veh): 29.7
Optimal Cycle: 100 Level Of Service: C

Street Name:	Highland Home Rd.						F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	130	451	0	0	954	59	33	0	237	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	451	0	0	954	59	33	0	237	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	451	0	0	954	59	33	0	237	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	451	0	0	954	59	33	0	237	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	130	451	0	0	954	59	33	0	237	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.99	0.99	0.88	1.00	0.88	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.94	0.06	0.12	0.00	0.88	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1775	110	203	0	1460	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.07	0.24	0.00	0.00	0.54	0.54	0.16	0.00	0.16	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.08	0.69	0.00	0.00	0.61	0.61	0.19	0.00	0.19	0.00	0.00	0.00
Volume/Cap:	0.88	0.34	0.00	0.00	0.88	0.88	0.88	0.00	0.88	0.00	0.00	0.00
Delay/Veh:	85.7	6.3	0.0	0.0	24.0	24.0	63.2	0.0	63.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.7	6.3	0.0	0.0	24.0	24.0	63.2	0.0	63.2	0.0	0.0	0.0
LOS by Move:	F	A	A	A	C	C	E	A	E	A	A	A
HCM2kAvgQ:	7	6	0	0	29	29	11	0	11	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 10.1 Worst Case Level Of Service: F[133.6]

Street Name:	Highland Home Rd.						D St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	65	584	0	0	1224	16	30	0	118	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	65	584	0	0	1224	16	30	0	118	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	65	584	0	0	1224	16	30	0	118	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	65	584	0	0	1224	16	30	0	118	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1240	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1946	1946	1232	xxxx	xxxx	xxxxxx
Potent Cap.:	569	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	72	66	218	xxxx	xxxx	xxxxxx
Move Cap.:	569	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	66	58	218	xxxx	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	0.46	0.00	0.54	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	12.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	148	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	0.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	7.4	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	12.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	134	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	B	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			133.6			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Home Rd. Wilson St.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	79	244	30	605	589	148	161	289	176	118	895	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	244	30	605	589	148	161	289	176	118	895	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	79	244	30	605	589	148	161	289	176	118	895	244
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	79	244	30	605	589	148	161	289	176	118	895	244

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1677	2074	233	1842	2040	570	1139	xxxx	xxxxx	465	xxxx	xxxxx
Potent Cap.:	63	54	776	48	57	470	621	xxxx	xxxxx	1107	xxxx	xxxxx
Move Cap.:	0	36	776	0	38	470	621	xxxx	xxxxx	1107	xxxx	xxxxx
Volume/Cap:	xxxx	6.77	0.04	xxxx	15.56	0.31	0.26	xxxx	xxxx	0.11	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	29.1	0.1	xxxx	xxxx	xxxxx	1.0	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	2814	9.8	xxxxx	xxxx	xxxxx	12.8	xxxx	xxxxx	8.6	xxxx	xxxxx
LOS by Move:	*	F	A	*	*	*	B	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	+Inf			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Scenario Report

Scenario: buildout wp pm
Command: buildout wp pm
Volume: buildout wp pm
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Average Delay (sec/veh): 735.4 Worst Case Level Of Service: F[3603.7]

Street Name:	Highland Springs Ave.						Brookside Ave.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	0	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	412	1107	0	0	865	102	225	0	410	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	412	1107	0	0	865	102	225	0	410	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	412	1107	0	0	865	102	225	0	410	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	412	1107	0	0	865	102	225	0	410	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	967	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2847	xxxx	916	xxxx	xxxx	xxxxxx
Potent Cap.:	720	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	19	xxxx	333	xxxx	xxxx	xxxxxx
Move Cap.:	720	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	11	xxxx	333	xxxx	xxxx	xxxxxx
Volume/Cap:	0.57	xxxx	xxxx	xxxx	xxxx	xxxx	21.41	xxxx	1.23	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	3.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	29.7	xxxx	18.1	xxxx	xxxx	xxxxxx
Control Del:	16.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	9877	xxxx	161.2	xxxxxx	xxxx	xxxxxx
LOS by Move:	C	*	*	*	*	*	F	*	F	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				xxxxxx		3603.7			xxxxxx		
ApproachLOS:	*				*		F			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.					16th St.						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Ignore			Include			Include			Ignore		
Lanes:	1	0	2	0	1		2	0	2	0	1	

Volume Module:

Base Vol:	25	622	689	591	484	111	202	196	35	435	189	512
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	622	689	591	484	111	202	196	35	435	189	512
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	25	622	0	591	484	111	202	196	35	435	189	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	25	622	0	591	484	111	202	196	35	435	189	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	595	xxxx	xxxxx	622	xxxx	xxxxx	2122	2338	242	2194	2449	311
Potent Cap.:	991	xxxx	xxxxx	969	xxxx	xxxxx	29	37	765	26	31	691
Move Cap.:	991	xxxx	xxxxx	969	xxxx	xxxxx	0	14	765	0	12	691
Volume/Cap:	0.03	xxxx	xxxx	0.61	xxxx	xxxx	xxxxx13.91	0.05	xxxxx15.79	0.00		

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	4.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	25.0	xxxxx
Control Del:	8.7	xxxx	xxxxx	14.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	7270	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	F	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	17	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	29.7	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6278	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx			xxxxxx			+Inf			+Inf		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Average Delay (sec/veh): 283.1 Worst Case Level Of Service: F[1650.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	1	0	2	0	0	0

Volume Module:

Base Vol:	0	841	406	169	564	0	0	0	0	288	0	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	841	406	169	564	0	0	0	0	288	0	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	841	406	169	564	0	0	0	0	288	0	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	841	406	169	564	0	0	0	0	288	0	120

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1247	xxxx	xxxxx	xxxx	xxxx	xxxxx	1664	1946	624
Potent Cap.:	xxxx	xxxx	xxxxx	565	xxxx	xxxxx	xxxx	xxxx	xxxxx	90	66	434
Move Cap.:	xxxx	xxxx	xxxxx	565	xxxx	xxxxx	xxxx	xxxx	xxxxx	69	46	434
Volume/Cap:	xxxx	xxxx	xxxx	0.30	xxxx	xxxx	xxxx	xxxx	xxxx	4.18	0.00	0.28

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	1.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	14.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	91	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	43.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1651	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			1650.9		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.198
Loss Time (sec): 12 Average Delay (sec/veh): 74.1
Optimal Cycle: 180 Level Of Service: E

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

	0	0	0	0	0	0	0	0	0	0	0	0

	1	0	1	1	0	1	1	0	1	0	0	1

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	0	1	0	0	1	0	0

Volume Module:

Base Vol:	319	1761	270	101	1290	283	313	169	219	192	120	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	319	1761	270	101	1290	283	313	169	219	192	120	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	319	1761	270	101	1290	283	313	169	219	192	120	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	319	1761	270	101	1290	283	313	169	219	192	120	72

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1573	xxxx	xxxxxx	2031	xxxx	xxxxxx	3212	4303	787	3466	4309	1016
Potent Cap.:	425	xxxx	xxxxxx	283	xxxx	xxxxxx	4	2	339	3	2	239
Move Cap.:	425	xxxx	xxxxxx	283	xxxx	xxxxxx	0	0	339	0	0	239
Volume/Cap:	0.75	xxxx	xxxx	0.36	xxxx	xxxx	xxxx	xxxx	0.65	xxxx	xxxx	0.30

Level Of Service Module:

2Way95thQ:	6.2	xxxx	xxxxxx	1.6	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	35.0	xxxx	xxxxxx	24.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	D	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	1	xxxx	0	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	51.3	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	+Inf	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	F	F	F	F	F	F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 1.655
Loss Time (sec): 16 Average Delay (sec/veh): 209.8
Optimal Cycle: 180 Level Of Service: F

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	26	1517	416	360	986	158	164	704	49	328	510	357
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	1517	416	360	986	158	164	704	49	328	510	357
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	1517	416	360	986	158	164	704	49	328	510	357
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1517	416	360	986	158	164	704	49	328	510	357
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	26	1517	416	360	986	158	164	704	49	328	510	357

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.94	0.94	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.72	0.28	1.00	1.87	0.13	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	3046	488	1805	3341	233	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.80	0.26	0.20	0.32	0.32	0.09	0.21	0.21	0.18	0.14	0.22
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.48	0.59	0.12	0.50	0.50	0.07	0.13	0.13	0.11	0.17	0.17
Volume/Cap:	0.13	1.66	0.43	1.66	0.65	0.65	1.32	1.66	1.66	1.66	0.84	1.32
Delay/Veh:	40.8	326	11.5	358.4	19.7	19.7	234.1	348	348.1	360.7	50.5	207.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.8	326	11.5	358.4	19.7	19.7	234.1	348	348.1	360.7	50.5	207.3
LOS by Move:	D	F	B	F	B	B	F	F	F	F	D	F
HCM2kAvgQ:	1	120	7	28	13	13	12	33	33	28	11	24

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Average Delay (sec/veh): 645.9 Worst Case Level Of Service: F[7351.3]

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*****
Street Name:          C St.                      Wilson St.
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:        Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:         Include      Include      Include      Include
Lanes:          1  0  0  0  0      0  0  1! 0  0      0  0  1! 0  0      1  0  0  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:        1    0    0    96    0    168    237 1277    4    0 1097    135
Growth Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:      1    0    0    96    0    168    237 1277    4    0 1097    135
User Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:       1    0    0    96    0    168    237 1277    4    0 1097    135
Reduct Vol:       0    0    0    0    0    0    0    0    0    0    0    0
FinalVolume:     1    0    0    96    0    168    237 1277    4    0 1097    135
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:     7.1 xxxx xxxxx    7.1 6.5 6.2    4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:     3.5 xxxx xxxxx    3.5 4.0 3.3    2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:     3002 xxxx xxxxx    2918 2920 1165    1232 xxxx xxxxx xxxxx xxxx xxxxx
Potent Cap.:      9 xxxx xxxxx      10  16  239    573 xxxx xxxxx xxxxx xxxx xxxxx
Move Cap.:       2 xxxx xxxxx      6   8  239    573 xxxx xxxxx xxxxx xxxx xxxxx
Volume/Cap:     0.63 xxxx xxxxx    15.62 0.00 0.70    0.41 xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:       0.6 xxxx xxxxx    xxxx xxxx xxxxx    2.0 xxxx xxxxx xxxxx xxxx xxxxx
Control Del:     3006 xxxx xxxxx    xxxxx xxxx xxxxx    15.7 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:      F      *      *      *      *      *      C      *      *      *      *      *
Movement:        LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:     xxxx xxxx xxxxx    xxxx 16 xxxxx    xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:     xxxxx xxxx xxxxx    xxxxx 33.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:     xxxxx xxxx xxxxx    xxxxx 7351 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:      *      *      *      *      F      *      *      *      *      *      *
ApproachDel:     3006.4              7351.3              xxxxxx              xxxxxx
ApproachLOS:      F                  F                  *                  *
*****

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Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Beaumont Rd.-G St					Highland Home Rd.								
Approach:	North Bound			South Bound		East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Uncontrolled			Uncontrolled		Stop Sign			Stop Sign					
Rights:	Include			Include		Include			Include					
Lanes:	0	0	0	1	0	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	864	254	624	652	0	0	0	0	213	0	322
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	864	254	624	652	0	0	0	0	213	0	322
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	864	254	624	652	0	0	0	0	213	0	322
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	864	254	624	652	0	0	0	0	213	0	322

Critical Gap Module:

Critical Gp:xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1118	xxxx	xxxxx	xxxx	xxxx	xxxxx	2891	2891	991
Potent Cap.:	xxxx	xxxx	xxxxx	632	xxxx	xxxxx	xxxx	xxxx	xxxxx	18	16	301
Move Cap.:	xxxx	xxxx	xxxxx	632	xxxx	xxxxx	xxxx	xxxx	xxxxx	0	0	301
Volume/Cap:	xxxx	xxxx	xxxx	0.99	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.07

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	14.8	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:xxxxx	xxxx	xxxx	xxxxx	58.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	F	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:xxxxx	xxxx	xxxx	xxxxx	14.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:xxxxx	xxxx	xxxx	xxxxx	58.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	F	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		F

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.909
Loss Time (sec): 12 Average Delay (sec/veh): 32.3
Optimal Cycle: 114 Level Of Service: C

Street Name:	Highland Home Rd.						F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:	Highland Home Rd.			F St.		
Base Vol:	270	1081	0	0	889	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	270	1081	0	0	889	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	270	1081	0	0	889	48
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	270	1081	0	0	889	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	270	1081	0	0	889	48

Saturation Flow Module:	Highland Home Rd.			F St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.99	0.99
Lanes:	1.00	1.00	0.00	0.00	0.95	0.05
Final Sat.:	1805	1900	0	0	1790	97

Capacity Analysis Module:	Highland Home Rd.			F St.		
Vol/Sat:	0.15	0.57	0.00	0.00	0.50	0.50
Crit Moves:	****			****		
Green/Cycle:	0.16	0.71	0.00	0.00	0.55	0.55
Volume/Cap:	0.91	0.80	0.00	0.00	0.91	0.91
Delay/Veh:	71.0	13.2	0.0	0.0	32.1	32.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.0	13.2	0.0	0.0	32.1	32.1
LOS by Move:	E	B	A	A	C	C
HCM2kAvgQ:	12	24	0	0	30	30

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Average Delay (sec/veh): 22.4 Worst Case Level Of Service: F[509.5]

Street Name:	Highland Home Rd.				D St.				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	1	0	0	0	0	1	0	0
Volume Module:									
Base Vol:	135	1440	0	0	1078	34	24	0	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	1440	0	0	1078	34	24	0	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	135	1440	0	0	1078	34	24	0	96
Reduct Vol:	0	0	0	0	0	0	0	0	0
FinalVolume:	135	1440	0	0	1078	34	24	0	96

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1112	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	2805	2805	1095	xxxx	xxxx	xxxxxx
Potent Cap.:	635	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	20	19	262	xxxx	xxxx	xxxxxx
Move Cap.:	635	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	17	14	262	xxxx	xxxx	xxxxxx
Volume/Cap:	0.21	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	1.42	0.00	0.37	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.8	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Control Del:	12.2	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	67	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
SharedQueue:	0.8	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.8	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shrd ConDel:	12.2	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	510	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shared LOS:	B	*	*	*	*	*	*	F	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			509.5		xxxxxx				
ApproachLOS:	*			*			F		*			*	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Highland Home Rd.						Wilson St.							
North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1	0
Volume Module:													
Base Vol:	222	687	198	529	534	111	114	999	242	43	864	775	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	222	687	198	529	534	111	114	999	242	43	864	775	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	222	687	198	529	534	111	114	999	242	43	864	775	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	222	687	198	529	534	111	114	999	242	43	864	775	
Critical Gap Module:													
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	
Capacity Module:													
Cnflct Vol:	2133	3073	621	2409	2807	820	1639	xxxx	xxxxx	1241	xxxx	xxxxx	
Potent Cap.:	29	12	435	18	18	323	401	xxxx	xxxxx	568	xxxx	xxxxx	
Move Cap.:	0	8	435	0	12	323	401	xxxx	xxxxx	568	xxxx	xxxxx	
Volume/Cap:	xxxx83.98	0.45	xxxx43.66	0.34	0.28	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	
Level Of Service Module:													
2Way95thQ:	xxxx	87.8	2.3	xxxx	xxxx	xxxxx	1.2	xxxx	xxxxx	0.2	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	20.0	xxxxx	xxxx	xxxxx	17.5	xxxx	xxxxx	11.9	xxxx	xxxxx	
LOS by Move:	*	F	C	*	*	*	C	*	*	B	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	+Inf			xxxxxx			xxxxxx			xxxxxx			
ApproachLOS:	F			F			*			*			

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Scenario Report

Scenario:	Existing w PR am
Command:	Existing w PR am
Volume:	Existing w PR am
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing AM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.676
Loss Time (sec): 0 Average Delay (sec/veh): 19.9
Optimal Cycle: 0 Level Of Service: C

Street Name: Highland Springs Ave.

Brookside Ave.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1

Volume Module:

Base Vol:	237	57	32	127	84	1	1	32	217	61	61	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	237	57	32	127	84	1	1	32	217	61	61	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
PHF Volume:	296	71	40	159	105	1	1	40	271	76	76	305
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	296	71	40	159	105	1	1	40	271	76	76	305
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	296	71	40	159	105	1	1	40	271	76	76	305

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.64	0.36	0.60	0.39	0.01	0.01	0.12	0.87	0.50	0.50	1.00
Final Sat.:	437	308	173	258	171	2	2	61	413	225	225	510

Capacity Analysis Module:

Vol/Sat:	0.68	0.23	0.23	0.61	0.61	0.61	0.66	0.66	0.66	0.34	0.34	0.60
Crit Moves:	****			****			****					****
Delay/Veh:	24.5	12.0	12.0	21.4	21.4	21.4	21.4	21.4	21.4	14.1	14.1	18.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.5	12.0	12.0	21.4	21.4	21.4	21.4	21.4	21.4	14.1	14.1	18.2
LOS by Move:	C	B	B	C	C	C	C	C	C	B	B	C
ApproachDel:	21.1			21.4			21.4			16.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	21.1			21.4			21.4			16.8		
LOS by Appr:	C			C			C			C		
AllWayAvgQ:	1.7	0.3	0.3	1.3	1.3	1.3	1.5	1.5	1.5	0.5	0.5	1.2

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.612
Loss Time (sec): 8 Average Delay (sec/veh): 20.5
Optimal Cycle: 39 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	284	237	16	336	0	0	0	0	457	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	284	237	16	336	0	0	0	0	457	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	284	237	16	336	0	0	0	0	457	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	284	237	16	336	0	0	0	0	457	0	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	284	237	16	336	0	0	0	0	457	0	30

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.97	0.97	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	0.55	0.45	0.05	0.95	0.00	0.00	0.00	0.00	0.94	0.00	0.06
Final Sat.:	0	973	812	84	1763	0	0	0	0	1689	0	111

Capacity Analysis Module:

Vol/Sat:	0.00	0.29	0.29	0.19	0.19	0.00	0.00	0.00	0.00	0.27	0.00	0.27
Crit Moves:	****									****		
Green/Cycle:	0.00	0.48	0.48	0.48	0.48	0.00	0.00	0.00	0.00	0.44	0.00	0.44
Volume/Cap:	0.00	0.61	0.61	0.40	0.40	0.00	0.00	0.00	0.00	0.61	0.00	0.61
Delay/Veh:	0.0	20.6	20.6	17.2	17.2	0.0	0.0	0.0	0.0	22.7	0.0	22.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.6	20.6	17.2	17.2	0.0	0.0	0.0	0.0	22.7	0.0	22.7
LOS by Move:	A	C	C	B	B	A	A	A	A	C	A	C
HCM2kAvgQ:	0	12	12	7	7	0	0	0	0	12	0	12

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.961
Loss Time (sec): 12 Average Delay (sec/veh): 43.6
Optimal Cycle: 148 Level Of Service: D

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	215	438	79	32	721	39	22	142	251	152	274	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	215	438	79	32	721	39	22	142	251	152	274	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	258	526	95	38	867	47	26	171	302	183	329	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	526	95	38	867	47	26	171	302	183	329	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	258	526	95	38	867	47	26	171	302	183	329	73

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.99	0.99	0.18	1.00	0.85	0.53	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.95	0.05	1.00	1.00	1.00	1.00	0.82	0.18
Final Sat.:	1805	1900	1615	1805	1788	97	334	1900	1615	999	1512	337

Capacity Analysis Module:

Vol/Sat:	0.14	0.28	0.06	0.02	0.48	0.48	0.08	0.09	0.19	0.18	0.22	0.22
Crit Moves:	****			****						****		
Green/Cycle:	0.15	0.52	0.52	0.13	0.50	0.50	0.23	0.23	0.38	0.23	0.23	0.23
Volume/Cap:	0.96	0.53	0.11	0.16	0.96	0.96	0.35	0.40	0.50	0.81	0.96	0.96
Delay/Veh:	86.3	16.4	12.2	38.8	44.1	44.1	35.2	33.5	24.6	55.4	72.1	72.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	86.3	16.4	12.2	38.8	44.1	44.1	35.2	33.5	24.6	55.4	72.1	72.1
LOS by Move:	F	B	B	D	D	D	D	C	C	E	E	E
HCM2kAvgQ:	9	10	1	1	31	31	1	5	7	8	17	17

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.849
Loss Time (sec):	12	Average Delay (sec/veh):	31.8
Optimal Cycle:	90	Level Of Service:	C

Street Name:	Highland Springs Ave.						Starlight Ave.								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0

Volume Module:

Base Vol:	26	556	127	47	1033	142	80	79	169	244	152	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	556	127	47	1033	142	80	79	169	244	152	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	31	658	150	56	1222	168	95	93	200	289	180	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	658	150	56	1222	168	95	93	200	289	180	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	31	658	150	56	1222	168	95	93	200	289	180	108

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.95	0.93	0.93	0.46	0.90	0.90	0.45	0.94	0.94
Lanes:	1.00	1.63	0.37	1.00	1.76	0.24	1.00	0.32	0.68	1.00	0.63	0.37
Final Sat.:	1805	2856	652	1805	3117	428	866	544	1163	855	1122	672

Capacity Analysis Module:

Vol/Sat:	0.02	0.23	0.23	0.03	0.39	0.39	0.11	0.17	0.17	0.34	0.16	0.16
Crit Moves:	****			****						****		
Green/Cycle:	0.07	0.39	0.39	0.12	0.44	0.44	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.24	0.59	0.59	0.26	0.90	0.90	0.29	0.46	0.46	0.90	0.43	0.43
Delay/Veh:	45.0	25.1	25.1	40.8	33.9	33.9	22.4	24.1	24.1	56.4	23.7	23.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.0	25.1	25.1	40.8	33.9	33.9	22.4	24.1	24.1	56.4	23.7	23.7
LOS by Move:	D	C	C	D	C	C	C	C	C	E	C	C
HCM2kAvgQ:	1	10	10	1	20	20	2	7	7	12	7	7

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.881
Loss Time (sec): 16 Average Delay (sec/veh): 39.2
Optimal Cycle: 109 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	1	1	0	2

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	57	497	227	180	1068	154	51	141	101	354	179	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	497	227	180	1068	154	51	141	101	354	179	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	65	571	261	207	1226	177	59	162	116	406	206	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	571	261	207	1226	177	59	162	116	406	206	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	65	571	261	207	1226	177	59	162	116	406	206	152

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.93	0.93	0.95	0.89	0.89	0.95	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	1.75	0.25	1.00	1.17	0.83	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	3095	446	1805	1971	1412	1805	3610	1615

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.04	0.16	0.16	0.11	0.40	0.40	0.03	0.08	0.08	0.23	0.06	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.29	0.54	0.21	0.43	0.43	0.14	0.09	0.09	0.25	0.19	0.19
Volume/Cap:	0.52	0.54	0.30	0.54	0.91	0.91	0.23	0.91	0.91	0.91	0.30	0.49
Delay/Veh:	48.6	30.3	12.9	36.7	35.3	35.3	38.3	75.4	75.4	59.8	34.8	37.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	30.3	12.9	36.7	35.3	35.3	38.3	75.4	75.4	59.8	34.8	37.2
LOS by Move:	D	C	B	D	D	D	D	E	E	E	C	D
HCM2kAvgQ:	3	8	4	5	21	21	2	8	8	13	3	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.721
Loss Time (sec): 12 Average Delay (sec/veh): 27.6
Optimal Cycle: 62 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	6	0	0	122	0	213	111	380	1	0	423	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	122	0	213	111	380	1	0	423	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	7	0	0	143	0	249	130	444	1	0	495	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	0	143	0	249	130	444	1	0	495	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	0	0	143	0	249	130	444	1	0	495	74

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.82	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.98	0.98
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	0.87	0.13
Final Sat.:	1564	0	0	553	0	966	1805	1895	5	1900	1622	242

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.26	0.00	0.26	0.07	0.23	0.23	0.00	0.30	0.30
Crit Moves:				****				****				****
Green/Cycle:	0.36	0.00	0.00	0.36	0.00	0.36	0.10	0.52	0.52	0.00	0.42	0.42
Volume/Cap:	0.01	0.00	0.00	0.72	0.00	0.72	0.72	0.45	0.45	0.00	0.72	0.72
Delay/Veh:	20.8	0.0	0.0	32.6	0.0	32.6	56.9	15.2	15.2	0.0	27.2	27.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.8	0.0	0.0	32.6	0.0	32.6	56.9	15.2	15.2	0.0	27.2	27.2
LOS by Move:	C	A	A	C	A	C	E	B	B	A	C	C
HCM2kAvgQ:	0	0	0	12	0	12	4	8	8	0	14	14

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Cycle (sec): 100 Critical Vol./Cap.(X): 0.520
Loss Time (sec): 8 Average Delay (sec/veh): 18.9
Optimal Cycle: 33 Level Of Service: B

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	142	74	0	0	51	158	304	0	274	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	142	74	0	0	51	158	304	0	274	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	142	74	0	0	51	158	304	0	274	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	74	0	0	51	158	304	0	274	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	142	74	0	0	51	158	304	0	274	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.79	0.79	1.00	1.00	0.90	0.90	0.91	1.00	0.91	1.00	1.00	1.00
Lanes:	0.66	0.34	0.00	0.00	0.24	0.76	0.53	0.00	0.47	0.00	0.00	0.00
Final Sat.:	984	513	0	0	416	1290	911	0	821	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.14	0.14	0.00	0.00	0.12	0.12	0.33	0.00	0.33	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.28	0.28	0.00	0.00	0.28	0.28	0.64	0.00	0.64	0.00	0.00	0.00
Volume/Cap:	0.52	0.52	0.00	0.00	0.44	0.44	0.52	0.00	0.52	0.00	0.00	0.00
Delay/Veh:	31.7	31.7	0.0	0.0	30.4	30.4	10.0	0.0	10.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.7	31.7	0.0	0.0	30.4	30.4	10.0	0.0	10.0	0.0	0.0	0.0
LOS by Move:	C	C	A	A	C	C	B	A	B	A	A	A
HCM2kAvgQ:	5	5	0	0	6	6	10	0	10	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	12	Average Delay (sec/veh):	28.3
Optimal Cycle:	45	Level Of Service:	C

Street Name:	Highland Home Rd.						Wilson St.								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0

Volume Module:

Base Vol:	77	159	30	370	311	98	57	271	140	41	268	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	159	30	370	311	98	57	271	140	41	268	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	90	185	35	431	362	114	66	316	163	48	312	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	185	35	431	362	114	66	316	163	48	312	224
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	90	185	35	431	362	114	66	316	163	48	312	224

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.96	0.96	0.30	0.90	0.90	0.34	0.89	0.89
Lanes:	1.00	1.00	1.00	1.00	0.76	0.24	1.00	1.32	0.68	1.00	1.17	0.83
Final Sat.:	1805	1900	1615	1805	1393	439	570	2259	1167	656	1971	1412

Capacity Analysis Module:

Vol/Sat:	0.05	0.10	0.02	0.24	0.26	0.26	0.12	0.14	0.14	0.07	0.16	0.16
Crit Moves:	****			****						****		
Green/Cycle:	0.13	0.17	0.17	0.42	0.47	0.47	0.28	0.28	0.28	0.28	0.28	0.28
Volume/Cap:	0.39	0.56	0.12	0.56	0.55	0.55	0.41	0.50	0.50	0.26	0.56	0.56
Delay/Veh:	41.2	40.1	35.1	22.7	19.7	19.7	30.9	30.4	30.4	28.6	31.4	31.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.2	40.1	35.1	22.7	19.7	19.7	30.9	30.4	30.4	28.6	31.4	31.4
LOS by Move:	D	D	D	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	3	6	1	10	10	10	2	6	6	1	8	8

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Scenario Report

Scenario:	Existing w PR pm
Command:	Existing w PR pm
Volume:	Existing w PR pm
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing PM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.880
Loss Time (sec): 0 Average Delay (sec/veh): 24.5
Optimal Cycle: 0 Level Of Service: C

Street Name: Highland Springs Ave.

Brookside Ave.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Lanes:	1	0	0	1	0	0	0	0	1	0	1	0

Volume Module:

Base Vol:	200	123	71	282	93	0	2	71	184	49	49	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	123	71	282	93	0	2	71	184	49	49	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	220	135	78	310	102	0	2	78	202	54	54	218
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	135	78	310	102	0	2	78	202	54	54	218
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	220	135	78	310	102	0	2	78	202	54	54	218

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.63	0.37	0.75	0.25	0.00	0.01	0.28	0.71	0.50	0.50	1.00
Final Sat.:	435	303	175	352	116	0	3	124	322	209	209	470

Capacity Analysis Module:

Vol/Sat:	0.51	0.45	0.45	0.88	0.88	xxxx	0.63	0.63	0.63	0.26	0.26	0.46
Crit Moves:	****			****			****					****
Delay/Veh:	18.1	15.2	15.2	42.8	42.8	0.0	21.0	21.0	21.0	13.4	13.4	15.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.1	15.2	15.2	42.8	42.8	0.0	21.0	21.0	21.0	13.4	13.4	15.3
LOS by Move:	C	C	C	E	E	*	C	C	C	B	B	C
ApproachDel:	16.7			42.8			21.0			14.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	16.7			42.8			21.0			14.7		
LOS by Appr:	C			E			C			B		
AllWayAvgQ:	0.9	0.7	0.7	4.2	4.2	4.2	1.3	1.3	1.3	0.3	0.3	0.7

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.790
Loss Time (sec): 8 Average Delay (sec/veh): 21.3
Optimal Cycle: 63 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	356	529	35	278	0	0	0	0	371	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	356	529	35	278	0	0	0	0	371	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	356	529	35	278	0	0	0	0	371	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	356	529	35	278	0	0	0	0	371	0	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	356	529	35	278	0	0	0	0	371	0	25

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.92	0.92	0.87	0.87	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	0.40	0.60	0.11	0.89	0.00	0.00	0.00	0.00	0.94	0.00	0.06
Final Sat.:	0	702	1044	184	1465	0	0	0	0	1685	0	114

Capacity Analysis Module:

Vol/Sat:	0.00	0.51	0.51	0.19	0.19	0.00	0.00	0.00	0.00	0.22	0.00	0.22
Crit Moves:	****			****								
Green/Cycle:	0.00	0.64	0.64	0.64	0.64	0.00	0.00	0.00	0.00	0.28	0.00	0.28
Volume/Cap:	0.00	0.79	0.79	0.30	0.30	0.00	0.00	0.00	0.00	0.79	0.00	0.79
Delay/Veh:	0.0	16.9	16.9	8.1	8.1	0.0	0.0	0.0	0.0	41.7	0.0	41.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	16.9	16.9	8.1	8.1	0.0	0.0	0.0	0.0	41.7	0.0	41.7
LOS by Move:	A	B	B	A	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	19	19	4	4	0	0	0	0	13	0	13

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.846
Loss Time (sec): 12 Average Delay (sec/veh): 33.9
Optimal Cycle: 89 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	278	797	176	71	550	28	38	317	228	124	222	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	278	797	176	71	550	28	38	317	228	124	222	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	304	872	193	78	602	31	42	347	249	136	243	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	304	872	193	78	602	31	42	347	249	136	243	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	304	872	193	78	602	31	42	347	249	136	243	54

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.99	0.99	0.37	1.00	0.85	0.29	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.95	0.05	1.00	1.00	1.00	1.00	0.82	0.18
Final Sat.:	1805	1900	1615	1805	1795	91	699	1900	1615	559	1514	334

Capacity Analysis Module:

Vol/Sat:	0.17	0.46	0.12	0.04	0.34	0.34	0.06	0.18	0.15	0.24	0.16	0.16
Crit Moves:	****			****						****		
Green/Cycle:	0.20	0.53	0.53	0.07	0.40	0.40	0.28	0.28	0.48	0.28	0.28	0.28
Volume/Cap:	0.84	0.87	0.23	0.61	0.84	0.84	0.21	0.65	0.32	0.87	0.57	0.57
Delay/Veh:	54.3	28.5	12.7	53.9	35.5	35.5	28.1	34.5	16.2	70.7	32.4	32.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.3	28.5	12.7	53.9	35.5	35.5	28.1	34.5	16.2	70.7	32.4	32.4
LOS by Move:	D	C	B	D	D	D	C	C	B	E	C	C
HCM2kAvgQ:	9	23	3	2	19	19	1	10	5	7	8	8

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.871
Loss Time (sec): 12 Average Delay (sec/veh): 30.9
Optimal Cycle: 98 Level Of Service: C

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	0

Volume Module:	Highland Springs Ave.			Highland Springs Ave.			Starlight Ave.			Starlight Ave.		
Base Vol:	145	1140	282	106	762	102	143	176	75	198	124	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	1140	282	106	762	102	143	176	75	198	124	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	157	1231	305	114	823	110	154	190	81	214	134	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	157	1231	305	114	823	110	154	190	81	214	134	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	157	1231	305	114	823	110	154	190	81	214	134	80

Saturation Flow Module:	Highland Springs Ave.			Highland Springs Ave.			Starlight Ave.			Starlight Ave.		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.95	0.93	0.93	0.51	0.96	0.96	0.43	0.94	0.94
Lanes:	1.00	1.60	0.40	1.00	1.76	0.24	1.00	0.70	0.30	1.00	0.63	0.37
Final Sat.:	1805	2807	694	1805	3127	419	963	1272	542	808	1123	670

Capacity Analysis Module:	Highland Springs Ave.			Highland Springs Ave.			Starlight Ave.			Starlight Ave.		
Vol/Sat:	0.09	0.44	0.44	0.06	0.26	0.26	0.16	0.15	0.15	0.26	0.12	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.14	0.50	0.50	0.07	0.43	0.43	0.30	0.30	0.30	0.30	0.30	0.30
Volume/Cap:	0.61	0.87	0.87	0.87	0.61	0.61	0.53	0.49	0.49	0.87	0.39	0.39
Delay/Veh:	44.4	27.0	27.0	88.4	22.5	22.5	30.6	29.2	29.2	59.9	28.0	28.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.4	27.0	27.0	88.4	22.5	22.5	30.6	29.2	29.2	59.9	28.0	28.0
LOS by Move:	D	C	C	F	C	C	C	C	C	E	C	C
HCM2kAvgQ:	4	21	21	4	11	11	5	7	7	9	5	5

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.878
Loss Time (sec): 16 Average Delay (sec/veh): 33.3
Optimal Cycle: 108 Level Of Service: C

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	1	1	0	2

Volume Module:

Base Vol:	47	1317	426	118	861	60	82	169	49	308	136	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	1317	426	118	861	60	82	169	49	308	136	152
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	52	1465	474	131	958	67	91	188	55	343	151	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	1465	474	131	958	67	91	188	55	343	151	169
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	52	1465	474	131	958	67	91	188	55	343	151	169

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.94	0.94	0.95	0.92	0.92	0.95	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	1.87	0.13	1.00	1.55	0.45	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	3341	233	1805	2703	784	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.41	0.29	0.07	0.29	0.29	0.05	0.07	0.07	0.19	0.04	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.46	0.68	0.08	0.44	0.44	0.12	0.08	0.08	0.22	0.18	0.18
Volume/Cap:	0.27	0.88	0.43	0.88	0.65	0.65	0.43	0.88	0.88	0.88	0.24	0.59
Delay/Veh:	41.8	30.0	7.6	85.7	23.2	23.2	42.3	71.4	71.4	57.7	35.5	41.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.8	30.0	7.6	85.7	23.2	23.2	42.3	71.4	71.4	57.7	35.5	41.1
LOS by Move:	D	C	A	F	C	C	D	E	E	E	D	D
HCM2kAvgQ:	2	25	7	5	13	13	3	7	7	11	2	5

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.775
Loss Time (sec): 12 Average Delay (sec/veh): 28.9
Optimal Cycle: 72 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	0	1

Volume Module:	C St.			C St.			Wilson St.			Wilson St.		
Base Vol:	1	0	0	99	0	173	247	494	4	0	398	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	99	0	173	247	494	4	0	398	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	1	0	0	110	0	193	276	551	4	0	444	157
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	0	110	0	193	276	551	4	0	444	157
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	1	0	0	110	0	193	276	551	4	0	444	157

Saturation Flow Module:	C St.			C St.			Wilson St.			Wilson St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.96	0.96
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	0.74	0.26
Final Sat.:	1697	0	0	553	0	966	1805	1883	15	1900	1348	478

Capacity Analysis Module:	C St.			C St.			Wilson St.			Wilson St.		
Vol/Sat:	0.00	0.00	0.00	0.20	0.00	0.20	0.15	0.29	0.29	0.00	0.33	0.33
Crit Moves:				****				****				****
Green/Cycle:	0.26	0.00	0.00	0.26	0.00	0.26	0.20	0.62	0.62	0.00	0.43	0.43
Volume/Cap:	0.00	0.00	0.00	0.78	0.00	0.78	0.77	0.47	0.47	0.00	0.77	0.77
Delay/Veh:	27.6	0.0	0.0	43.8	0.0	43.8	48.2	10.4	10.4	0.0	29.5	29.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.6	0.0	0.0	43.8	0.0	43.8	48.2	10.4	10.4	0.0	29.5	29.5
LOS by Move:	C	A	A	D	A	D	D	B	B	A	C	C
HCM2kAvgQ:	0	0	0	11	0	11	8	9	9	0	16	16

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Cycle (sec): 100 Critical Vol./Cap.(X): 0.646
Loss Time (sec): 8 Average Delay (sec/veh): 21.2
Optimal Cycle: 42 Level Of Service: C

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	317	67	0	0	80	353	247	0	222	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	317	67	0	0	80	353	247	0	222	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	317	67	0	0	80	353	247	0	222	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	317	67	0	0	80	353	247	0	222	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	317	67	0	0	80	353	247	0	222	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.62	0.62	1.00	1.00	0.89	0.89	0.91	1.00	0.91	1.00	1.00	1.00
Lanes:	0.83	0.17	0.00	0.00	0.18	0.82	0.53	0.00	0.47	0.00	0.00	0.00
Final Sat.:	979	207	0	0	312	1379	912	0	820	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.32	0.32	0.00	0.00	0.26	0.26	0.27	0.00	0.27	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.50	0.50	0.00	0.00	0.50	0.50	0.42	0.00	0.42	0.00	0.00	0.00
Volume/Cap:	0.65	0.65	0.00	0.00	0.51	0.51	0.65	0.00	0.65	0.00	0.00	0.00
Delay/Veh:	20.9	20.9	0.0	0.0	17.3	17.3	25.2	0.0	25.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.9	20.9	0.0	0.0	17.3	17.3	25.2	0.0	25.2	0.0	0.0	0.0
LOS by Move:	C	C	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	8	8	0	0	9	9	12	0	12	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Approved Project With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.830
Loss Time (sec): 12 Average Delay (sec/veh): 34.4
Optimal Cycle: 84 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	159	360	40	301	249	77	112	332	105	30	297	428
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	360	40	301	249	77	112	332	105	30	297	428
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	181	409	45	342	283	88	127	377	119	34	338	486
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	409	45	342	283	88	127	377	119	34	338	486
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	181	409	45	342	283	88	127	377	119	34	338	486

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.97	0.97	0.21	0.92	0.92	0.39	0.87	0.87
Lanes:	1.00	1.00	1.00	1.00	0.76	0.24	1.00	1.52	0.48	1.00	1.00	1.00
Final Sat.:	1805	1900	1615	1805	1400	433	391	2644	836	743	1646	1646

Capacity Analysis Module:

Vol/Sat:	0.10	0.22	0.03	0.19	0.20	0.20	0.33	0.14	0.14	0.05	0.21	0.30
Crit Moves:	****			****			****					
Green/Cycle:	0.16	0.26	0.26	0.23	0.33	0.33	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.62	0.83	0.11	0.83	0.62	0.62	0.83	0.36	0.36	0.12	0.52	0.75
Delay/Veh:	43.1	46.2	28.3	49.9	30.4	30.4	57.3	21.7	21.7	19.6	23.6	29.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.1	46.2	28.3	49.9	30.4	30.4	57.3	21.7	21.7	19.6	23.6	29.3
LOS by Move:	D	D	C	D	C	C	E	C	C	B	C	C
HCM2kAvgQ:	6	14	1	11	9	9	4	5	5	1	9	15

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - AM Peak Hour

Scenario Report

Scenario:	Existing w PR am
Command:	Existing w PR am
Volume:	Existing w PR am
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing AM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.462
Loss Time (sec): 12 Average Delay (sec/veh): 18.2
Optimal Cycle: 40 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1		2	0	2	0	0	

Volume Module:

Base Vol:	0	247	278	161	272	0	0	0	0	527	0	305
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	247	278	161	272	0	0	0	0	527	0	305
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	247	278	161	272	0	0	0	0	527	0	305
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	247	278	161	272	0	0	0	0	527	0	305
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	247	278	161	272	0	0	0	0	527	0	305

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.92	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1615	3502	3610	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.07	0.17	0.05	0.08	0.00	0.00	0.00	0.00	0.29	0.00	0.19
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.15	0.78	0.10	0.25	0.00	0.00	0.00	0.00	0.63	0.00	0.73
Volume/Cap:	0.00	0.46	0.22	0.46	0.30	0.00	0.00	0.00	0.00	0.46	0.00	0.26
Delay/Veh:	0.0	39.6	3.0	43.5	30.8	0.0	0.0	0.0	0.0	9.8	0.0	4.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	39.6	3.0	43.5	30.8	0.0	0.0	0.0	0.0	9.8	0.0	4.6
LOS by Move:	A	D	A	D	C	A	A	A	A	A	A	A
HCM2kAvgQ:	0	4	2	3	4	0	0	0	0	8	0	3

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.860
Loss Time (sec): 16 Average Delay (sec/veh): 39.8
Optimal Cycle: 102 Level Of Service: D

Street Name: Highland Springs Ave.

Starlight Ave.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1

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Volume Module:

Base Vol: 26 565 117 44 1042 131 76 73 169 222 139 83

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 26 565 117 44 1042 131 76 73 169 222 139 83

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85

PHF Volume: 31 669 138 52 1233 155 90 86 200 263 164 98

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 31 669 138 52 1233 155 90 86 200 263 164 98

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 31 669 138 52 1233 155 90 86 200 263 164 98

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 0.93 0.93 0.95 0.93 0.93 0.95 0.90 0.90 0.95 1.00 0.85

Lanes: 1.00 1.66 0.34 1.00 1.78 0.22 1.00 0.30 0.70 1.00 1.00 1.00

Final Sat.: 1805 2913 603 1805 3152 396 1805 513 1188 1805 1900 1615

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Capacity Analysis Module:

Vol/Sat: 0.02 0.23 0.23 0.03 0.39 0.39 0.05 0.17 0.17 0.15 0.09 0.06

Crit Moves: **** **** **** ****

Green/Cycle: 0.07 0.38 0.38 0.12 0.43 0.43 0.15 0.18 0.18 0.16 0.19 0.19

Volume/Cap: 0.24 0.60 0.60 0.25 0.92 0.92 0.33 0.92 0.92 0.92 0.46 0.32

Delay/Veh: 45.0 25.6 25.6 40.8 36.0 36.0 38.4 70.2 70.2 73.4 36.9 35.6

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 45.0 25.6 25.6 40.8 36.0 36.0 38.4 70.2 70.2 73.4 36.9 35.6

LOS by Move: D C C D D D D E E E D D

HCM2kAvgQ: 1 10 10 1 21 21 3 12 12 12 5 3

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.861
Loss Time (sec): 16 Average Delay (sec/veh): 37.4
Optimal Cycle: 103 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	2

Volume Module:

Base Vol:	57	501	219	178	1064	149	48	138	101	335	171	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	501	219	178	1064	149	48	138	101	335	171	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	65	575	251	204	1222	171	55	158	116	385	196	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	575	251	204	1222	171	55	158	116	385	196	150
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	575	251	204	1222	171	55	158	116	385	196	150

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.93	0.93	0.95	0.89	0.89	0.95	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	1.75	0.25	1.00	1.15	0.85	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	3110	435	1805	1953	1429	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.04	0.16	0.16	0.11	0.39	0.39	0.03	0.08	0.08	0.21	0.05	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.30	0.54	0.21	0.44	0.44	0.14	0.09	0.09	0.24	0.19	0.19
Volume/Cap:	0.52	0.53	0.29	0.53	0.89	0.89	0.22	0.89	0.89	0.89	0.29	0.49
Delay/Veh:	48.6	29.8	12.9	36.5	32.7	32.7	38.4	71.1	71.1	57.0	35.1	37.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	29.8	12.9	36.5	32.7	32.7	38.4	71.1	71.1	57.0	35.1	37.6
LOS by Move:	D	C	B	D	C	C	D	E	E	E	D	D
HCM2kAvgQ:	3	8	4	5	20	20	2	7	7	12	3	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.679
Loss Time (sec): 12 Average Delay (sec/veh): 28.4
Optimal Cycle: 57 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	6	0	0	111	0	194	103	375	1	0	414	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	111	0	194	103	375	1	0	414	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	7	0	0	130	0	227	120	439	1	0	484	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	0	130	0	227	120	439	1	0	484	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	0	0	130	0	227	120	439	1	0	484	69

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.98	0.98
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	0.88	0.12
Final Sat.:	1571	0	0	554	0	969	1805	1895	5	1900	1631	232

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.23	0.07	0.23	0.23	0.00	0.30	0.30
Crit Moves:				****				****				****
Green/Cycle:	0.34	0.00	0.00	0.34	0.00	0.34	0.10	0.41	0.41	0.00	0.44	0.44
Volume/Cap:	0.01	0.00	0.00	0.68	0.00	0.68	0.68	0.56	0.56	0.00	0.68	0.68
Delay/Veh:	21.6	0.0	0.0	31.6	0.0	31.6	53.7	23.5	23.5	0.0	24.9	24.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.6	0.0	0.0	31.6	0.0	31.6	53.7	23.5	23.5	0.0	24.9	24.9
LOS by Move:	C	A	A	C	A	C	D	C	C	A	C	C
HCM2kAvgQ:	0	0	0	10	0	10	3	10	10	0	13	13

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.517
Loss Time (sec): 12 Average Delay (sec/veh): 27.4
Optimal Cycle: 42 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:	Highland Home Rd.			Wilson St.		
Base Vol:	73	162	30	338	312	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	162	30	338	312	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	85	189	35	394	364	105
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	85	189	35	394	364	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	85	189	35	394	364	105

Saturation Flow Module:	Highland Home Rd.			Wilson St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.78	0.22
Final Sat.:	1805	1900	1615	1805	1424	411

Capacity Analysis Module:	Highland Home Rd.			Wilson St.		
Vol/Sat:	0.05	0.10	0.02	0.22	0.26	0.26
Crit Moves:	****			****		
Green/Cycle:	0.09	0.18	0.18	0.40	0.49	0.49
Volume/Cap:	0.52	0.54	0.12	0.54	0.52	0.52
Delay/Veh:	46.2	38.8	34.3	23.7	17.8	17.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.2	38.8	34.3	23.7	17.8	17.8
LOS by Move:	D	D	C	C	B	B
HCM2kAvgQ:	3	6	1	10	10	10

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - PM Peak Hour

Scenario Report

Scenario: Existing w PR pm
Command: Existing w PR pm
Volume: Existing w PR pm
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Existing PM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.544
Loss Time (sec): 12 Average Delay (sec/veh): 19.5
Optimal Cycle: 44 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1		2	0	2	0	0	

Volume Module:

Base Vol:	0	281	610	353	222	0	0	0	0	431	0	250
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	281	610	353	222	0	0	0	0	431	0	250
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	281	610	353	222	0	0	0	0	431	0	250
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	281	610	353	222	0	0	0	0	431	0	250
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	281	610	353	222	0	0	0	0	431	0	250

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.92	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1615	3502	3610	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.38	0.10	0.06	0.00	0.00	0.00	0.00	0.24	0.00	0.15
Crit Moves:			****	****						****		
Green/Cycle:	0.00	0.26	0.69	0.19	0.44	0.00	0.00	0.00	0.00	0.44	0.00	0.62
Volume/Cap:	0.00	0.30	0.54	0.54	0.14	0.00	0.00	0.00	0.00	0.54	0.00	0.25
Delay/Veh:	0.0	30.2	8.0	37.9	16.7	0.0	0.0	0.0	0.0	21.4	0.0	8.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	30.2	8.0	37.9	16.7	0.0	0.0	0.0	0.0	21.4	0.0	8.5
LOS by Move:	A	C	A	D	B	A	A	A	A	C	A	A
HCM2kAvgQ:	0	3	9	6	2	0	0	0	0	10	0	3

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.881
Loss Time (sec): 16 Average Delay (sec/veh): 36.4
Optimal Cycle: 109 Level Of Service: D

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	145	1151	257	96	773	94	131	161	75	182	113	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	1151	257	96	773	94	131	161	75	182	113	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	157	1243	278	104	835	102	141	174	81	197	122	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	157	1243	278	104	835	102	141	174	81	197	122	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	157	1243	278	104	835	102	141	174	81	197	122	73

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.95	0.93	0.93	0.95	0.95	0.95	0.95	1.00	0.85
Lanes:	1.00	1.63	0.37	1.00	1.78	0.22	1.00	0.68	0.32	1.00	1.00	1.00
Final Sat.:	1805	2871	641	1805	3167	385	1805	1234	575	1805	1900	1615

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.09	0.43	0.43	0.06	0.26	0.26	0.08	0.14	0.14	0.11	0.06	0.05
Crit Moves:	****			****			****			****		
Green/Cycle:	0.14	0.49	0.49	0.07	0.42	0.42	0.15	0.16	0.16	0.12	0.13	0.13
Volume/Cap:	0.63	0.89	0.89	0.82	0.63	0.63	0.53	0.89	0.89	0.89	0.48	0.34
Delay/Veh:	45.7	29.1	29.1	78.8	23.7	23.7	41.2	67.6	67.6	75.1	41.6	40.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.7	29.1	29.1	78.8	23.7	23.7	41.2	67.6	67.6	75.1	41.6	40.3
LOS by Move:	D	C	C	E	C	C	D	E	E	E	D	D
HCM2kAvgQ:	4	22	22	3	11	11	5	11	11	9	4	2

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.861
Loss Time (sec): 16 Average Delay (sec/veh): 32.1
Optimal Cycle: 103 Level Of Service: C

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	2

Volume Module:

Base Vol:	47	1312	404	116	862	56	75	159	49	294	130	149
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	1312	404	116	862	56	75	159	49	294	130	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	52	1459	449	129	959	62	83	177	55	327	145	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	1459	449	129	959	62	83	177	55	327	145	166
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	52	1459	449	129	959	62	83	177	55	327	145	166

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.94	0.94	0.95	0.92	0.92	0.95	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	1.88	0.12	1.00	1.53	0.47	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	3359	218	1805	2663	821	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.40	0.28	0.07	0.29	0.29	0.05	0.07	0.07	0.18	0.04	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.47	0.68	0.08	0.44	0.44	0.12	0.08	0.08	0.21	0.17	0.17
Volume/Cap:	0.27	0.86	0.41	0.86	0.64	0.64	0.40	0.86	0.86	0.86	0.23	0.60
Delay/Veh:	41.6	28.4	7.3	81.8	22.6	22.6	42.1	69.1	69.1	55.9	36.0	42.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.6	28.4	7.3	81.8	22.6	22.6	42.1	69.1	69.1	55.9	36.0	42.0
LOS by Move:	D	C	A	F	C	C	D	E	E	E	D	D
HCM2kAvgQ:	2	24	6	4	12	12	3	6	6	10	2	5

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.725
Loss Time (sec): 12 Average Delay (sec/veh): 29.1
Optimal Cycle: 63 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	1	0	0	91	0	159	225	482	4	0	389	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	91	0	159	225	482	4	0	389	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	1	0	0	102	0	177	251	538	4	0	434	144
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	0	102	0	177	251	538	4	0	434	144
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	0	0	102	0	177	251	538	4	0	434	144

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.96	0.96
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	0.75	0.25
Final Sat.:	1701	0	0	554	0	969	1805	1882	16	1900	1374	456

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.18	0.14	0.29	0.29	0.00	0.32	0.32
Crit Moves:				****				****				****
Green/Cycle:	0.25	0.00	0.00	0.25	0.00	0.25	0.19	0.50	0.50	0.00	0.44	0.44
Volume/Cap:	0.00	0.00	0.00	0.73	0.00	0.73	0.73	0.57	0.57	0.00	0.73	0.73
Delay/Veh:	28.0	0.0	0.0	40.9	0.0	40.9	45.4	18.0	18.0	0.0	26.6	26.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.0	0.0	0.0	40.9	0.0	40.9	45.4	18.0	18.0	0.0	26.6	26.6
LOS by Move:	C	A	A	D	A	D	D	B	B	A	C	C
HCM2kAvgQ:	0	0	0	9	0	9	7	11	11	0	15	15

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 1 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 12 Average Delay (sec/veh): 32.2
Optimal Cycle: 70 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	147	360	40	276	252	71	102	330	97	30	294	391
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	147	360	40	276	252	71	102	330	97	30	294	391
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	167	409	45	314	286	81	116	375	110	34	334	444
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	409	45	314	286	81	116	375	110	34	334	444
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	167	409	45	314	286	81	116	375	110	34	334	444

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.97	0.97	0.21	0.92	0.92	0.39	0.87	0.87
Lanes:	1.00	1.00	1.00	1.00	0.78	0.22	1.00	1.55	0.45	1.00	1.00	1.00
Final Sat.:	1805	1900	1615	1805	1433	404	407	2695	792	741	1650	1650

Capacity Analysis Module:

Vol/Sat:	0.09	0.22	0.03	0.17	0.20	0.20	0.29	0.14	0.14	0.05	0.20	0.27
Crit Moves:	****			****			****					
Green/Cycle:	0.16	0.28	0.28	0.23	0.35	0.35	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.58	0.77	0.10	0.77	0.58	0.58	0.77	0.37	0.37	0.12	0.54	0.72
Delay/Veh:	41.6	39.5	26.7	44.6	27.9	27.9	48.2	23.1	23.1	20.9	25.2	29.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.6	39.5	26.7	44.6	27.9	27.9	48.2	23.1	23.1	20.9	25.2	29.4
LOS by Move:	D	D	C	D	C	C	D	C	C	C	C	C
HCM2kAvgQ:	6	13	1	11	10	10	3	5	5	1	9	14

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - AM Peak Hour

Scenario Report

Scenario:	Existing w PR am
Command:	Existing w PR am
Volume:	Existing w PR am
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing AM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.286
Loss Time (sec): 12 Average Delay (sec/veh): 22.7
Optimal Cycle: 40 Level Of Service: C

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	410	114	98	367	0	0	0	0	207	0	178
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	410	114	98	367	0	0	0	0	207	0	178
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	410	114	98	367	0	0	0	0	207	0	178
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	410	114	98	367	0	0	0	0	207	0	178
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	410	114	98	367	0	0	0	0	207	0	178

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.92	0.95	1.00	1.00	1.00	1.00	0.92	1.00	0.85
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.00	0.00	2.00	1.00	1.00
Final Sat.:	1900	3610	1615	3502	3610	1900	1900	1900	0	3502	1900	1615

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.11	0.07	0.03	0.10	0.00	0.00	0.00	0.00	0.06	0.00	0.11
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.40	0.78	0.10	0.29	0.00	0.00	0.00	0.00	0.39	0.00	0.39
Volume/Cap:	0.00	0.29	0.09	0.29	0.35	0.00	0.00	0.00	0.00	0.15	0.00	0.29
Delay/Veh:	0.0	20.6	2.6	42.3	28.0	0.0	0.0	0.0	0.0	20.1	0.0	21.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.6	2.6	42.3	28.0	0.0	0.0	0.0	0.0	20.1	0.0	21.5
LOS by Move:	A	C	A	D	C	A	A	A	A	C	A	C
HCM2kAvgQ:	0	4	1	2	5	0	0	0	0	2	0	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.488
Loss Time (sec): 8 Average Delay (sec/veh): 22.0
Optimal Cycle: 31 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	1	0	0	1	0	0	0	0	1

Volume Module:

Base Vol:	0	364	195	81	483	0	0	0	0	355	0	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	364	195	81	483	0	0	0	0	355	0	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	364	195	81	483	0	0	0	0	355	0	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	364	195	81	483	0	0	0	0	355	0	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	364	195	81	483	0	0	0	0	355	0	148

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.90	0.90	0.32	0.95	1.00	1.00	1.00	1.00	0.93	1.00	0.93
Lanes:	0.00	1.30	0.70	1.00	2.00	0.00	0.00	0.00	0.00	0.71	0.00	0.29
Final Sat.:	0	2228	1194	610	3610	0	0	0	0	1244	0	518

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.16	0.13	0.13	0.00	0.00	0.00	0.00	0.29	0.00	0.29
Crit Moves:	****									****		
Green/Cycle:	0.00	0.33	0.33	0.33	0.33	0.00	0.00	0.00	0.00	0.59	0.00	0.59
Volume/Cap:	0.00	0.49	0.49	0.40	0.40	0.00	0.00	0.00	0.00	0.49	0.00	0.49
Delay/Veh:	0.0	26.8	26.8	26.8	25.8	0.0	0.0	0.0	0.0	12.4	0.0	12.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	26.8	26.8	26.8	25.8	0.0	0.0	0.0	0.0	12.4	0.0	12.4
LOS by Move:	A	C	C	C	C	A	A	A	A	B	A	B
HCM2kAvgQ:	0	7	7	2	6	0	0	0	0	9	0	9

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.894
Loss Time (sec): 16 Average Delay (sec/veh): 44.0
Optimal Cycle: 114 Level Of Service: D

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	0

Volume Module:

Base Vol:	26	596	130	49	1077	138	82	81	169	237	148	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	596	130	49	1077	138	82	81	169	237	148	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	31	705	154	58	1275	163	97	96	200	280	175	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	705	154	58	1275	163	97	96	200	280	175	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	31	705	154	58	1275	163	97	96	200	280	175	105

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.95	0.93	0.93	0.95	0.90	0.90	0.95	0.94	0.94
Lanes:	1.00	1.64	0.36	1.00	1.77	0.23	1.00	0.32	0.68	1.00	0.62	0.38
Final Sat.:	1805	2884	629	1805	3146	403	1805	553	1155	1805	1120	674

Capacity Analysis Module:

Vol/Sat:	0.02	0.24	0.24	0.03	0.41	0.41	0.05	0.17	0.17	0.16	0.16	0.16
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.39	0.39	0.11	0.43	0.43	0.11	0.18	0.18	0.16	0.24	0.24
Volume/Cap:	0.24	0.64	0.64	0.29	0.95	0.95	0.50	0.95	0.95	0.95	0.66	0.66
Delay/Veh:	45.0	26.0	26.0	41.7	41.4	41.4	44.3	79.0	79.0	81.3	38.1	38.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.0	26.0	26.0	41.7	41.4	41.4	44.3	79.0	79.0	81.3	38.1	38.1
LOS by Move:	D	C	C	D	D	D	D	E	E	F	D	D
HCM2kAvgQ:	1	11	11	2	23	23	3	13	13	13	9	9

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.891
Loss Time (sec): 16 Average Delay (sec/veh): 39.7
Optimal Cycle: 113 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	1	1	0	2

Volume Module:

Base Vol:	57	540	230	180	1108	152	52	143	101	348	177	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	540	230	180	1108	152	52	143	101	348	177	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	65	620	264	207	1272	175	60	164	116	400	203	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	620	264	207	1272	175	60	164	116	400	203	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	620	264	207	1272	175	60	164	116	400	203	152

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.93	0.93	0.95	0.89	0.89	0.95	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	1.76	0.24	1.00	1.17	0.83	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	3117	428	1805	1985	1402	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.04	0.17	0.16	0.11	0.41	0.41	0.03	0.08	0.08	0.22	0.06	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.31	0.55	0.20	0.44	0.44	0.14	0.09	0.09	0.24	0.19	0.19
Volume/Cap:	0.52	0.56	0.30	0.56	0.92	0.92	0.24	0.92	0.92	0.92	0.30	0.50
Delay/Veh:	48.6	29.7	12.5	37.7	36.1	36.1	38.7	77.9	77.9	62.8	35.2	37.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	29.7	12.5	37.7	36.1	36.1	38.7	77.9	77.9	62.8	35.2	37.6
LOS by Move:	D	C	B	D	D	D	D	E	E	E	D	D
HCM2kAvgQ:	3	9	4	5	21	21	2	8	8	13	3	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.715
Loss Time (sec): 12 Average Delay (sec/veh): 29.9
Optimal Cycle: 61 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	6	0	0	118	0	207	114	382	1	0	421	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	118	0	207	114	382	1	0	421	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	7	0	0	138	0	242	133	447	1	0	492	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	0	138	0	242	133	447	1	0	492	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	0	0	138	0	242	133	447	1	0	492	76

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.82	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.98	0.98
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	0.87	0.13
Final Sat.:	1566	0	0	552	0	969	1805	1895	5	1900	1613	249

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.25	0.00	0.25	0.07	0.24	0.24	0.00	0.31	0.31
Crit Moves:				****				****				****
Green/Cycle:	0.35	0.00	0.00	0.35	0.00	0.35	0.10	0.41	0.41	0.00	0.43	0.43
Volume/Cap:	0.01	0.00	0.00	0.71	0.00	0.71	0.71	0.58	0.58	0.00	0.71	0.71
Delay/Veh:	21.3	0.0	0.0	32.8	0.0	32.8	55.8	23.9	23.9	0.0	26.7	26.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.3	0.0	0.0	32.8	0.0	32.8	55.8	23.9	23.9	0.0	26.7	26.7
LOS by Move:	C	A	A	C	A	C	E	C	C	A	C	C
HCM2kAvgQ:	0	0	0	11	0	11	4	10	10	0	14	14

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.572
Loss Time (sec): 12 Average Delay (sec/veh): 28.6
Optimal Cycle: 46 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:	Highland Home Rd.			Wilson St.		
Base Vol:	79	180	30	360	332	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	180	30	360	332	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	92	210	35	420	387	112
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	92	210	35	420	387	112
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	92	210	35	420	387	112

Saturation Flow Module:	Highland Home Rd.			Wilson St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.78	0.22
Final Sat.:	1805	1900	1615	1805	1424	412

Capacity Analysis Module:	Highland Home Rd.			Wilson St.		
Vol/Sat:	0.05	0.11	0.02	0.23	0.27	0.27
Crit Moves:	****			****		
Green/Cycle:	0.12	0.19	0.19	0.41	0.48	0.48
Volume/Cap:	0.42	0.57	0.11	0.57	0.57	0.57
Delay/Veh:	41.8	38.8	33.4	24.0	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.8	38.8	33.4	24.0	19.7	19.7
LOS by Move:	D	D	C	C	B	B
HCM2kAvgQ:	3	7	1	10	11	11

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - PM Peak Hour

Scenario Report

Scenario: Existing w PR pm
Command: Existing w PR pm
Volume: Existing w PR pm
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Existing PM

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.327
Loss Time (sec): 12 Average Delay (sec/veh): 22.3
Optimal Cycle: 40 Level Of Service: C

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	417	237	203	408	0	0	0	0	168	0	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	417	237	203	408	0	0	0	0	168	0	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	456	259	222	446	0	0	0	0	184	0	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	456	259	222	446	0	0	0	0	184	0	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	456	259	222	446	0	0	0	0	184	0	158

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.92	0.95	1.00	1.00	1.00	1.00	0.92	1.00	0.85
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.00	0.00	2.00	1.00	1.00
Final Sat.:	1900	3610	1615	3502	3610	1900	1900	1900	0	3502	1900	1615

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.13	0.16	0.06	0.12	0.00	0.00	0.00	0.00	0.05	0.00	0.10
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.39	0.69	0.19	0.37	0.00	0.00	0.00	0.00	0.30	0.00	0.30
Volume/Cap:	0.00	0.33	0.23	0.33	0.33	0.00	0.00	0.00	0.00	0.18	0.00	0.33
Delay/Veh:	0.0	21.6	6.0	34.9	22.7	0.0	0.0	0.0	0.0	26.0	0.0	27.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	21.6	6.0	34.9	22.7	0.0	0.0	0.0	0.0	26.0	0.0	27.6
LOS by Move:	A	C	A	C	C	A	A	A	A	C	A	C
HCM2kAvgQ:	0	5	3	3	5	0	0	0	0	2	0	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/ F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.651
Loss Time (sec): 8 Average Delay (sec/veh): 16.9
Optimal Cycle: 43 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	1	0	0	1	0	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	521	406	169	394	0	0	0	0	288	0	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	521	406	169	394	0	0	0	0	288	0	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	521	406	169	394	0	0	0	0	288	0	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	521	406	169	394	0	0	0	0	288	0	120
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	521	406	169	394	0	0	0	0	288	0	120

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.89	0.89	0.24	0.95	1.00	1.00	1.00	1.00	0.93	1.00	0.93
Lanes:	0.00	1.12	0.88	1.00	2.00	0.00	0.00	0.00	0.00	0.71	0.00	0.29
Final Sat.:	0	1895	1477	460	3610	0	0	0	0	1244	0	518

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound			
Vol/Sat:	0.00	0.27	0.27	0.37	0.11	0.00	0.00	0.00	0.00	0.23	0.00	0.23	
Crit Moves:				****							****		
Green/Cycle:	0.00	0.56	0.56	0.56	0.56	0.00	0.00	0.00	0.00	0.36	0.00	0.36	
Volume/Cap:	0.00	0.49	0.49	0.65	0.19	0.00	0.00	0.00	0.00	0.65	0.00	0.65	
Delay/Veh:	0.0	13.3	13.3	20.8	10.7	0.0	0.0	0.0	0.0	29.5	0.0	29.5	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	0.0	13.3	13.3	20.8	10.7	0.0	0.0	0.0	0.0	29.5	0.0	29.5	
LOS by Move:	A	B	B	C	B	A	A	A	A	C	A	C	
HCM2kAvgQ:	0	8	8	4	3	0	0	0	0	11	0	11	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.914
Loss Time (sec): 16 Average Delay (sec/veh): 39.8
Optimal Cycle: 122 Level Of Service: D

Street Name: Highland Springs Ave.

Starlight Ave.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0

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Volume Module:

Base Vol: 145 1183 270 101 797 99 137 169 75 192 120 72

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 145 1183 270 101 797 99 137 169 75 192 120 72

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93

PHF Volume: 157 1278 292 109 861 107 148 183 81 207 130 78

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 157 1278 292 109 861 107 148 183 81 207 130 78

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 157 1278 292 109 861 107 148 183 81 207 130 78

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 0.92 0.92 0.95 0.93 0.93 0.95 0.95 0.95 0.95 0.94 0.94

Lanes: 1.00 1.63 0.37 1.00 1.78 0.22 1.00 0.69 0.31 1.00 0.62 0.38

Final Sat.: 1805 2857 652 1805 3160 392 1805 1255 557 1805 1121 673

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Capacity Analysis Module:

Vol/Sat: 0.09 0.45 0.45 0.06 0.27 0.27 0.08 0.15 0.15 0.11 0.12 0.12

Crit Moves: **** **** **** ****

Green/Cycle: 0.13 0.49 0.49 0.07 0.42 0.42 0.12 0.16 0.16 0.13 0.17 0.17

Volume/Cap: 0.65 0.92 0.92 0.86 0.65 0.65 0.70 0.92 0.92 0.92 0.70 0.70

Delay/Veh: 46.9 32.3 32.3 87.9 23.9 23.9 52.2 74.1 74.1 81.6 46.5 46.5

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 46.9 32.3 32.3 87.9 23.9 23.9 52.2 74.1 74.1 81.6 46.5 46.5

LOS by Move: D C C F C C D E E F D D

HCM2kAvgQ: 4 23 23 4 12 12 6 12 12 10 7 7

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.885
Loss Time (sec): 16 Average Delay (sec/veh): 33.4
Optimal Cycle: 111 Level Of Service: C

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	47	1352	416	117	892	59	79	164	49	303	134	151
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	1352	416	117	892	59	79	164	49	303	134	151
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	52	1504	463	130	992	66	88	182	55	337	149	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	1504	463	130	992	66	88	182	55	337	149	168
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	1504	463	130	992	66	88	182	55	337	149	168

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.94	0.94	0.95	0.92	0.92	0.95	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	1.88	0.12	1.00	1.54	0.46	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	3356	222	1805	2685	802	1805	3610	1615

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.03	0.42	0.29	0.07	0.30	0.30	0.05	0.07	0.07	0.19	0.04	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.47	0.68	0.08	0.45	0.45	0.12	0.08	0.08	0.21	0.17	0.17
Volume/Cap:	0.27	0.88	0.42	0.88	0.66	0.66	0.42	0.88	0.88	0.88	0.24	0.60
Delay/Veh:	42.0	30.0	7.4	87.7	22.8	22.8	42.5	73.3	73.3	59.4	36.0	42.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.0	30.0	7.4	87.7	22.8	22.8	42.5	73.3	73.3	59.4	36.0	42.0
LOS by Move:	D	C	A	F	C	C	D	E	E	E	D	D
HCM2kAvgQ:	2	25	6	4	13	13	3	6	6	11	2	5

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.754
Loss Time (sec): 12 Average Delay (sec/veh): 30.4
Optimal Cycle: 68 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	0	1

Volume Module:	C St.			C St.			Wilson St.			Wilson St.		
Base Vol:	1	0	0	96	0	168	237	488	4	0	395	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	96	0	168	237	488	4	0	395	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	1	0	0	107	0	188	265	545	4	0	441	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	0	107	0	188	265	545	4	0	441	151
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	1	0	0	107	0	188	265	545	4	0	441	151

Saturation Flow Module:	C St.			C St.			Wilson St.			Wilson St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.96	0.96
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	0.75	0.25
Final Sat.:	1699	0	0	553	0	968	1805	1883	15	1900	1362	466

Capacity Analysis Module:	C St.			C St.			Wilson St.			Wilson St.		
Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.19	0.15	0.29	0.29	0.00	0.32	0.32
Crit Moves:				****				****				****
Green/Cycle:	0.26	0.00	0.00	0.26	0.00	0.26	0.19	0.50	0.50	0.00	0.43	0.43
Volume/Cap:	0.00	0.00	0.00	0.75	0.00	0.75	0.75	0.58	0.58	0.00	0.75	0.75
Delay/Veh:	27.6	0.0	0.0	42.4	0.0	42.4	47.0	18.3	18.3	0.0	28.3	28.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.6	0.0	0.0	42.4	0.0	42.4	47.0	18.3	18.3	0.0	28.3	28.3
LOS by Move:	C	A	A	D	A	D	D	B	B	A	C	C
HCM2kAvgQ:	0	0	0	10	0	10	7	11	11	0	15	15

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
Existing With Project Alt. 2 With Improvements Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818
Loss Time (sec): 12 Average Delay (sec/veh): 34.1
Optimal Cycle: 81 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	153	379	40	292	266	75	107	331	102	30	296	411
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	153	379	40	292	266	75	107	331	102	30	296	411
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	174	431	45	332	302	85	122	376	116	34	336	467
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	431	45	332	302	85	122	376	116	34	336	467
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	174	431	45	332	302	85	122	376	116	34	336	467

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.97	0.97	0.21	0.92	0.92	0.39	0.87	0.87
Lanes:	1.00	1.00	1.00	1.00	0.78	0.22	1.00	1.53	0.47	1.00	1.00	1.00
Final Sat.:	1805	1900	1615	1805	1433	404	393	2663	821	737	1648	1648

Capacity Analysis Module:

Vol/Sat:	0.10	0.23	0.03	0.18	0.21	0.21	0.31	0.14	0.14	0.05	0.20	0.28
Crit Moves:	****			****			****					
Green/Cycle:	0.16	0.28	0.28	0.22	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.61	0.82	0.10	0.82	0.61	0.61	0.82	0.37	0.37	0.12	0.54	0.75
Delay/Veh:	43.2	43.5	27.0	49.1	29.0	29.0	56.6	22.7	22.7	20.5	24.7	30.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.2	43.5	27.0	49.1	29.0	29.0	56.6	22.7	22.7	20.5	24.7	30.0
LOS by Move:	D	D	C	D	C	C	E	C	C	C	C	C
HCM2kAvgQ:	6	15	1	10	10	10	4	5	5	1	9	15

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Scenario Report

Scenario: buildout wp am
Command: buildout wp am
Volume: buildout wp am
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.630
 Loss Time (sec): 16 Average Delay (sec/veh): 32.8
 Optimal Cycle: 60 Level Of Service: C

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	2

Volume Module:

Base Vol:	206	180	103	233	366	113	46	220	201	274	423	334
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	180	103	233	366	113	46	220	201	274	423	334
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	180	103	233	366	113	46	220	201	274	423	334
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	180	103	233	366	113	46	220	201	274	423	334
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	206	180	103	233	366	113	46	220	201	274	423	334

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.92	0.92	0.95	0.88	0.88	0.95	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	1.53	0.47	1.00	1.05	0.95	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	2662	822	1805	1751	1599	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.11	0.05	0.06	0.13	0.14	0.14	0.03	0.13	0.13	0.15	0.12	0.21
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.14	0.38	0.26	0.22	0.22	0.16	0.20	0.20	0.24	0.28	0.53
Volume/Cap:	0.63	0.35	0.17	0.50	0.63	0.63	0.15	0.63	0.63	0.63	0.42	0.39
Delay/Veh:	41.8	39.3	20.6	32.4	37.1	37.1	36.0	38.6	38.6	36.9	30.0	13.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.8	39.3	20.6	32.4	37.1	37.1	36.0	38.6	38.6	36.9	30.0	13.9
LOS by Move:	D	D	C	C	D	D	D	D	D	D	C	B
HCM2kAvgQ:	6	3	2	6	8	8	1	7	7	8	5	6

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.300
Loss Time (sec): 8 Average Delay (sec/veh): 3.9
Optimal Cycle: 29 Level Of Service: A

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	32	296	0	0	424	48	25	0	17	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	296	0	0	424	48	25	0	17	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	296	0	0	424	48	25	0	17	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	296	0	0	424	48	25	0	17	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	32	296	0	0	424	48	25	0	17	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	1.00	1.00	0.99	0.99	0.92	1.00	0.92	1.00	1.00	1.00
Lanes:	0.10	0.90	0.00	0.00	0.90	0.10	0.60	0.00	0.40	0.00	0.00	0.00
Final Sat.:	173	1603	0	0	1683	191	1038	0	706	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.18	0.18	0.00	0.00	0.25	0.25	0.02	0.00	0.02	0.00	0.00	0.00
Crit Moves:				****			****					
Green/Cycle:	0.84	0.84	0.00	0.00	0.84	0.84	0.08	0.00	0.08	0.00	0.00	0.00
Volume/Cap:	0.22	0.22	0.00	0.00	0.30	0.30	0.30	0.00	0.30	0.00	0.00	0.00
Delay/Veh:	1.7	1.7	0.0	0.0	1.8	1.8	44.5	0.0	44.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	1.7	1.7	0.0	0.0	1.8	1.8	44.5	0.0	44.5	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	2	2	0	0	3	3	2	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.612
Loss Time (sec): 8 Average Delay (sec/veh): 21.0
Optimal Cycle: 39 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	284	237	16	491	0	0	0	0	457	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	284	237	16	491	0	0	0	0	457	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	284	237	16	491	0	0	0	0	457	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	284	237	16	491	0	0	0	0	457	0	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	284	237	16	491	0	0	0	0	457	0	30

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.98	0.98	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	0.55	0.45	0.03	0.97	0.00	0.00	0.00	0.00	0.94	0.00	0.06
Final Sat.:	0	973	812	59	1803	0	0	0	0	1689	0	111

Capacity Analysis Module:

Vol/Sat:	0.00	0.29	0.29	0.27	0.27	0.00	0.00	0.00	0.00	0.27	0.00	0.27
Crit Moves:	****			****								
Green/Cycle:	0.00	0.48	0.48	0.48	0.48	0.00	0.00	0.00	0.00	0.44	0.00	0.44
Volume/Cap:	0.00	0.61	0.61	0.57	0.57	0.00	0.00	0.00	0.00	0.61	0.00	0.61
Delay/Veh:	0.0	20.6	20.6	19.6	19.6	0.0	0.0	0.0	0.0	22.7	0.0	22.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.6	20.6	19.6	19.6	0.0	0.0	0.0	0.0	22.7	0.0	22.7
LOS by Move:	A	C	C	B	B	A	A	A	A	C	A	C
HCM2kAvgQ:	0	12	12	11	11	0	0	0	0	12	0	12

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.685
Loss Time (sec): 12 Average Delay (sec/veh): 30.0
Optimal Cycle: 57 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	367	438	79	32	863	39	22	142	568	152	274	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	367	438	79	32	863	39	22	142	568	152	274	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	367	438	79	32	863	39	22	142	568	152	274	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	367	438	79	32	863	39	22	142	568	152	274	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	367	438	79	32	863	39	22	142	568	152	274	61

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.94	0.94	0.72	1.00	0.85	0.83	0.83	0.83
Lanes:	2.00	1.69	0.31	1.00	1.91	0.09	1.00	1.00	1.00	0.31	0.56	0.13
Final Sat.:	3502	2988	539	1805	3433	155	1368	1900	1615	494	890	198

Capacity Analysis Module:

Vol/Sat:	0.10	0.15	0.15	0.02	0.25	0.25	0.02	0.07	0.35	0.31	0.31	0.31
Crit Moves:	****			****			****					
Green/Cycle:	0.15	0.35	0.35	0.17	0.37	0.37	0.36	0.36	0.51	0.36	0.36	0.36
Volume/Cap:	0.69	0.42	0.42	0.11	0.69	0.69	0.04	0.21	0.69	0.85	0.85	0.85
Delay/Veh:	43.8	24.8	24.8	35.4	28.3	28.3	20.8	22.3	20.7	41.6	41.6	41.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.8	24.8	24.8	35.4	28.3	28.3	20.8	22.3	20.7	41.6	41.6	41.6
LOS by Move:	D	C	C	D	C	C	C	C	C	D	D	D
HCM2kAvgQ:	6	6	6	1	12	12	0	3	14	17	17	17

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.952
 Loss Time (sec): 16 Average Delay (sec/veh): 46.6
 Optimal Cycle: 142 Level Of Service: D

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	219	692	127	47	1223	334	85	79	330	244	152	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	219	692	127	47	1223	334	85	79	330	244	152	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	219	692	127	47	1223	334	85	79	330	244	152	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	219	692	127	47	1223	334	85	79	330	244	152	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	219	692	127	47	1223	334	85	79	330	244	152	91

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.94	0.94
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	0.63	0.37
Final Sat.:	1805	3610	1615	1805	3610	1615	1805	1900	1615	1805	1122	672

Capacity Analysis Module:

Vol/Sat:	0.12	0.19	0.08	0.03	0.34	0.21	0.05	0.04	0.20	0.14	0.14	0.14
Crit Moves:	****			****			****		****	****		
Green/Cycle:	0.13	0.35	0.35	0.13	0.36	0.36	0.12	0.21	0.21	0.14	0.24	0.24
Volume/Cap:	0.95	0.54	0.22	0.20	0.95	0.58	0.39	0.19	0.95	0.95	0.58	0.58
Delay/Veh:	89.2	26.3	22.8	39.3	46.5	27.7	41.6	32.4	74.5	85.5	35.8	35.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	89.2	26.3	22.8	39.3	46.5	27.7	41.6	32.4	74.5	85.5	35.8	35.8
LOS by Move:	F	C	C	D	D	C	D	C	E	F	D	D
HCM2kAvgQ:	8	9	3	1	21	8	3	2	15	12	7	7

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.758
 Loss Time (sec): 16 Average Delay (sec/veh): 31.5
 Optimal Cycle: 78 Level Of Service: C

Street Name:	Highland Springs Ave.						8th St.-Wilson St.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Ovl			Include			Include			Include			
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	1	2	0	2	0	1	2	0	1

Volume Module:

Base Vol:	57	691	266	204	1206	154	65	162	101	730	290	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	691	266	204	1206	154	65	162	101	730	290	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	691	266	204	1206	154	65	162	101	730	290	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	691	266	204	1206	154	65	162	101	730	290	139
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	691	266	204	1206	154	65	162	101	730	290	139

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.92	0.95	0.85	0.95	0.95	0.85	0.92	0.95	0.85
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1805	3610	1615	3502	3610	1615	1805	3610	1615	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.19	0.16	0.06	0.33	0.10	0.04	0.04	0.06	0.21	0.08	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.36	0.63	0.13	0.43	0.43	0.15	0.08	0.08	0.27	0.19	0.19
Volume/Cap:	0.45	0.53	0.26	0.44	0.79	0.22	0.23	0.56	0.79	0.79	0.42	0.45
Delay/Veh:	47.2	25.5	8.4	40.6	27.6	18.4	37.5	46.9	71.8	38.6	36.1	36.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	25.5	8.4	40.6	27.6	18.4	37.5	46.9	71.8	38.6	36.1	36.9
LOS by Move:	D	C	A	D	C	B	D	D	E	D	D	D
HCM2kAvgQ:	2	9	4	3	16	3	2	3	5	11	4	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.664
Loss Time (sec): 12 Average Delay (sec/veh): 25.8
Optimal Cycle: 55 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	6	0	0	122	0	213	111	516	1	0	1022	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	122	0	213	111	516	1	0	1022	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	0	0	122	0	213	111	516	1	0	1022	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	0	0	122	0	213	111	516	1	0	1022	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	0	0	122	0	213	111	516	1	0	1022	63

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.94	0.94
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	1.88	0.12
Final Sat.:	1592	0	0	555	0	968	1805	1896	4	1900	3370	208

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.22	0.00	0.22	0.06	0.27	0.27	0.00	0.30	0.30
Crit Moves:				****				****				****
Green/Cycle:	0.33	0.00	0.00	0.33	0.00	0.33	0.09	0.44	0.44	0.00	0.46	0.46
Volume/Cap:	0.01	0.00	0.00	0.66	0.00	0.66	0.66	0.62	0.62	0.00	0.66	0.66
Delay/Veh:	22.5	0.0	0.0	32.0	0.0	32.0	53.6	23.3	23.3	0.0	22.3	22.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.5	0.0	0.0	32.0	0.0	32.0	53.6	23.3	23.3	0.0	22.3	22.3
LOS by Move:	C	A	A	C	A	C	D	C	C	A	C	C
HCM2kAvgQ:	0	0	0	10	0	10	3	12	12	0	13	13

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Cycle (sec): 100 Critical Vol./Cap.(X): 0.799
 Loss Time (sec): 12 Average Delay (sec/veh): 43.1
 Optimal Cycle: 123 Level Of Service: D

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	2	0	0	1	0	0	0

Volume Module:

Base Vol:	142	702	0	0	400	158	304	0	274	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	142	702	0	0	400	158	304	0	274	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	142	702	0	0	400	158	304	0	274	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	702	0	0	400	158	304	0	274	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	142	702	0	0	400	158	304	0	274	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.95	0.85	0.91	1.00	0.91	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	2.00	1.00	0.53	0.00	0.47	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	3610	1615	911	0	821	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.08	0.37	0.00	0.00	0.11	0.10	0.33	0.00	0.33	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.40	0.52	0.00	0.00	0.12	0.12	0.36	0.00	0.36	0.00	0.00	0.00
Volume/Cap:	0.20	0.71	0.00	0.00	0.92	0.82	0.92	0.00	0.94	0.00	0.00	0.00
Delay/Veh:	19.7	20.8	0.0	0.0	69.2	65.9	50.4	0.0	53.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.7	20.8	0.0	0.0	69.2	65.9	50.4	0.0	53.1	0.0	0.0	0.0
LOS by Move:	B	C	A	A	E	E	D	A	D	A	A	A
HCM2kAvgQ:	3	16	0	0	7	5	21	0	22	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
 Loss Time (sec): 12 Average Delay (sec/veh): 32.3
 Optimal Cycle: 74 Level Of Service: C

Street Name:	Beaumont Rd.-G St						Highland Home Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	0	0	0	0	0	0	1

Volume Module:

Base Vol:	0	290	139	167	506	0	0	0	0	371	0	555
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	290	139	167	506	0	0	0	0	371	0	555
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	290	139	167	506	0	0	0	0	371	0	555
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	290	139	167	506	0	0	0	0	371	0	555
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	290	139	167	506	0	0	0	0	371	0	555

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1615	1805	1900	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.09	0.09	0.27	0.00	0.00	0.00	0.00	0.21	0.00	0.34
Crit Moves:	****						****					
Green/Cycle:	0.00	0.10	0.10	0.34	0.44	0.00	0.00	0.00	0.00	0.44	0.00	0.44
Volume/Cap:	0.00	0.78	0.84	0.27	0.60	0.00	0.00	0.00	0.00	0.47	0.00	0.78
Delay/Veh:	0.0	54.3	74.2	24.3	22.5	0.0	0.0	0.0	0.0	20.3	0.0	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	54.3	74.2	24.3	22.5	0.0	0.0	0.0	0.0	20.3	0.0	29.8
LOS by Move:	A	D	E	C	C	A	A	A	A	C	A	C
HCM2kAvgQ:	0	5	5	3	11	0	0	0	0	8	0	16

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Highland Home Rd./F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.789
 Loss Time (sec): 12 Average Delay (sec/veh): 24.1
 Optimal Cycle: 75 Level Of Service: C

Street Name:	Highland Home Rd.						F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	1	0	0

Volume Module:	Highland Home Rd.			Highland Home Rd.			F St.			F St.		
Base Vol:	127	414	0	0	903	0	0	0	244	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	414	0	0	903	0	0	0	244	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	414	0	0	903	0	0	0	244	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	414	0	0	903	0	0	0	244	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	414	0	0	903	0	0	0	244	0	0	0

Saturation Flow Module:	Highland Home Rd.			Highland Home Rd.			F St.			F St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1900	0	0	0	1644	0	0	0

Capacity Analysis Module:	Highland Home Rd.			Highland Home Rd.			F St.			F St.		
Vol/Sat:	0.07	0.22	0.00	0.00	0.48	0.00	0.00	0.00	0.15	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.09	0.69	0.00	0.00	0.60	0.00	0.00	0.00	0.19	0.00	0.00	0.00
Volume/Cap:	0.79	0.31	0.00	0.00	0.79	0.00	0.00	0.00	0.79	0.00	0.00	0.00
Delay/Veh:	67.1	6.2	0.0	0.0	18.8	0.0	0.0	0.0	51.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.1	6.2	0.0	0.0	18.8	0.0	0.0	0.0	51.4	0.0	0.0	0.0
LOS by Move:	E	A	A	A	B	A	A	A	D	A	A	A
HCM2kAvgQ:	4	5	0	0	21	0	0	0	9	0	0	0

 Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.810
 Loss Time (sec): 8 Average Delay (sec/veh): 14.9
 Optimal Cycle: 68 Level Of Service: B

Street Name:	Highland Home Rd.						D St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	111	511	0	0	1121	16	30	0	213	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	111	511	0	0	1121	16	30	0	213	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	111	511	0	0	1121	16	30	0	213	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	511	0	0	1121	16	30	0	213	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	111	511	0	0	1121	16	30	0	213	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.39	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.88	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.99	0.01	0.12	0.00	0.88	0.00	0.00	0.00
Final Sat.:	737	1900	0	0	1870	27	206	0	1460	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.15	0.27	0.00	0.00	0.60	0.60	0.15	0.00	0.15	0.00	0.00	0.00
Crit Moves:	****						****					
Green/Cycle:	0.74	0.74	0.00	0.00	0.74	0.74	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.20	0.36	0.00	0.00	0.81	0.81	0.81	0.00	0.81	0.00	0.00	0.00
Delay/Veh:	4.2	4.8	0.0	0.0	12.1	12.1	54.5	0.0	54.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.2	4.8	0.0	0.0	12.1	12.1	54.5	0.0	54.5	0.0	0.0	0.0
LOS by Move:	A	A	A	A	B	B	D	A	D	A	A	A
HCM2kAvgQ:	1	5	0	0	22	22	9	0	9	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.686
Loss Time (sec): 12 Average Delay (sec/veh): 25.2
Optimal Cycle: 58 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	2

Volume Module:

Base Vol:	77	223	30	615	568	150	159	289	180	118	895	239
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	223	30	615	568	150	159	289	180	118	895	239
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	223	30	615	568	150	159	289	180	118	895	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	223	30	615	568	150	159	289	180	118	895	239
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	77	223	30	615	568	150	159	289	180	118	895	239

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.92	0.92	0.92	0.24	0.89	0.89	0.44	0.95	0.85
Lanes:	1.00	1.76	0.24	2.00	1.58	0.42	1.00	1.23	0.77	1.00	2.00	1.00
Final Sat.:	1805	3125	420	3502	2767	731	447	2095	1305	844	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.04	0.07	0.07	0.18	0.21	0.21	0.36	0.14	0.14	0.14	0.25	0.15
Crit Moves:	****			****			****					
Green/Cycle:	0.07	0.11	0.11	0.26	0.30	0.30	0.51	0.51	0.51	0.51	0.51	0.77
Volume/Cap:	0.61	0.67	0.67	0.67	0.69	0.69	0.69	0.27	0.27	0.27	0.48	0.19
Delay/Veh:	53.6	47.9	47.9	35.2	33.2	33.2	27.2	13.8	13.8	14.1	15.9	3.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.6	47.9	47.9	35.2	33.2	33.2	27.2	13.8	13.8	14.1	15.9	3.1
LOS by Move:	D	D	D	D	C	C	C	B	B	B	B	A
HCM2kAvgQ:	3	5	5	8	10	10	4	4	4	2	9	2

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Scenario Report

Scenario: buildout wp pm
Command: buildout wp pm
Volume: buildout wp pm
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.973
 Loss Time (sec): 16 Average Delay (sec/veh): 51.8
 Optimal Cycle: 155 Level Of Service: D

Street Name: Highland Springs Ave.

Brookside Ave.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Ovl Include Include Ovl

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 2 0 1

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Volume Module:

Base Vol: 176 737 523 474 404 102 225 462 148 316 427 377

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 176 737 523 474 404 102 225 462 148 316 427 377

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 176 737 523 474 404 102 225 462 148 316 427 377

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 176 737 523 474 404 102 225 462 148 316 427 377

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 176 737 523 474 404 102 225 462 148 316 427 377

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 0.95 0.85 0.95 0.92 0.92 0.95 0.92 0.92 0.95 0.95 0.85

Lanes: 1.00 2.00 1.00 1.00 1.60 0.40 1.00 1.51 0.49 1.00 2.00 1.00

Final Sat.: 1805 3610 1615 1805 2796 706 1805 2636 844 1805 3610 1615

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Capacity Analysis Module:

Vol/Sat: 0.10 0.20 0.32 0.26 0.14 0.14 0.12 0.18 0.18 0.18 0.12 0.23

Crit Moves: **** *

Green/Cycle: 0.19 0.21 0.39 0.27 0.29 0.29 0.18 0.18 0.18 0.18 0.18 0.45

Volume/Cap: 0.50 0.97 0.83 0.97 0.50 0.50 0.67 0.97 0.97 0.97 0.67 0.52

Delay/Veh: 37.2 65.2 36.7 69.8 30.2 30.2 43.3 69.8 69.8 83.2 41.4 20.8

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 37.2 65.2 36.7 69.8 30.2 30.2 43.3 69.8 69.8 83.2 41.4 20.8

LOS by Move: D E D E C C D E E F D C

HCM2kAvgQ: 5 14 15 20 7 7 8 15 15 12 7 8

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs Ave./16th St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.513
 Loss Time (sec): 8 Average Delay (sec/veh): 12.8
 Optimal Cycle: 33 Level Of Service: B

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	26	598	0	0	401	111	202	0	36	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	598	0	0	401	111	202	0	36	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	598	0	0	401	111	202	0	36	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	598	0	0	401	111	202	0	36	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	26	598	0	0	401	111	202	0	36	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	0.97	0.97	0.94	1.00	0.94	1.00	1.00	1.00
Lanes:	0.04	0.96	0.00	0.00	0.78	0.22	0.85	0.00	0.15	0.00	0.00	0.00
Final Sat.:	77	1766	0	0	1445	400	1516	0	270	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.34	0.34	0.00	0.00	0.28	0.28	0.13	0.00	0.13	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.66	0.66	0.00	0.00	0.66	0.66	0.26	0.00	0.26	0.00	0.00	0.00
Volume/Cap:	0.51	0.51	0.00	0.00	0.42	0.42	0.51	0.00	0.51	0.00	0.00	0.00
Delay/Veh:	9.1	9.1	0.0	0.0	8.2	8.2	32.6	0.0	32.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.1	9.1	0.0	0.0	8.2	8.2	32.6	0.0	32.6	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	C	A	C	A	A	A
HCM2kAvgQ:	9	9	0	0	7	7	7	0	7	0	0	0

 Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.972
 Loss Time (sec): 8 Average Delay (sec/veh): 35.3
 Optimal Cycle: 163 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	0	0	0	0	0	0	0

Volume Module:

Base Vol:	0	676	529	35	448	0	0	0	0	371	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	676	529	35	448	0	0	0	0	371	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	676	529	35	448	0	0	0	0	371	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	676	529	35	448	0	0	0	0	371	0	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	676	529	35	448	0	0	0	0	371	0	25

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.87	0.87	1.00	1.00	1.00	1.00	0.95	1.00	0.95
Lanes:	0.00	0.56	0.44	0.07	0.93	0.00	0.00	0.00	0.00	0.94	0.00	0.06
Final Sat.:	0	1003	785	120	1539	0	0	0	0	1685	0	114

Capacity Analysis Module:

Vol/Sat:	0.00	0.67	0.67	0.29	0.29	0.00	0.00	0.00	0.00	0.22	0.00	0.22
Crit Moves:	****			****								
Green/Cycle:	0.00	0.69	0.69	0.69	0.69	0.00	0.00	0.00	0.00	0.23	0.00	0.23
Volume/Cap:	0.00	0.97	0.97	0.42	0.42	0.00	0.00	0.00	0.00	0.97	0.00	0.97
Delay/Veh:	0.0	33.5	33.5	6.9	6.9	0.0	0.0	0.0	0.0	75.5	0.0	75.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	33.5	33.5	6.9	6.9	0.0	0.0	0.0	0.0	75.5	0.0	75.5
LOS by Move:	A	C	C	A	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	39	39	6	6	0	0	0	0	17	0	17

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.753
Loss Time (sec): 12 Average Delay (sec/veh): 30.3
Optimal Cycle: 68 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	851	1010	176	71	702	30	142	317	741	124	222	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	851	1010	176	71	702	30	142	317	741	124	222	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	851	1010	176	71	702	30	142	317	741	124	222	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	851	1010	176	71	702	30	142	317	741	124	222	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	851	1010	176	71	702	30	142	317	741	124	222	49

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.94	0.94	0.59	1.00	0.85	0.78	0.78	0.78
Lanes:	2.00	1.70	0.30	1.00	1.92	0.08	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	3502	3007	524	1805	3441	147	1112	1900	1615	466	835	184

Capacity Analysis Module:

Vol/Sat:	0.24	0.34	0.34	0.04	0.20	0.20	0.13	0.17	0.46	0.27	0.27	0.27
Crit Moves:	****			****			****					
Green/Cycle:	0.32	0.49	0.49	0.10	0.27	0.27	0.29	0.29	0.61	0.29	0.29	0.29
Volume/Cap:	0.75	0.68	0.68	0.38	0.75	0.75	0.45	0.58	0.75	0.93	0.93	0.93
Delay/Veh:	33.2	20.6	20.6	43.3	36.8	36.8	30.2	32.2	17.4	61.3	61.3	61.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.2	20.6	20.6	43.3	36.8	36.8	30.2	32.2	17.4	61.3	61.3	61.3
LOS by Move:	C	C	C	D	D	D	C	C	B	E	E	E
HCM2kAvgQ:	11	13	13	2	11	11	4	9	18	16	16	16

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.978
 Loss Time (sec): 16 Average Delay (sec/veh): 52.0
 Optimal Cycle: 159 Level Of Service: D

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0

Volume Module:

Base Vol:	319	1718	282	106	1255	286	319	176	219	198	124	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	319	1718	282	106	1255	286	319	176	219	198	124	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	319	1718	282	106	1255	286	319	176	219	198	124	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	319	1718	282	106	1255	286	319	176	219	198	124	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	319	1718	282	106	1255	286	319	176	219	198	124	74

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.94	0.94
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	0.63	0.37
Final Sat.:	1805	3610	1615	1805	3610	1615	1805	1900	1615	1805	1123	670

Capacity Analysis Module:

Vol/Sat:	0.18	0.48	0.17	0.06	0.35	0.18	0.18	0.09	0.14	0.11	0.11	0.11
Crit Moves:	****			****			****			****		
Green/Cycle:	0.19	0.48	0.48	0.07	0.36	0.36	0.18	0.16	0.16	0.13	0.11	0.11
Volume/Cap:	0.95	0.99	0.36	0.84	0.95	0.49	0.99	0.58	0.85	0.85	0.99	0.99
Delay/Veh:	77.1	45.2	16.7	82.5	45.9	25.1	88.6	41.6	62.8	66.4	105	105.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	77.1	45.2	16.7	82.5	45.9	25.1	88.6	41.6	62.8	66.4	105	105.3
LOS by Move:	E	D	B	F	D	C	F	D	E	E	F	F
HCM2kAvgQ:	9	28	5	3	21	6	15	6	9	9	10	10

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.985
 Loss Time (sec): 16 Average Delay (sec/veh): 48.4
 Optimal Cycle: 165 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Ovl			Include			Include			Include			
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	1	2	0	2	0	1	2	0	1

Volume Module:

Base Vol:	26	1482	426	361	955	159	167	709	49	333	512	358
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	1482	426	361	955	159	167	709	49	333	512	358
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	1482	426	361	955	159	167	709	49	333	512	358
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1482	426	361	955	159	167	709	49	333	512	358
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	1482	426	361	955	159	167	709	49	333	512	358

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.92	0.95	0.85	0.95	0.95	0.85	0.92	0.95	0.85
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1805	3610	1615	3502	3610	1615	1805	3610	1615	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.41	0.26	0.10	0.26	0.10	0.09	0.20	0.03	0.10	0.14	0.22
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.42	0.52	0.10	0.41	0.41	0.09	0.21	0.21	0.10	0.22	0.22
Volume/Cap:	0.13	0.99	0.51	0.99	0.64	0.24	0.99	0.91	0.14	0.91	0.63	0.99
Delay/Veh:	40.6	48.6	16.1	87.7	24.5	19.4	109.9	53.7	32.0	71.2	36.6	81.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.6	48.6	16.1	87.7	24.5	19.4	109.9	53.7	32.0	71.2	36.6	81.8
LOS by Move:	D	D	B	F	C	B	F	D	C	E	D	F
HCM2kAvgQ:	1	31	9	6	11	3	9	15	1	6	7	13

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.974
 Loss Time (sec): 12 Average Delay (sec/veh): 47.1
 Optimal Cycle: 159 Level Of Service: D

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	1	0	0	99	0	173	247	1283	4	0	1100	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	99	0	173	247	1283	4	0	1100	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	0	0	99	0	173	247	1283	4	0	1100	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	0	99	0	173	247	1283	4	0	1100	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	0	0	99	0	173	247	1283	4	0	1100	141

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.93	0.93
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	1.77	0.23
Final Sat.:	1807	0	0	552	0	964	1805	1894	6	1900	3145	403

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.18	0.14	0.68	0.68	0.00	0.35	0.35
Crit Moves:				****				****				****
Green/Cycle:	0.17	0.00	0.00	0.17	0.00	0.17	0.20	0.64	0.64	0.00	0.51	0.51
Volume/Cap:	0.00	0.00	0.00	1.06	0.00	1.06	0.68	1.06	1.06	0.00	0.68	0.68
Delay/Veh:	34.5	0.0	0.0	113.7	0.0	113.7	42.5	60.5	60.5	0.0	19.5	19.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.5	0.0	0.0	113.7	0.0	113.7	42.5	60.5	60.5	0.0	19.5	19.5
LOS by Move:	C	A	A	F	A	F	D	E	E	A	B	B
HCM2kAvgQ:	0	0	0	14	0	14	7	48	48	0	15	15

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Cycle (sec): 100 Critical Vol./Cap.(X): 0.848
 Loss Time (sec): 12 Average Delay (sec/veh): 34.5
 Optimal Cycle: 90 Level Of Service: C

Street Name:	Highland Home Rd.						Northern Loop						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Permitted			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	0	2	0	1	0	0	1	0	0

Volume Module:

Base Vol:	317	862	0	0	1082	353	247	0	222	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	317	862	0	0	1082	353	247	0	222	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	317	862	0	0	1082	353	247	0	222	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	317	862	0	0	1082	353	247	0	222	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	317	862	0	0	1082	353	247	0	222	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.95	0.85	0.91	1.00	0.91	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	2.00	1.00	0.53	0.00	0.47	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	3610	1615	912	0	820	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.18	0.45	0.00	0.00	0.30	0.22	0.27	0.00	0.27	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.21	0.56	0.00	0.00	0.35	0.35	0.32	0.00	0.31	0.00	0.00	0.00
Volume/Cap:	0.85	0.81	0.00	0.00	0.85	0.62	0.85	0.00	0.88	0.00	0.00	0.00
Delay/Veh:	54.5	22.4	0.0	0.0	35.3	28.8	43.5	0.0	47.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.5	22.4	0.0	0.0	35.3	28.8	43.5	0.0	47.6	0.0	0.0	0.0
LOS by Move:	D	C	A	A	D	C	D	A	D	A	A	A
HCM2kAvgQ:	9	20	0	0	17	9	16	0	17	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.983
 Loss Time (sec): 12 Average Delay (sec/veh): 52.6
 Optimal Cycle: 169 Level Of Service: D

Street Name:	Beaumont Rd.-G St						Highland Home Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	0	0	0	0	0	0	1

Volume Module:

Base Vol:	0	774	326	720	586	0	0	0	0	263	0	406
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	774	326	720	586	0	0	0	0	263	0	406
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	774	326	720	586	0	0	0	0	263	0	406
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	774	326	720	586	0	0	0	0	263	0	406
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	774	326	720	586	0	0	0	0	263	0	406

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1615	1805	1900	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.21	0.20	0.40	0.31	0.00	0.00	0.00	0.00	0.15	0.00	0.25
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.22	0.22	0.41	0.62	0.00	0.00	0.00	0.00	0.26	0.00	0.26
Volume/Cap:	0.00	0.98	0.93	0.98	0.49	0.00	0.00	0.00	0.00	0.57	0.00	0.98
Delay/Veh:	0.0	66.6	67.9	58.1	10.5	0.0	0.0	0.0	0.0	34.1	0.0	76.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	66.6	67.9	58.1	10.5	0.0	0.0	0.0	0.0	34.1	0.0	76.6
LOS by Move:	A	E	E	E	B	A	A	A	A	C	A	E
HCM2kAvgQ:	0	14	11	24	9	0	0	0	0	8	0	18

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.822
 Loss Time (sec): 12 Average Delay (sec/veh): 24.6
 Optimal Cycle: 82 Level Of Service: C

Street Name:	Highland Home Rd.						F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	1	0	0

Volume Module:	Highland Home Rd.			F St.		
Base Vol:	282	1029	0	0	849	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	282	1029	0	0	849	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	282	1029	0	0	849	0
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	282	1029	0	0	849	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	282	1029	0	0	849	0

Saturation Flow Module:	Highland Home Rd.			F St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.00	0.00
Final Sat.:	1805	1900	0	0	1900	0

Capacity Analysis Module:	Highland Home Rd.			F St.		
Vol/Sat:	0.16	0.54	0.00	0.00	0.45	0.00
Crit Moves:	****			****		
Green/Cycle:	0.19	0.73	0.00	0.00	0.54	0.00
Volume/Cap:	0.82	0.74	0.00	0.00	0.82	0.00
Delay/Veh:	53.6	9.9	0.0	0.0	24.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.6	9.9	0.0	0.0	24.2	0.0
LOS by Move:	D	A	A	A	C	A
HCM2kAvgQ:	8	17	0	0	22	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Highland Home Rd./D St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.891
 Loss Time (sec): 8 Average Delay (sec/veh): 15.0
 Optimal Cycle: 95 Level Of Service: B

Street Name:	Highland Home Rd.						D St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	247	1331	0	0	996	35	25	0	173	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	247	1331	0	0	996	35	25	0	173	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	247	1331	0	0	996	35	25	0	173	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	247	1331	0	0	996	35	25	0	173	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	247	1331	0	0	996	35	25	0	173	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.37	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.88	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.97	0.03	0.13	0.00	0.87	0.00	0.00	0.00
Final Sat.:	701	1900	0	0	1826	64	210	0	1455	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.35	0.70	0.00	0.00	0.55	0.55	0.12	0.00	0.12	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.79	0.79	0.00	0.00	0.79	0.79	0.13	0.00	0.13	0.00	0.00	0.00
Volume/Cap:	0.45	0.89	0.00	0.00	0.69	0.69	0.89	0.00	0.89	0.00	0.00	0.00
Delay/Veh:	4.1	14.7	0.0	0.0	6.4	6.4	75.3	0.0	75.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.1	14.7	0.0	0.0	6.4	6.4	75.3	0.0	75.3	0.0	0.0	0.0
LOS by Move:	A	B	A	A	A	A	E	A	E	A	A	A
HCM2kAvgQ:	2	29	0	0	14	14	9	0	9	0	0	0

 Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Approved Project With Improvements Conditions

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.839
Loss Time (sec): 12 Average Delay (sec/veh): 33.4
Optimal Cycle: 87 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	2

Volume Module:

Base Vol:	228	668	198	538	517	113	119	1000	245	43	865	792
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	228	668	198	538	517	113	119	1000	245	43	865	792
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	228	668	198	538	517	113	119	1000	245	43	865	792
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	668	198	538	517	113	119	1000	245	43	865	792
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	228	668	198	538	517	113	119	1000	245	43	865	792

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.92	0.92	0.92	0.27	0.92	0.92	0.15	0.95	0.85
Lanes:	1.00	1.54	0.46	2.00	1.64	0.36	1.00	1.61	0.39	1.00	2.00	1.00
Final Sat.:	1805	2690	797	3502	2883	630	511	2813	689	281	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.13	0.25	0.25	0.15	0.18	0.18	0.23	0.36	0.36	0.15	0.24	0.49
Crit Moves:	****			****						****		
Green/Cycle:	0.20	0.30	0.30	0.18	0.28	0.28	0.40	0.40	0.40	0.40	0.40	0.58
Volume/Cap:	0.64	0.84	0.84	0.84	0.64	0.64	0.58	0.89	0.89	0.38	0.60	0.84
Delay/Veh:	40.7	39.2	39.2	49.1	32.9	32.9	27.5	35.0	35.0	23.3	24.3	23.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.7	39.2	39.2	49.1	32.9	32.9	27.5	35.0	35.0	23.3	24.3	23.7
LOS by Move:	D	D	D	D	C	C	C	C	C	C	C	C
HCM2kAvgQ:	7	16	16	9	9	9	3	17	17	1	11	22

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Scenario Report

Scenario: buildout wp am
Command: buildout wp am
Volume: buildout wp am
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.627
 Loss Time (sec): 12 Average Delay (sec/veh): 20.4
 Optimal Cycle: 51 Level Of Service: C

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	591	482	0	0	588	113	46	0	417	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	591	482	0	0	588	113	46	0	417	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	591	482	0	0	588	113	46	0	417	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	591	482	0	0	588	113	46	0	417	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	591	482	0	0	588	113	46	0	417	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.93	0.93	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.68	0.32	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	2955	568	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.33	0.25	0.00	0.00	0.20	0.20	0.03	0.00	0.26	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.50	0.63	0.00	0.00	0.31	0.31	0.07	0.00	0.57	0.00	0.00	0.00
Volume/Cap:	0.65	0.40	0.00	0.00	0.65	0.65	0.36	0.00	0.45	0.00	0.00	0.00
Delay/Veh:	20.0	9.2	0.0	0.0	31.5	31.5	46.2	0.0	12.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.0	9.2	0.0	0.0	31.5	31.5	46.2	0.0	12.6	0.0	0.0	0.0
LOS by Move:	B	A	A	A	C	C	D	A	B	A	A	A
HCM2kAvgQ:	13	7	0	0	11	11	2	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.280
 Loss Time (sec): 8 Average Delay (sec/veh): 2.5
 Optimal Cycle: 29 Level Of Service: A

Street Name: Highland Springs Ave. 16th St.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 0 0 0 2 0 1 1 0 0 0 0 0 0

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Volume Module:

Base Vol: 41 879 0 0 801 37 25 0 16 0 0 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 41 879 0 0 801 37 25 0 16 0 0 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 41 879 0 0 801 37 25 0 16 0 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 41 879 0 0 801 37 25 0 16 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 41 879 0 0 801 37 25 0 16 0 0 0

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.34 0.95 1.00 1.00 0.95 0.85 0.95 1.00 0.85 1.00 1.00 1.00

Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00

Final Sat.: 650 3610 0 0 3610 1615 1805 0 1615 0 0 0

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Capacity Analysis Module:

Vol/Sat: 0.06 0.24 0.00 0.00 0.22 0.02 0.01 0.00 0.01 0.00 0.00 0.00

Crit Moves: ****

Green/Cycle: 0.85 0.85 0.00 0.00 0.85 0.85 0.07 0.00 0.07 0.00 0.00 0.00

Volume/Cap: 0.07 0.29 0.00 0.00 0.26 0.03 0.20 0.00 0.14 0.00 0.00 0.00

Delay/Veh: 1.3 1.5 0.0 0.0 1.5 1.2 44.6 0.0 44.3 0.0 0.0 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 1.3 1.5 0.0 0.0 1.5 1.2 44.6 0.0 44.3 0.0 0.0 0.0

LOS by Move: A A A A A A D A D A A A

HCM2kAvgQ: 0 3 0 0 3 0 1 0 1 0 0 0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.584
 Loss Time (sec): 12 Average Delay (sec/veh): 21.6
 Optimal Cycle: 47 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1		2	0	2	0	0	

Volume Module:

Base Vol:	0	306	349	260	622	0	0	0	0	617	0	600
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	306	349	260	622	0	0	0	0	617	0	600
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	306	349	260	622	0	0	0	0	617	0	600
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	306	349	260	622	0	0	0	0	617	0	600
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	306	349	260	622	0	0	0	0	617	0	600

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.92	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1615	3502	3610	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.22	0.07	0.17	0.00	0.00	0.00	0.00	0.34	0.00	0.37
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.18	0.72	0.16	0.27	0.00	0.00	0.00	0.00	0.54	0.00	0.70
Volume/Cap:	0.00	0.47	0.30	0.47	0.63	0.00	0.00	0.00	0.00	0.63	0.00	0.53
Delay/Veh:	0.0	37.1	5.1	38.8	33.4	0.0	0.0	0.0	0.0	17.6	0.0	7.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	37.1	5.1	38.8	33.4	0.0	0.0	0.0	0.0	17.6	0.0	7.7
LOS by Move:	A	D	A	D	C	A	A	A	A	B	A	A
HCM2kAvgQ:	0	4	4	4	9	0	0	0	0	14	0	9

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.777
 Loss Time (sec): 12 Average Delay (sec/veh): 31.5
 Optimal Cycle: 72 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	359	579	73	29	1159	39	21	132	565	139	250	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	359	579	73	29	1159	39	21	132	565	139	250	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	359	579	73	29	1159	39	21	132	565	139	250	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	359	579	73	29	1159	39	21	132	565	139	250	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	359	579	73	29	1159	39	21	132	565	139	250	56

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.95	0.95	0.73	1.00	0.85	0.84	0.84	0.84
Lanes:	2.00	1.78	0.22	1.00	1.93	0.07	1.00	1.00	1.00	0.31	0.56	0.13
Final Sat.:	3502	3151	397	1805	3475	117	1391	1900	1615	496	893	200

Capacity Analysis Module:

Vol/Sat:	0.10	0.18	0.18	0.02	0.33	0.33	0.02	0.07	0.35	0.28	0.28	0.28
Crit Moves:	****			****			****					
Green/Cycle:	0.13	0.41	0.41	0.15	0.43	0.43	0.32	0.32	0.45	0.32	0.32	0.32
Volume/Cap:	0.78	0.45	0.45	0.10	0.78	0.78	0.05	0.22	0.78	0.88	0.88	0.88
Delay/Veh:	50.1	21.8	21.8	36.5	27.0	27.0	23.6	25.1	28.5	48.3	48.3	48.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.1	21.8	21.8	36.5	27.0	27.0	23.6	25.1	28.5	48.3	48.3	48.3
LOS by Move:	D	C	C	D	C	C	C	C	C	D	D	D
HCM2kAvgQ:	6	7	7	1	17	17	0	3	16	16	16	16

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.917
Loss Time (sec): 16 Average Delay (sec/veh): 43.3
Optimal Cycle: 138 Level Of Service: D

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	1	0	1	2

Volume Module:

Base Vol:	219	831	117	44	1464	373	81	73	330	222	139	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	219	831	117	44	1464	373	81	73	330	222	139	83
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	219	831	117	44	1464	373	81	73	330	222	139	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	219	831	117	44	1464	373	81	73	330	222	139	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	219	831	117	44	1464	373	81	73	330	222	139	83

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.95	1.00	0.85	0.92	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	1805	1900	1615	3502	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.12	0.23	0.07	0.02	0.41	0.23	0.04	0.04	0.20	0.06	0.07	0.05
Crit Moves:	****			****			****		****	****		
Green/Cycle:	0.13	0.46	0.46	0.12	0.44	0.44	0.13	0.22	0.22	0.07	0.16	0.16
Volume/Cap:	0.92	0.50	0.16	0.21	0.92	0.52	0.35	0.17	0.92	0.92	0.45	0.32
Delay/Veh:	87.9	23.1	19.1	48.5	40.1	25.0	48.5	37.9	73.1	91.7	46.5	45.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	87.9	23.1	19.1	48.5	40.1	25.0	48.5	37.9	73.1	91.7	46.5	45.1
LOS by Move:	F	C	B	D	D	C	D	D	E	F	D	D
HCM2kAvgQ:	9	11	2	1	27	9	3	2	16	7	5	3

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.754
Loss Time (sec): 16 Average Delay (sec/veh): 32.6
Optimal Cycle: 77 Level Of Service: C

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	1	0	1	1	0	1

Volume Module:

Base Vol:	57	737	216	397	1131	115	93	128	101	772	305	194
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	737	216	397	1131	115	93	128	101	772	305	194
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	737	216	397	1131	115	93	128	101	772	305	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	737	216	397	1131	115	93	128	101	772	305	194
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	737	216	397	1131	115	93	128	101	772	305	194

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.85	0.92	0.95	0.85	0.95	0.89	0.89	0.92	0.95	0.85
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	1.00	1.12	0.88	2.00	2.00	1.00
Final Sat.:	1805	5187	1615	3502	3610	1615	1805	1885	1487	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.14	0.13	0.11	0.31	0.07	0.05	0.07	0.07	0.22	0.08	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.26	0.54	0.21	0.40	0.40	0.17	0.09	0.09	0.28	0.20	0.41
Volume/Cap:	0.45	0.54	0.25	0.54	0.78	0.18	0.31	0.78	0.78	0.78	0.42	0.29
Delay/Veh:	47.2	32.2	12.1	36.1	29.0	19.5	37.1	57.4	57.4	37.1	35.2	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	32.2	12.1	36.1	29.0	19.5	37.1	57.4	57.4	37.1	35.2	20.0
LOS by Move:	D	C	B	D	C	B	D	E	E	D	D	B
HCM2kAvgQ:	2	8	3	5	15	2	3	6	6	11	4	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.676
Loss Time (sec): 12 Average Delay (sec/veh): 23.9
Optimal Cycle: 56 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	6	0	0	111	0	194	103	632	1	0	1153	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	111	0	194	103	632	1	0	1153	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	0	0	111	0	194	103	632	1	0	1153	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	0	0	111	0	194	103	632	1	0	1153	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	0	0	111	0	194	103	632	1	0	1153	59

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	1.00	1.00	0.80	1.00	0.80	0.95	0.95	0.95	1.00	0.94	0.94
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	1.99	0.01	1.00	1.90	0.10
Final Sat.:	1590	0	0	555	0	970	1805	3604	6	1900	3410	175

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.20	0.00	0.20	0.06	0.18	0.18	0.00	0.34	0.34
Crit Moves:				****				****				****
Green/Cycle:	0.30	0.00	0.00	0.30	0.00	0.30	0.08	0.42	0.42	0.00	0.50	0.50
Volume/Cap:	0.01	0.00	0.00	0.68	0.00	0.68	0.68	0.42	0.42	0.00	0.68	0.68
Delay/Veh:	24.9	0.0	0.0	35.1	0.0	35.1	56.0	20.8	20.8	0.0	19.9	19.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.9	0.0	0.0	35.1	0.0	35.1	56.0	20.8	20.8	0.0	19.9	19.9
LOS by Move:	C	A	A	D	A	D	E	C	C	A	B	B
HCM2kAvgQ:	0	0	0	9	0	9	3	7	7	0	14	14

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 7.3 Worst Case Level Of Service: A[9.7]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	0	0	0	0
Volume Module:												
Base Vol:	132	29	0	0	56	0	0	0	250	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	29	0	0	56	0	0	0	250	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	132	29	0	0	56	0	0	0	250	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	132	29	0	0	56	0	0	0	250	0	0	0

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	56	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	56	xxxxxx	xxxx	xxxxxx
Potent Cap.:	1562	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1016	xxxxxx	xxxx	xxxxxx
Move Cap.:	1562	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1016	xxxxxx	xxxx	xxxxxx
Volume/Cap:	0.08	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.25	xxxxxx	xxxx	xxxxxx

Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1.0	xxxxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.7	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	A	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
SharedQueue:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.7			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.430
 Loss Time (sec): 12 Average Delay (sec/veh): 23.1
 Optimal Cycle: 40 Level Of Service: C

Street Name:	Beaumont Rd.-G St						Highland Home Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	161	210	0	305	0	0	0	0	787	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	161	210	0	305	0	0	0	0	787	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	161	210	0	305	0	0	0	0	787	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	161	210	0	305	0	0	0	0	787	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	161	210	0	305	0	0	0	0	787	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
Final Sat.:	0	1900	1615	0	1900	0	0	0	0	3618	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.13	0.00	0.16	0.00	0.00	0.00	0.00	0.22	0.00	0.00
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.27	0.27	0.00	0.34	0.00	0.00	0.00	0.00	0.47	0.00	0.00
Volume/Cap:	0.00	0.31	0.48	0.00	0.47	0.00	0.00	0.00	0.00	0.47	0.00	0.00
Delay/Veh:	0.0	29.5	31.6	0.0	26.2	0.0	0.0	0.0	0.0	18.4	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	29.5	31.6	0.0	26.2	0.0	0.0	0.0	0.0	18.4	0.0	0.0
LOS by Move:	A	C	C	A	C	A	A	A	A	B	A	A
HCM2kAvgQ:	0	4	5	0	7	0	0	0	0	8	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Highland Home Rd./F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.697
 Loss Time (sec): 12 Average Delay (sec/veh): 21.8
 Optimal Cycle: 59 Level Of Service: C

Street Name:	Highland Home Rd.						F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	136	281	0	0	754	422	134	0	287	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	136	281	0	0	754	422	134	0	287	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	136	281	0	0	754	422	134	0	287	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	281	0	0	754	422	134	0	287	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	136	281	0	0	754	422	134	0	287	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	1.00	1.00	1.00	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3502	1900	0	0	1900	1615	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.15	0.00	0.00	0.40	0.26	0.07	0.00	0.18	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.07	0.63	0.00	0.00	0.56	0.56	0.25	0.00	0.25	0.00	0.00	0.00
Volume/Cap:	0.55	0.23	0.00	0.00	0.71	0.47	0.30	0.00	0.71	0.00	0.00	0.00
Delay/Veh:	47.8	8.2	0.0	0.0	18.3	13.5	30.7	0.0	39.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.8	8.2	0.0	0.0	18.3	13.5	30.7	0.0	39.9	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	C	A	D	A	A	A
HCM2kAvgQ:	2	4	0	0	17	8	3	0	9	0	0	0

 Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.812
 Loss Time (sec): 12 Average Delay (sec/veh): 21.3
 Optimal Cycle: 80 Level Of Service: C

Street Name: Highland Home Rd. D St.
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Permitted Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0

Volume Module:
 Base Vol: 88 389 0 0 1026 15 28 0 167 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 88 389 0 0 1026 15 28 0 167 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 88 389 0 0 1026 15 28 0 167 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 88 389 0 0 1026 15 28 0 167 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 88 389 0 0 1026 15 28 0 167 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 1.00 1.00 1.00 1.00 1.00 0.88 1.00 0.88 1.00 1.00 1.00
 Lanes: 1.00 1.00 0.00 0.00 0.99 0.01 0.14 0.00 0.86 0.00 0.00 0.00
 Final Sat.: 1805 1900 0 0 1869 27 239 0 1428 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.05 0.20 0.00 0.00 0.55 0.55 0.12 0.00 0.12 0.00 0.00 0.00
 Crit Moves: **** **** ****
 Green/Cycle: 0.07 0.74 0.00 0.00 0.67 0.67 0.14 0.00 0.14 0.00 0.00 0.00
 Volume/Cap: 0.70 0.28 0.00 0.00 0.82 0.82 0.82 0.00 0.82 0.00 0.00 0.00
 Delay/Veh: 61.1 4.4 0.0 0.0 16.7 16.7 61.7 0.0 61.7 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 61.1 4.4 0.0 0.0 16.7 16.7 61.7 0.0 61.7 0.0 0.0 0.0
 LOS by Move: E A A A B B E A E A A A
 HCM2kAvgQ: 3 4 0 0 24 24 8 0 8 0 0 0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.1 With Improvements - AM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683
Loss Time (sec): 12 Average Delay (sec/veh): 27.9
Optimal Cycle: 57 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	2

Volume Module:

Base Vol:	105	194	30	493	473	226	82	392	259	118	918	201
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	194	30	493	473	226	82	392	259	118	918	201
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	194	30	493	473	226	82	392	259	118	918	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	194	30	493	473	226	82	392	259	118	918	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	105	194	30	493	473	226	82	392	259	118	918	201

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.90	0.90	0.16	0.89	0.89	0.29	0.95	0.85
Lanes:	1.00	1.73	0.27	1.00	1.35	0.65	1.00	1.20	0.80	1.00	2.00	1.00
Final Sat.:	1805	3064	474	1805	2326	1111	310	2043	1350	555	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.06	0.06	0.06	0.27	0.20	0.20	0.26	0.19	0.19	0.21	0.25	0.12
Crit Moves:	****			****			****					
Green/Cycle:	0.13	0.09	0.09	0.40	0.37	0.37	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.46	0.68	0.68	0.68	0.56	0.56	0.68	0.50	0.50	0.55	0.66	0.32
Delay/Veh:	42.0	49.8	49.8	27.5	25.7	25.7	40.5	23.5	23.5	26.8	26.3	21.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.0	49.8	49.8	27.5	25.7	25.7	40.5	23.5	23.5	26.8	26.3	21.7
LOS by Move:	D	D	D	C	C	C	D	C	C	C	C	C
HCM2kAvgQ:	4	5	5	12	8	8	2	8	8	4	13	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Scenario Report

Scenario: buildout wp pm
Command: buildout wp pm
Volume: buildout wp pm
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.790
Loss Time (sec): 12 Average Delay (sec/veh): 28.5
Optimal Cycle: 75 Level Of Service: C

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	573	1084	0	0	850	102	225	0	600	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	573	1084	0	0	850	102	225	0	600	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	573	1084	0	0	850	102	225	0	600	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	573	1084	0	0	850	102	225	0	600	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	573	1084	0	0	850	102	225	0	600	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.93	0.93	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	3172	381	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.32	0.57	0.00	0.00	0.27	0.27	0.12	0.00	0.37	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.40	0.66	0.00	0.00	0.34	0.34	0.15	0.00	0.54	0.00	0.00	0.00
Volume/Cap:	0.80	0.86	0.00	0.00	0.80	0.80	0.86	0.00	0.68	0.00	0.00	0.00
Delay/Veh:	32.7	19.2	0.0	0.0	33.9	33.9	65.2	0.0	18.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.7	19.2	0.0	0.0	33.9	33.9	65.2	0.0	18.8	0.0	0.0	0.0
LOS by Move:	C	B	A	A	C	C	E	A	B	A	A	A
HCM2kAvgQ:	16	28	0	0	16	16	10	0	14	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.498
Loss Time (sec): 8 Average Delay (sec/veh): 9.4
Optimal Cycle: 32 Level Of Service: A

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	2	1	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	60	820	0	0	1250	75	202	0	33	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	820	0	0	1250	75	202	0	33	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	820	0	0	1250	75	202	0	33	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	820	0	0	1250	75	202	0	33	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	60	820	0	0	1250	75	202	0	33	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.18	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	342	3610	0	0	3610	1615	1805	0	1615	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.18	0.23	0.00	0.00	0.35	0.05	0.11	0.00	0.02	0.00	0.00	0.00
Crit Moves:				****			****					
Green/Cycle:	0.70	0.70	0.00	0.00	0.70	0.70	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.25	0.33	0.00	0.00	0.50	0.07	0.50	0.00	0.09	0.00	0.00	0.00
Delay/Veh:	6.2	6.1	0.0	0.0	7.3	4.9	34.8	0.0	30.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.2	6.1	0.0	0.0	7.3	4.9	34.8	0.0	30.8	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	C	A	C	A	A	A
HCM2kAvgQ:	1	5	0	0	9	1	6	0	1	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.951
Loss Time (sec): 12 Average Delay (sec/veh): 35.8
Optimal Cycle: 140 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1		2	0	2	0	0	

Volume Module:

Base Vol:	0	502	1062	628	700	0	0	0	0	535	0	455
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	502	1062	628	700	0	0	0	0	535	0	455
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	502	1062	628	700	0	0	0	0	535	0	455
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	502	1062	628	700	0	0	0	0	535	0	455
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	502	1062	628	700	0	0	0	0	535	0	455

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.92	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1615	3502	3610	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.14	0.66	0.18	0.19	0.00	0.00	0.00	0.00	0.30	0.00	0.28
Crit Moves:			****	****						****		
Green/Cycle:	0.00	0.38	0.69	0.19	0.42	0.00	0.00	0.00	0.00	0.31	0.00	0.50
Volume/Cap:	0.00	0.37	0.95	0.95	0.46	0.00	0.00	0.00	0.00	0.95	0.00	0.56
Delay/Veh:	0.0	22.5	30.4	63.7	21.3	0.0	0.0	0.0	0.0	59.9	0.0	18.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	22.5	30.4	63.7	21.3	0.0	0.0	0.0	0.0	59.9	0.0	18.3
LOS by Move:	A	C	C	E	C	A	A	A	A	E	A	B
HCM2kAvgQ:	0	5	31	12	8	0	0	0	0	21	0	10

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.880
Loss Time (sec): 12 Average Delay (sec/veh): 36.0
Optimal Cycle: 101 Level Of Service: D

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	845	1377	161	64	1127	30	139	289	731	113	204	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	845	1377	161	64	1127	30	139	289	731	113	204	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	845	1377	161	64	1127	30	139	289	731	113	204	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	845	1377	161	64	1127	30	139	289	731	113	204	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	845	1377	161	64	1127	30	139	289	731	113	204	45

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.95	0.95	0.63	1.00	0.85	0.79	0.79	0.79
Lanes:	2.00	1.79	0.21	1.00	1.95	0.05	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	3502	3180	372	1805	3502	93	1189	1900	1615	466	841	186

Capacity Analysis Module:

Vol/Sat:	0.24	0.43	0.43	0.04	0.32	0.32	0.12	0.15	0.45	0.24	0.24	0.24
Crit Moves:	****			****			****					
Green/Cycle:	0.27	0.55	0.55	0.09	0.37	0.37	0.24	0.24	0.51	0.24	0.24	0.24
Volume/Cap:	0.88	0.79	0.79	0.40	0.88	0.88	0.49	0.63	0.88	1.01	1.01	1.01
Delay/Veh:	44.2	20.0	20.0	44.6	36.8	36.8	34.0	37.0	32.3	88.1	88.1	88.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.2	20.0	20.0	44.6	36.8	36.8	34.0	37.0	32.3	88.1	88.1	88.1
LOS by Move:	D	B	B	D	D	D	C	D	C	F	F	F
HCM2kAvgQ:	12	18	18	2	19	19	4	9	23	17	17	17

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.992
Loss Time (sec): 16 Average Delay (sec/veh): 54.2
Optimal Cycle: 180 Level Of Service: D

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	1	0	1	2

Volume Module:

Base Vol:	319	2082	257	96	1616	339	307	161	219	182	113	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	319	2082	257	96	1616	339	307	161	219	182	113	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	319	2082	257	96	1616	339	307	161	219	182	113	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	319	2082	257	96	1616	339	307	161	219	182	113	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	319	2082	257	96	1616	339	307	161	219	182	113	68

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.95	1.00	0.85	0.92	1.00	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	1805	1900	1615	3502	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.18	0.58	0.16	0.05	0.45	0.21	0.17	0.08	0.14	0.05	0.06	0.04
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.58	0.58	0.06	0.46	0.46	0.17	0.16	0.16	0.07	0.06	0.06
Volume/Cap:	0.98	1.00	0.28	0.91	0.98	0.46	1.00	0.53	0.84	0.75	1.00	0.71
Delay/Veh:	93.5	44.3	12.9	116.4	49.9	22.9	100.3	47.9	70.2	67.2	140	76.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.5	44.3	12.9	116.4	49.9	22.9	100.3	47.9	70.2	67.2	140	76.6
LOS by Move:	F	D	B	F	D	C	F	D	E	E	F	E
HCM2kAvgQ:	12	41	4	4	32	8	16	6	10	5	8	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.965
Loss Time (sec): 16 Average Delay (sec/veh): 46.8
Optimal Cycle: 150 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	2	1	0	1	1	0	2

Volume Module:

Base Vol:	26	1479	402	667	952	62	167	692	49	346	580	699
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	1479	402	667	952	62	167	692	49	346	580	699
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	1479	402	667	952	62	167	692	49	346	580	699
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1479	402	667	952	62	167	692	49	346	580	699
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	26	1479	402	667	952	62	167	692	49	346	580	699

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.85	0.92	0.95	0.85	0.95	0.94	0.94	0.92	0.95	0.85
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	1.00	1.87	0.13	2.00	2.00	1.00
Final Sat.:	1805	5187	1615	3502	3610	1615	1805	3338	236	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.29	0.25	0.19	0.26	0.04	0.09	0.21	0.21	0.10	0.16	0.43
Crit Moves:	****			****			****			****		
Green/Cycle:	0.10	0.30	0.41	0.20	0.39	0.39	0.10	0.24	0.24	0.11	0.25	0.45
Volume/Cap:	0.14	0.96	0.61	0.96	0.68	0.10	0.96	0.88	0.88	0.88	0.64	0.96
Delay/Veh:	41.1	50.1	25.1	65.5	26.6	19.4	102.9	47.7	47.7	63.9	35.0	51.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.1	50.1	25.1	65.5	26.6	19.4	102.9	47.7	47.7	63.9	35.0	51.8
LOS by Move:	D	D	C	E	C	B	F	D	D	E	C	D
HCM2kAvgQ:	1	22	10	10	12	1	9	15	15	6	8	22

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.859
Loss Time (sec): 12 Average Delay (sec/veh): 25.5
Optimal Cycle: 94 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	1	1

Volume Module:	C St.			C St.			Wilson St.			Wilson St.		
Base Vol:	1	0	0	91	0	159	225	1571	4	0	1536	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	91	0	159	225	1571	4	0	1536	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	0	0	91	0	159	225	1571	4	0	1536	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	0	91	0	159	225	1571	4	0	1536	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	0	0	91	0	159	225	1571	4	0	1536	129

Saturation Flow Module:	C St.			C St.			Wilson St.			Wilson St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	1.00	1.00	0.80	1.00	0.80	0.95	0.95	0.95	1.00	0.94	0.94
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	1.99	0.01	1.00	1.85	0.15
Final Sat.:	1674	0	0	552	0	965	1805	3601	9	1900	3290	276

Capacity Analysis Module:	C St.			C St.			Wilson St.			Wilson St.		
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.16	0.12	0.44	0.44	0.00	0.47	0.47
Crit Moves:				****			****			****		
Green/Cycle:	0.19	0.00	0.00	0.19	0.00	0.19	0.15	0.59	0.59	0.00	0.54	0.54
Volume/Cap:	0.00	0.00	0.00	0.86	0.00	0.86	0.86	0.74	0.74	0.00	0.86	0.86
Delay/Veh:	32.7	0.0	0.0	60.9	0.0	60.9	65.4	16.0	16.0	0.0	23.7	23.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.7	0.0	0.0	60.9	0.0	60.9	65.4	16.0	16.0	0.0	23.7	23.7
LOS by Move:	C	A	A	E	A	E	E	B	B	A	C	C
HCM2kAvgQ:	0	0	0	10	0	10	7	17	17	0	24	24

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Highland Home Rd./Northern Loop

Average Delay (sec/veh): 6.9 Worst Case Level Of Service: A[9.4]

Street Name:	Highland Home Rd.						Northern Loop					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	0	1	0	0
Volume Module:												
Base Vol:	289	64	0	0	45	0	0	0	204	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	289	64	0	0	45	0	0	0	204	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	289	64	0	0	45	0	0	0	204	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	289	64	0	0	45	0	0	0	204	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx
Capacity Module:												
Cnflct Vol:	45	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	45	xxxx	xxxx	xxxxxx
Potent Cap.:	1576	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1031	xxxx	xxxx	xxxxxx
Move Cap.:	1576	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1031	xxxx	xxxx	xxxxxx
Volume/Cap:	0.18	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.20	xxxx	xxxx	xxxxxx
Level Of Service Module:												
2Way95thQ:	0.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.7	xxxx	xxxx	xxxxxx
Control Del:	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.4	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	A	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	0.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx				9.4		xxxxxx		
ApproachLOS:	*			*				A		*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.785
Loss Time (sec): 12 Average Delay (sec/veh): 26.4
Optimal Cycle: 74 Level Of Service: C

Street Name:	Beaumont Rd.-G St						Highland Home Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	353	877	0	250	0	0	0	0	533	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	353	877	0	250	0	0	0	0	533	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	353	877	0	250	0	0	0	0	533	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	353	877	0	250	0	0	0	0	533	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	353	877	0	250	0	0	0	0	533	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
Final Sat.:	0	1900	1615	0	1900	0	0	0	0	3618	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.54	0.00	0.13	0.00	0.00	0.00	0.00	0.15	0.00	0.00
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.64	0.64	0.00	0.46	0.00	0.00	0.00	0.00	0.17	0.00	0.00
Volume/Cap:	0.00	0.29	0.85	0.00	0.29	0.00	0.00	0.00	0.00	0.85	0.00	0.00
Delay/Veh:	0.0	8.2	21.4	0.0	16.9	0.0	0.0	0.0	0.0	51.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.2	21.4	0.0	16.9	0.0	0.0	0.0	0.0	51.0	0.0	0.0
LOS by Move:	A	A	C	A	B	A	A	A	A	D	A	A
HCM2kAvgQ:	0	5	22	0	4	0	0	0	0	11	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Highland Home Rd./F St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.918
Loss Time (sec):	12	Average Delay (sec/veh):	40.1
Optimal Cycle:	119	Level Of Service:	D

Street Name:	Highland Home Rd.												F St.							
Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected				Permitted				Split Phase				Split Phase							
Rights:	Include				Include				Include				Include							
Min. Green:	7	7	7		7	7	7		7	7	7		7	7	7					
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0					
Lanes:	2	0	1	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	371	639	0	0	610	240	688	0	285	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	371	639	0	0	610	240	688	0	285	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	371	639	0	0	610	240	688	0	285	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	371	639	0	0	610	240	688	0	285	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	371	639	0	0	610	240	688	0	285	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	1.00	1.00	1.00	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3502	1900	0	0	1900	1615	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.11	0.34	0.00	0.00	0.32	0.15	0.38	0.00	0.18	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.12	0.47	0.00	0.00	0.35	0.35	0.42	0.00	0.42	0.00	0.00	0.00
Volume/Cap:	0.92	0.72	0.00	0.00	0.92	0.43	0.92	0.00	0.43	0.00	0.00	0.00
Delay/Veh:	69.4	24.5	0.0	0.0	49.0	25.4	43.9	0.0	21.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.4	24.5	0.0	0.0	49.0	25.4	43.9	0.0	21.2	0.0	0.0	0.0
LOS by Move:	E	C	A	A	D	C	D	A	C	A	A	A
HCM2kAvgQ:	7	15	0	0	20	5	24	0	6	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.767
Loss Time (sec):	12	Average Delay (sec/veh):	19.1
Optimal Cycle:	70	Level Of Service:	B

Street Name:	Highland Home Rd.						D St.								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Permitted			Split Phase			Split Phase					
Rights:	Include			Include			Include			Include					
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0

Volume Module:

Base Vol:	193	987	0	0	862	32	23	0	136	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	193	987	0	0	862	32	23	0	136	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	193	987	0	0	862	32	23	0	136	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	193	987	0	0	862	32	23	0	136	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	193	987	0	0	862	32	23	0	136	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.88	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.96	0.04	0.14	0.00	0.86	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1823	68	242	0	1428	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.11	0.52	0.00	0.00	0.47	0.47	0.10	0.00	0.10	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.14	0.76	0.00	0.00	0.62	0.62	0.12	0.00	0.12	0.00	0.00	0.00
Volume/Cap:	0.77	0.69	0.00	0.00	0.77	0.77	0.77	0.00	0.77	0.00	0.00	0.00
Delay/Veh:	54.7	7.6	0.0	0.0	17.1	17.1	58.2	0.0	58.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.7	7.6	0.0	0.0	17.1	17.1	58.2	0.0	58.2	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	E	A	E	A	A	A
HCM2kAvgQ:	5	14	0	0	19	19	7	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.988
Loss Time (sec): 12 Average Delay (sec/veh): 47.1
Optimal Cycle: 175 Level Of Service: D

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	2

Volume Module:

Base Vol:	374	510	198	398	392	208	100	1155	388	43	1048	569
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	374	510	198	398	392	208	100	1155	388	43	1048	569
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	374	510	198	398	392	208	100	1155	388	43	1048	569
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	374	510	198	398	392	208	100	1155	388	43	1048	569
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	374	510	198	398	392	208	100	1155	388	43	1048	569

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.91	0.95	0.90	0.90	0.15	0.91	0.91	0.09	0.95	0.85
Lanes:	1.00	1.44	0.56	1.00	1.31	0.69	1.00	1.50	0.50	1.00	2.00	1.00
Final Sat.:	1805	2491	967	1805	2236	1186	285	2600	873	169	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.21	0.20	0.20	0.22	0.18	0.18	0.35	0.44	0.44	0.25	0.29	0.35
Crit Moves:	****			****			****					
Green/Cycle:	0.23	0.21	0.21	0.22	0.20	0.20	0.45	0.45	0.45	0.45	0.45	0.45
Volume/Cap:	0.89	0.99	0.99	0.99	0.89	0.89	0.78	0.99	0.99	0.57	0.65	0.78
Delay/Veh:	57.2	70.0	70.0	80.3	52.8	52.8	49.1	47.2	47.2	29.9	22.2	29.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.2	70.0	70.0	80.3	52.8	52.8	49.1	47.2	47.2	29.9	22.2	29.0
LOS by Move:	E	E	E	F	D	D	D	D	D	C	C	C
HCM2kAvgQ:	15	17	17	14	10	10	3	28	28	2	14	17

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Scenario Report

Scenario: buildout wp am
Command: buildout wp am
Volume: buildout wp am
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.541
 Loss Time (sec): 12 Average Delay (sec/veh): 19.4
 Optimal Cycle: 43 Level Of Service: B

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	446	506	0	0	603	113	46	0	328	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	446	506	0	0	603	113	46	0	328	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	446	506	0	0	603	113	46	0	328	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	446	506	0	0	603	113	46	0	328	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	446	506	0	0	603	113	46	0	328	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.93	0.93	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.68	0.32	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	2967	556	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.25	0.27	0.00	0.00	0.20	0.20	0.03	0.00	0.20	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.44	0.64	0.00	0.00	0.37	0.37	0.07	0.00	0.51	0.00	0.00	0.00
Volume/Cap:	0.56	0.42	0.00	0.00	0.56	0.56	0.36	0.00	0.39	0.00	0.00	0.00
Delay/Veh:	21.4	9.0	0.0	0.0	25.8	25.8	46.2	0.0	15.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.4	9.0	0.0	0.0	25.8	25.8	46.2	0.0	15.1	0.0	0.0	0.0
LOS by Move:	C	A	A	A	C	C	D	A	B	A	A	A
HCM2kAvgQ:	10	7	0	0	10	10	2	0	6	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs Ave./16th St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.473
 Loss Time (sec): 16 Average Delay (sec/veh): 28.1
 Optimal Cycle: 47 Level Of Service: C

Street Name:	Highland Springs Ave.						16th St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	0	1	0	1

Volume Module:	Highland Springs Ave.			Highland Springs Ave.			16th St.			16th St.		
Base Vol:	32	381	185	298	429	48	25	94	17	420	181	449
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	381	185	298	429	48	25	94	17	420	181	449
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	381	185	298	429	48	25	94	17	420	181	449
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	381	185	298	429	48	25	94	17	420	181	449
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	32	381	185	298	429	48	25	94	17	420	181	449

Saturation Flow Module:	Highland Springs Ave.			Highland Springs Ave.			16th St.			16th St.		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.92	0.95	0.85	0.95	0.98	0.98	0.92	1.00	0.85
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	0.85	0.15	2.00	1.00	1.00
Final Sat.:	1805	3610	1615	3502	3610	1615	1805	1572	284	3502	1900	1615

Capacity Analysis Module:	Highland Springs Ave.			Highland Springs Ave.			16th St.			16th St.		
Vol/Sat:	0.02	0.11	0.11	0.09	0.12	0.03	0.01	0.06	0.06	0.12	0.10	0.28
Crit Moves:	****			****			****			****		
Green/Cycle:	0.14	0.21	0.50	0.17	0.24	0.24	0.07	0.17	0.17	0.29	0.39	0.56
Volume/Cap:	0.12	0.50	0.23	0.50	0.49	0.12	0.20	0.35	0.35	0.42	0.25	0.50
Delay/Veh:	37.7	35.2	14.2	38.2	33.1	29.8	44.6	37.5	37.5	29.0	20.9	14.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.7	35.2	14.2	38.2	33.1	29.8	44.6	37.5	37.5	29.0	20.9	14.0
LOS by Move:	D	D	B	D	C	C	D	D	D	C	C	B
HCM2kAvgQ:	1	5	3	4	6	1	1	3	3	6	4	9

 Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.502
 Loss Time (sec): 8 Average Delay (sec/veh): 22.2
 Optimal Cycle: 32 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	1	0	0	1	0	0	0	0	1

Volume Module:

Base Vol:	0	364	195	81	638	0	0	0	0	355	0	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	364	195	81	638	0	0	0	0	355	0	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	364	195	81	638	0	0	0	0	355	0	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	364	195	81	638	0	0	0	0	355	0	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	364	195	81	638	0	0	0	0	355	0	148

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.90	0.90	0.33	0.95	1.00	1.00	1.00	1.00	0.93	1.00	0.93
Lanes:	0.00	1.30	0.70	1.00	2.00	0.00	0.00	0.00	0.00	0.71	0.00	0.29
Final Sat.:	0	2228	1194	629	3610	0	0	0	0	1244	0	518

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.16	0.13	0.18	0.00	0.00	0.00	0.00	0.29	0.00	0.29
Crit Moves:	****											
Green/Cycle:	0.00	0.35	0.35	0.35	0.35	0.00	0.00	0.00	0.00	0.57	0.00	0.57
Volume/Cap:	0.00	0.46	0.46	0.37	0.50	0.00	0.00	0.00	0.00	0.50	0.00	0.50
Delay/Veh:	0.0	25.4	25.4	25.1	25.8	0.0	0.0	0.0	0.0	13.5	0.0	13.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	25.4	25.4	25.1	25.8	0.0	0.0	0.0	0.0	13.5	0.0	13.5
LOS by Move:	A	C	C	C	C	A	A	A	A	B	A	B
HCM2kAvgQ:	0	7	7	2	8	0	0	0	0	9	0	9

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.701
 Loss Time (sec): 12 Average Delay (sec/veh): 29.9
 Optimal Cycle: 60 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	365	478	81	33	909	39	22	147	570	148	266	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	365	478	81	33	909	39	22	147	570	148	266	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	365	478	81	33	909	39	22	147	570	148	266	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	365	478	81	33	909	39	22	147	570	148	266	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	365	478	81	33	909	39	22	147	570	148	266	59

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.94	0.94	0.72	1.00	0.85	0.83	0.83	0.83
Lanes:	2.00	1.71	0.29	1.00	1.92	0.08	1.00	1.00	1.00	0.31	0.57	0.12
Final Sat.:	3502	3019	512	1805	3441	148	1374	1900	1615	494	889	197

Capacity Analysis Module:

Vol/Sat:	0.10	0.16	0.16	0.02	0.26	0.26	0.02	0.08	0.35	0.30	0.30	0.30
Crit Moves:	****			****			****					
Green/Cycle:	0.15	0.36	0.36	0.16	0.38	0.38	0.35	0.35	0.50	0.35	0.35	0.35
Volume/Cap:	0.70	0.43	0.43	0.11	0.70	0.70	0.05	0.22	0.70	0.84	0.84	0.84
Delay/Veh:	44.7	24.2	24.2	36.0	28.1	28.1	21.2	22.7	21.8	41.0	41.0	41.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.7	24.2	24.2	36.0	28.1	28.1	21.2	22.7	21.8	41.0	41.0	41.0
LOS by Move:	D	C	C	D	C	C	C	C	C	D	D	D
HCM2kAvgQ:	6	7	7	1	13	13	0	3	14	16	16	16

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.962
Loss Time (sec): 16 Average Delay (sec/veh): 47.2
Optimal Cycle: 148 Level Of Service: D

Street Name: Highland Springs Ave.

Starlight Ave.

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 0 1 0 1 0

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Volume Module:

Base Vol: 219 732 130 49 1267 330 87 81 330 237 148 89

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 219 732 130 49 1267 330 87 81 330 237 148 89

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 219 732 130 49 1267 330 87 81 330 237 148 89

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 219 732 130 49 1267 330 87 81 330 237 148 89

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 219 732 130 49 1267 330 87 81 330 237 148 89

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 1.00 0.85 0.95 0.94 0.94

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 1.00 0.62 0.38

Final Sat.: 1805 3610 1615 1805 3610 1615 1805 1900 1615 1805 1120 674

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Capacity Analysis Module:

Vol/Sat: 0.12 0.20 0.08 0.03 0.35 0.20 0.05 0.04 0.20 0.13 0.13 0.13

Crit Moves: **** **** **** ****

Green/Cycle: 0.13 0.37 0.37 0.13 0.36 0.36 0.12 0.21 0.21 0.14 0.23 0.23

Volume/Cap: 0.96 0.56 0.22 0.22 0.96 0.56 0.40 0.20 0.96 0.96 0.58 0.58

Delay/Veh: 92.2 25.8 22.1 39.7 47.6 26.6 41.8 32.6 77.4 89.5 36.4 36.4

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 92.2 25.8 22.1 39.7 47.6 26.6 41.8 32.6 77.4 89.5 36.4 36.4

LOS by Move: F C C D D C D C E F D D

HCM2kAvgQ: 8 9 3 1 22 8 3 2 15 11 7 7

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.845
Loss Time (sec): 16 Average Delay (sec/veh): 35.3
Optimal Cycle: 98 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	2	0

Volume Module:

Base Vol:	57	734	269	204	1246	152	66	164	101	724	288	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	734	269	204	1246	152	66	164	101	724	288	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	734	269	204	1246	152	66	164	101	724	288	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	734	269	204	1246	152	66	164	101	724	288	139
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	734	269	204	1246	152	66	164	101	724	288	139

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.92	0.93	0.93	0.95	0.90	0.90	0.92	0.95	0.85
Lanes:	1.00	2.00	1.00	2.00	1.78	0.22	1.00	1.24	0.76	2.00	2.00	1.00
Final Sat.:	1805	3610	1615	3502	3166	386	1805	2107	1297	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.03	0.20	0.17	0.06	0.39	0.39	0.04	0.08	0.08	0.21	0.08	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.38	0.62	0.13	0.45	0.45	0.14	0.09	0.09	0.23	0.18	0.18
Volume/Cap:	0.45	0.53	0.27	0.44	0.88	0.88	0.25	0.88	0.88	0.88	0.45	0.48
Delay/Veh:	47.2	24.2	8.8	40.6	31.3	31.3	38.5	69.6	69.6	47.8	37.2	38.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	24.2	8.8	40.6	31.3	31.3	38.5	69.6	69.6	47.8	37.2	38.2
LOS by Move:	D	C	A	D	C	C	D	E	E	D	D	D
HCM2kAvgQ:	2	9	4	3	19	19	2	7	7	12	4	4

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.659
 Loss Time (sec): 12 Average Delay (sec/veh): 25.5
 Optimal Cycle: 54 Level Of Service: C

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	6	0	0	118	0	207	114	518	1	0	1020	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	0	0	118	0	207	114	518	1	0	1020	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	0	0	118	0	207	114	518	1	0	1020	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	0	0	118	0	207	114	518	1	0	1020	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	0	0	118	0	207	114	518	1	0	1020	65

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.94	0.94
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	1.88	0.12
Final Sat.:	1592	0	0	554	0	971	1805	1896	4	1900	3363	214

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.21	0.06	0.27	0.27	0.00	0.30	0.30
Crit Moves:				****				****				****
Green/Cycle:	0.32	0.00	0.00	0.32	0.00	0.32	0.10	0.44	0.44	0.00	0.46	0.46
Volume/Cap:	0.01	0.00	0.00	0.66	0.00	0.66	0.66	0.62	0.62	0.00	0.66	0.66
Delay/Veh:	23.0	0.0	0.0	32.3	0.0	32.3	52.6	22.7	22.7	0.0	21.9	21.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.0	0.0	0.0	32.3	0.0	32.3	52.6	22.7	22.7	0.0	21.9	21.9
LOS by Move:	C	A	A	C	A	C	D	C	C	A	C	C
HCM2kAvgQ:	0	0	0	10	0	10	3	11	11	0	13	13

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687
Loss Time (sec): 12 Average Delay (sec/veh): 31.2
Optimal Cycle: 76 Level Of Service: C

Street Name:	Beaumont Rd.-G St						Highland Home Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	0	0	0	1	0

Volume Module:

Base Vol:	0	342	107	105	587	0	0	0	0	310	0	478
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	342	107	105	587	0	0	0	0	310	0	478
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	342	107	105	587	0	0	0	0	310	0	478
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	342	107	105	587	0	0	0	0	310	0	478
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	342	107	105	587	0	0	0	0	310	0	478

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1615	1805	1900	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.09	0.07	0.06	0.31	0.00	0.00	0.00	0.00	0.17	0.00	0.30
Crit Moves:	*****											
Green/Cycle:	0.00	0.12	0.12	0.39	0.51	0.00	0.00	0.00	0.00	0.37	0.00	0.37
Volume/Cap:	0.00	0.79	0.56	0.15	0.61	0.00	0.00	0.00	0.00	0.46	0.00	0.79
Delay/Veh:	0.0	52.7	45.1	19.9	18.7	0.0	0.0	0.0	0.0	24.3	0.0	35.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	52.7	45.1	19.9	18.7	0.0	0.0	0.0	0.0	24.3	0.0	35.2
LOS by Move:	A	D	D	B	B	A	A	A	A	C	A	D
HCM2kAvgQ:	0	6	3	2	13	0	0	0	0	7	0	15

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Highland Home Rd./D St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.807
 Loss Time (sec): 8 Average Delay (sec/veh): 10.8
 Optimal Cycle: 67 Level Of Service: B

Street Name: Highland Home Rd. D St.
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0

Volume Module:
 Base Vol: 65 584 0 0 1224 16 30 0 118 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 65 584 0 0 1224 16 30 0 118 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 65 584 0 0 1224 16 30 0 118 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 65 584 0 0 1224 16 30 0 118 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 65 584 0 0 1224 16 30 0 118 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.40 1.00 1.00 1.00 1.00 1.00 0.88 1.00 0.88 1.00 1.00 1.00
 Lanes: 1.00 1.00 0.00 0.00 0.99 0.01 0.20 0.00 0.80 0.00 0.00 0.00
 Final Sat.: 760 1900 0 0 1872 24 340 0 1338 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.09 0.31 0.00 0.00 0.65 0.65 0.09 0.00 0.09 0.00 0.00 0.00
 Crit Moves: *****
 Green/Cycle: 0.81 0.81 0.00 0.00 0.81 0.81 0.11 0.00 0.11 0.00 0.00 0.00
 Volume/Cap: 0.11 0.38 0.00 0.00 0.81 0.81 0.81 0.00 0.81 0.00 0.00 0.00
 Delay/Veh: 2.0 2.7 0.0 0.0 8.4 8.4 66.0 0.0 66.0 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 2.0 2.7 0.0 0.0 8.4 8.4 66.0 0.0 66.0 0.0 0.0 0.0
 LOS by Move: A A A A A A E A E A A A
 HCM2kAvgQ: 0 5 0 0 20 20 7 0 7 0 0 0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt.2 With Improvements - AM Peak Ho

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
 Loss Time (sec): 12 Average Delay (sec/veh): 25.5
 Optimal Cycle: 59 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	2

Volume Module:

Base Vol:	79	244	30	605	589	148	161	289	176	118	895	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	244	30	605	589	148	161	289	176	118	895	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	79	244	30	605	589	148	161	289	176	118	895	244
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	244	30	605	589	148	161	289	176	118	895	244
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	79	244	30	605	589	148	161	289	176	118	895	244

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.92	0.92	0.92	0.24	0.90	0.90	0.45	0.95	0.85
Lanes:	1.00	1.78	0.22	2.00	1.60	0.40	1.00	1.24	0.76	1.00	2.00	1.00
Final Sat.:	1805	3163	389	3502	2799	703	447	2116	1288	849	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.04	0.08	0.08	0.17	0.21	0.21	0.36	0.14	0.14	0.14	0.25	0.15
Crit Moves:	****			****			****					
Green/Cycle:	0.07	0.11	0.11	0.25	0.30	0.30	0.51	0.51	0.51	0.51	0.51	0.77
Volume/Cap:	0.63	0.68	0.68	0.68	0.71	0.71	0.71	0.27	0.27	0.27	0.48	0.20
Delay/Veh:	54.7	47.1	47.1	35.7	33.4	33.4	28.3	13.9	13.9	14.2	16.1	3.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.7	47.1	47.1	35.7	33.4	33.4	28.3	13.9	13.9	14.2	16.1	3.3
LOS by Move:	D	D	D	D	C	C	C	B	B	B	B	A
HCM2kAvgQ:	3	6	6	8	10	10	4	4	4	2	9	2

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Scenario Report

Scenario: buildout wp pm
Command: buildout wp pm
Volume: buildout wp pm
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs Ave./Brookside Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.804
 Loss Time (sec): 12 Average Delay (sec/veh): 26.8
 Optimal Cycle: 78 Level Of Service: C

Street Name:	Highland Springs Ave.						Brookside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	412	1107	0	0	865	102	225	0	410	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	412	1107	0	0	865	102	225	0	410	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	412	1107	0	0	865	102	225	0	410	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	412	1107	0	0	865	102	225	0	410	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	412	1107	0	0	865	102	225	0	410	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.93	0.93	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	3178	375	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.23	0.58	0.00	0.00	0.27	0.27	0.12	0.00	0.25	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.34	0.67	0.00	0.00	0.40	0.40	0.14	0.00	0.48	0.00	0.00	0.00
Volume/Cap:	0.68	0.87	0.00	0.00	0.68	0.68	0.87	0.00	0.53	0.00	0.00	0.00
Delay/Veh:	31.7	20.2	0.0	0.0	26.0	26.0	68.2	0.0	18.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.7	20.2	0.0	0.0	26.0	26.0	68.2	0.0	18.9	0.0	0.0	0.0
LOS by Move:	C	C	A	A	C	C	E	A	B	A	A	A
HCM2kAvgQ:	11	29	0	0	14	14	10	0	9	0	0	0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs Ave./16th St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.871
Loss Time (sec): 16 Average Delay (sec/veh): 40.0
Optimal Cycle: 106 Level Of Service: D

Street Name: Highland Springs Ave. 16th St.
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Ovl Include Include Ovl
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 0 1 0 2 0 1 0 1
-----|-----|-----|-----|

Volume Module:

Base Vol: 25 622 689 591 484 111 202 196 35 435 189 512
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 25 622 689 591 484 111 202 196 35 435 189 512
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 25 622 689 591 484 111 202 196 35 435 189 512
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 25 622 689 591 484 111 202 196 35 435 189 512
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 25 622 689 591 484 111 202 196 35 435 189 512
-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.98 0.98 0.92 1.00 0.85
Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 0.85 0.15 2.00 1.00 1.00
Final Sat.: 1805 3610 1615 3502 3610 1615 1805 1575 281 3502 1900 1615
-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.17 0.43 0.17 0.13 0.07 0.11 0.12 0.12 0.12 0.10 0.32
Crit Moves: **** *
Green/Cycle: 0.19 0.35 0.50 0.19 0.36 0.36 0.13 0.15 0.15 0.15 0.17 0.36
Volume/Cap: 0.07 0.50 0.86 0.87 0.38 0.19 0.87 0.83 0.83 0.83 0.58 0.87
Delay/Veh: 33.7 26.0 31.3 50.9 24.2 22.5 70.7 60.1 60.1 52.2 41.0 42.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.7 26.0 31.3 50.9 24.2 22.5 70.7 60.1 60.1 52.2 41.0 42.9
LOS by Move: C C C D C C E E E D D D
HCM2kAvgQ: 1 8 19 10 6 2 9 9 9 9 6 18

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs Avenue/F Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.834
Loss Time (sec): 8 Average Delay (sec/veh): 17.8
Optimal Cycle: 74 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	1	0	0	1	0	0	0	0	1

Volume Module:

Base Vol:	0	841	406	169	564	0	0	0	0	288	0	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	841	406	169	564	0	0	0	0	288	0	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	841	406	169	564	0	0	0	0	288	0	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	841	406	169	564	0	0	0	0	288	0	120
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	841	406	169	564	0	0	0	0	288	0	120

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.90	0.90	0.17	0.95	1.00	1.00	1.00	1.00	0.93	1.00	0.93
Lanes:	0.00	1.35	0.65	1.00	2.00	0.00	0.00	0.00	0.00	0.71	0.00	0.29
Final Sat.:	0	2315	1118	315	3610	0	0	0	0	1244	0	518

Capacity Analysis Module:

Vol/Sat:	0.00	0.36	0.36	0.54	0.16	0.00	0.00	0.00	0.00	0.23	0.00	0.23	
Crit Moves:				****							****		
Green/Cycle:	0.00	0.64	0.64	0.64	0.64	0.00	0.00	0.00	0.00	0.28	0.00	0.28	
Volume/Cap:	0.00	0.57	0.57	0.83	0.24	0.00	0.00	0.00	0.00	0.83	0.00	0.83	
Delay/Veh:	0.0	10.4	10.4	38.4	7.6	0.0	0.0	0.0	0.0	45.7	0.0	45.7	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	0.0	10.4	10.4	38.4	7.6	0.0	0.0	0.0	0.0	45.7	0.0	45.7	
LOS by Move:	A	B	B	D	A	A	A	A	A	D	A	D	
HCM2kAvgQ:	0	11	11	5	4	0	0	0	0	14	0	14	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Highland Springs Ave./Oak Valley Pkwy.-14th St.-F St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 12 Average Delay (sec/veh): 30.2
Optimal Cycle: 69 Level Of Service: C

Street Name:	Highland Springs Ave.						Oak Valley Pkwy.-14th St.-F St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	1	1	0	1	0	0	1

Volume Module:

Base Vol:	849	1055	169	68	738	29	141	304	736	120	216	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	849	1055	169	68	738	29	141	304	736	120	216	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	849	1055	169	68	738	29	141	304	736	120	216	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	849	1055	169	68	738	29	141	304	736	120	216	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	849	1055	169	68	738	29	141	304	736	120	216	48

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.94	0.94	0.59	1.00	0.85	0.79	0.79	0.79
Lanes:	2.00	1.72	0.28	1.00	1.92	0.08	1.00	1.00	1.00	0.31	0.56	0.13
Final Sat.:	3502	3046	488	1805	3453	136	1123	1900	1615	468	842	187

Capacity Analysis Module:

Vol/Sat:	0.24	0.35	0.35	0.04	0.21	0.21	0.13	0.16	0.46	0.26	0.26	0.26
Crit Moves:	****			****			****					
Green/Cycle:	0.32	0.50	0.50	0.10	0.28	0.28	0.28	0.28	0.60	0.28	0.28	0.28
Volume/Cap:	0.76	0.69	0.69	0.37	0.76	0.76	0.45	0.57	0.76	0.92	0.92	0.92
Delay/Veh:	33.8	20.4	20.4	43.3	36.3	36.3	30.6	32.3	18.3	59.3	59.3	59.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.8	20.4	20.4	43.3	36.3	36.3	30.6	32.3	18.3	59.3	59.3	59.3
LOS by Move:	C	C	C	D	D	D	C	C	B	E	E	E
HCM2kAvgQ:	11	14	14	2	12	12	4	9	18	15	15	15

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Highland Springs Ave./Starlight Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.981
 Loss Time (sec): 16 Average Delay (sec/veh): 52.5
 Optimal Cycle: 162 Level Of Service: D

Street Name:	Highland Springs Ave.						Starlight Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	319	1761	270	101	1290	283	313	169	219	192	120	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	319	1761	270	101	1290	283	313	169	219	192	120	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	319	1761	270	101	1290	283	313	169	219	192	120	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	319	1761	270	101	1290	283	313	169	219	192	120	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	319	1761	270	101	1290	283	313	169	219	192	120	72

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.94	0.94
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	0.62	0.38
Final Sat.:	1805	3610	1615	1805	3610	1615	1805	1900	1615	1805	1121	673

Capacity Analysis Module:

Vol/Sat:	0.18	0.49	0.17	0.06	0.36	0.18	0.17	0.09	0.14	0.11	0.11	0.11
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.49	0.49	0.07	0.37	0.37	0.17	0.16	0.16	0.12	0.11	0.11
Volume/Cap:	0.96	1.00	0.34	0.80	0.96	0.47	1.00	0.56	0.86	0.86	1.00	1.00
Delay/Veh:	77.8	46.4	15.9	74.9	45.6	24.3	91.5	41.4	65.5	70.1	109	108.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	77.8	46.4	15.9	74.9	45.6	24.3	91.5	41.4	65.5	70.1	109	108.8
LOS by Move:	E	D	B	E	D	C	F	D	E	E	F	F
HCM2kAvgQ:	9	28	5	3	22	6	15	6	9	9	10	10

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Highland Springs Ave./8th St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.994
Loss Time (sec): 16 Average Delay (sec/veh): 52.0
Optimal Cycle: 172 Level Of Service: D

Street Name:	Highland Springs Ave.						8th St.-Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	2	0

Volume Module:

Base Vol:	26	1517	416	360	986	158	164	704	49	328	510	357
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	1517	416	360	986	158	164	704	49	328	510	357
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	1517	416	360	986	158	164	704	49	328	510	357
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1517	416	360	986	158	164	704	49	328	510	357
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	1517	416	360	986	158	164	704	49	328	510	357

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.92	0.93	0.93	0.95	0.94	0.94	0.92	0.95	0.85
Lanes:	1.00	2.00	1.00	2.00	1.72	0.28	1.00	1.87	0.13	2.00	2.00	1.00
Final Sat.:	1805	3610	1615	3502	3046	488	1805	3341	233	3502	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.42	0.26	0.10	0.32	0.32	0.09	0.21	0.21	0.09	0.14	0.22
Crit Moves:	****			****			****			****		
Green/Cycle:	0.09	0.42	0.52	0.10	0.43	0.43	0.09	0.22	0.22	0.10	0.22	0.22
Volume/Cap:	0.15	0.99	0.50	0.99	0.75	0.75	0.99	0.97	0.97	0.97	0.64	0.99
Delay/Veh:	42.1	50.3	16.0	90.4	25.9	25.9	113.6	63.8	63.8	85.8	36.9	84.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.1	50.3	16.0	90.4	25.9	25.9	113.6	63.8	63.8	85.8	36.9	84.6
LOS by Move:	D	D	B	F	C	C	F	E	E	F	D	F
HCM2kAvgQ:	1	32	8	6	14	14	9	17	17	6	7	13

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 C St./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.964
Loss Time (sec): 12 Average Delay (sec/veh): 44.9
Optimal Cycle: 150 Level Of Service: D

Street Name:	C St.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	1	0	0	1	0	1	1

Volume Module:

Base Vol:	1	0	0	96	0	168	237	1277	4	0	1097	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	0	96	0	168	237	1277	4	0	1097	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	0	0	96	0	168	237	1277	4	0	1097	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	0	96	0	168	237	1277	4	0	1097	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	0	0	96	0	168	237	1277	4	0	1097	135

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.80	1.00	0.80	0.95	1.00	1.00	1.00	0.93	0.93
Lanes:	1.00	0.00	0.00	0.36	0.00	0.64	1.00	0.99	0.01	1.00	1.78	0.22
Final Sat.:	1805	0	0	551	0	965	1805	1894	6	1900	3163	389

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.17	0.13	0.67	0.67	0.00	0.35	0.35
Crit Moves:				****				****				****
Green/Cycle:	0.17	0.00	0.00	0.17	0.00	0.17	0.20	0.64	0.64	0.00	0.52	0.52
Volume/Cap:	0.00	0.00	0.00	1.05	0.00	1.05	0.67	1.05	1.05	0.00	0.67	0.67
Delay/Veh:	34.8	0.0	0.0	111.3	0.0	111.3	42.1	56.9	56.9	0.0	18.8	18.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.8	0.0	0.0	111.3	0.0	111.3	42.1	56.9	56.9	0.0	18.8	18.8
LOS by Move:	C	A	A	F	A	F	D	E	E	A	B	B
HCM2kAvgQ:	0	0	0	14	0	14	6	45	45	0	14	14

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Highland Home Rd./Beaumont Rd.-G St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.891
Loss Time (sec): 12 Average Delay (sec/veh): 36.7
Optimal Cycle: 106 Level Of Service: D

Street Name:	Beaumont Rd.-G St						Highland Home Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	0	0	0	0	0	0	1

Volume Module:

Base Vol:	0	864	254	624	652	0	0	0	0	213	0	322
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	864	254	624	652	0	0	0	0	213	0	322
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	864	254	624	652	0	0	0	0	213	0	322
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	864	254	624	652	0	0	0	0	213	0	322
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	864	254	624	652	0	0	0	0	213	0	322

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1615	1805	1900	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.24	0.16	0.35	0.34	0.00	0.00	0.00	0.00	0.12	0.00	0.20
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.27	0.27	0.39	0.66	0.00	0.00	0.00	0.00	0.22	0.00	0.22
Volume/Cap:	0.00	0.89	0.59	0.89	0.52	0.00	0.00	0.00	0.00	0.53	0.00	0.89
Delay/Veh:	0.0	45.6	33.8	42.3	9.4	0.0	0.0	0.0	0.0	35.5	0.0	60.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	45.6	33.8	42.3	9.4	0.0	0.0	0.0	0.0	35.5	0.0	60.6
LOS by Move:	A	D	C	D	A	A	A	A	A	D	A	E
HCM2kAvgQ:	0	14	6	19	10	0	0	0	0	6	0	13

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
 City of Banning, Riverside County
 General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Highland Home Rd./D St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.902
 Loss Time (sec): 8 Average Delay (sec/veh): 12.4
 Optimal Cycle: 101 Level Of Service: B

Street Name:	Highland Home Rd.			D St.								
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:	Highland Home Rd.			D St.								
Base Vol:	135	1440	0	0	1078	34	24	0	96	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	1440	0	0	1078	34	24	0	96	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	135	1440	0	0	1078	34	24	0	96	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	1440	0	0	1078	34	24	0	96	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	135	1440	0	0	1078	34	24	0	96	0	0	0

Saturation Flow Module:	Highland Home Rd.			D St.								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.32	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.88	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.97	0.03	0.20	0.00	0.80	0.00	0.00	0.00
Final Sat.:	608	1900	0	0	1835	58	336	0	1342	0	0	0

Capacity Analysis Module:	Highland Home Rd.			D St.								
Vol/Sat:	0.22	0.76	0.00	0.00	0.59	0.59	0.07	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.84	0.84	0.00	0.00	0.84	0.84	0.08	0.00	0.08	0.00	0.00	0.00
Volume/Cap:	0.26	0.90	0.00	0.00	0.70	0.70	0.90	0.00	0.90	0.00	0.00	0.00
Delay/Veh:	1.9	12.7	0.0	0.0	4.5	4.5	95.0	0.0	95.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	1.9	12.7	0.0	0.0	4.5	4.5	95.0	0.0	95.0	0.0	0.0	0.0
LOS by Move:	A	B	A	A	A	A	F	A	F	A	A	A
HCM2kAvgQ:	1	30	0	0	13	13	6	0	6	0	0	0

 Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 With Improvements - PM Peak Hou

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Highland Home Rd./Wilson St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.834
Loss Time (sec): 12 Average Delay (sec/veh): 33.6
Optimal Cycle: 86 Level Of Service: C

Street Name:	Highland Home Rd.						Wilson St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	2

Volume Module:

Base Vol:	222	687	198	529	534	111	114	999	242	43	864	775
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	222	687	198	529	534	111	114	999	242	43	864	775
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	222	687	198	529	534	111	114	999	242	43	864	775
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	222	687	198	529	534	111	114	999	242	43	864	775
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	222	687	198	529	534	111	114	999	242	43	864	775

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.92	0.93	0.93	0.27	0.92	0.92	0.15	0.95	0.85
Lanes:	1.00	1.55	0.45	2.00	1.66	0.34	1.00	1.61	0.39	1.00	2.00	1.00
Final Sat.:	1805	2707	780	3502	2911	605	507	2822	684	277	3610	1615

Capacity Analysis Module:

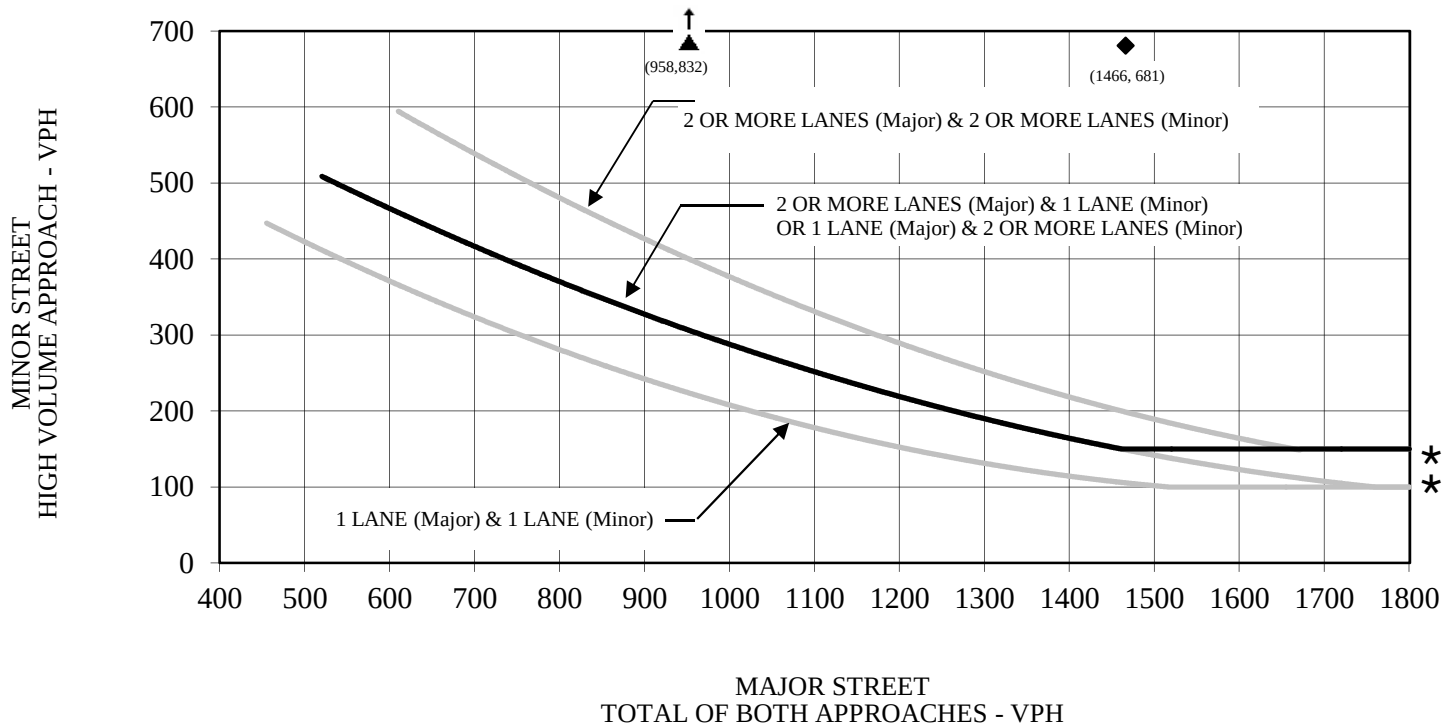
Vol/Sat:	0.12	0.25	0.25	0.15	0.18	0.18	0.22	0.35	0.35	0.16	0.24	0.48
Crit Moves:	****			****						****		
Green/Cycle:	0.19	0.30	0.30	0.18	0.29	0.29	0.39	0.39	0.39	0.39	0.39	0.58
Volume/Cap:	0.63	0.83	0.83	0.83	0.63	0.63	0.57	0.90	0.90	0.39	0.61	0.83
Delay/Veh:	40.6	38.2	38.2	48.8	32.1	32.1	27.5	36.5	36.5	24.0	24.9	23.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.6	38.2	38.2	48.8	32.1	32.1	27.5	36.5	36.5	24.0	24.9	23.9
LOS by Move:	D	D	D	D	C	C	C	D	D	C	C	C
HCM2kAvgQ:	7	16	16	8	9	9	3	17	17	1	12	22

Note: Queue reported is the number of cars per lane.

APPENDIX B

SIGNAL WARRANT ANALYSIS

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-1

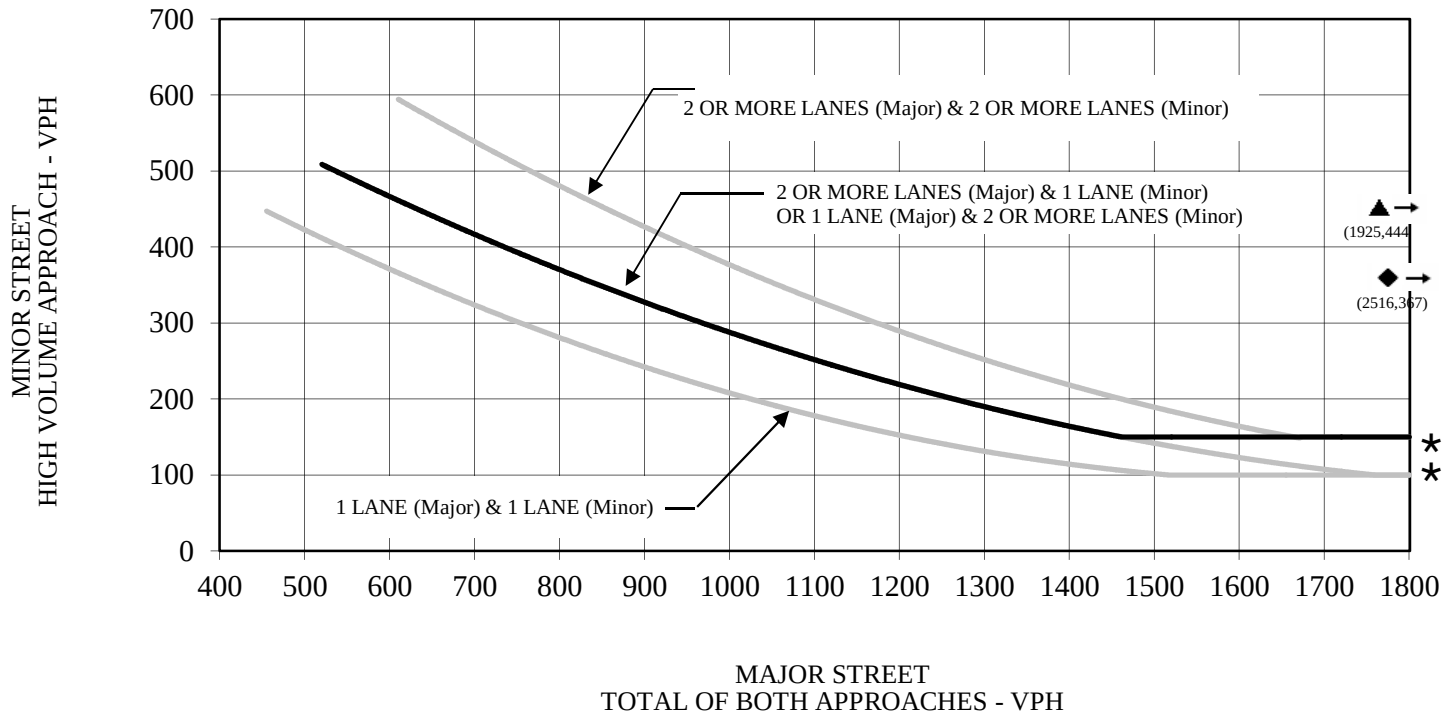
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
Existing Plus Project Alternative I
Highland Springs Ave./F St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-2

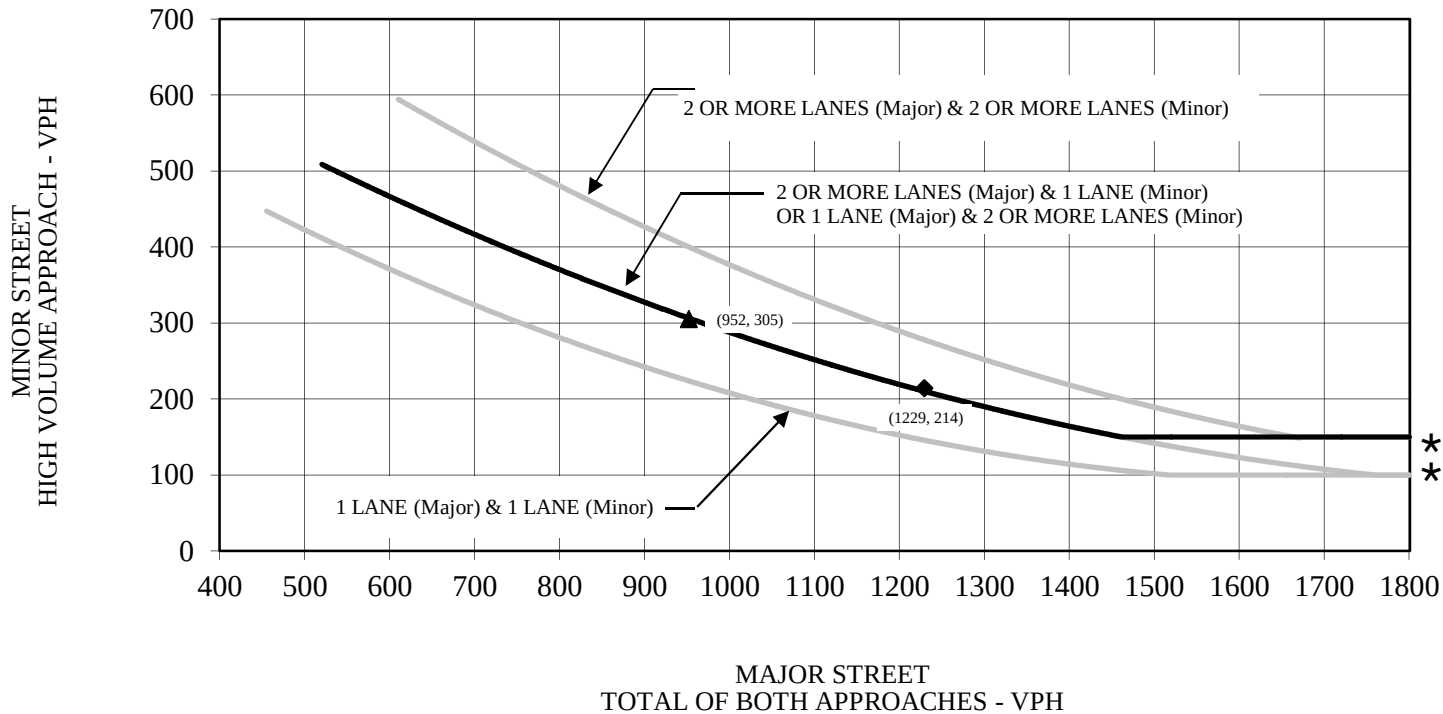
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
Existing Plus Project Alternative I
Highland Springs Ave./Starlight Ave.-A St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-3

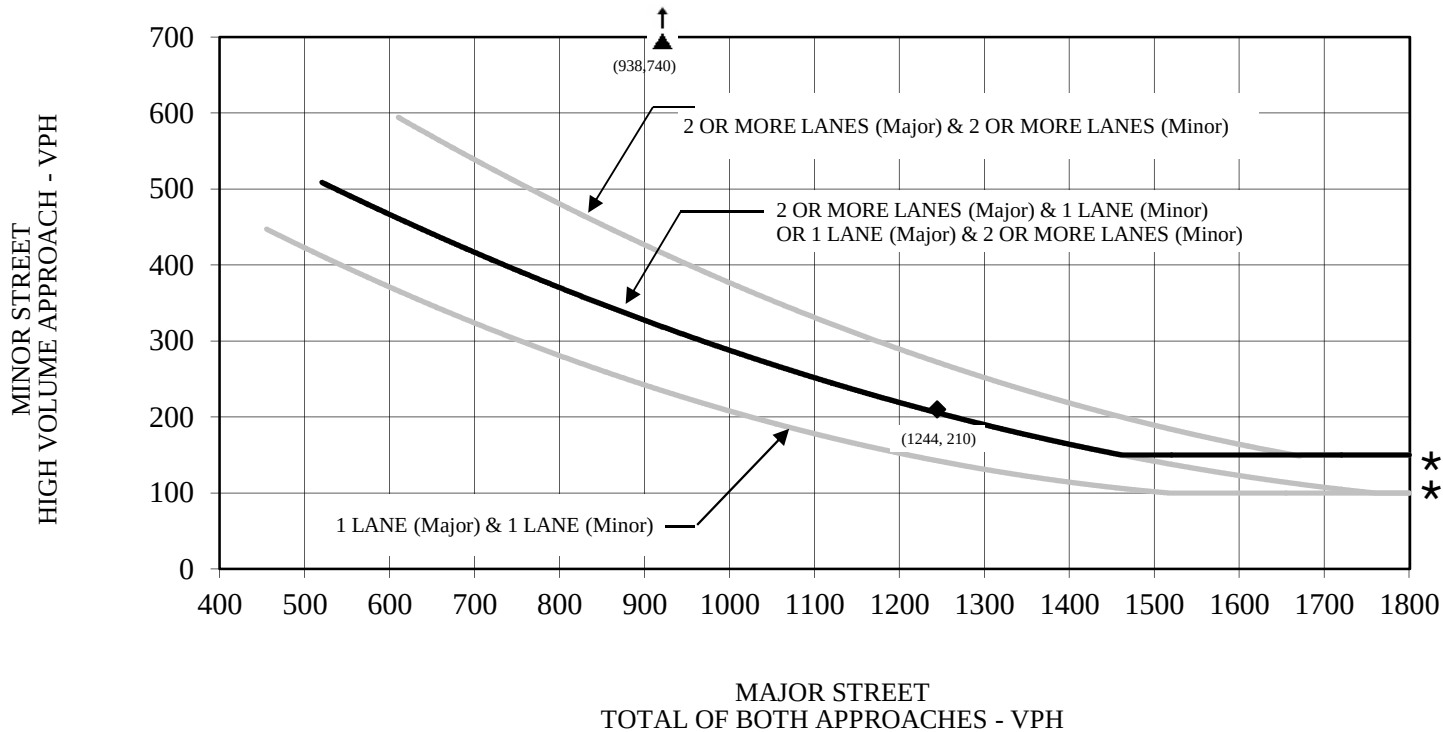
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
Existing Plus Project Alternative I
C St.-Apex Ave./Wilson St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-4

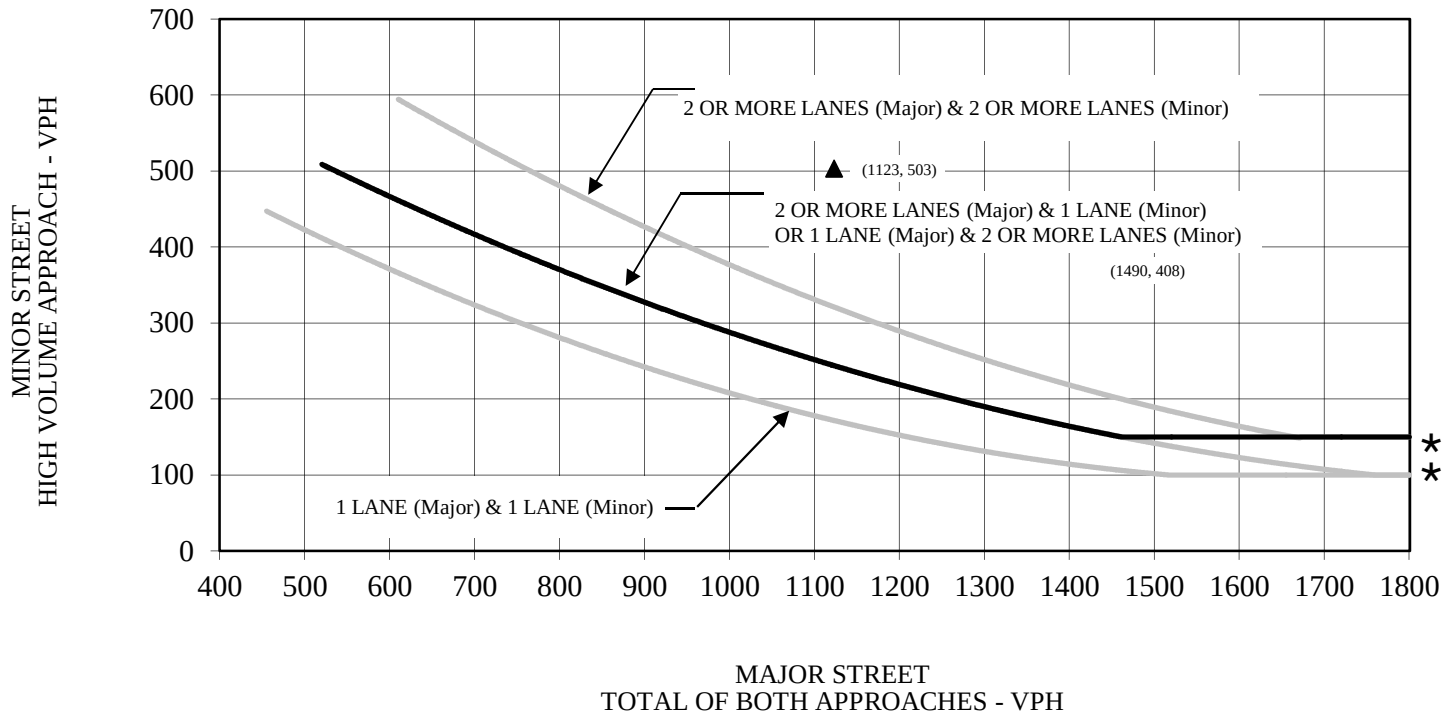
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
Existing Plus Project Alternative I
Highland Home Rd./Wilson St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-5

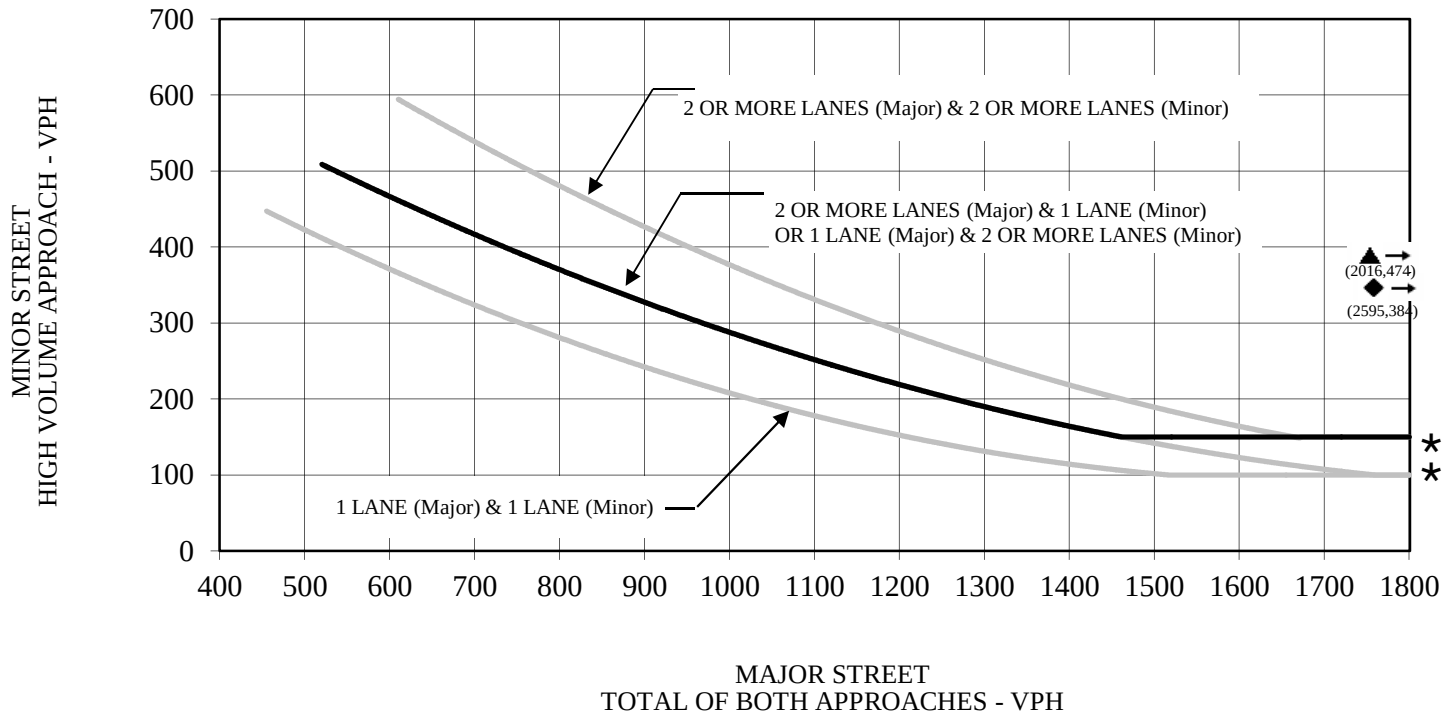
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
Existing Plus Project Alternative 2
Highland Springs Ave./F St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-6

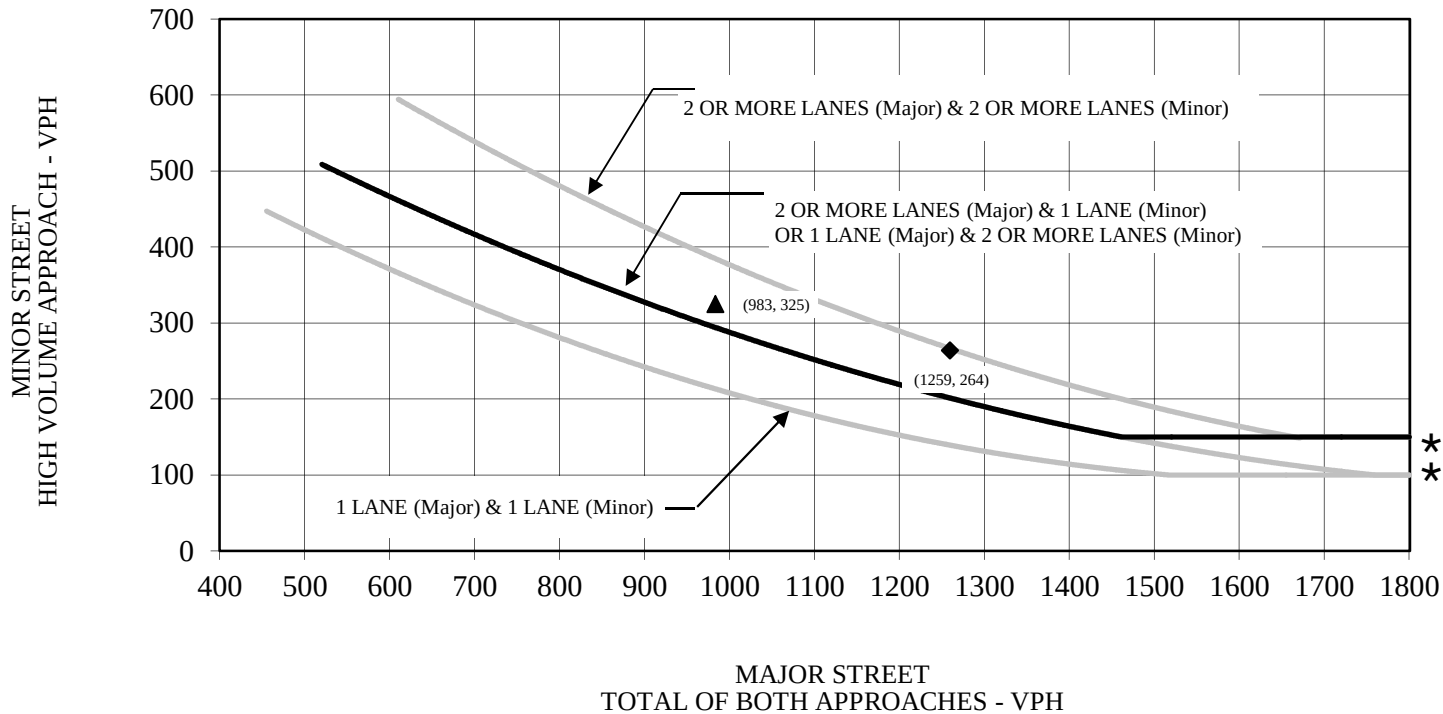
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
Existing Plus Project Alternative 2
Highland Springs Ave./Starlight Ave.-A St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-7

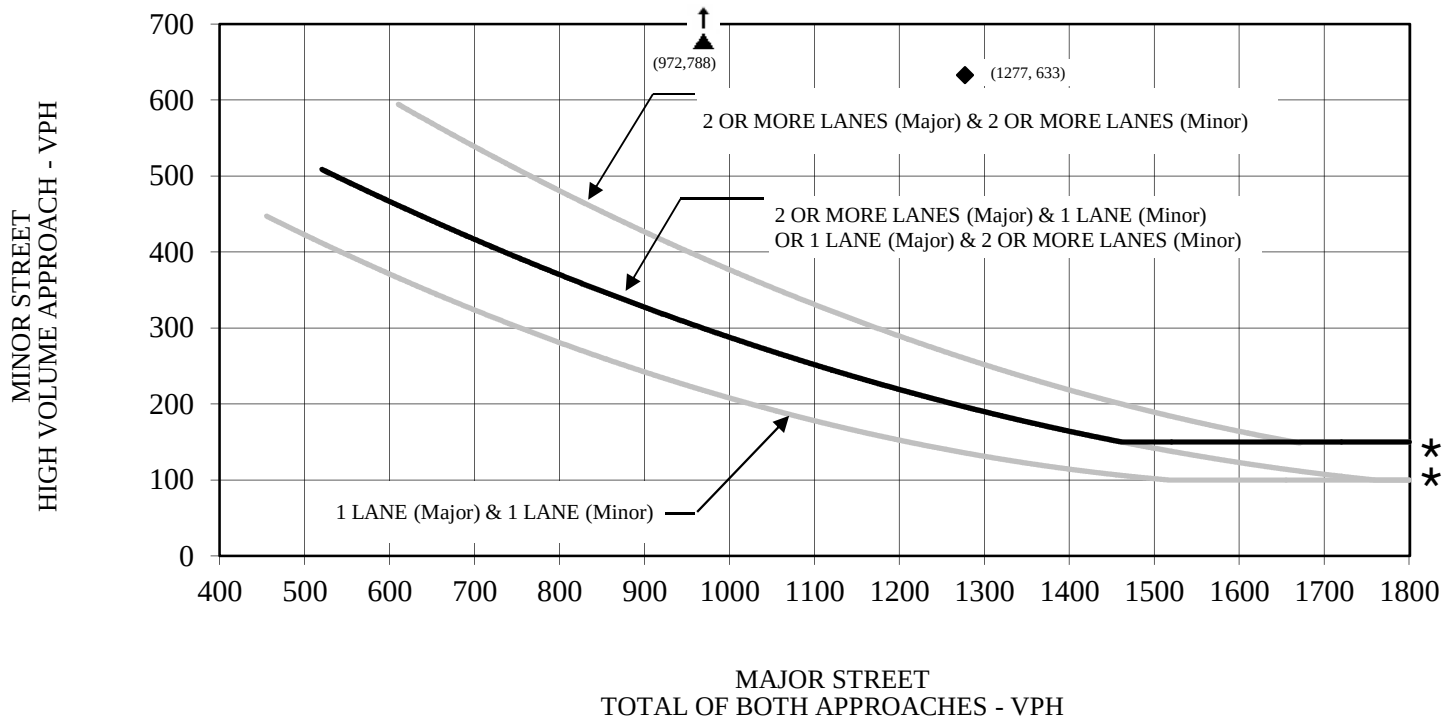
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
Existing Plus Project Alternative 2
C St.-Apex Ave./Wilson St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-8

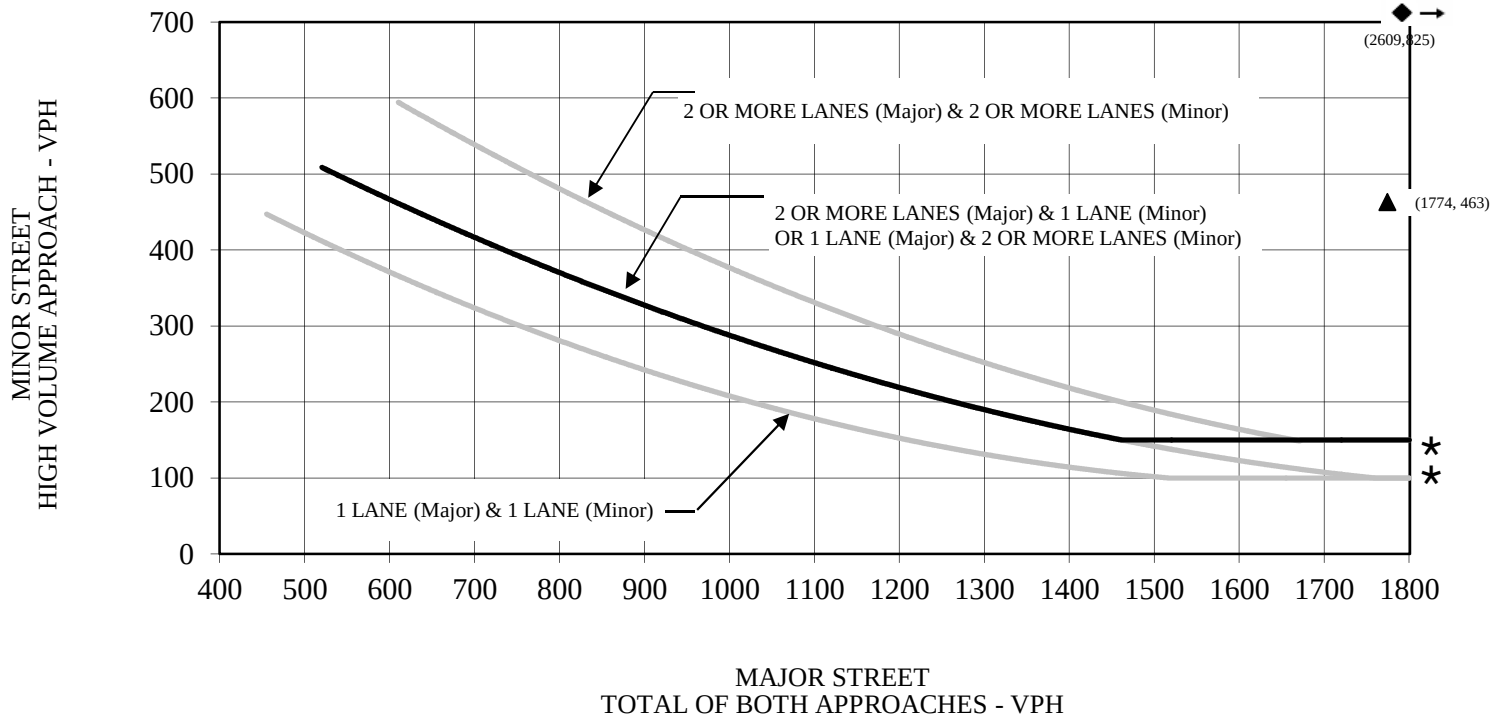
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
Existing Plus Project Alternative 2
Highland Home Rd./Wilson St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-9

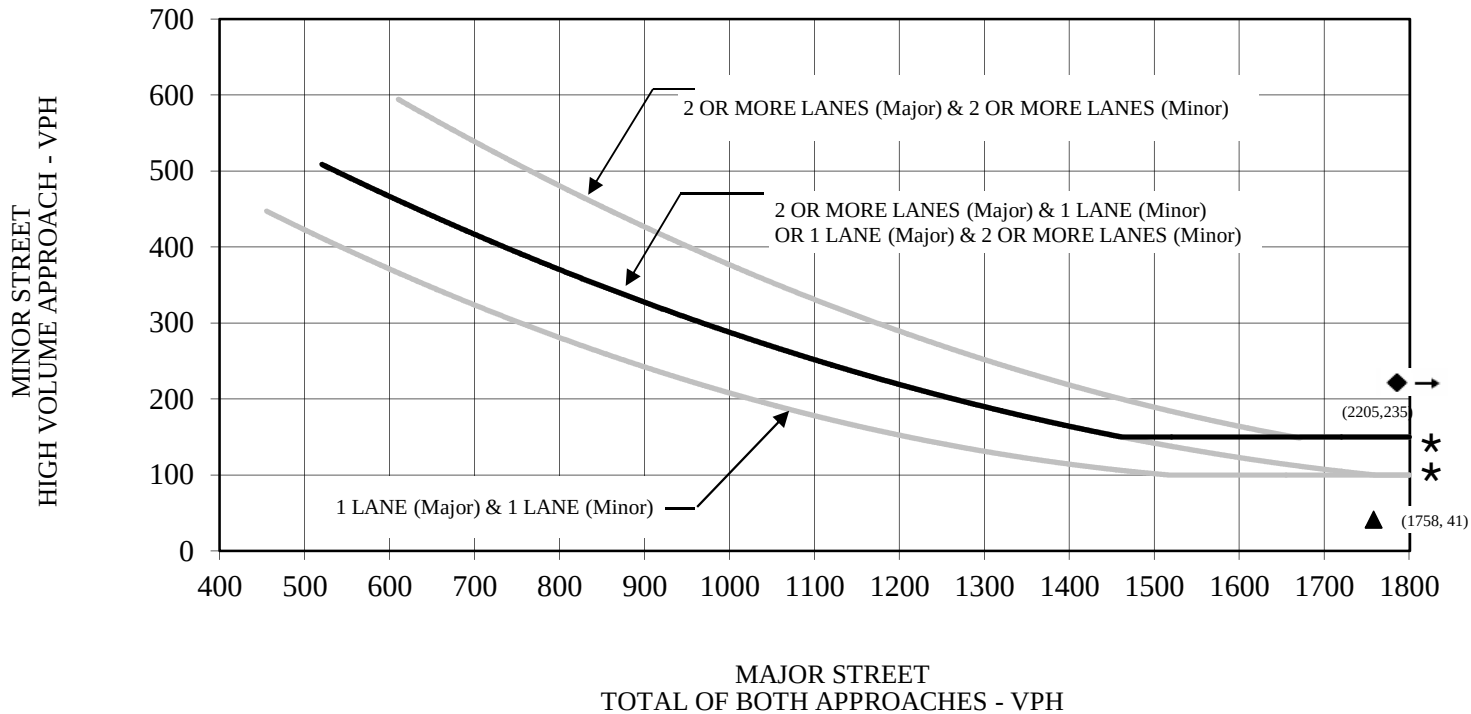
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative 1
Highland Springs Ave./Brookside Ave. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-10

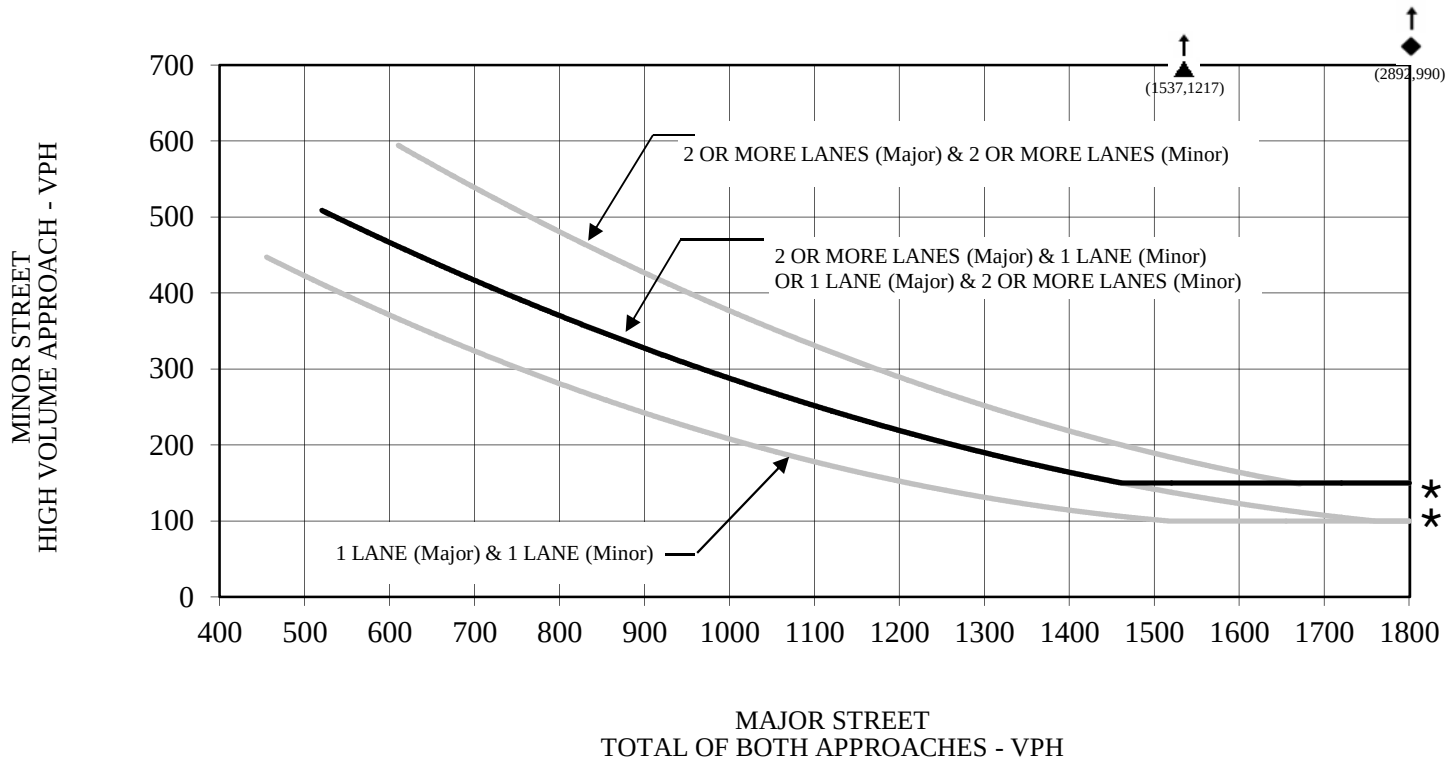
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative I
Highland Springs Ave./16th St.-Cougar Way Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



LSA
(XXXX, YYY)

FIGURE B-11

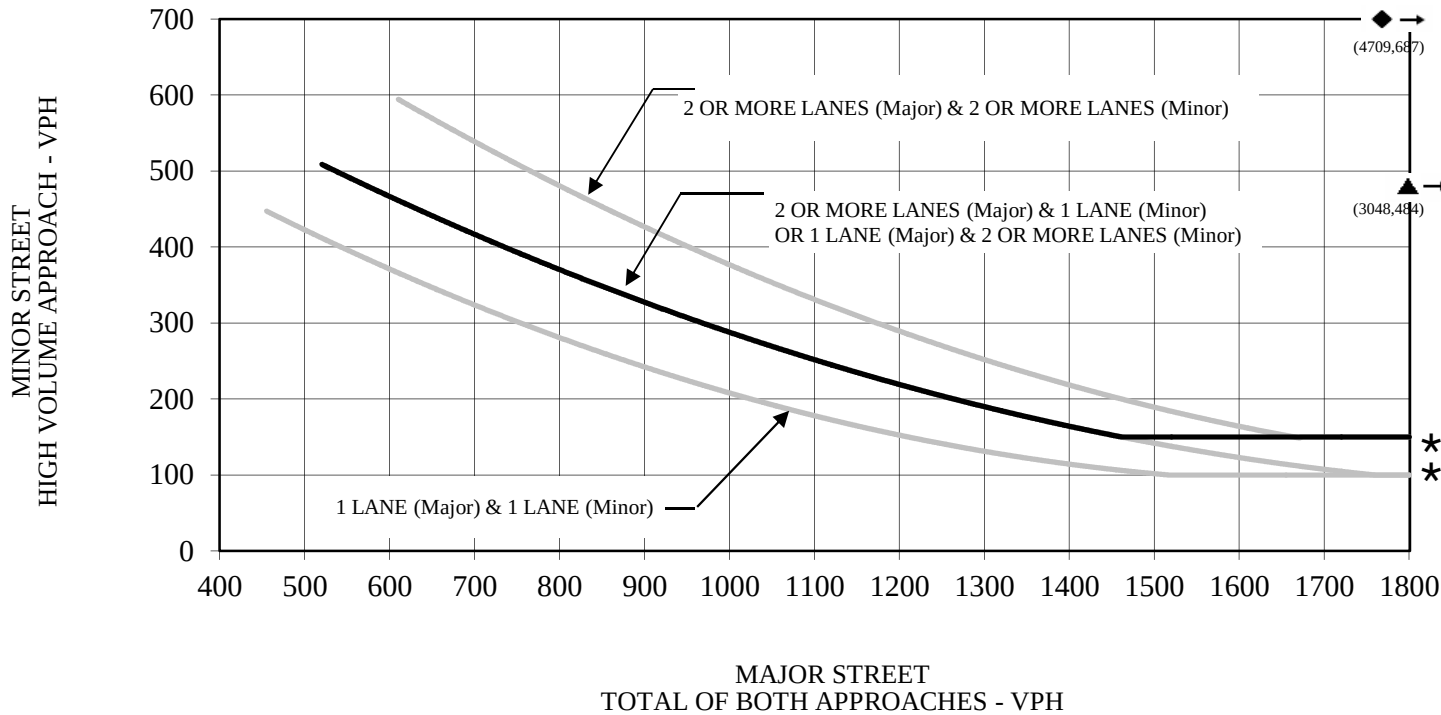
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative I
Highland Springs Ave./F St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-12

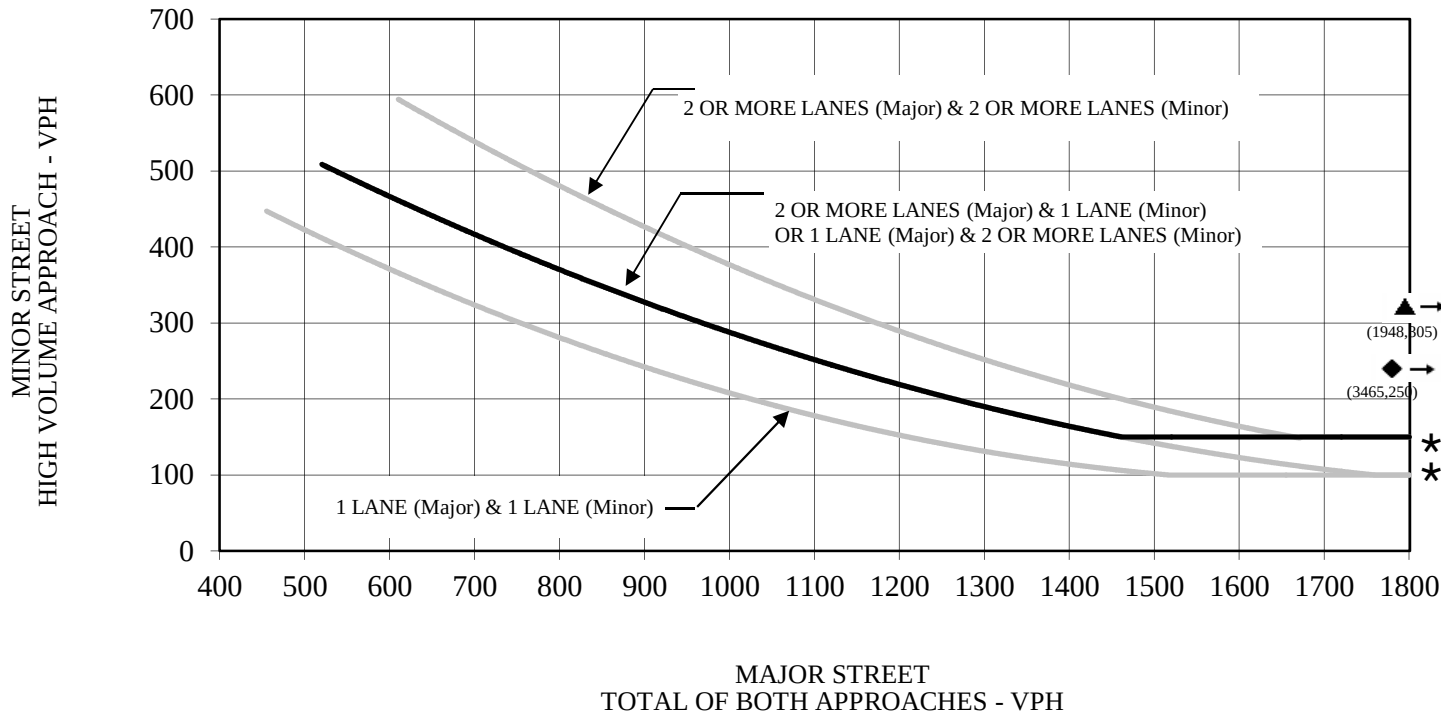
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative 1
Highland Springs Ave./Starlight Ave.-A St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-13

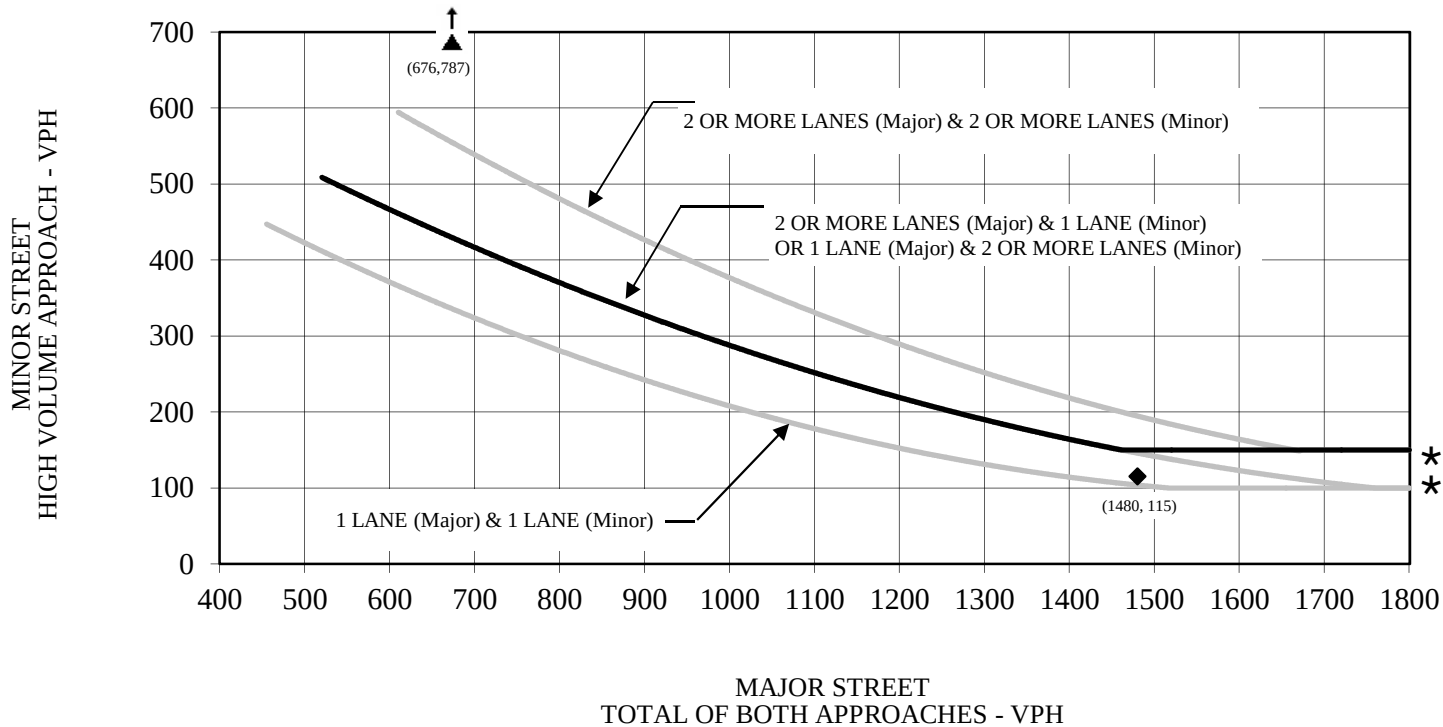
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative I
C St.-Apex Ave/Wilson St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-14

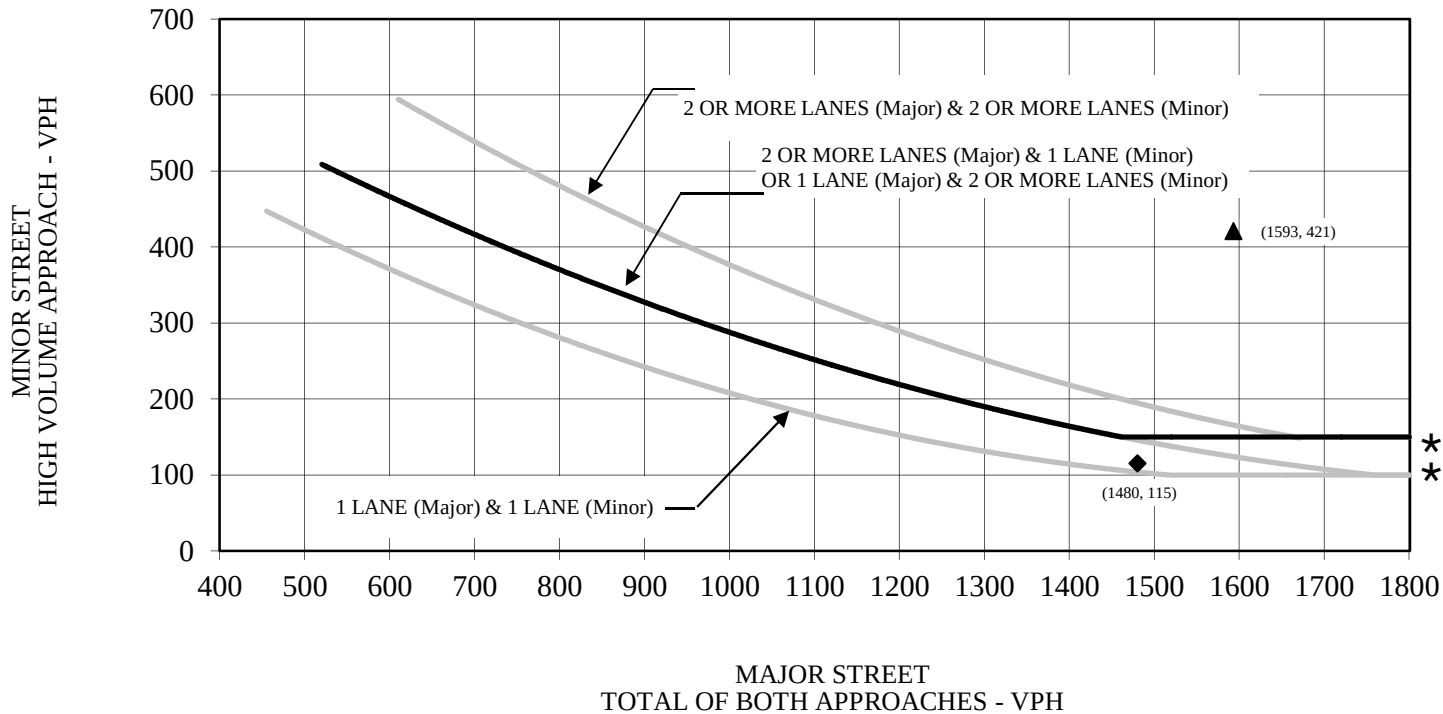
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative I
Highland Home Rd./Beaumont Rd.-G St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-15

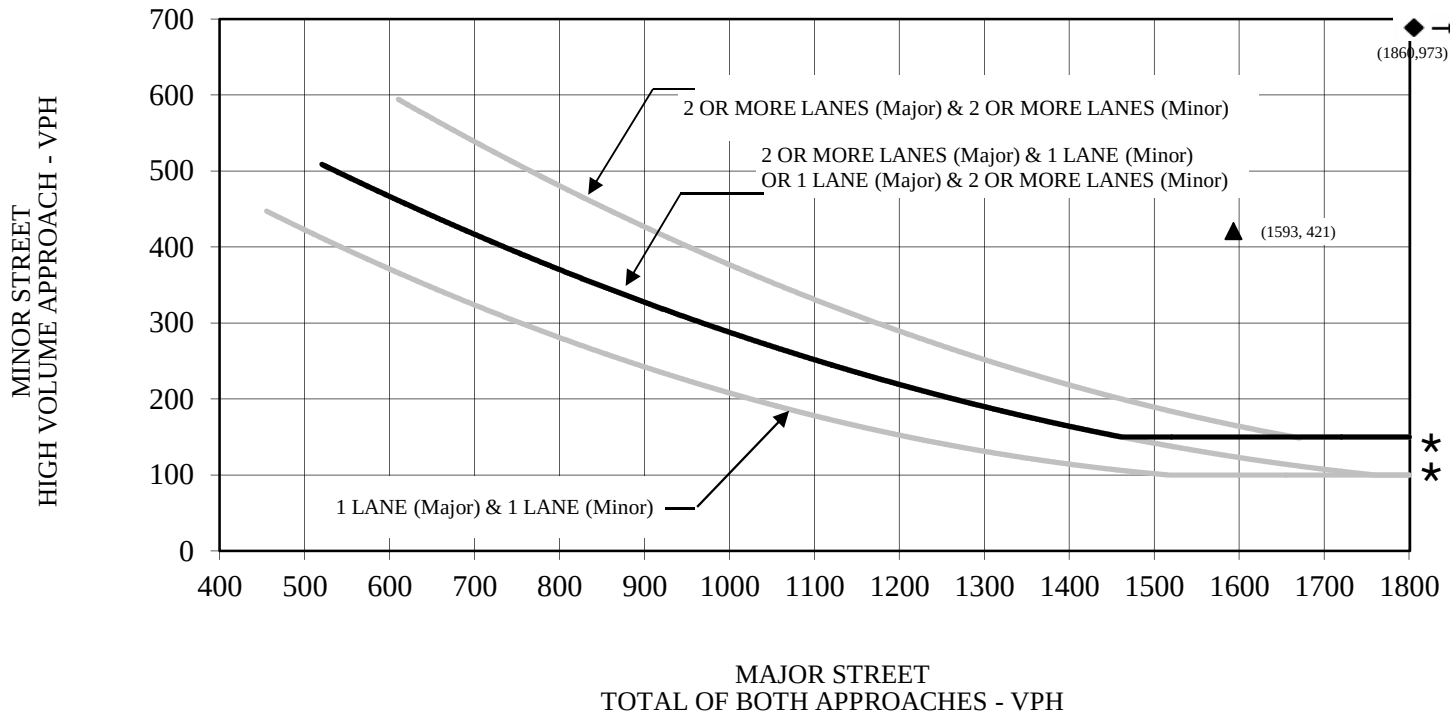
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative I
Highland Home Rd./F St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-16

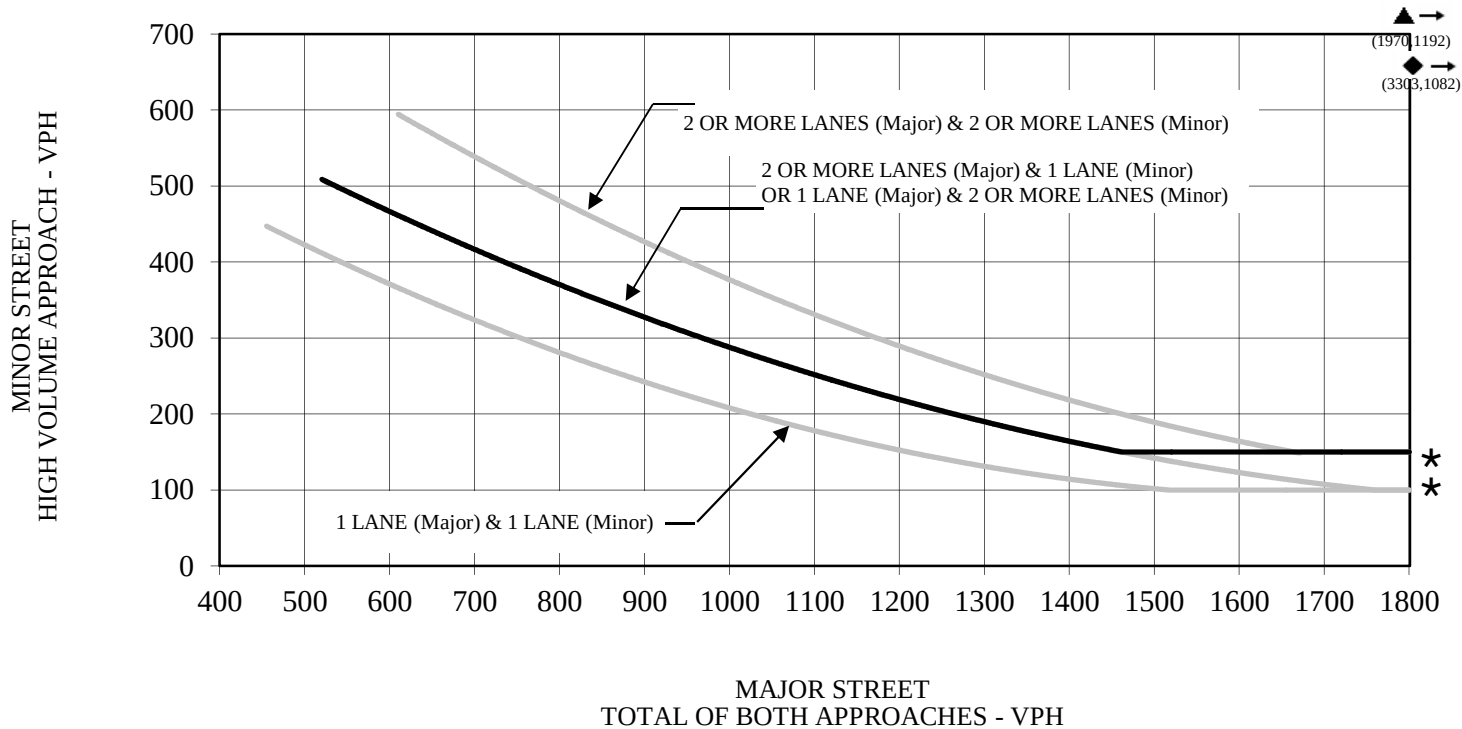
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative I
Highland Home Rd./D St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-17

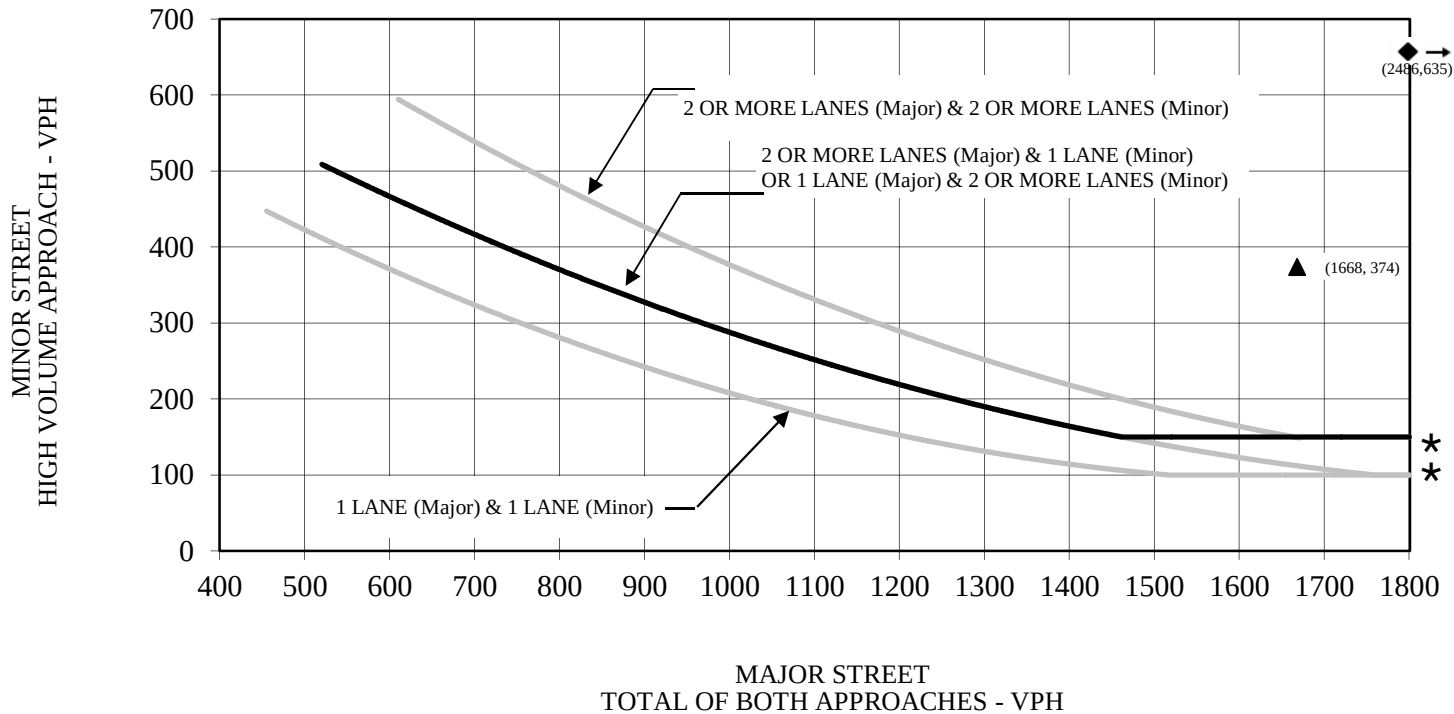
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative I
Highland Home Rd./Wilson St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-18

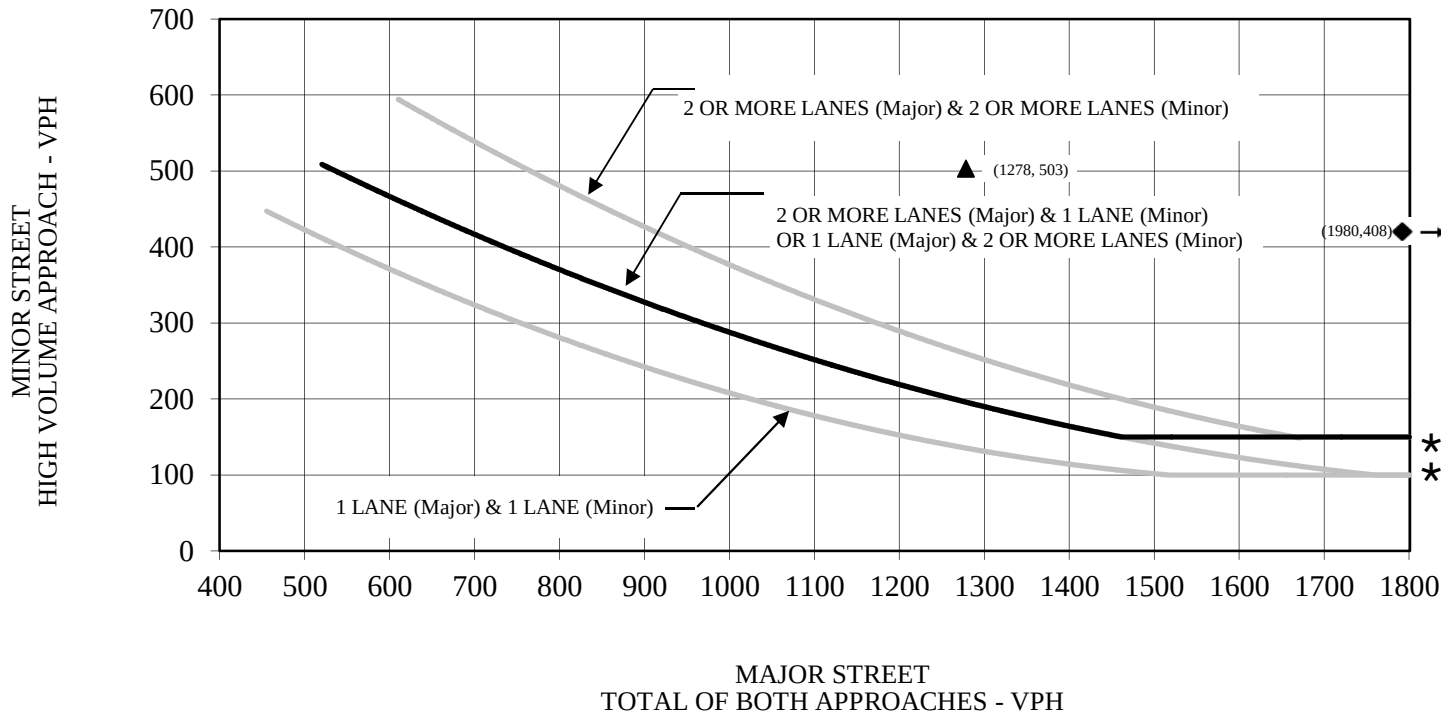
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
General Plan Build-out plus Project Alternative 2
Highland Springs Ave./Brookside Ave. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-19

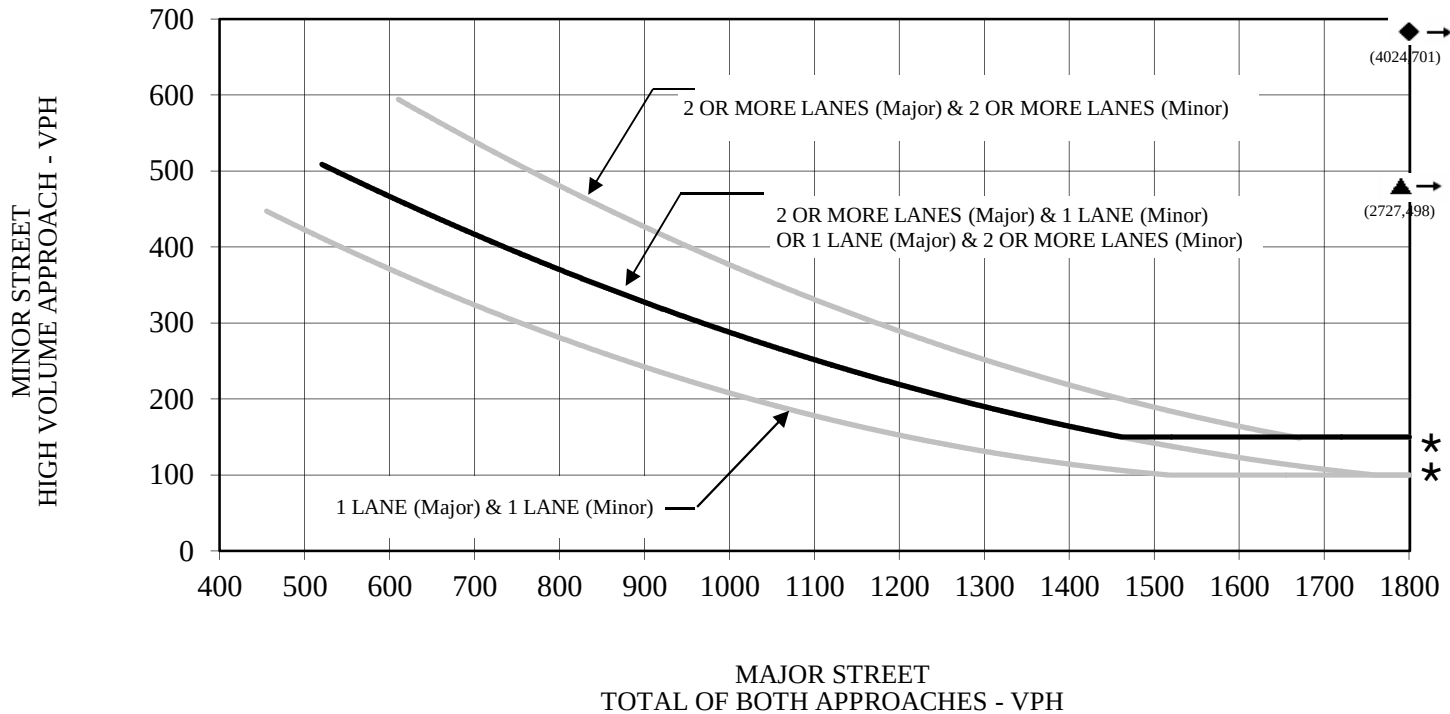
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
General Plan Build-out plus Project Alternative 2
Highland Springs Ave./F St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



LSA
(XXXX, YYY)

FIGURE B-20

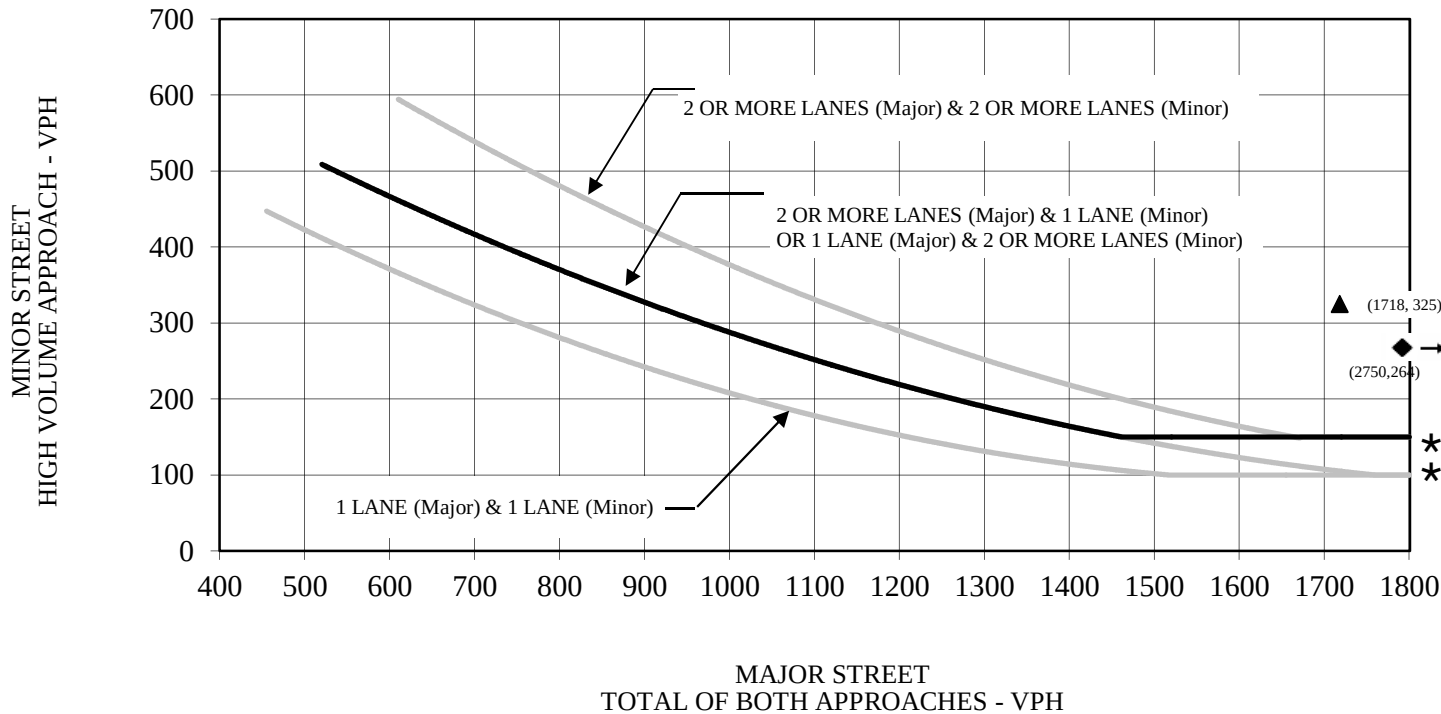
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
General Plan Build-out plus Project Alternative 2
Highland Springs Ave./Starlight Ave.-A St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-21

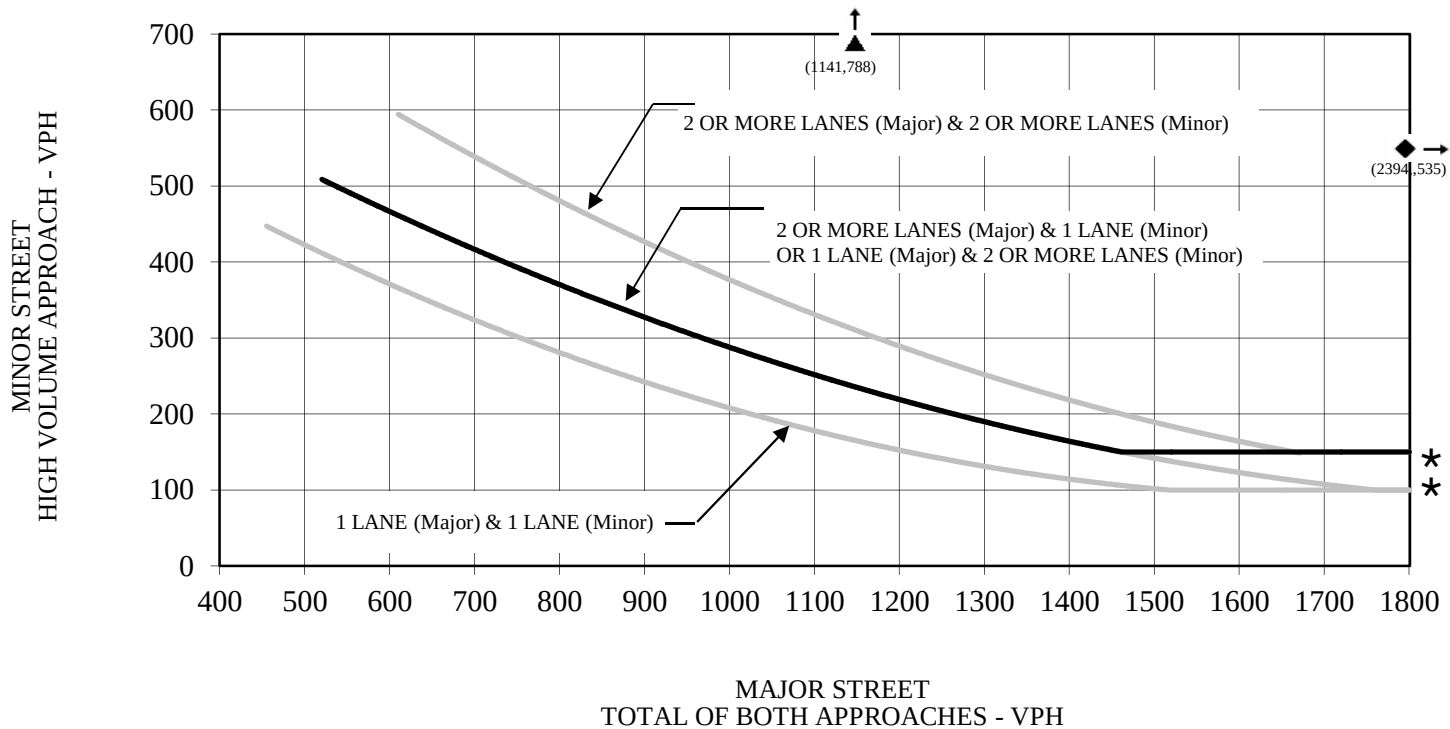
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
General Plan Build-out plus Project Alternative 2
C St.-Apex Ave./Wilson St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-22

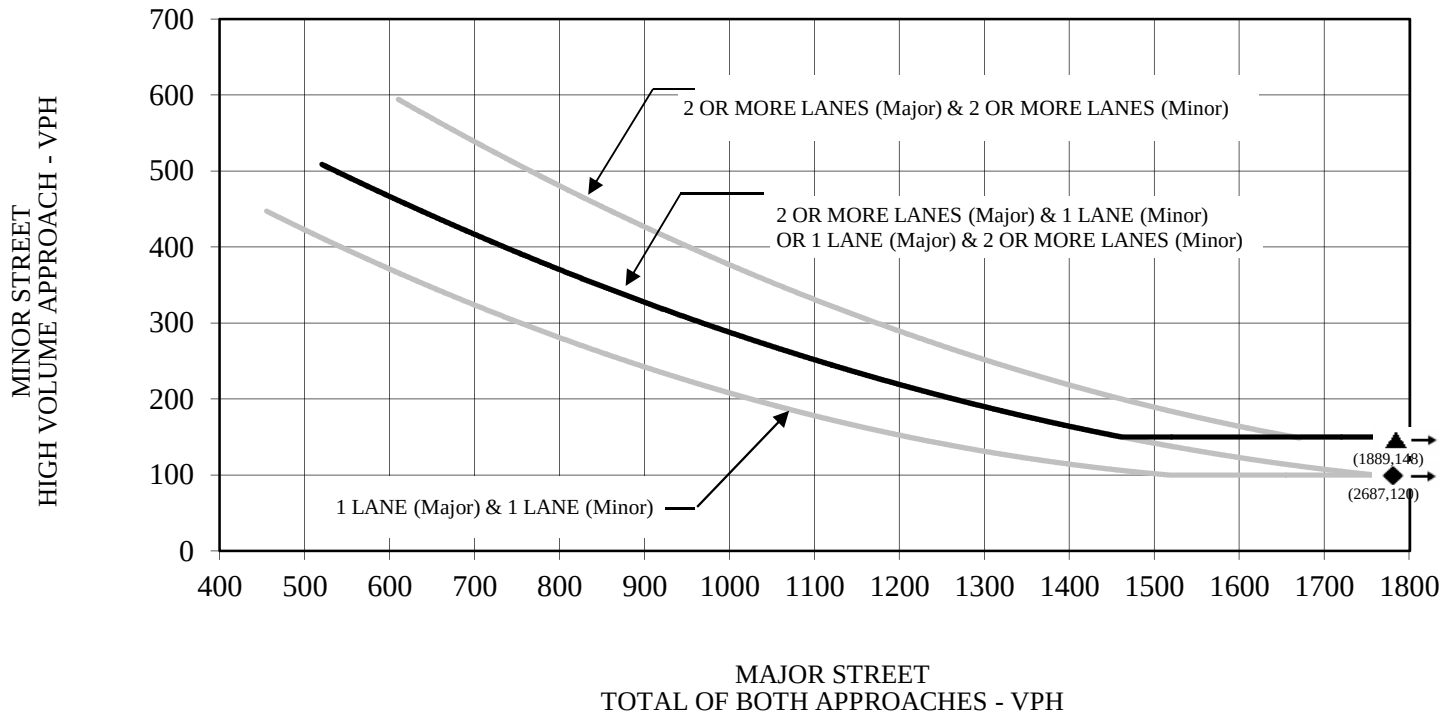
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

Revised Butterfield Specific Plan
General Plan Build-out plus Project Alternative 2
Highland Home Rd./Beaumont Rd.-G St. Peak Hour Signal Warrant

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-23

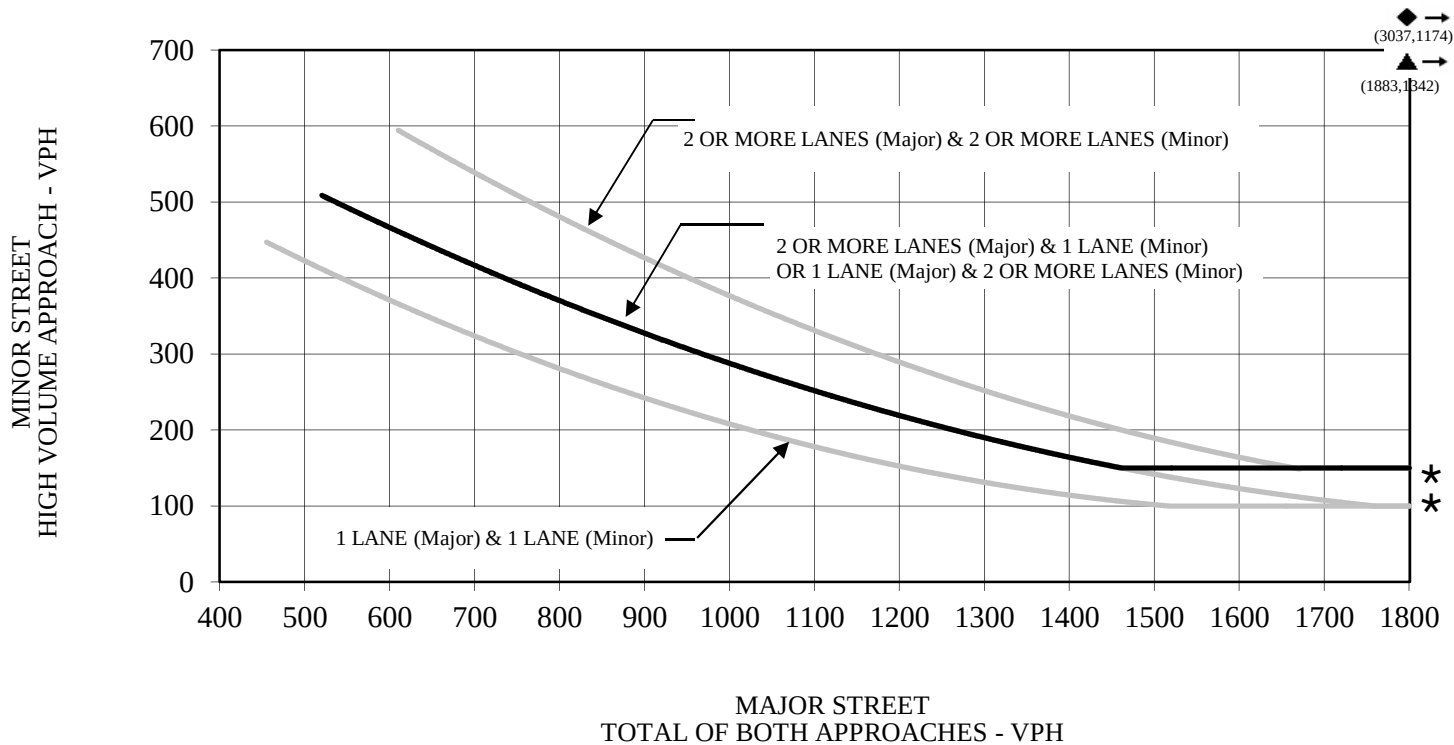
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
General Plan Build-out plus Project Alternative 2
Highland Home Rd./D St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-24

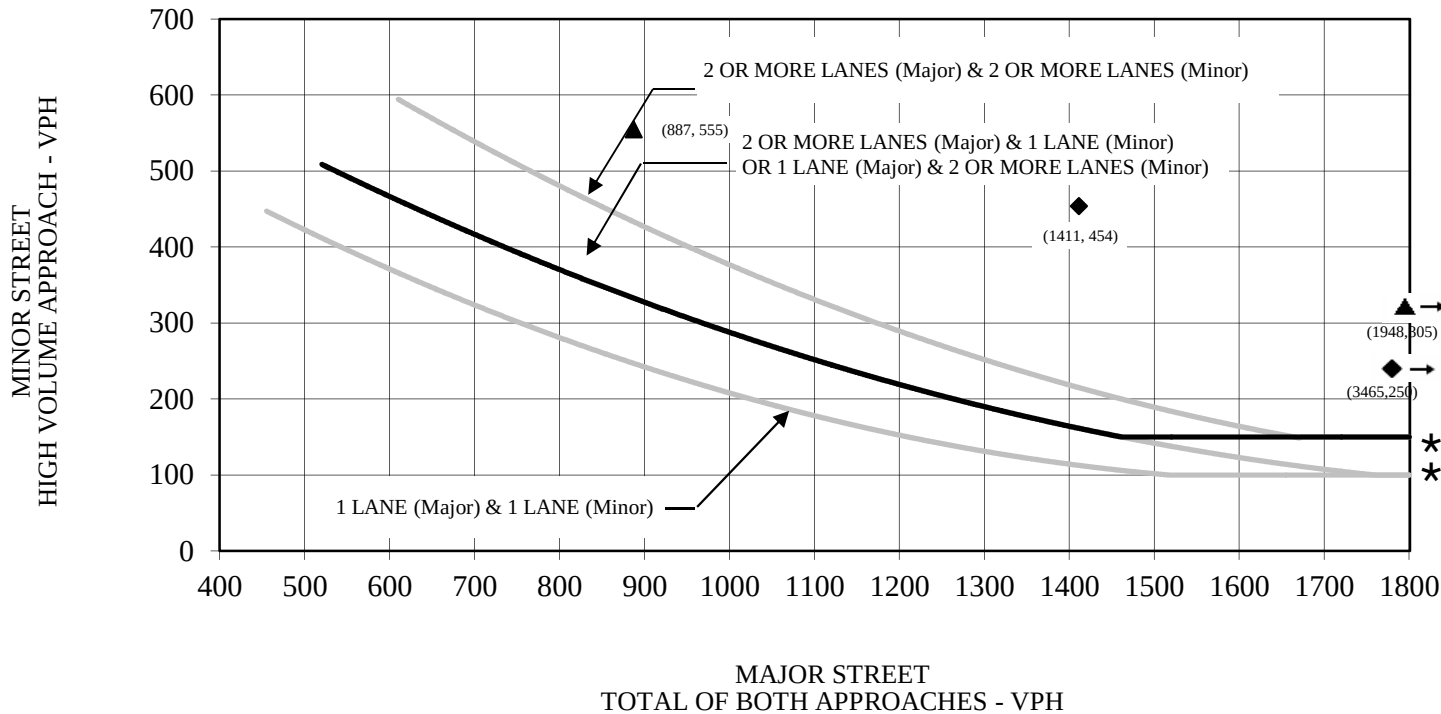
- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Revised Butterfield Specific Plan
General Plan Build-out plus Project Alternative 2
Highland Home Rd./Wilson St. Peak Hour Signal Warrant

WARRANT 3, PEAK HOUR



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA
(XXXX, YYY)

FIGURE B-25

- ▲ Existing Plus Project AM Peak Hour
- ◆ Existing Plus Project PM Peak Hour

(Major Street, Minor Street)

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Butterfield Specific Plan Amendment
General Plan Build-out plus Project Alternative I
F St./Northern Loop Peak Hour Signal Warrant

APPENDIX C

INTERNAL CIRCULATION HCM WORKSHEETS

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Scenario Report

Scenario: buildout wp am
Command: buildout wp am
Volume: buildout wp am
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 F St/Northern Loop

Average Delay (sec/veh): 64.1 Worst Case Level Of Service: F[162.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	1	0	0

Volume Module:

Base Vol:	0	0	0	111	0	444	234	205	0	0	389	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	111	0	444	234	205	0	0	389	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	111	0	444	234	205	0	0	389	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	111	0	444	234	205	0	0	389	59

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1092	1092	419	448	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	240	216	639	1123	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	195	165	639	1123	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.57	0.00	0.69	0.21	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.8	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	439	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	23.4	xxxxx	0.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	163	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	F	*	A	*	*	*	*	*	
ApproachDel:	xxxxxx			162.6			xxxxxx			xxxxxx			
ApproachLOS:	*			F			*			*			

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 E Street/F Street

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: B[12.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	56	0	167	88	196	0	0	144	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	56	0	167	88	196	0	0	144	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	56	0	167	88	196	0	0	144	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	56	0	167	88	196	0	0	144	29

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	614	545	196	531	531	159	173	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	407	449	850	513	457	892	1416	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	314	419	850	487	427	892	1416	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	0.00	0.00	0.11	0.00	0.19	0.06	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	0	xxxxx	xxxx	738	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.0	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			12.0			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #15 E Street/Southern Loop

Average Delay (sec/veh): 7.5 Worst Case Level Of Service: A[9.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	56	0	83	44	0	0	0	0	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	56	0	83	44	0	0	0	0	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	56	0	83	44	0	0	0	0	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	56	0	83	44	0	0	0	0	29

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	88	88	0	29	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	918	806	1091	1597	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	898	784	1091	1597	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.08	0.03	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	1004	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	9.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	A	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				9.2		xxxxxx			xxxxxx		
ApproachLOS:	*				A		*			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 D Street/Southern Loop

Average Delay (sec/veh): 4.7 Worst Case Level Of Service: A[9.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	0	139	56	0	0	0	0	0	73	0	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	139	56	0	0	0	0	0	73	0	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	139	56	0	0	0	0	0	73	0	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	139	56	0	0	0	0	0	73	0	29

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	139	xxxx	xxxxx	xxxx	xxxx	xxxxx	112	112	0
Potent Cap.:	xxxx	xxxx	xxxxx	1457	xxxx	xxxxx	xxxx	xxxx	xxxxx	890	782	1091
Move Cap.:	xxxx	xxxx	xxxxx	1457	xxxx	xxxxx	xxxx	xxxx	xxxxx	863	752	1091
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	0.00	0.03

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	918	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.4	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				9.4	
ApproachLOS:	*			*			*				A	

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 C Street/Southern Loop

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: C[15.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	1	0	0

Volume Module:

Base Vol:	88	0	59	0	0	0	0	145	167	111	237	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	88	0	59	0	0	0	0	145	167	111	237	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	88	0	59	0	0	0	0	145	167	111	237	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	88	0	59	0	0	0	0	145	167	111	237	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx

Capacity Module:

Cnflct Vol:	688	688	229	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	312	xxxxx	xxxxx
Potent Cap.:	415	372	816	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1260	xxxxx	xxxxx
Move Cap.:	386	337	816	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1260	xxxxx	xxxxx
Volume/Cap:	0.23	0.00	0.07	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.09	xxxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.1	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	489	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	1.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx
Shrd ConDel:	xxxxx	15.5	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.1	xxxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	A	*	*
ApproachDel:	15.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #18 A Street/Southern Loop

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: B[11.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	250	0	0	0	0	139	73	0	132	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	0	0	0	0	139	73	0	132	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	250	0	0	0	0	139	73	0	132	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	250	0	0	0	0	139	73	0	132	0	0	0

Critical Gap Module:

Critical Gap:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	139	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	500	500	0	xxxx	xxxx	xxxxxx
Potent Cap.:	1457	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	534	476	1091	xxxx	xxxx	xxxxxx
Move Cap.:	1457	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	464	394	1091	xxxx	xxxx	xxxxxx
Volume/Cap:	0.17	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.16	0.00	0.12	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	8.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	736	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	1.1	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	11.8	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	11.8	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #19 B Street/Southern Loop

Average Delay (sec/veh): 6.7 Worst Case Level Of Service: B[11.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	103	0	103	194	0	0	0	0	194
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	103	0	103	194	0	0	0	0	194
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	103	0	103	194	0	0	0	0	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	103	0	103	194	0	0	0	0	194

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	388	388	0	194	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	619	550	1091	1391	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	553	473	1091	1391	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.19	0.00	0.09	0.14	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	734	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	11.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			11.8			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Scenario Report

Scenario: buildout wp pm
Command: buildout wp pm
Volume: buildout wp pm
Geometry: buildout wp
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: buildout

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 F St/Northern Loop

Average Delay (sec/veh): 219.1 Worst Case Level Of Service: F[887.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	91	0	363	514	450	0	0	318	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	91	0	363	514	450	0	0	318	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	91	0	363	514	450	0	0	318	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	91	0	363	514	450	0	0	318	129

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1861	1861	383	447	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	81	74	669	1124	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	40	27	669	1124	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	2.30	0.00	0.54	0.46	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.4	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	160	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	40.9	xxxxx	2.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	888	xxxxx	10.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	B	*	*	*	*	*
ApproachDel:	xxxxxx			887.8			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 E Street/F Street

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: B[14.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	45	0	136	193	200	0	0	238	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	45	0	136	193	200	0	0	238	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	45	0	136	193	200	0	0	238	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	45	0	136	193	200	0	0	238	64

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	924	888	200	856	856	270	302	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	252	285	846	331	297	774	1270	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	181	236	846	288	247	774	1270	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	0.00	0.00	0.16	0.00	0.18	0.15	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	0	xxxxx	xxxx	545	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.4	xxxxx	0.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.9	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			14.9			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #15 E Street/Southern Loop

Average Delay (sec/veh): 6.5 Worst Case Level Of Service: A[9.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	45	0	68	96	0	0	0	0	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	45	0	68	96	0	0	0	0	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	45	0	68	96	0	0	0	0	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	45	0	68	96	0	0	0	0	64

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	192	192	0	64	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	801	707	1091	1551	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	764	663	1091	1551	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.06	0.06	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	932	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	9.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	A	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				9.4		xxxxxx			xxxxxx		
ApproachLOS:	*				A		*			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 D Street/Southern Loop

Average Delay (sec/veh): 6.8 Worst Case Level Of Service: B[10.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	0	113	45	0	0	0	0	0	161	0	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	113	45	0	0	0	0	0	161	0	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	113	45	0	0	0	0	0	161	0	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	113	45	0	0	0	0	0	161	0	64

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	113	xxxx	xxxxx	xxxx	xxxx	xxxxx	90	90	0
Potent Cap.:	xxxx	xxxx	xxxxx	1489	xxxx	xxxxx	xxxx	xxxx	xxxxx	915	804	1091
Move Cap.:	xxxx	xxxx	xxxxx	1489	xxxx	xxxxx	xxxx	xxxx	xxxxx	894	780	1091
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.18	0.00	0.06

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	943	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.9	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.0	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.0		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 C Street/Southern Loop

Average Delay (sec/veh): 10.3 Worst Case Level Of Service: D[31.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	193	0	129	0	0	0	0	280	136	91	214	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	193	0	129	0	0	0	0	280	136	91	214	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	193	0	129	0	0	0	0	280	136	91	214	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	193	0	129	0	0	0	0	280	136	91	214	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gap:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	744	744	348	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	416	xxxxx	xxxxx
Potent Cap.:	385	345	700	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1154	xxxxx	xxxxx
Move Cap.:	361	317	700	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1154	xxxxx	xxxxx
Volume/Cap:	0.54	0.00	0.18	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.08	xxxxx	xxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.4	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	447	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared Queue:	xxxxx	5.7	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx
Shrd ConDel:	xxxxx	31.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.4	xxxxx	xxxxx
Shared LOS:	*	D	*	*	*	*	*	*	*	A	*	*
ApproachDel:	31.1			xxxxxxx			xxxxxxx			xxxxxxx		
ApproachLOS:	D			*			*			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #18 A Street/Southern Loop

Average Delay (sec/veh): 11.0 Worst Case Level Of Service: C[15.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	204	0	0	0	0	113	161	0	289	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	204	0	0	0	0	113	161	0	289	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	204	0	0	0	0	113	161	0	289	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	204	0	0	0	0	113	161	0	289	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	113	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	408	408	0	xxxx	xxxx	xxxxxx
Potent Cap.:	1489	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	603	536	1091	xxxx	xxxx	xxxxxx
Move Cap.:	1489	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	540	462	1091	xxxx	xxxx	xxxxxx
Volume/Cap:	0.14	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	0.30	0.00	0.26	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	799	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	3.6	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	15.1	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			15.1			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the number of cars per lane.

Butterfield Specific Plan Amendment
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 1 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #19 B Street/Southern Loop

Average Delay (sec/veh): 10.6 Worst Case Level Of Service: C[15.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	225	0	225	159	0	0	0	0	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	225	0	225	159	0	0	0	0	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	225	0	225	159	0	0	0	0	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	225	0	225	159	0	0	0	0	159

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	318	318	0	159	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	679	602	1091	1433	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	622	535	1091	1433	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.36	0.00	0.21	0.11	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	792	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	3.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	15.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.4			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 G Street/Oak Valley Parkway

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: B[13.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	1
Volume Module:												
Base Vol:	0	0	0	30	0	118	65	195	0	0	355	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	30	0	118	65	195	0	0	355	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	30	0	118	65	195	0	0	355	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	30	0	118	65	195	0	0	355	16
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxxx	688	688	363	371	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	415	372	686	1199	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	397	351	686	1199	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.08	0.00	0.17	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	598	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.0	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.0	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			13.0			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 B Street/Oak Valley Parkway

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: B[12.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	1	0	0
Volume Module:												
Base Vol:	89	0	30	0	0	0	0	177	49	16	282	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	0	30	0	0	0	0	177	49	16	282	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	0	30	0	0	0	0	177	49	16	282	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	89	0	30	0	0	0	0	177	49	16	282	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx
Capacity Module:												
Cnflct Vol:	516	516	202	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	226	xxxxx	xxxxx
Potent Cap.:	523	466	844	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1354	xxxxx	xxxxx
Move Cap.:	518	461	844	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1354	xxxxx	xxxxx
Volume/Cap:	0.17	0.00	0.04	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	xxxxx	xxxxx
Level Of Service Module:												
2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.7	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	574	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	0.8	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Shrd ConDel:	xxxxx	12.9	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.7	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	12.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #15 B Street/A Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.425
Loss Time (sec): 0 Average Delay (sec/veh): 11.0
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	237	49	0	0	89	237	130	0	130	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	237	49	0	0	89	237	130	0	130	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	237	49	0	0	89	237	130	0	130	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	49	0	0	89	237	130	0	130	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	237	49	0	0	89	237	130	0	130	0	0	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.83	0.17	0.00	0.00	0.27	0.73	0.50	0.00	0.50	0.00	0.00	0.00
Final Sat.:	562	116	0	0	210	558	334	0	334	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.42	0.42	xxxx	xxxx	0.42	0.42	0.39	xxxx	0.39	xxxx	xxxx	xxxx
Crit Moves:	****				****		****					
Delay/Veh:	11.6	11.6	0.0	0.0	10.6	10.6	10.9	0.0	10.9	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.6	11.6	0.0	0.0	10.6	10.6	10.9	0.0	10.9	0.0	0.0	0.0
LOS by Move:	B	B	*	*	B	B	B	*	B	*	*	*
ApproachDel:	11.6				10.6		10.9			xxxxxx		
Delay Adj:	1.00				1.00		1.00			xxxxxx		
ApprAdjDel:	11.6				10.6		10.9			xxxxxx		
LOS by Appr:	B				B		B			*		
AllWayAvgQ:	0.6	0.6	0.6	0.7	0.7	0.7	0.5	0.5	0.5	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 E Street/Oak Valley Parkway

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: B[10.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	1
Volume Module:												
Base Vol:	0	0	0	30	0	89	49	157	0	0	211	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	30	0	89	49	157	0	0	211	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	30	0	89	49	157	0	0	211	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	30	0	89	49	157	0	0	211	16
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxxx	474	474	219	227	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	553	492	826	1353	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	537	474	826	1353	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.11	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	727	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	10.9	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			10.9			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 C Street/Oak Valley Parkway

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: B[11.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	89	0	30	0	0	0	0	138	49	16	138	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	0	30	0	0	0	0	138	49	16	138	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	0	30	0	0	0	0	138	49	16	138	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	89	0	30	0	0	0	0	138	49	16	138	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx
Capacity Module:												
Cnflct Vol:	333	333	163	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	187	xxxxx	xxxxx
Potent Cap.:	667	591	888	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1399	xxxxx	xxxxx
Move Cap.:	661	584	888	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1399	xxxxx	xxxxx
Volume/Cap:	0.13	0.00	0.03	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	xxxxx	xxxxx
Level Of Service Module:												
2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.6	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	706	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Shrd ConDel:	xxxxx	11.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.6	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	11.1			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #18 C Street/B Street

Average Delay (sec/veh): 6.1 Worst Case Level Of Service: B[11.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	114	65	0	0	118	89	49	0	207	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	114	65	0	0	118	89	49	0	207	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	114	65	0	0	118	89	49	0	207	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	114	65	0	0	118	89	49	0	207	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	207	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	456	456	163	xxxx	xxxx	xxxxxx
Potent Cap.:	1376	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	566	504	888	xxxx	xxxx	xxxxxx
Move Cap.:	1376	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	528	459	888	xxxx	xxxx	xxxxxx
Volume/Cap:	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	0.00	0.23	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	785	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	1.4	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	7.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	11.8	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	11.8	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #19 H Street/Oak Valley Parkway

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: B[10.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	1	0	0
Volume Module:												
Base Vol:	89	0	30	0	0	0	0	118	49	16	65	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	0	30	0	0	0	0	118	49	16	65	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	0	30	0	0	0	0	118	49	16	65	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	89	0	30	0	0	0	0	118	49	16	65	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx
Capacity Module:												
Cnflct Vol:	240	240	143	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	167	xxxxx	xxxxx
Potent Cap.:	753	665	910	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1423	xxxxx	xxxxx
Move Cap.:	747	658	910	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1423	xxxxx	xxxxx
Volume/Cap:	0.12	0.00	0.03	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.01	xxxxx	xxxxx
Level Of Service Module:												
2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.6	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	782	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Shrd ConDel:	xxxxx	10.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.6	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.4			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project A;t/ 2 Conditions - AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #20 Highland Home Road/D Street
*****Average Delay (sec/veh): 1.0 Worst Case Level Of Service: D[25.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	0	0	0	0

Volume Module:

Base Vol:	33	582	0	0	1181	0	0	0	59	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	582	0	0	1181	0	0	0	59	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	582	0	0	1181	0	0	0	59	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	33	582	0	0	1181	0	0	0	59	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1181	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1181	xxxx	xxxx	xxxxxx
Potent Cap.:	599	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	234	xxxx	xxxx	xxxxxx
Move Cap.:	599	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	234	xxxx	xxxx	xxxxxx
Volume/Cap:	0.06	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.25	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1.0	xxxx	xxxx	xxxxxx	
Control Del:	11.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	25.5	xxxxxx	xxxx	xxxxxx	
LOS by Move:	B	*	*	*	*	*	*	*	D	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxx	xxxxxx	xxxxxx	
SharedQueue:	0.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxx	xxxxxx	xxxxxx	
Shrd ConDel:	11.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxx	xxxxxx	xxxxxx	
Shared LOS:	B	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx				xxxxxx				25.5			xxxxxx	
ApproachLOS:	*				*				D			*	

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 G Street/Oak Valley Parkway

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: B[13.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	24	0	96	135	406	0	0	288	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	24	0	96	135	406	0	0	288	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	24	0	96	135	406	0	0	288	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	24	0	96	135	406	0	0	288	34

Critical Gap Module:

Critical Gap:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	981	981	305	322	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	279	251	740	1249	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	254	222	740	1249	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	0.00	0.13	0.11	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	535	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.9	xxxxx	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.7	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			13.7			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 B Street/Oak Valley Parkway

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: C[15.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	1	0	0
Volume Module:												
Base Vol:	72	0	24	0	0	0	0	328	101	34	250	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	0	24	0	0	0	0	328	101	34	250	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	0	24	0	0	0	0	328	101	34	250	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	72	0	24	0	0	0	0	328	101	34	250	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx
Capacity Module:												
Cnflct Vol:	697	697	379	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	429	xxxxx	xxxxx
Potent Cap.:	410	368	673	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1141	xxxxx	xxxxx
Move Cap.:	401	356	673	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1141	xxxxx	xxxxx
Volume/Cap:	0.18	0.00	0.04	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.03	xxxxx	xxxxx
Level Of Service Module:												
2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.3	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	446	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	0.8	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx
Shrd ConDel:	xxxxx	15.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.3	xxxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	A	*	*
ApproachDel:	15.3			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #15 B Street/A Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.787
Loss Time (sec): 0 Average Delay (sec/veh): 18.0
Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	7	7	7	7	7	7	7	7	7	7	7
Lanes:	0	1	0	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	192	101	0	0	72	192	270	0	270	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	192	101	0	0	72	192	270	0	270	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	192	101	0	0	72	192	270	0	270	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	192	101	0	0	72	192	270	0	270	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	192	101	0	0	72	192	270	0	270	0	0	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.66	0.34	0.00	0.00	0.27	0.73	0.50	0.00	0.50	0.00	0.00	0.00
Final Sat.:	382	201	0	0	171	456	343	0	343	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.50	0.50	xxxx	xxxx	0.42	0.42	0.79	xxxx	0.79	xxxx	xxxx	xxxx
Crit Moves:	****			****			****			****		
Delay/Veh:	14.1	14.1	0.0	0.0	11.8	11.8	23.1	0.0	23.1	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.1	14.1	0.0	0.0	11.8	11.8	23.1	0.0	23.1	0.0	0.0	0.0
LOS by Move:	B	B	*	*	B	B	C	*	C	*	*	*
ApproachDel:	14.1			11.8			23.1			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxxx		
ApprAdjDel:	14.1			11.8			23.1			xxxxxx		
LOS by Appr:	B			B			C			*		
AllWayAvgQ:	0.8	0.8	0.8	0.6	0.6	0.6	2.9	2.9	2.9	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 E Street/Oak Valley Parkway

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: B[11.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	1
Volume Module:												
Base Vol:	0	0	0	24	0	72	101	251	0	0	212	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	24	0	72	101	251	0	0	212	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	24	0	72	101	251	0	0	212	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	24	0	72	101	251	0	0	212	34
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxxx	682	682	229	246	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	419	375	815	1332	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	393	345	815	1332	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.09	0.08	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	643	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	11.6	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			11.6			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 C Street/Oak Valley Parkway

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[12.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	72	0	24	0	0	0	0	173	101	34	173	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	0	24	0	0	0	0	173	101	34	173	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	0	24	0	0	0	0	173	101	34	173	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	72	0	24	0	0	0	0	173	101	34	173	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx

Capacity Module:

Cnflct Vol:	465	465	224	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	274	xxxxx	xxxxx
Potent Cap.:	560	498	821	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1301	xxxxx	xxxxx
Move Cap.:	548	485	821	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1301	xxxxx	xxxxx
Volume/Cap:	0.13	0.00	0.03	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.03	xxxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.8	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	598	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx
Shrd ConDel:	xxxxx	12.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.8	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	12.2			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #18 C Street/B Street

Average Delay (sec/veh): 8.2 Worst Case Level Of Service: C[17.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0
Volume Module:												
Base Vol:	237	135	0	0	96	72	101	0	168	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	237	135	0	0	96	72	101	0	168	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	237	135	0	0	96	72	101	0	168	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	237	135	0	0	96	72	101	0	168	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	168	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	741	741	132	xxxx	xxxx	xxxxxx
Potent Cap.:	1422	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	387	347	923	xxxx	xxxx	xxxxxx
Move Cap.:	1422	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	329	280	923	xxxx	xxxx	xxxxxx
Volume/Cap:	0.17	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	0.31	0.00	0.18	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	8.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	551	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	0.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	2.7	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	8.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	17.6	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	C	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	17.6	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	C	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #19 H Street/Oak Valley Parkway

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: B[11.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	1	0	0
Volume Module:												
Base Vol:	72	0	24	0	0	0	0	96	101	34	135	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	0	24	0	0	0	0	96	101	34	135	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	0	24	0	0	0	0	96	101	34	135	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	72	0	24	0	0	0	0	96	101	34	135	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx
Capacity Module:												
Cnflct Vol:	350	350	147	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	197	xxxxx	xxxxx
Potent Cap.:	652	578	906	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1388	xxxxx	xxxxx
Move Cap.:	639	563	906	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1388	xxxxx	xxxxx
Volume/Cap:	0.11	0.00	0.03	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.02	xxxxx	xxxxx
Level Of Service Module:												
2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.7	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	690	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx
Shrd ConDel:	xxxxx	11.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.7	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	11.1			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Note: Queue reported is the number of cars per lane.

Revised Butterfield Specific Plan
City of Banning, Riverside County
General Plan Build-Out Year With Project Alt. 2 Conditions - PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #20 Highland Home Road/D Street

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[21.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	0	0	0	0

Volume Module:

Base Vol:	68	1396	0	0	1064	0	0	0	48	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	1396	0	0	1064	0	0	0	48	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	1396	0	0	1064	0	0	0	48	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	68	1396	0	0	1064	0	0	0	48	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1064	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	1064	xxxx	xxxx	xxxxxx
Potent Cap.:	662	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	273	xxxx	xxxx	xxxxxx
Move Cap.:	662	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	273	xxxx	xxxx	xxxxxx
Volume/Cap:	0.10	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.18	xxxx	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.6	xxxx	xxxx	xxxxxx	
Control Del:	11.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	21.0	xxxxxx	xxxx	xxxxxx	
LOS by Move:	B	*	*	*	*	*	*	*	C	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxx	xxxxxx	xxxxxx	
SharedQueue:	0.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxx	xxxxxx	xxxxxx	
Shrd ConDel:	11.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxx	xxxxxx	xxxxxx	
Shared LOS:	B	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx				xxxxxx				21.0		xxxxxx		
ApproachLOS:	*				*				C		*		

Note: Queue reported is the number of cars per lane.