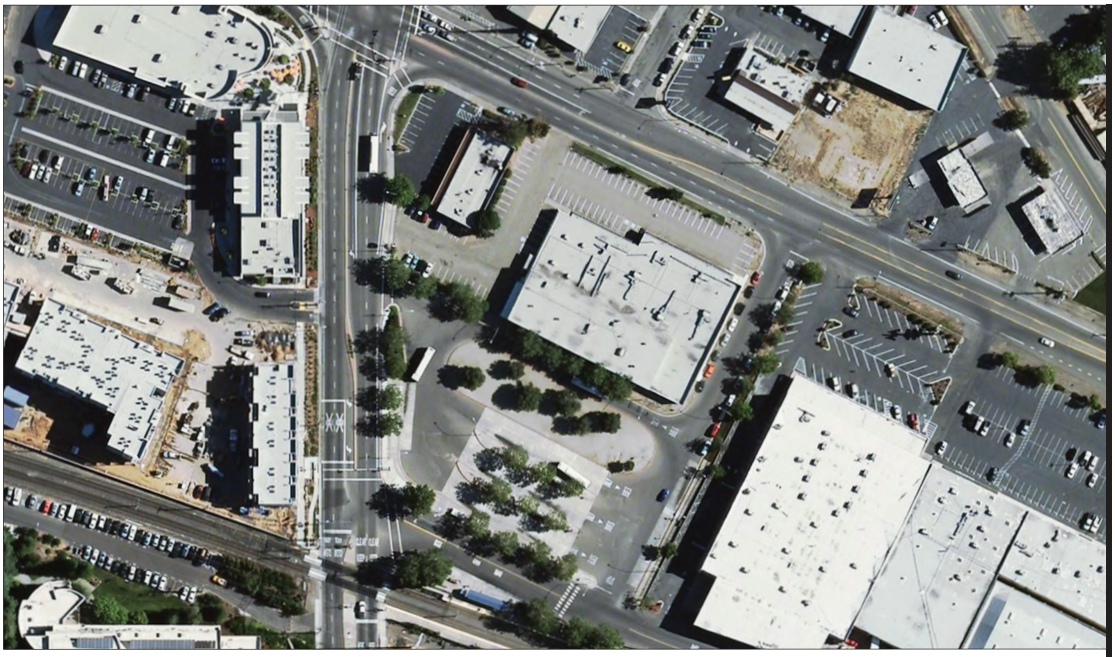
DRAFT
ENVIRONMENTAL IMPACT REPORT

# STATION 65 PROJECT

SCH # 2008072067



**OCTOBER 2008**

Lead Agency:

City of Sacramento
Environmental Planning Services
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Prepared By:

Analytical Environmental Services
1801 7th Street, Suite 100
Sacramento, CA 95811

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# CHAPTER 1

## INTRODUCTION

# 1.0 INTRODUCTION

## 1.1 PROJECT SUMMARY

The proposed Station 65 Project (proposed project) consists of a mixed-use commercial/residential development with an associated parking structure and off-site infrastructure improvements. The proposed project would include the construction of up to 120 single - and multi-family residential units, retail (up to 64,000 sf); office (up to 71,290 sf); an upscale hotel (approximately 148 rooms); and a fitness center (approximately 30,000 sf). Two potential developments scenarios are evaluated at an equal level to allow some flexibility to respond to changing market conditions. These two development scenarios are referred to the Base Plan Scenario (Scenario A) and the Maximum Density Scenario (Scenario B).

## 1.2 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The City of Sacramento (City) has prepared this Draft Environmental Impact Report (Draft EIR) to provide the general public and interested public agencies with information about the potential environmental impacts of the proposed project. This Draft EIR was prepared in compliance with the California Environmental Quality Act (CEQA), the CEQA *Guidelines* (California Code of Regulations [CCR], Title 14), and the City of Sacramento's rules, regulations, and procedures for the implementation of CEQA.

As described in CEQA *Guidelines* Section 15121(a), an EIR is an informational document that assesses potential environmental impacts of a proposed project, as well as identifies mitigation measures and alternatives to a proposed project that could reduce or avoid adverse environmental impacts. The City acting as the CEQA Lead Agency for this project is required to consider the information in the EIR along with any other available information in deciding whether to approve the application. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth inducing impacts, and cumulative impacts. The EIR is an informational document used in the planning and decision-making process. It is not the intent of an EIR to recommend either approval or denial of a project.

## 1.3 TYPE OF DOCUMENT

This EIR has been prepared as a project level EIR pursuant to CEQA *Guidelines* Section 15161. A project level EIR focuses on environmental impacts that would result from the development of a specific project, and examines all phases of the project including planning, construction, and operation.

## 1.4 INCORPORATION BY REFERENCE AND USE OF PREVIOUSLY PREPARED ENVIRONMENTAL DOCUMENTATION

State CEQA *Guidelines* Section 15150 allows for incorporation by reference of "all or portions of another document which is a matter of public record or is generally available to the public." Incorporation by reference is used principally as a means of reducing the size of EIRs. The Station 65 Project EIR relies in part on data, environmental evaluations, mitigation measures and other components of EIRs and plans prepared by the City for areas within the project vicinity. These documents are listed here and used as source documents for this EIR. All documents are available for public review and inspection at the City of Sacramento Development Services Department, Environmental Planning Services, 300 Richards Boulevard Sacramento, CA 95811.

- *City of Sacramento General Plan*, City of Sacramento, adopted January 19, 1988, with amendments through September 2000.
- *Draft and Final Environmental Impact Report*, City of Sacramento General Plan, (SCH #86101310) City of Sacramento, Draft EIR is dated March 2, 1987, and Final EIR is dated September 30, 1987.
- *Draft Environmental Impact Report*, City of Sacramento General Plan Update 2030, City of Sacramento, July 2008.
- *City of Sacramento Zoning Code*, City of Sacramento, May 2008.
- *Draft and Final Environmental Impact Report 65th Street Transit Village Project*, City of Sacramento, (SCH # 2000052093), Draft EIR is dated December 2001, and Final EIR is dated May 2002.
- *65th Street/University Transit Village Plan,* City of Sacramento, October 2002.
- *65th Street/University Transit Village Infrastructure Needs Assessment*, City of Sacramento, January 2004.
- *Transportation and Circulation Analysis – Station 65 Project,* Fehr & Peers, September 2008.

## 1.5 EIR PROCESS

### 1.5.1 LEAD AGENCY

#### City of Sacramento

CEQA *Guidelines* Section 15367 defines the "Lead Agency" as the "public agency that has the principal responsibility for carrying out or approving a project." The City of Sacramento is the CEQA Lead Agency for consideration of the proposed project.

### Lead Agency Contact

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## 1.5.2 NOTICE OF PREPARATION

In accordance with CEQA *Guidelines* Section 15082, the Lead Agency circulated a Notice of Preparation (NOP) for this Draft EIR on July 18, 2008. Presented in **Appendix A** of this Draft EIR, the NOP established a 30-day review period ending on August 18, 2008. The NOP was circulated to the public, local, state and federal agencies, and other known interested parties in an effort to announce widely that the proposed project could have significant effects on the environment and to solicit public input concerning the proposed project.

## 1.5.3 SCOPING

Scoping is designed to examine a proposed project early in the EIR environmental analysis/review process, and is intended to identify the range of issues pertinent to the proposed project and feasible alternatives or mitigation measures to avoid potentially significant environmental effects.

The Lead Agency held a scoping meeting on August 11, 2008 at the SMUD Customer Service Center for the proposed project pursuant to CEQA *Guidelines* Section 15082. The purpose of the scoping meeting was to solicit input from agencies, organizations, and individuals to assist the Lead Agency in determining the appropriate scope and content of the Draft EIR. Three members of the public attended the scoping meeting and asked several questions regarding the project description.

The Lead Agency received three written comment letters on the proposed project. A copy of each letter is provided in **Appendix B** of this EIR. The comments received during the scoping period were considered in combination with previously conducted studies and technical reports (identified above in **Section 1.4**) to determine the level of detail and analysis to be included in the EIR.

## 1.5.4 DRAFT EIR AND PUBLIC REVIEW

This document constitutes the Draft EIR and is being circulated to the public, local, state and federal agencies, and other known interested parties that may wish to review and comment on the environmental impacts of the proposed project. Release of this Draft EIR marks the beginning of a 30-day public review

period pursuant to CEQA *Guidelines* Section 15105. The public can review this information at the following address during normal business hours (8 am to 5 pm):

City of Sacramento
Development Services Department
Environmental Planning Services
300 Richards Boulevard
Sacramento, CA 95811
Phone (916) 808-5842
Fax (916) 808-1077
SRJohnson@cityofsacramento.org

Comments may be submitted both in written form and orally at the public hearing on the Draft EIR. Notice of the time and location of the hearing will be published in local newspapers prior to the hearing. All comments or questions regarding the Draft EIR should be addressed to:

City of Sacramento, Development Services Department
Environmental Planning Services
Attn: Scott Johnson, Associate Planner
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811
Phone (916) 808-5842
Fax (916) 808-1077

## 1.5.5 FINAL EIR AND EIR CERTIFICATION

Written comments received in response to the Draft EIR will be addressed in a Response to Comments addendum document, which together with any revisions to the Draft EIR text constitutes the Final EIR. The Lead Agency will then review the proposed project, the EIR, and public testimony to decide whether to certify the EIR and approve the proposed project. If the EIR contains unmitigated significant impacts, the Lead Agency must state its reasons for approval in a document called the Findings of Fact and Statement of Overriding Considerations, include this document in the record of the project approval, and mention this document in the Notice of Determination.

## 1.5.6 MITIGATION MONITORING PROGRAM

Section 21081.6 of the State Public Resources Code requires lead agencies to "adopt a reporting and monitoring program for the changes to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." The Mitigation Monitoring Program (Program) must be adopted in conjunction with the City's approval of the project's findings upon certification of the EIR. Any mitigation measures adopted by the Lead Agency as conditions of approval for the proposed project will be included in a Program that will identify the party responsible for implementing and monitoring each mitigation measure.

## 1.6 SCOPE OF THE DRAFT EIR

Pursuant to the CEQA *Guidelines*, the scope of this Draft EIR includes an assessment of environmental impacts identified as potentially significant through the scoping process. The scoping process included site assessment, review of existing technical studies, and consideration of all comments received during the scoping period.

The Lead Agency has determined that preparation of an EIR was appropriate due to several potentially significant environmental impacts that could result from approval of the proposed project. Resources identified for detailed analysis in this Draft EIR include:

- Transportation and Circulation
- Noise
- Air quality

## 1.7 ORGANIZATION OF THE EIR

The Draft EIR is organized into the following sections:

- **Chapter 1, Introduction and Scope of the Draft EIR** - Provides an introduction and overview describing the intended use of the EIR and the review and certification process.
- **Chapter 2, Executive Summary** - Summarizes the elements of the project and the environmental impacts that could result from implementation of the proposed project and provides a table which lists impacts, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation.
- **Chapter 3, Project Description** - Provides a detailed description of the proposed project, including its location, background information, major objectives, and technical characteristics.
- **Chapter 4, Environmental Setting, Impacts and Mitigation Measures** - Describes the existing land use setting for the project, including the proposed project's relationship to adopted plans and policies. The baseline environmental setting and assessment of impacts for each issue area is presented in **Sections 4.1** through **4.5**. Each section is divided into four sub-sections: Introduction, Existing Environmental Setting, Regulatory Background, and Impacts and Mitigation Measures.
- **Chapter 5, CEQA Considerations** - Provides discussions required by CEQA regarding impacts that would result from the proposed project, including a summary of cumulative impacts, potential growth-inducing impacts, secondary impacts, and significant irreversible changes to the environment.
- **Chapter 6, Project Alternatives** - Describes and compares the alternatives to the proposed project.

- **Chapter 7, References** - Provides bibliographic information for all references and resources cited.
- **Chapter 8, EIR Authors and People Consulted** - Lists report authors who provided technical assistance in the preparation and review of the EIR.
- **Appendices** - Includes various documents and data directly related to the analysis presented in the Draft EIR.

# CHAPTER 2

## EXECUTIVE SUMMARY

# 2.0 EXECUTIVE SUMMARY

## 2.1 PROJECT UNDER REVIEW

The Station 65 Project (proposed project) is a transit oriented mixed-use development located at the southeastern corner of Folsom Boulevard and 65th Streets. The proposed project includes two development scenarios. Scenario A includes the development of approximately 68 residential units and approximately 64,000 square feet (sq ft) retail, 53,000 sq ft of office, a 148 room hotel, a 30,000 sq ft fitness center, and a five story parking garage. Scenario B would be similar to Scenario A except for an increase of up to 120 residential units, increase in office space of up to 72,000 sq ft, and a six story parking garage.

The approximately 4.29-acre site is bounded by Folsom Boulevard to the north and 65th Street to the west (**Figure 3-3**). Surrounding land uses consist of commercial/retail and residential development to the north, south, east, and west. The American River Parkway and Sacramento State University are located 0.5 miles and 1 mile to the north, respectively.

## 2.2 SUMMARY OF ENVIRONMENTAL IMPACTS

### 2.2.1 EFFECTS TO BE FOUND LESS THAN SIGNIFICANT

As shown in **Table 2-1**, a number of potential impacts were found to be less than significant, requiring no mitigation. These impacts are found in the **Sections 4.3, Transportation and Circulation, 4.4 Noise and Vibration,** and **4.5 Air Quality**. Numerous other identified impacts could be reduced to a less than significant level with implementation of the proposed mitigation measures identified in **Table 2-1**.

### 2.2.2 ENVIRONMENTAL IMPACTS AND MITIGATION

Under CEQA *Guidelines* Section 15382, a significant effect on the environment is defined as a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Implementation of the proposed project would result in significant impacts to some of these resources, which are fully analyzed in **Sections 4.3** through **4.5** of this document and summarized in **Table 2-1.**

This EIR discusses mitigation measures that could be implemented by the City and/or the project applicant to reduce potential adverse impacts to a less than significant level. Such mitigation measures are noted in **Table 2-1** and are found in **Sections 4.3** through **4.5**. Some impacts could not be reduced to less than significant levels with implementation of mitigation. These impacts are defined as significant and unavoidable and are identified for both project-level and cumulative impacts in **Table 2-1**.

## Project-Specific Significant and Unavoidable Impacts

### *4.3-1-2 Folsom Boulevard between 65th Street and State University Drive East*

Under Scenario A conditions, the project adds traffic to a roadway segment operating at LOS F under baseline without project conditions, increasing the volume to capacity ratio by 0.05, which exceeds the City's 0.02 threshold. The Scenario B project increases the volume to capacity ratio by 0.06. These impacts are considered *significant* under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this roadway segment from the generally applicable LOS threshold under certain conditions. However, that DEIR acknowledges that the resulting impact will be significant and unavoidable. **Significant and Unavoidable**.

### *4.3-1-3 65th Street between Folsom Boulevard and S Street*

Under both development scenarios, the project causes roadway segment LOS to degrade from LOS E to LOS F, while increasing the volume to capacity ratio by 0.1. This impact is considered significant under both the currently adopted General Plan and the Draft General Plan LOS thresholds. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this roadway segment from the generally applicable LOS threshold under certain conditions. However, that DEIR acknowledges that the resulting impact will be significant and unavoidable.

### *4.3-2-1 Folsom Boulevard/65th Street Intersection*

Under both Station 65 development scenarios, the addition of project traffic exacerbates unacceptable LOS F conditions in the PM peak hour and adds more than five seconds of average delay at the intersection. This is considered a significant impact as defined by both the currently adopted General Plan and the Draft 2030 General Plan. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this intersection from the generally applicable LOS threshold under certain conditions. Therefore, the DEIR acknowledges that the resulting impact will be significant and unavoidable.

### *4.3-2-8 Q Street/67th Street Intersection*

Under both scenarios, the addition of project traffic degrades intersection operations from LOS A to LOS F in the PM peak hour. The degraded operations at this intersection are caused by queue spillback from the 65th Street/Q Street intersection. This is considered a significant impact as defined by both the currently adopted General Plan and the Draft 2030 General Plan.

The implementation of Mitigation Measure 4.3-2-5 would reduce overall intersection delay and improve operations to LOS D conditions for the Scenario A project and LOS E conditions for the Scenario B project.

Therefore, the impact is less than significant with mitigation when considering the Draft 2030 LOS thresholds. However, even with the mitigation measure, the intersection degrades from LOS A conditions without the project to LOS D or worse conditions with the addition of either project scenario. Additional

time could be allocated to the westbound movement at the 65th Street/Q Street intersection, which would reduce the significance of the impact at the Q Street/67th Street intersection. However, by allocating more westbound time, northbound and southbound delays would increase and would degrade the operations at the 65th Street/Q Street intersection significantly.

Additionally, intersection operations could be improved by adding lanes to Q Street between 65th Street and 67th Street and by adding a southbound left-turn lane at the Q Street/67th Street intersection. However, these improvements would increase the crossing distance of pedestrians between the light rail platform and the bus stops immediately in front of the project site. This improvement would conflict with the pedestrian-oriented theme of the 65th Street transit station and the Station 65 project.

A traffic signal with eastbound protected-permissive left-turn phasing could be installed at this location. The traffic signal would have to be coordinated with the Q Street/65th Street intersection to minimize conflicts between the signals and it is recommended that a crosswalk be striped on the east leg of the intersection. The installation of a traffic signal would not significantly reduce delays at the intersection, but the LOS would improve since there are different LOS thresholds for signalized and unsignalized intersections. A peak hour signal warrant was evaluated at this location and the results indicate that this location does not meet the peak hour traffic volume warrant. However, given the proximity of the intersection to the light rail station, it is probable that the intersection would meet one of the pedestrian-based signal warrants. Therefore the installation of a traffic signal would have a secondary beneficial impact of improving the pedestrian crossing environment at this location.

The installation of the Q Street/67th traffic signal would provide acceptable LOS C conditions under the Scenario A alternative, which would reduce the significance of this intersection to a less than significant level. However, because the new signal operates at LOS D conditions under the Scenario B alternative, this impact is considered significant and unavoidable under the currently adopted General Plan LOS threshold.

### *4.3-3 Freeway Facilities*

Both the Scenario A and Scenario B development alternatives would add traffic to freeway facilities that operate at LOS F conditions during either the AM or PM peak hour under baseline without project conditions. The impacted freeway facilities are listed below:

- Eastbound US 50 mainline segment from 59th Street to 65th Street – PM peak hour
- Westbound US 50 mainline segment from 65th Street to 59th Street – AM peak hour
- Eastbound US 50 off-ramp diverge area at 65th Street – AM and PM peak hour
- Westbound US 50 slip on-ramp merge area from 65th Street – AM peak hour
- Westbound US 50 loop on-ramp merge area from 65th Street – AM peak hour
- Eastbound US 50 loop on-ramp merge area from 65th Street – AM and PM peak hour
- Eastbound US 50 weaving area between 65th Street and Howe Avenue – AM and PM peak hour
- Westbound US 50 weaving area between Howe Avenue/Hornet Drive and 65th Street – AM and PM peak hour

While either project scenario increases freeway mainline traffic volumes by less than one percent, freeway facility density and service flow increase measurably. Based on Caltrans' standards, this is considered a significant impact.

Given that the Station 65 project is already a transit-oriented development, freeway impacts could be reduced by encouraging additional residents and workers at the Station 65 project to take transit. This could be achieved by implementing Mitigation Measure 4.3-3. This mitigation measure would reduce peak hour freeway volumes through the establishment of a travel demand management (TDM) program. The TDM program could include incentives to take transit, carpool, bike, or walk, or it could include pricing mechanisms (e.g., peak period parking charges) to make it more costly to travel at peak times. While this mitigation measure is feasible to implement and would lead to a reduction in overall peak period auto trips, it cannot be guaranteed that enough trips would shift away from the freeway to reduce the freeway facility impacts to a less than significant level.

Because the mitigation measures identified above are either infeasible or would not reduce the significance of the freeway impact to a less than significant level, this impact remains significant and unavoidable. **Significant and Unavoidable**.

## Cumulative Significant and Unavoidable Impacts

### *4.3-9-1 Folsom Boulevard between 59th Street and 65th Street*

Under Scenario A conditions, the project adds traffic to a roadway operating at LOS E conditions and increases the volume to capacity ratio by 0.02, which equals the City's 0.02 volume to capacity threshold. The Scenario B project increases the volume to capacity ratio by 0.03. These impacts are considered significant under the currently adopted General Plan LOS thresholds.

However, since the addition of project trips from either of the development scenarios does not degrade roadway operations to LOS F conditions, this impact is less than significant as defined by the Draft 2030 General Plan.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impacts described above. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement Mitigation Measure 4.3-3 and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. **Significant and Unavoidable**.

### *4.3-9-2 Folsom Boulevard between 65th Street and Elvas Avenue*

Under Scenario A and Scenario B conditions, the project adds traffic to a roadway segment operating at

LOS F under cumulative without project conditions, increasing the volume to capacity ratio by 0.03, which exceeds the City's 0.02 threshold. These impacts are considered significant under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the DEIR for the 2030 General Plan contains a mitigation measure to exempt this roadway segment from the LOS threshold, which would lead to a less than significant impact.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impacts described above. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement Mitigation Measure 4.3-3 and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable.**

#### *4.3-9-3 Folsom Boulevard between Elvas Avenue and State University Drive East*

Under Scenario A conditions, the project adds traffic to a roadway operating at LOS D conditions and increases the volume to capacity ratio by 0.02, which equals the City's 0.02 threshold. The Scenario B project increases the volume to capacity ratio by 0.03. These impacts are considered significant under the currently adopted General Plan LOS thresholds.

However, since the addition of project trips from either of the development scenarios does not degrade roadway operations to LOS F conditions, this impact is less than significant as defined by the Draft 2030 General Plan.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impact. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement Mitigation Measure 4.3-3 and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable.**

#### *4.3-9-4 65th Street between Folsom Boulevard and S Street*

Under both development scenarios, the project causes roadway segment LOS to degrade from LOS E to LOS F, while increasing the volume to capacity ratio by 0.1. This impact is considered significant under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the

DEIR for the 2030 General Plan contains a mitigation measure to exempt this roadway segment from the LOS threshold, which would lead to a less than significant impact.

Right-of-way is available to widen 65th Street to six lanes, which would add capacity to the roadway segment and reduce the significance of the impact. Additionally, Draft 2030 General Plan Circulation Element designates 65th Street as a six-lane road. However, the approved 65th Street Transit Village Plan has a mitigation measure to add only a third southbound lane in the future. An additional northbound lane would be counter to this plan and the City's desire to improve the pedestrian environment in the area and reduce barriers to walking. Therefore, this mitigation measure is considered infeasible.

The project could implement Mitigation Measure 4.3-3 and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement, and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from 65th Street to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable.**

#### *4.3-10-2 65th Street/S Street/US 50 Westbound Off-ramp Intersection*

Under both development scenarios, the project adds traffic to an intersection operating at LOS D conditions in the AM and PM peak hour, while adding more than five seconds of overall delay. This is considered a significant impact as defined by the currently adopted General Plan.

Since the addition of project trips from either of the Station 65 development scenarios does not degrade intersection operations to LOS F, this impact is less than significant as defined by the Draft 2030 General Plan.

The 65th Street Transit Village Plan identifies ramp widening as a cumulative mitigation to reduce the significance of queuing on the Westbound US 50 off-ramp, but this widening would not add new lanes to the intersection and therefore would not benefit intersection operations. Based on right-of-way constraints, no additional widening is possible at this intersection. Additionally, the signal timing is already assumed to be optimized.

The project could implement Mitigation Measure 4.3-3 and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from this intersection to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable.**

#### *4.3-10-3 Q Street/67th Street Intersection*

Under both Station 65 development scenarios, the addition of project traffic exacerbates LOS F conditions in the PM peak hour. The degraded operations at this intersection are caused by queue spillback from the 65th Street/Q Street intersection. This impact is considered significant under both the

currently adopted General Plan and the Draft 2030 General Plan LOS thresholds.

Intersection operations could be improved by adding lanes to Q Street between 65th Street and 67th Street and by adding a southbound left-turn lane at the Q Street/67th Street intersection. However, these improvements would increase the crossing distance of pedestrians between the light rail platform and the bus stops immediately in front of the project site. This improvement would be in conflict with the pedestrian oriented theme of the 65th Street transit station and the Station 65 project. Implementing Mitigation Measure 4.3-3 is feasible and would reduce project-related auto trips. However, given the proximity of this intersection to the two project driveways, the TDM program would not likely substantially reduce the significance of the impact.

A traffic signal with eastbound protected-permissive left-turn phasing could be installed at this location. The traffic signal would have to be coordinated with the Q Street/65th Street intersection to minimize conflicts between the signals and it is recommended that a crosswalk be striped on the east leg of the intersection. Because the delays at this intersection are largely a result of queue spillback from the Q Street/65th Street intersection, the installation of a traffic signal would not significantly reduce delays at the intersection and impacts would be expected to remain under both development alternatives.

A peak hour signal warrant was evaluated at this location and the results indicate that this location does not meet the peak hour traffic volume warrant. However, given the proximity of the intersection to the light rail station, it is probable that the intersection would meet one of the pedestrian-based signal warrants. Therefore the installation of a traffic signal would have a secondary beneficial impact of improving the pedestrian crossing environment at this location.

Since no feasible mitigation measures are available to reduce intersection delays to be within five seconds of “without project” conditions, this impact is considered significant and unavoidable. **Significant and Unavoidable.**

### *4.3-11 Freeway Facilities*

Both the Scenario A and Scenario B project alternatives would add traffic to freeway facilities that operate at LOS F conditions during either the AM or PM peak hour under cumulative without project conditions. The impacted freeway facilities are listed below:

- Westbound US 50 mainline segment from 65th Street to 59th Street – AM peak hour
- Eastbound US 50 off-ramp diverge area at 65th Street – PM peak hour
- Westbound US 50 slip on-ramp merge area from 65th Street – AM peak hour
- Westbound US 50 loop on-ramp merge area from 65th Street – AM peak hour
- Eastbound US 50 loop on-ramp merge area from 65th Street – PM peak hour
- Eastbound US 50 weaving area between 65th Street and Howe Avenue – AM and PM peak hour
- Westbound US 50 weaving area between Howe Avenue/Hornet Drive and 65th Street – AM peak hour

While either project scenario increases freeway mainline traffic volumes by less than one percent, freeway facility density and service flow increase measurably. Based on Caltrans' standards, this is considered a significant impact.

As described above, the 65th Street Transit Village Plan identified Westbound US 50 off-ramp widening as a cumulative mitigation measure. The Station 65 project will make a fair share contribution to this project, which would reduce the queue length on the off-ramp. However, because the freeway operations in this area are constrained by heavy mainline volumes, this mitigation measure would not reduce the significance of the freeway mainline, weaving area, or ramp area impacts to a less than significant level.

Alternatively, Mitigation Measure 4.3-3 could be implemented. This mitigation measure would reduce peak hour freeway volumes through the establishment of a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would lead to a reduction in overall peak period auto trips, it cannot be guaranteed that enough trips would shift away from the freeway to reduce the freeway facility impacts to a less than significant level.

Because the mitigation measures identified are either infeasible or would not reduce the significance of the freeway impact to a less than significant level, this impact remains significant and unavoidable. **Significant and Unavoidable.**

## 2.3 ALTERNATIVES TO THE PROPOSED PROJECT

The EIR analyzes the following alternatives to the proposed project.

- **No Project/No Build Alternative**, which assumes that the proposed project would not be built and there would be no new development of the site. This alternative assumes the existing buildings and uses on the site would continue.

- **No Project/ Existing Transit Village Plan Land Use Designation Alternative**, which assumes that the project site would be developed consistent with the land use designations and intensities identified in Transit Village Plan.

- **Reduced Intensity Alternative**, which assumes that the proposed project site would be developed at a lower intensity that would reduce the proposed project's development footprint.

## 2.4 POTENTIAL AREAS OF CONCERN

Comments on the NOP were received from the California Department of Transportation (Caltrans), the Sacramento Metropolitan Air Quality Management District (SMAQMD), the State of California Regional Water Quality Control Board (RWQCB), the State of California Public Utilities Commission (PUC), the City of Sacramento Fire Department, the Sacramento Regional County Sanitation District (SRCSD), Regional Transit (RT), and two members of the public. A copy of the NOP and comments on the NOP are included in **Appendix A** and **B** of the Draft EIR in accordance with CEQA.

## 2.5 SUMMARY TABLE

**Table 2-1** has been organized to correspond with the environmental issues discussed in **Sections 4.3** through **4.4**. The summary table is arranged in four columns:

1. Environmental Impacts
2. Level of significance without mitigation
3. Mitigation Measures
4. The level of significance after implementation of mitigation measures

If an impact is determined to be significant or potentially significant, mitigation measures are identified, where appropriate and feasible. More than one mitigation measure may be required to reduce the impact to a less-than-significant level. This EIR assumes that all applicable plans, policies, and regulations would be implemented. Applicable plans, policies, and regulations are identified and described in the Regulatory Setting of each issue area and within the relevant impact analysis. A description of the organization of the environmental analysis, as well as key assumptions regarding the approach to the technical analysis, is provided in **Section 4.1 Environmental Analysis**.

**TABLE 2-1:** SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Impact | Level of Significance Prior to Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| 4.3-1-1 Folsom Boulevard between 59th Street and 65th Street | LTS | None required. | LTS |
| 4.3-1-2 Folsom Boulevard between 65th Street and State University Drive East | S | Mitigation Measure 4.3-1-1: The project will be required to participate in whatever financing mechanism is in place at the time of issuance of building permits to fund, on a fair-share basis, the cost of installation of the improvements. | SU |
| 4.3-1-3 65th Street between Folsom Boulevard and S Street | S | Mitigation Measure 4.3-1-2: Implement Mitigation Measure4.3-1-2 | SU |
| 4.3-2-1 Folsom Boulevard/65th Street Intersection | S | Mitigation Measure 4.3-2-1 Implement Mitigation Measure 4.3-1-1 | SU |
| 4.3-2-2 Folsom Boulevard/67th Street Intersection | S | Mitigation Measure 4.3-2-2: The project applicant shall construct a traffic signal at the Folsom Boulevard/67th Street intersection and ensure that separate right and left-turn lanes are constructed on the northbound approach to the intersection.<br><br>A signal warrant analysis was performed under AM and PM peak hour conditions for the baseline with Scenario A project condition. The Scenario A project met the signal warrants, and since the Scenario B project generates slightly more traffic, it will also meet the AM and PM peak hour signal warrants.<br><br>Note that Folsom Boulevard currently has two eastbound lanes that extend approximately 25 feet east of the 67th Street intersection. The installation of a traffic signal at 67th Street would create a merging hazard if this short lane is maintained. The design of the traffic signal should ensure that this short merging section is eliminated. The final design of the intersection and signal design will be subject to review and approval by the City of Sacramento Department of Transportation.<br><br>The project applicant shall enter into agreement with the City that if a finance plan is later adopted and implemented that includes the signal, the applicant shall be considered for credits or reimbursement for cost incurred beyond its fair share.<br><br>Figure 4.3-22 shows the proposed mitigation, and Tables 4-28 and 4-29 present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively. | LTS |
| 4.3-2-2 Folsom Boulevard/Elvas Avenue Intersection | S | Mitigation Measure 4.3-2-3: Implement Mitigation Measures 4.3-2-1 and 4.3-2-2. | LTS |

| Impact | | Level of Significance Prior to Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|---|
| | | | Figure 4.3-22 shows the proposed mitigation, and Tables 4-28 and 4-29 present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively. | |
| 4.3-2-4 | Folsom Boulevard/State University Drive East Intersection | S | Mitigation Measures 4.3-2-4: The project applicant shall pay for the City of Sacramento Traffic Operations Center to monitor and re-time the Folsom Boulevard/State University Drive East traffic signal, when required, to optimize flow through the intersection.<br><br>Figure 4.3-22 shows the proposed mitigation, and Tables 4-28 and 4-29 present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively. | LTS |
| 4.3-2-5 | 65th Street/Q Street Intersection | S | Mitigation Measures 4.3-2-5: The project applicant shall pay a fair share contribution to the City of Sacramento Traffic Operations Center to monitor and re-time the 65th Street/Q Street traffic signal, when required, to optimize flow through the intersection.<br><br>It is important to note that this mitigation measure was also identified under baseline with project conditions for the South 65th Street Center (Target project), the 65th Street Transit Village project, and other projects. Figure 4.3-22 shows the proposed mitigation, and Tables 4-28 and 4-29 present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively. | LTS |
| 4.3-2-6 | 65th Street/S Street/US 50 Westbound Off-ramp Intersection | S | Mitigation Measures 4.3-2-6: The project applicant shall pay a fair share contribution to the City of Sacramento Traffic Operations Center to monitor and re-time the 65th Street/S Street/US 50 Westbound Off-ramp traffic signal to optimize flow through the intersection, when required.<br><br>It is important to note that this mitigation measure was also identified under baseline with project conditions for the South 65th Street Center (Target project), the 65th Street Transit Village project, and other projects. Figure 4.3-22 shows the proposed mitigation, and Tables 4-28 and 4-29 present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively. | LTS |
| 4.3-2-7 | 65th Street/US 50 Eastbound Off-ramp Intersection | S | Mitigation Measures 4.3-2-7: The project applicant shall pay a fair share contribution to the City of Sacramento Traffic Operations Center to monitor and re-time the 65th Street/US 50 Eastbound Off-ramp traffic signal, when required, to optimize flow | LTS |

| Impact | | Level of Significance Prior to Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|---|
| | | | through the intersection.<br><br>It is important to note that this mitigation measure was also identified under baseline with project conditions for the South 65th Street Center (Target project), the 65th Street Transit Village project, and other projects. Figure 4.3-22 shows the proposed mitigation, and Tables 4-28 and 4-29 present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively. | |
| 4.3-2-8 | Q Street/67th Street Intersection | S | Mitigation Measure 4.3-2-8<br>a. Implement Mitigation Measure 4.3-2- 5<br>b. The project applicant shall construct a traffic signal at the Q Street/67th Street intersection and enter into agreement with the City that if a finance plan is later adopted and implemented that includes the signal, the applicant shall be considered for credits or reimbursement for cost incurred beyond its fair share. | SU |
| 4.3-3 | Freeway Facilities | S | Mitigation Measure 4.3-3: Establish a Travel Demand Management program for the Station 65 project. | SU |
| 4.3-4 | Freeway Ramp Queuing | S | Mitigation Measure 4.3-4: Pay fair share to widen the westbound US 50 off-ramp as described in the 65th Street Transit Village Plan EIR. | LTS |
| 4.3-5-1 | Pedestrian Impacts | LTS | None required. | LTS |
| 4.3-5-2 | Bicycle Impacts | S | Mitigation Measure 4.3-5-1: The City shall ensure that Regional Transit relocate/ replaces the RT bicycle facilities that are currently located on the Station 65 project site. The project applicant shall construct an adequate number of bicycle lockers and racks to meet the demand created by the Station 65 project. The project applicant shall coordinate with City staff to determine the appropriate number of bicycle lockers and racks. | LTS |
| 4.3-6-1 | Transit Capacity | LTS | None required. | LTS |
| 4.3-6-2 | Transit Delay | S | Mitigation Measure 4.3-6-2: Implement Mitigation Measures 4.3-2-1 through 4.3-2-7. | LTS |
| 4.3-7 | Parking | LTS | None required. | LTS |
| 4.3-8 | Construction Impacts | S | Mitigation Measures 4.3-8: Before issuance of grading permits for the project site, the project applicant shall prepare a detailed Traffic Management Plan that will be | LTS |

| Impact | Level of Significance Prior to Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| | | subject to review and approval by the City Department of Transportation, Regional Transit, and local emergency service providers, including the City of Sacramento fire and police departments. The plan shall ensure maintenance of acceptable operating conditions on local roadways and transit routes. At a minimum, the plan shall include:<br><br>▪ The number of truck trips, time, and day of street closures<br>▪ Time of day of arrival and departure of trucks<br>▪ Limitations on the size and type of trucks; provision of a staging area with a limitation on the number of trucks that can be waiting<br>▪ Provision of a truck circulation pattern<br>▪ Provision of a driveway access plan to maintain safe vehicular, pedestrian, and bicycle movements (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas)<br>▪ Safe and efficient access routes for emergency vehicles<br>▪ Efficient and convenient transit routes<br>▪ Manual traffic control when necessary<br>▪ Proper advance warning and posted signage concerning street closures<br>▪ Provisions for pedestrian safety<br>▪ Provisions for temporary bus stops, if necessary<br><br>A copy of the construction traffic management plan shall be submitted to local emergency response agencies and these agencies shall be notified at least 14 days before the commencement of construction that would partially or fully obstruct roadways. | |
| 4.3-9-1 Folsom Boulevard between 59th Street and 65th Street | S | Mitigation Measure 4.3-9-1: Implement Mitigation Measure 4.3-3. | SU |
| 4.3-9-2 Folsom Boulevard between 65th Street and Elvas Avenue | S | Mitigation Measure 4.3-9-2: Implement Mitigation Measure 4.3- | SU |
| 4.3-9-3 Folsom Boulevard between Elvas Avenue and State University Drive East | S | Mitigation Measure 4.3-9-3: Implement Mitigation Measure 4.3-3. | SU |
| 4.3-9-4 65th Street between Folsom Boulevard and S Street | S | Mitigation Measure 4.3-9-4: Implement Mitigation Measure 4.3-3. | SU |

| Impact | Level of Significance Prior to Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| 4.3-10-1 Folsom Boulevard/65th Street Intersection | S | Mitigation Measures 4.3-10-1: Implement Mitigation Measure 4.3-3. | LTS |
| 4.3-10-2 65th Street/S Street/US 50 Westbound Off-ramp Intersection | S | Mitigation Measures 4.3-10-2 Implement Mitigation Measure 4.3-3. | SU |
| 4.3-10-3 Q Street/67th Street Intersection | S | Mitigation Measure 4.3-10-3: Implement Mitigation Measure 4.3-3 and Mitigation Measure 4.3-2-8b | SU |
| 4.3-11 Freeway Facilities | S | Mitigation Measure 4.3-11: Pay fair share to widen the westbound US 50 off-ramp as described in the 65th Street Transit Village Plan EIR. Also, implement Mitigation Measures 4.3-3. | SU |
| 4.3-12 Freeway Ramp Queuing | LTS | None required. | LTS |
| 4.3-13-1 Pedestrian Impacts | LTS | None required. | LTS |
| 4.3-13-2 Bicycle Impacts | S | Mitigation Measures 4.3-13-1: Implement Mitigation Measure 4.3-5-1. | LTS |
| 4.3-14-1 Transit Capacity | LTS | None required. | LTS |
| 4.3-14-2 Transit Delay | LTS | None required. | LTS |
| **4.4 Noise and Vibration** | | | |
| 4.4-1 Noise from construction activities has the potential to expose noise-sensitive receptors to an increased ambient noise level. | S | Mitigation Measure 4.4-1. The applicant shall ensure construction equipment staging areas shall be located away from residential uses; pre-drill pile holes and use quieter “sonic” pile-drivers, where feasible; and restrict high noise activities, such as pile driving, the use of jackhammers, drills, and other generators of sporadic high noise peaks, to the hours of 7 a.m. to 6 p.m. Monday through Friday, or other such hour satisfactory to the City. | LTS |
| 4.4-2 Ground-borne vibration from construction activity has the potential to cause structural damage to nearby buildings. | LTS | None required. | LTS |
| 4.4-3 Operation of the proposed | LTS | None required. | LTS |

| Impact | | Level of Significance Prior to Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|---|
| | project has the potential to increase the ambient noise level due to increased traffic levels and increased light rail use. | | | |
| 4.4-4 | Operation of the proposed project has the potential to increase the ambient noise level due to increased noise from on-site stationary sources. | S | Mitigation Measure 4.4-4 The Applicant shall ensure that all commercial heating, cooling, and ventilation equipment shall be located within mechanical rooms where possible, or shielded from view with solid barriers or parapets. | LTS |
| 4.4-5 | Operation of the proposed project has the potential to make a cumulatively considerable contribution to the ambient noise levels. | LTS | None required. | LTS |
| **4.5 Air Quality** | | | | |
| 4.5-1 | Construction of the proposed project would generate emissions of NOx and ROG. | LTS | None required. | LTS |
| 4.5-2 | Operation of the proposed project would contribute to emission of NOx and ROG. | LTS | None required. | LTS |
| 4.5-3 | The proposed project would increase traffic volume that would contribute to localized CO concentrations near roadways and intersections. | LTS | None required. | LTS |
| 4.5-4 | Construction of the proposed project would increase cumulative levels of ROG and NOx. | LTS | None required. | LTS |

| Impact | | Level of Significance Prior to Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|---|
| 4.5-5 | Operation of the proposed project would increase cumulative levels of ROG and NOx. | LTS | None required. | LTS |
| 4.5-6 | The proposed project would contribute to cumulative CO levels in the vicinity of the project site. | LTS | None required. | LTS |
| 4.5-7 | Operation of the proposed project in the cumulative year 2030 would contribute to emission of NOx, ROG. | LTS | None required. | LTS |

# CHAPTER 3

## PROJECT DESCRIPTION

# 3.0 PROJECT DESCRIPTION

## 3.1 PROJECT LOCATION AND SITE CHARECTERISTICS

### 3.1.1 LOCATION

The Station 65 mixed-use transit oriented development (proposed project) is located within the City of Sacramento, California, on an approximately 4.29-acre site on the southeast corner of 65th Street and Folsom Boulevard. The site is bounded by Q Street to the south and 67th Street on the east (**Figure 3-1**). The project site consists of three parcels with the following assessor parcel numbers (APN) 015-0010-020, 015-0010-003, and 015-0010-021 (**Figure 3-2**).

### 3.1.2 LAND USE AND ZONING DESIGNATION

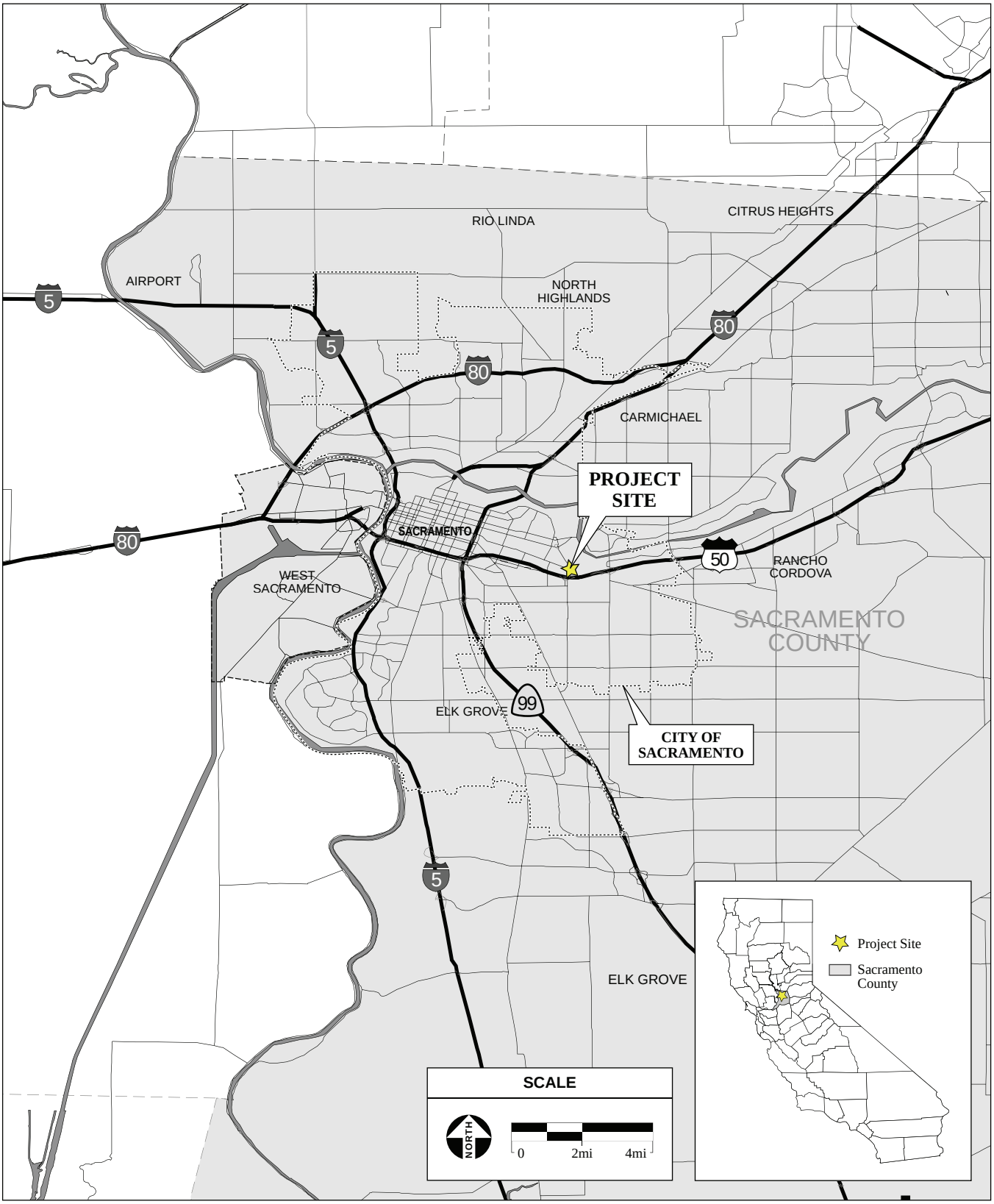
The Sacramento General Plan (General Plan) (1988) land use designation of the project site is Mixed Use. The site is zoned General Commercial with a Transit Overlay (C-2 (TO)), which allows for mixed-use development including high-density residential, commercial, and office uses within a 0.25 miles of a transit station. The Transit Overlay (TO) encourage land uses that would take advantage of existing mass transit facilities in the area.

The project site is located within the East Sacramento Community Plan. The East Sacramento Community Plan encompasses about 7.1 square miles or approximately 4,525 acres. The East Sacramento Community Plan Area (Plan Area) is bounded on the north by the American River, on the south by the Gold Line Light Rail line and Jackson Highway, on the east by Watt Avenue, and on the west by Alhambra Boulevard. In March 2007, the Sacramento City Council authorized staff to expand work on the 2030 General Plan to include a review of the city's community plans (City of Sacramento, 2008b). This review transformed the community plans from stand-alone documents (separate from the 1988 General Plan) into chapters of the 2030 General Plan to create a consistent outline for all community plans. The revised Draft East Sacramento Community Plan is included in the General Plan Update 2030 public draft and identifies the project site as Mixed Use (City of Sacramento, 2008c). Within the Plan Area, the 65th Street/University Transit Village Light Rail Station is identified as an area available for development opportunities and Folsom Boulevard is identified as an area available for development as a mixed-use corridor.

The 65th Street/University Transit Village Plan (Transit Village Plan), adopted in October 2002, identifies the project site as being within the Station Block Planning area and land uses that are consistent with the General Plan.

### 3.1.3 REGIONAL ACCESS

Regional access is provided to the project site via US 50, 65th Street, Folsom Boulevard, and the RT Bus/Light Rail Transfer Station. Vehicular and pedestrian access points to the project site would be from




SOURCE: ESRI Data; AES, 2008



**Figure 3-1**
Regional Location

SOURCE: ESRI Data; DigitalGlobe Aerial Photograph, 2008; AES 2008



**Figure 3-2**
Site and Vicinity

65th Street, 67th Street, and Q Street, with an additional pedestrian-only plaza entrance located along Folsom Boulevard.

### 3.1.4 PROJECT SITE EXISTING LAND USES

The parcel located at the northeast portion of the project site (APN 015-0010-020) has a one-story brick retail building (approximately 4,896 sf) with restaurant/retail use and associated parking. The parcel located on the eastern portion of the project site (APN 015-0010-003) has a one-story building (approximately 31,254 sf) with associated parking that is currently vacant. The southernmost parcel (APN 015-0010-021) is currently used by Regional Transit (RT) for a bus transfer center and has a covered pedestrian shelter. This parcel is fully paved with minimal landscaping in the central portion (**Figure 3-3**).

### 3.1.5 SURROUNDING LAND USES

The parcels immediately surrounding the project site are zoned Residential Mixed-Use with a Transit Overlay (RMX (TO)), General Commercial with a Transit Overlay (C-2(TO)), and Heavy Commercial (C-4). Surrounding land uses consist of:

- North: residential, commercial and retail
- South: residential and commercial
- East: commercial and retail
- West: residential, commercial and retail

## 3.2 STATEMENT OF OBJECTIVES

The objectives for the proposed project are as follows:

- To construct a high quality mixed use office, retail, hospitality and residential development on property located in the Station Block area of the Transit Village Plan.
- To promote the development of regional commercial uses adjacent to the intersection of Folsom Boulevard and 65th Street to meet current commercial and residential needs and enhance area property values.
- To foster economic and employment opportunities within the City of Sacramento through the development of underutilized property within the Transit Village Plan area.
- To provide the necessary circulation and infrastructure improvements to accommodate development of the property consistent with City and District transportation objectives and designs.
- To optimize the use of the 65th Street Light Rail/Bus Transfer Station.
- To improve pedestrian connectivity between the 65th Street Light Rail/Bus Transfer Station and adjacent commercial, retail, and residential land uses.
- To encourage increased transit ridership.
- To act as a community center and serve as a pedestrian friendly meeting and gathering hub.
- To provide a venue for enhancing the community's local culture and social atmosphere.

SOURCE: DigitalGlobe Aerial Photograph, 2008; AES 2008

*Station 65 EIR / 208523* ■

**Figure 3-3**
Aerial Photograph

- To improve the neighborhood image and environment.

## 3.3 PROPOSED PROJECT

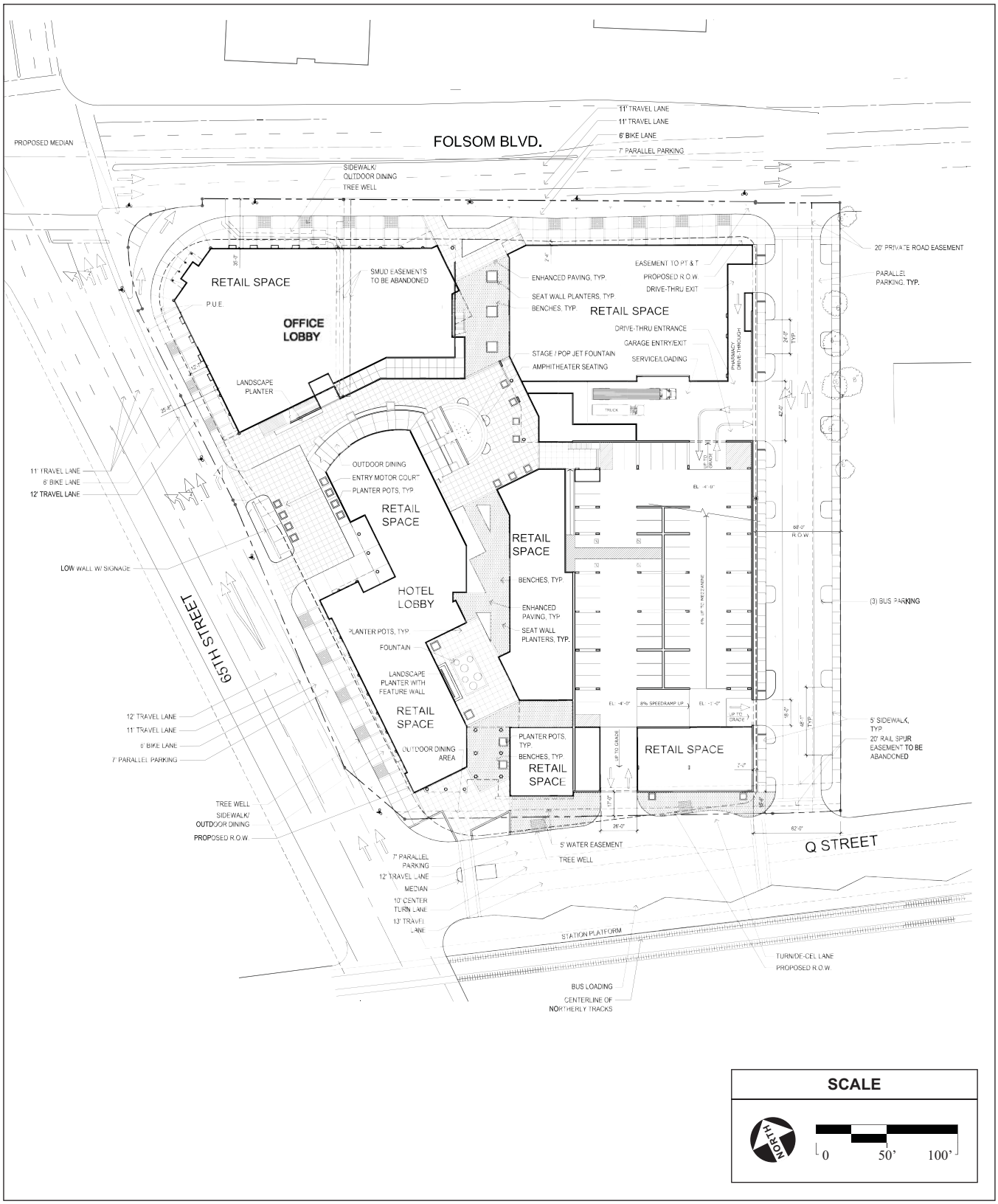
The proposed project consists of the development of a mixed-use commercial/residential development with an associated parking structure and off-site improvements. Because of the long-term nature of the proposed project and the unpredictability of real-estate trends, two potential development scenarios are evaluated at an equal level to allow flexibility to respond to changing market conditions. These two development scenarios are referred to the Base Plan Scenario (Scenario A) and the Maximum Density Scenario (Scenario B). **Table 3-1** provides details for each component of Scenario A and B.

**TABLE 3-1** PROJECT COMPONENTS - SCENARIO A & B

| Scenario A Components | Square Footage (SF) | Units/Stalls |
|---|---|---|
| Office (Class A) | 53,000 | |
| Retail (including restaurants) | 64,000 | |
| Residential | 70,000 | 68 Units |
| Hotel | 79,000 | 148 Rooms |
| Fitness Center | 30,000 | |
| Gross Occupiable SF | 296,000 | |
| Parking | 211,000 | 618 Stalls |
| *Total SF* | *507,000* | |
| **Scenario B Components** | **Square Footage (SF)** | **Units/Stalls** |
| Office (Class A) | 72,000 | |
| Retail | 64,000 | |
| Residential | 105,000 | 120 Units |
| Hotel | 79,000 | 148 Rooms |
| Fitness Center | 30,000 | |
| Gross Occupiable SF | 350,000 | |
| Parking | 256,000 | 751 Stalls |
| *Total SF* | *606,000* | |
| Source: Lucas Enterprises, 2008 | | |

The proposed project would include the construction of up to 120 single and/or multi-family residential units in a five (100 units) or six-story (120 units) residential complex located on the southeast portion of the project site (**Figure 3-4**).

Proposed retail development would be at the ground-level of each proposed building (**Figure 3-4**). Proposed office use would be on two to four levels above the ground-level retail. An upscale hotel (approximately 148 rooms) would be developed on levels two through five above the ground level retail.




SOURCE: ESRI Data; City of Sacramento Aerial Photograph, 2001;
LPA Sacramento, Inc., 4/23/2008; AES 2008



**Figure 3-4**
Site Plan

A fitness center is proposed, located on the sixth level above the parking structure, which would likely include basketball, squash, and two racquetball courts.

### 3.3.1 FIRE PROTECTION ELEMENTS

The proposed project would comply with the City's Municipal Code Section 15.100, which requires inclusion of certain systems within new buildings to ensure occupant safety in the event of a fire. Those systems may include:

- Standby and emergency electrical power systems
- Fire alarm and related equipment
- Firefighters phone and voice communication system
- Smoke evacuation and control systems (mechanical equipment)
- Other fire protection and extinguishing systems
- Fire department breathing air system
- Fire hydrant system
- Automatic fire sprinkler system
- Fire apparatus access roadways
- Elevators and controls
- All equipment and their rooms
- Compliance with equipment in Titles 19 and 24, California Code of Regulations (CFR) and Uniform Building Code (UBC), Uniform Fire Code (UFC), and National Fire Protection Association (NFPA) codes and standards
- Complete exit systems

### 3.3.2 UTILITIES AND INFRASTRUCTURE

**Wastewater and Storm Drainage**

The proposed project is located in an area of the City served by the City of Sacramento's combined sewer system (CSS) for both wastewater and stormwater disposal. An existing 8-inch sanitary sewer pipe is located on 65$^{th}$ Street that connects to a 10-inch main on Folsom Boulevard (City of Sacramento, 2004). All projects within the combined sewer system area are required to pay a fee for sanitary sewer flows above the existing flows.

The proposed project would comply with the City's Stormwater Management & Discharge Control Code Chapter 13.16. As identified in the 65$^{th}$ Street/University Transit Village Infrastructure Needs Assessment (TVI Needs Assessment), the project area is on the boundary of Basin 31/113 and the Basin 32 drainage areas. The TVI Needs Assessment identified the City's planned improvements to the existing storm drain infrastructure in the vicinity of the project site to reduce stormwater flows entering the CSS system. On-site and off-site drainage systems would be developed as necessary to facilitate build out of the proposed project. The Applicant would pay into the existing City fee program as applicable. To the extent that existing fee programs are not applicable to improvements required by the cumulative build out of the project area, the Applicant would consult with the City to determine appropriate fair share payments into an alternative fee program. On-site gutter and storm drains will be upgraded as necessary.

**Water Supply**

There is an existing 8-inch water main located on the west side of 65th Street that connects to a 6-inch pipeline that currently serves the project site. The TVI Needs Assessment has identified the demand for a 12-inch water main to be installed on Folsom Boulevard from 65th Street to 69th Street. On-site and off-site improvements would be developed as necessary to facilitate the build-out of the proposed project. As such, the Applicant would pay into the existing City fee program as applicable. To the extent that fee programs are not applicable to improvements required by the cumulative build out of the project area, the Applicant would consult with the City to determine appropriate fair share payments into an alternative fee program.

Domestic water service from the 65th Street water main to the building would be provided based on anticipated domestic water flow requirements. Fire water service from Folsom Boulevard or 65th Street to the buildings would also be provided, with the pipe specifications and storage volumes based on anticipated fire water flow requirements determined in consultation with the Fire Department and the City of Sacramento.

**Roadway/Circulation Improvements**

The proposed project may include and/or require the following on- and off-site road improvements to facilitate access to the site:

- New driveways on Q Street, 65th Street, and 67th Street
- A 6-foot bike lane on 65th Street and Folsom Boulevard along the periphery of the project site
- Reconfiguration of the existing median at the southeast corner of Folsom Boulevard and 65th Streets
- A four-way traffic signal at Folsom Boulevard and 67th Street

***Regional Transit Light Rail/Bus Transfer Station***

The existing RT Bus Transfer Station would be reconfigured as a result of the proposed project. Preliminary plans involve a “saw tooth” configuration along Q Street and standard parallel bays on 67th Street as shown in **Figure 3-4**. The reconfiguration may include upgrades to the existing RT Light Rail Station (i.e. a driver’s shelter, bike lockers, a pedestrian trail, and bioswales).

***Parking***

Parking would be provided in a garage that is five (± 618 stalls) or six levels (± 751 stalls) above grade. Approximately 35 metered off-site parking stalls would be located along Q Street, 65th Street, 67th Street and Folsom Boulevard.

## 3.3.3 SITE PREPARATION

All existing buildings will be demolished and the entire site will be graded.

### 3.3.4 NOISE ATTENUATION

The proposed project would be designed and constructed in such a manner as to ensure compliance with the City's noise standards.

### 3.3.5 PROJECT SCHEDULE

The proposed project would initiate final design work upon approval of the entitlements, anticipated in December 2008. Demolition and foundation preparation is anticipated to commence in the second half of 2009. Building occupancy is anticipated in fall 2010.

## 3.4 REQUESTED ENTITLEMENTS

Requested entitlements for project approval include (but are not necessarily limited to) the following:

- Special Permit for project exceeds 40,000 square feet in General Commercial Transit Overlay (C-2-TO) Zone
- Special Permit to exceed the required height limit in General Commercial Transit Overlay (C-2-TO) Zone
- Variance to reduce the setback requirement for building taller than 28 feet in General Commercial Transit Overlay (C-2-TO) zone
- Special Permit for New Construction of Residential Condominium
- Special Permit for Parking Reduction
- Tentative Map to create four lots with two allotted for condominium uses

# CHAPTER 4

## ENVIRONMENTAL ANALYSIS

# 4.1 INTRODUCTION TO THE ANALYSIS

## 4.1.1 SCOPE OF THE EIR ANALYSIS

As discussed in **Chapter 1.0**, comments received during the scoping period were considered in combination with previously conducted studies and technical reports (identified above in **Section 1.4**) to determine the scope of the Draft Environmental Impact Report (Draft EIR). This Draft EIR focuses on the following three environmental issue areas identified through the scoping process to have potentially significant impacts as a result of project implementation. The following environmental issues are addressed in this chapter of the Draft EIR:

- Section 4.3, Transportation and Circulation
- Section 4.4, Noise and Vibration
- Section 4.5, Air Quality

Environmental impacts, if any, related to the issue areas listed below were determined to be less than significant and are not discussed in this Draft EIR (CEQA *Guidelines* Section 15128).

- Agricultural Resources
- Aesthetics, Light, and Glare
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazardous Materials and Public Safety
- Hydrology and Water Quality
- Public Services and Utilities
- Recreation

## 4.1.2 DETERMINATION OF SIGNIFICANCE

Significance criteria are identified for each environmental category to determine if the project will result in a significant environmental impact when evaluated against the environmental setting. The significance criteria vary depending on the environmental category. For example, the significance criterion for carbon monoxide in the air quality discussion is based on state and federally adopted parts per million (ppm) standards, while the noise significance criteria is based on decibel thresholds identified in the City Sacramento General Plan (General Plan) (City of Sacramento 1988). In general, effects can be either significant (above threshold) or less than significant (below threshold). Effects found to be significant may be reduced to less than significant levels with the identification of feasible mitigation measures.

### 4.1.3 TECHNICAL SECTION FORMAT

Each technical section begins with a description of the environmental and regulatory settings as they pertain to the issue area under analysis. The environmental and regulatory settings provide a point of reference for assessing the environmental impacts of the proposed project and project alternatives. The description of the environmental and regulatory settings is followed by a discussion of impacts and appropriate mitigation measures. The impact and mitigation portion of each section includes impact statements, which are prefaced by a number in bold-faced type. An explanation of each impact and an analysis of its significance follow each impact statement. Mitigation measures pertinent to each individual impact follow directly after the impact statement. The degree to which the identified mitigation measure(s) would reduce the impact is also described. Examples of the format are shown below.

**4.X-X Statement of impact for the proposed project in bold type.**

The discussion of impacts for the proposed project is presented in paragraph form and a determination of the impact's significance in ***bold, italic type***.

Two proposed scenarios for development of the Station 65 Project are analyzed in this EIR. The following headings are used in the impact analysis to differentiate between the two analyses:

***Scenario A and B***

If discussion applies to Scenario A and B.

***Scenario A***

If the discussion is unique to Scenario A.

***Scenario B***

If the discussion is unique to Scenario B.

**Mitigation Measure(s) 4.X-X**

4.x-1(a) Recommended mitigation measure(s) numbered in consecutive order.
4.x-1(b) etc. etc.

### 4.1.4 TERMINOLOGY USED IN THE EIR

This Draft EIR uses the following terminology to describe environmental effects of the proposed project:

- **Standards of Significance:** A set of criteria used by the lead agency to determine at what level or "threshold" an impact would be considered significant. Standards of Significance used in this EIR are from Appendix G of the CEQA *Guidelines* and City guidelines.

- **Less Than Significant Impact:** A project impact is considered less-than-significant when it does not reach the threshold of significance and would therefore cause no substantial change in the environment (no mitigation required).

- **Potentially Significant Impact:** A potentially significant impact is an environmental effect that may cause a substantial adverse change in the environment; however, additional information is needed regarding the extent of the impact to make the determination of significance. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- **Significant Impact:** A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. Mitigation measures and/or project alternatives are identified to reduce these effects to the environment where feasible.

- **Significant and Unavoidable Impact:** A project impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level.

- **Cumulative Impacts:** According the CEQA, "cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA *Guidelines* Section 15355). CEQA requires that cumulative impacts be discussed when the "projects incremental effect is cumulatively considerable" (CEQA *Guidelines* Section 15130(a)).

- **Mitigation Measures:** CEQA *Guidelines* Section 15370 defines mitigation as:

    a. Avoiding the impact altogether by not taking a certain action or parts of an action;
    b. Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
    c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
    d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and,
    e. Compensating for the impact by replacing or providing substitute resources or environments.

# 4.2 LAND USE CONSISTENCY AND COMPATABILITY

## 4.2.1 INTRODUCTION

This chapter of the Draft Environmental Impact Report (Draft EIR) provides an overview of the land use and planning effects that may result from development of the Station 65 Project (proposed project). Existing and planned land uses on and adjacent to the project site, including land use designations and zoning are described. CEQA *Guidelines* Section 15125 states that an EIR shall discuss "any inconsistencies between the proposed project and applicable general plans and regional plans." Potential inconsistencies between the proposed project and the City of Sacramento General Plan, the 65th Street/University Transit Village Plan, the City's Comprehensive Zoning Ordinance, and the Sacramento Area Council of Governments (SACOG) Blueprint are evaluated in this chapter. An EIR may provide information regarding land use, socio-economic, population, employment, or housing issues, but CEQA does not recognize these issues as direct physical impacts to the environment that are subject to assessment. A direct physical change in the environment is a physical change in the environment that is caused by and immediately related to the project (CEQA *Guidelines* Section 15064(d) (1)). Physical impacts on the environment that could result from implementation of the project or project alternatives are addressed the appropriate technical sections of this Draft EIR.

## 4.2.2 ENVIRONMENTAL SETTING

### EXISTING LAND USES

#### *Project Site*

The proposed project is located on a ±4.29-acre site on the southeast corner of 65th Street and Folsom Boulevard bounded by Q Street to the south and 67th Street to the east within the boundaries of the City of Sacramento, California (refer to **Figure 3-1**). The 65th Street Regional Transit (RT) bus/light rail transfer station is located adjacent to the southern portion of the project site (on Q Street).

Existing land uses on the project site consist of restaurant/retail with associated parking and a Regional Transit light rail/bus transfer station. Land uses surrounding the project site consist of commercial and retail development to the north, east, and west; and residential development to the north and west. F65, located at the southwestern corner of Folsom Boulevard and 65th Street, is a newly constructed mixed-use commercial/residential development. The Sacramento Municipal Utility District (SMUD) Headquarters is located southwest of the project site on S Street and 65th Street. US 50 is located approximately 1,000-feet one-mile south of the project site. Sacramento State University and the American River Parkway are located approximately 1,000-feet and 0.6 miles north of the project site, respectively. A Union Pacific (UP) rail line is located to the east of the project site.

***Existing Land Use and Zoning Designations***

The City of Sacramento General Plan (General Plan) (1988) land use designation for the project site is Mixed Use (**Figure 4.2-1**). The site is zoned General Commercial with a Transit Overlay (C-2 TO) which allows for mixed-use development including, high-density residential, commercial, and office uses within a 0.25-miles of a transit station (**Figure 4.2-2**). The Transit Overlay encourages land uses that would take advantage of existing mass transit facilities in the area, and pedestrian rather than personal motor vehicle transportation. The 65th Street/University Transit Village Plan (Transit Village Plan), adopted in October 2002, identifies the project site as being within the Station Block Planning area. The Transit Village Plan identifies the land use designations for the project site as Mixed-Use and Residential Mixed-Use. These land use designations are described in **Section 4.2.3**.

The parcels immediately surrounding the project site are zoned Residential Mixed-Use with a Transit Overlay (RMX (TO)), General Commercial with a Transit Overlay (C-2(TO)), and Heavy Commercial (C-4). Surrounding land uses consist of:

- North: residential, commercial and retail
- South: residential and commercial
- East: commercial and retail
- West: residential, commercial and retail

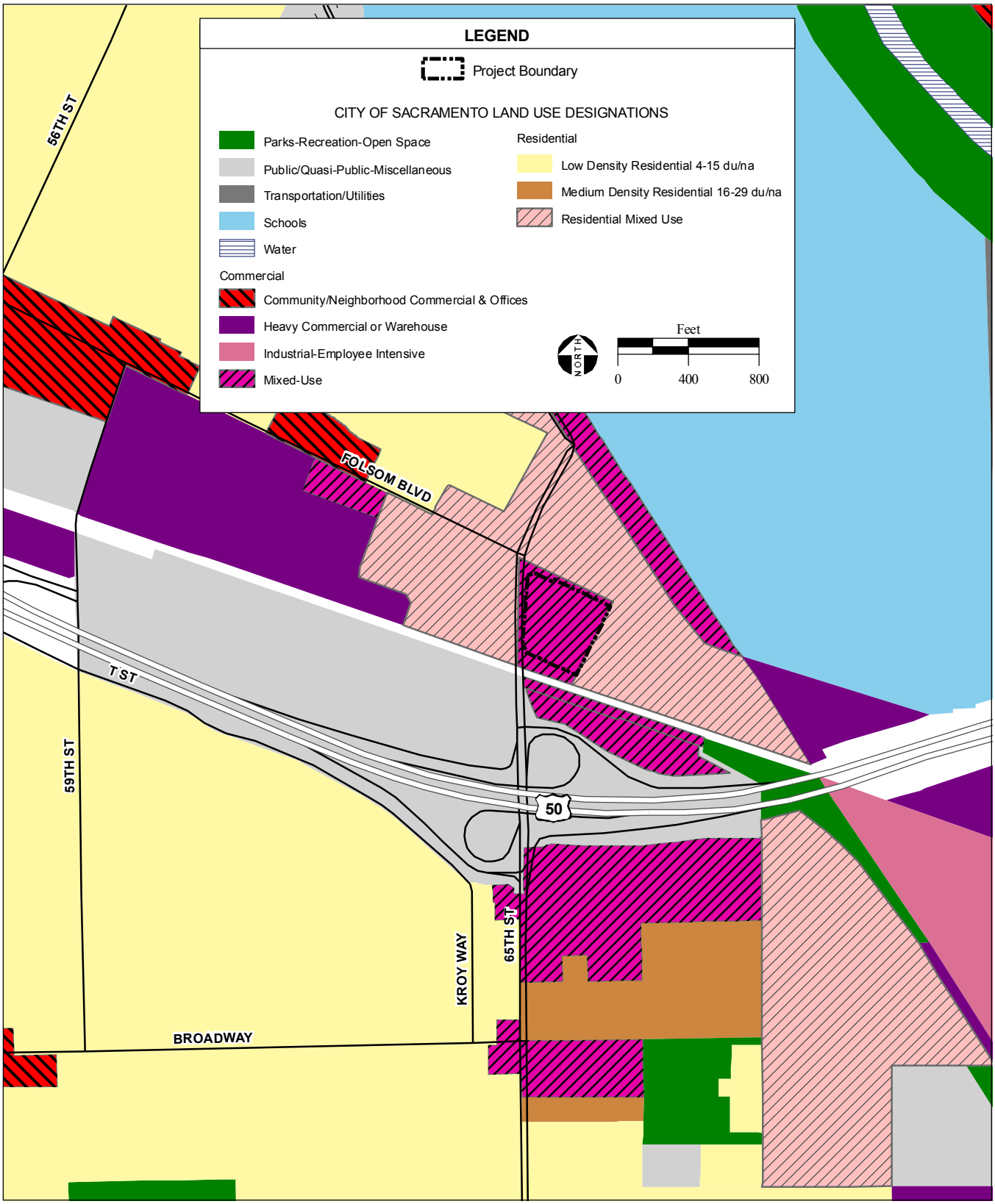
*City of Sacramento General Plan Update (2030)*

The City of Sacramento is in the process of updating its General Plan (General Plan Update 2030). The Draft Preferred Land Use and Urban Form Diagram designates the project site as Urban Center Low, with a density of 20-150 units/floor area ratio (FAR) 0.4-4.0. Within the proposed General Plan Update Land Use and Urban Design Element, the project site is also designated as Transform-Urban which identifies areas expected to experience dramatic change through major development and redevelopment projects(City of Sacramento, 2008b).

## 4.2.3 REGULATORY SETTING

## City of Sacramento General Plan (1988)

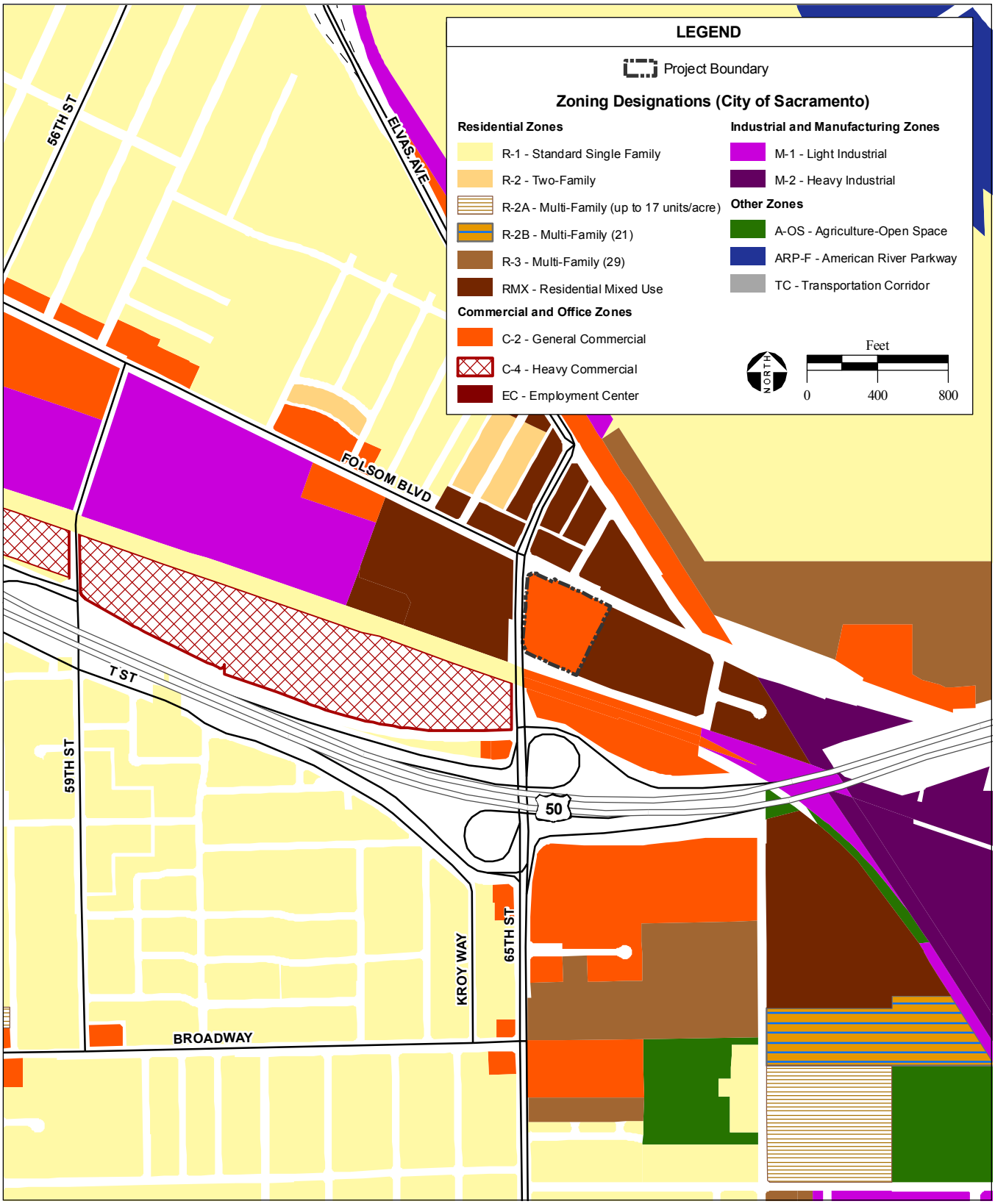
The City of Sacramento General Plan was adopted on January 19, 1988. The General Plan replaced the heavily amended 1974 General Plan for Sacramento. The General Plan is a 20-year policy guide for physical, economic, and environmental growth and renewal of the City. A total of nine sections are contained within the General Plan, each of which contains goals and policies intended to guide buildout of the City. The City is presently in the process of updating its General Plan (2030) with an anticipated adopted in Winter 2008/2009. Land use goals and policies from the 1988 General Plan that are applicable to the proposed project are listed below.




SOURCE: DigitalGlobe Aerial Photograph, 2008; City of Sacramento, 7/2008; AES 2008



**Figure 4.2-1**
City of Sacramento Land Use Designations




SOURCE: DigitalGlobe Aerial Photograph, 2008; City of Sacramento, 1/2006; AES 2008



**Figure 4.2-2**
City of Sacramento Zoning Designations

### *Commerce and Industry Land Use Element*

#### *Citywide*

*Goal A* *Promote Transit Oriented Development (TOD) within a quarter mile of existing and future light rail transit (LRT) stations.*

**Policy 1** Actively support and encourage mixed use commercial, office, and residential development in identified areas of opportunity around light right stations by establishing minimum development standards, potential financial incentives, and priority processing or streamlined review.

#### *Neighborhood/Community Commercial and Office Areas*

*Goal A* *Ensure that all areas of the City are adequately served by neighborhood/ community shopping districts.*

**Policy 1** Maintain and strengthen viable shopping districts throughout the City.

**Policy 2** Promote the rehabilitation and revitalization of existing commercial centers.

*Goal B* *Promote mixed use development of neighborhood/community commercial districts through new construction and revitalization.*

**Policy 2** Promote the development of mixed use local commercial/office and high-density residential projects.

#### *Residential Land Use Element*

*Goal A* *Improve the quality of residential neighborhoods Citywide by protecting, preserving and enhancing their character.*

**Policy 5** Continue redevelopment and rehabilitation efforts in existing target areas and identify other areas experiencing blighted conditions. Explore methods to expand public or private rehabilitation efforts in potential improvement areas and in areas of opportunity or reuse identified in the General Plan (see exhibits provided in the General Plan).

**Policy 6** Prohibit the intrusion of incompatible uses into residential neighborhoods through adequate buffers, screening, and zoning practices that do not preclude pedestrian access to arterials that my serve as transit corridors.

*Goal C* *Develop residential land uses in a manner that is efficient and utilizes existing and planned urban resources.*

**Policy 1** Identify areas where increased densities, land use changes, or mixed uses would help support existing services, transportation facilities, transit, and light rail. Then proceed with necessary General Plan land use changes for property with service capabilities adequate to support more intensive residential development.

**Policy 2** Identify areas of potential change where density development would be appropriate along major thoroughfares, commercial strips near light rail stations, and modify plans to accommodate this change.

**Policy 6** Continue to support redevelopment and rehabilitation efforts that add new and reconditioned units to the housing stock while eliminating neighborhood blight and deterioration.

## City of Sacramento General Plan Update (2030)

### *Growth and Change*

*Goal LU1.1 Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.*

**Policies**

**LU 1.1.5 Infill Development.** The City shall promote and provide incentives (e.g., focused infill planning, zoning/rezoning, revised regulations, provision of infrastructure) for infill development, redevelopment, mining reuse, and growth in existing urbanized areas to enhance community character, optimize City investments in infrastructure and community facilities, support increased transit use, promote pedestrian- and bicycle-friendly neighborhoods, increase housing diversity, ensure integrity of historic districts, and enhance retail viability.

**LU 1.1.9 Balancing Infill and New Growth.** The City shall maintain a balanced growth management approach by encouraging infill development within the existing Policy Area where City services are in place, and by phasing city expansion into Special Study Areas where appropriate.

### *Citywide Land Use and Urban Design*

*Goal L.U. 2.1 City of Neighborhoods. Maintain a city of diverse, distinct, and well structured neighborhoods that meet the community's needs for complete, sustainable, and high-quality living environments, from the historic downtown core to well-integrated new growth areas.*

**Policies**

**LU 2.1.2 Protect Established Neighborhoods.** The City shall preserve, protect, and enhance established neighborhoods by providing sensitive transitions between these neighborhoods and adjoining areas, and requiring new development, both private and public, to respect and respond to those existing physical characteristics buildings, streetscapes, open spaces, and urban form that contribute to the overall character and livability of the neighborhood.

**LU 2.1.4 Neighborhood Centers.** The City shall promote the development of strategically located (e.g., accessible to surrounding neighborhoods) mixed-use neighborhood centers that accommodate local-serving commercial, employment, and entertainment uses; provide diverse housing opportunities; are within walking distance of surrounding residents; and are efficiently served by transit.

**LU 2.1.5 Neighborhood Enhancement.** The City shall promote infill development, redevelopment, rehabilitation, and reuse efforts that contribute positively (e.g., architectural design) to existing neighborhoods and surrounding areas.

*Goal LU 2.6 City Sustained and Renewed. Promote sustainable development and land use practices in both new development and redevelopment that provide for the transformation of Sacramento into a sustainable urban city while preserving choices (e.g., where to live, work, and recreate) for future generations.*

**Policy**

**LU 2.6.1 Sustainable Development Patterns.** The City shall promote compact development patterns and higher development intensities that use land efficiently; reduce pollution and automobile dependence and the expenditure of energy and other resources; and facilitate walking, bicycling, and transit use.

*Goal LU2.7 City Form and Structure. Require excellence in the design of the city's form and structure through development standards and clear design direction.*

**Policies**

**LU 2.7.3 Transitions in Scale.** The City shall require that the scale and massing of new development in higher-density centers and corridors provide appropriate transitions in building height and bulk that are sensitive to the physical and visual character of adjoining neighborhoods that have lower development intensities and building heights.

**LU 2.7.4 Public Safety and Community Design.** The City shall promote design of neighborhoods, centers, streets, and public spaces that enhances public safety and discourages crime by providing street-fronting uses ("eyes on the street"), adequate lighting and sight lines, and features that cultivate a sense of community ownership.

**LU 2.7.6 Walkable Blocks.** The City shall require new development and redevelopment projects to create walkable, pedestrian scaled blocks, publicly accessible mid-block pedestrian routes where appropriate, and sidewalks appropriately scaled for the anticipated pedestrian use.

**LU 2.7.7 Buildings that Engage the Street.** The City shall require buildings to be oriented to and actively engage and complete the public realm through such features as building orientation, build-to and setback lines, façade articulation, ground-floor transparency, and location of parking.

**LU 2.7.8 Screening of Off-street Parking.** The City shall reduce the visual prominence of parking within the public realm by requiring most off-street parking to be located behind or within structures or otherwise fully or partially screened from public view.

### *Neighborhoods*

*Goal LU 4.4 Urban Neighborhoods. Promote vibrant, high-density, mixed-use urban neighborhoods with convenient access to employment, shopping, entertainment, civic uses (e.g., school, park, place of assembly, library, or community center), and community-supportive facilities and services.*

**Policies**

**LU 4.4.1 Well-Defined Street Fronts.** The City shall require that new buildings in urban neighborhoods maintain a consistent setback from the public right-of-way in order to create a well-defined public sidewalk and street.

**LU 4.4.4 Ample Public Realm.** The City shall require that higher density urban neighborhoods include small public spaces and have broad tree-lined sidewalks furnished with appropriate pedestrian amenities that provide comfortable and attractive settings to accommodate high levels of pedestrian activity.

**LU 4.4.5 Parking and Service Access and Design.** The City shall require that, to the degree feasible, parking and service areas in urban neighborhoods be accessed from alleys or side streets to minimize their visibility from streets and public spaces. Curb cuts for driveways should not be allowed along the primary street frontage.

**LU 4.4.6 Mix of Uses.** The City shall encourage the vertical and horizontal integration of a complementary mix of commercial, service and other nonresidential uses that address the needs of families and other household types living in urban neighborhoods. Such uses may include daycare and school facilities, retail and services, and parks, plazas, and open spaces.

### *Centers*

*Goal LU 5.1 Promote the development throughout the city of distinct, well designed mixed-use centers that are efficiently served by transit, provide higher-density, urban housing opportunities and serve as centers of civic, cultural, and economic life for Sacramento's neighborhoods and the region.*

**Policies**

**LU 5.1.1 Diverse Centers.** The City shall encourage development of local, citywide, and regional mixed-use centers that address different community needs and market sectors, and complement and are well integrated with the surrounding neighborhoods.

**LU 5.1.2 Centers Served by Transit.** The City shall promote the development of commercial mixed-use centers that are located on existing or planned transit lines in order to facilitate and take advantage of transit service, reduce vehicle trips, and enhance community access.

**LU 5.1.4 Major Retail and Office Development.** The City shall work with developers to develop major regional commercial and office projects in centers throughout the city that provide shopping and jobs for all city residents.

**LU 5.1.5 Vertical and Horizontal Mixed-use.** The City shall encourage the vertical and horizontal integration of uses within commercial centers and mixed-use centers, particularly residential and office uses over ground floor retail.

*Goal LU 5.5 Promote the development of high-density urban centers that are readily accessible by transit and contain a dynamic mix of retail, employment, cultural, and residential uses.*

**Policies**

**LU 5.5.1 Urban Centers.** The City shall promote the development of a series of urban centers, as designated in the Land Use & Urban Form Diagram, that create significant opportunities for employment, housing, and commercial activity in areas outside of the Central Business District (CBD).

**LU 5.5.2 Transit-Oriented Development.** The City shall actively support and encourage mixed-use retail, employment, and residential development around existing and future transit stations.

## East Sacramento Community Plan

The project site is located within the East Sacramento Community Plan. The East Sacramento Community Plan encompasses about 7.1 square miles or approximately 4,525 acres. The East Sacramento Community Plan Area (Plan Area) is bounded on the north by the American River, on the south by the Gold Line Light Rail line and Jackson Highway, on the east by Watt Avenue, and on the west by Alhambra Boulevard. In March 2007, the Sacramento City Council authorized staff to expand work on the 2030 General Plan to include a review of the city's community plans (City of Sacramento, 2008a). This review transformed the community plans from stand-alone documents (separate from the 1988 General Plan) into chapters of the 2030 General Plan to create a consistent outline for all community plans. The revised Draft East Sacramento Community Plan is included in the General Plan 2030 public draft and identifies the project site as Mixed Use (City of Sacramento, 2008c). Within the Plan Area, the 65th Street/University Transit Village Light Rail Station is identified as an area available for development opportunities and Folsom Boulevard is identified as an area available for development as a mixed-use corridor. The East Sacramento Community Plan defers to the 65th Street/University Transit Village Plan for regulating development within the project area.

## 65th Street/University Transit Village Plan

The Transit Village Plan implements the City's vision of an active, thriving transit oriented residential and commercial neighborhood that maximizes the advantages of the 65th Street Light Rail Station and the proximity to the California State University, Sacramento. The Transit Village Plan establishes land use designations, goals, and policies that will guide future development within the Planning Area.

The Transit Village Planning Area includes property within a 0.25-miles walking distance of the 65th Street Light Rail Station. This area consists of approximately 49 acres of land located at 65th Street and Folsom Boulevard and generally bounded on the north by the UP Rail Line and Folsom Boulevard, on the east by the UP Rail line, on the south by the Light Rail line and US Highway 50, and on the west by the Caltrans site approximately 170 feet west of 61st Street. The project site is located within the Station Block Planning Area of the Transit Village Plan.

The anticipated levels of development within the Station Block Planning Area are identified in **Table 4.2-1**. The Transit Village Plan land use designations for the project site are Mixed Use. The Transit Village Plan land use designations for the Station Block Planning Area are defined below:

| | |
|---|---|
| Mixed Use | Includes a mixture of office, commercial, open space, and medium and high-density residential uses. Residential uses are permitted but not required. |
| Residential Mixed Use | This designation refers to areas planned for a mixture of residential densities and neighborhood serving commercial and or office uses. This designation requires residential uses as part of any mixed use development. Non-residential uses are permitted but not required. |

**TABLE 4.2-1.** ANTICIPATED LEVEL OF DEVELOPMENT – STATION BLOCK PLANNING AREA

| Area/Land Use | Acres | Susceptible Acres | Anticipated Level of Development | | |
|---|---|---|---|---|---|
| | | | Residential (D.U.) | Office (sq ft) | Commercial (sq ft) |
| Residential Mixed Use | 9.39 | 7.2 | 451 | 96,000 | 60,000 |
| Commercial Mixed Use | 4.21 | 1.6 | 0 | 24,000 | 20,000 |
| *Total* | *13.6* | *8.8* | *451* | *120,000* | *80,000* |
| Source: 65th Street/University Transit Village Plan October 2002. | | | | | |

**Table 4.2-2** identifies the regulatory framework for the land use designations under the Transit Village Plan.

**TABLE 4.2-2.** 65TH STREET UNIVERSITY TRANSIT VILLAGE PLAN REGUALTORY FRAMEWORK

| Land Use Designation | Zoning District | Allowed/Conditional Uses | Prohibited Uses | Max Heights | Min-Max Density/Intensity |
|---|---|---|---|---|---|
| Mixed Use | General Commercial (Transit Overlay) C-2 (TO) | Retail uses<br>Residential<br>Large scale office/commercial | Auto oriented uses Storage/Warehouse uses | 75' | 04.-3.0 Floor Area Ration (FAR) |
| Residential Mixed Use | Residential Mixed Use (Transit Overlay)<br>RMX (TO) | Residential (single family, apartments, condos)<br>Neighborhood serving retail and office | Large scale office/commercial<br>Auto oriented uses<br>Storage/Warehouse uses | 55'<br>35' adjacent to existing residential | 15-60 units/net acre |
| Source: 65th Street/University Transit Village Plan October 2002. | | | | | |

## *Applicable Goals and Policies*

Applicable goals and policies related to the Station Block Planning Area are described below.

### *Mixed Use Village*

*Goal 1* *Create a safe, lively University Mixed Use District which serves the surrounding East Sacramento neighborhood.*

**Policy 1.1** Require active ground level uses within larger residential mixed use projects along 65th Street and Folsom Boulevard.

**Policy 1.2** Discourage uses that might be detrimental to transit ridership such as those with low frequency, or automobile related uses, such as warehouses, self-storage, service stations, or car sales lots.

**Policy 1.3** Encourage uses that have daily or frequent patronage, such as offices, hotels, or high-density residential development.

*Goal 2* *Balance residential, retail, and employment opportunities near the 65th Street station.*

**Policy 2.1** Given the existing employment base in the area, balance additional employment and retail uses with housing to support transit and reduce internal trips.

**Policy 2.2** Provide opportunities for low and moderate income housing, particularly in the Super Block and Station Block to serve the large employment population base created by SMUD and CSUS.

***Commercial Development***

*Goal 6* *Allow for a mix of community and neighborhood uses that will serve the residential, employee, and student population of the area.*

**Policy 6.1** Provide for a mixture of higher density commercial office and employment uses in closest proximity to the 65th Street Station.

**Policy 6.2** Encourage neighborhood and community serving commercial uses that support the University and neighborhood.

**Policy 6.3** Allow for multi-family residential development in commercial zones.

***Residential Development***

*Goal 8* *Provide for a range of housing types that meet the needs of a diverse population.*

**Policy 8.1** Provide for townhouses, condominiums and flats and apartments to provide alternative home ownership and rental opportunities.

**Policy 8.2** Reduce parking standards to accommodate both ground floor retail/office and adjacent residential and office development.

**Policy 8.3** Vertical mixed use development is preferred over horizontal mixed use.

***Open Space and Community Facilities***

*Goal 9* *Provide on-site common areas, private open space and community facilities to meet the needs of residents and to service Transit Village patrons.*

**Policy 9.1** New residential and commercial development should include public open space components.

**Policy 9.2** Public open space may include: mini parks, gathering spaces, and courtyards. The location and forms of these public and semi-public facilities shall be compatible in design and scale with the adjacent development.

*Goal 10* *Promote a relationship to the natural environment and increase human comfort through use of appropriately suited vegetation.*

**Policy 10.1** A minimum of 10 percent of the site shall be landscaped and pervious surfaces. Landscaping that serves as a stormwater treatment element and/or pedestrian plazas may be used to satisfy this requirement.

## City of Sacramento - Smart Growth Implementation Strategy

Smart Growth is designed to change traditional development patterns that rely on the use of automobiles and single use zoning through the support of development that revitalizes central cities and existing communities, supports public transportation, and preserves open space. The City of Sacramento

adopted Smart Growth Principles into the General Plan in 2001 (Resolution 2001-805). The Smart Growth Implementation Strategy contains principles and initiatives to guide development throughout the city with the overall goal of smart growth (City of Sacramento, 2006). The following Smart Growth Principles were adopted:

- Mix land uses and support vibrant city centers;
- Take advantage of existing community assets emphasizing joint use of facilities;
- Create a range of housing opportunities and choices;
- Foster walkable, close-knit neighborhoods;
- Promote distinctive, attractive communities with a strong sense of place, including the rehabilitation and use of historic buildings;
- Preserve open space, farmland, natural beauty, and critical environmental areas;
- Concentrate new development and target infrastructure investments within the urban core of the region;
- Provide a variety of transportation choices;
- Make development decisions predictable, fair, and cost-effective;
- Encourage citizen & stakeholder participation in development decisions;
- Promote resource conservation and energy efficiency;
- Create a Smart Growth Regional Vision and Plan;
- Support high quality education and quality schools;
- Support land use, transportation management, infrastructure and environmental planning programs that reduce vehicle emissions and improve air quality; and
- Policies adopted by regional decision-making bodies should discourage urban sprawl, promote infill development and the concentration of development.

## City of Sacramento Zoning Ordinance

The City of Sacramento Zoning Ordinance (Sacramento City Code Title 17) is intended to encourage the most appropriate use of land, conserve, stabilize, and improve the value of property, provide adequate open space for recreational, aesthetic, and environmental amenities, and control the distribution of population to promote health, safety, and the general welfare of the population of the City (§ 17.04.020). To achieve this goal, the Zoning Ordinance regulates the use of land, buildings, or other structures for residences, commerce, industry, and other uses required by the community. The Zoning Ordinance also regulates the location, height, and size of buildings or structures, yards, courts, and other open spaces, the amount of building coverage permitted in each zone, and population density. The Zoning Ordinance divides the City into districts of such shape, size, and number best suited to carry out these regulations, and to provide for their enforcement.

Currently, the project site is zoned General Commercial with a Transit Overlay (C-2 (TO)) which is defined as:

| | |
|---|---|
| General Commercial | This is a general commercial zone (C-2) provides for the sale of commodities, or performance of services, including repair facilities, offices, small wholesale stores |

or distributors, and limited processing and packaging. Any nonresidential development in the C-2 zone that requires a discretionary entitlement shall also be subject to review for consistency with the commercial corridor design principles adopted pursuant to Section 17.132.035(C) and as they may be amended from time to time.

Transit Overlay — The Transit Overlay (TO) zone allows a mix of moderate to high-density residential and nonresidential uses, by right, to promote transit rider ship within walking distance of an existing or proposed light rail transit station. The district is intended to promote coordinated and cohesive site planning and design that maximizes land use transit supportive development, to create continuity of pedestrian-oriented street scapes and activities throughout the district and to encourage pedestrian, bicycle and transit rather than exclusive automobile access to employment, services and residences. This overlay zone provides a streamlined approval process, permits increased heights, densities and intensities over the base zone for projects with a residential component and encourages housing and mixed use projects. The district also restricts certain uses that do not support transit ridership. (Ord. 2004-062 § 3; Ord. 2002-041 § 3 (part))

### Sacramento Area Council of Governments Blueprint

In 2004, the Sacramento Area Council of Governments (SACOG) conducted several local community workshops to help determine how the Sacramento Region should grow through the year 2050. The result of these efforts was the SACOG Blueprint, a transportation and land use analysis suggesting how cities and counties should grow based on the following smart growth principals: provide a variety of transportation choices; offer housing choices and opportunities; take advantage of compact development; use existing assets; mixed land uses; preserve open space, farmland, natural beauty, through natural resources conservation; and encourage distinctive, attractive communities with quality design (SACOG, 2004). In December 2004, the SACOG Board of Directors adopted the “Preferred Blueprint Scenario.” The Blueprint does not approve or prohibit growth in the region, but suggests general land uses and locations for growth; it is not a policy document.

Although the Blueprint is not intended to be applied or implemented in a literal, parcel-level manner, the project site would be considered Industrial under the Blueprint’s Base Case Scenario (how development could occur based on recent past development). Under the Preferred Blueprint Scenario, the project site would be developed as High-density Mixed-Use Center or Corridor.

## 4.2.4 LAND USE EVALUATION

### Evaluation Criteria

This section evaluates the proposed project for compatibility with existing and planned adjacent land uses and for consistency with adopted plans, policies, and zoning designations. Physical environmental impacts resulting from the proposed project and mitigation measures are discussed in the applicable

technical sections in this EIR. This discussion complies with CEQA *Guidelines* Section 15125(d), which requires EIRs to discuss inconsistencies with general plans and regional plans as part of the environmental setting.

## Scenarios A and B

### *Compatibility with Existing and Planned Adjacent Land Uses*

The existing adjacent land uses along Folsom Boulevard and 65th Streets consist primarily of commercial, retail, and residential uses. The area has a high re-development potential as identified in the Transit Village Plan and recent mixed-use development adjacent to the project site will allow for cohesion of the proposed project to the project area. Both scenarios of the proposed project would change the existing use of the site from a commercial and light rail/bus transfer station area to a transit oriented mixed-use commercial, office, retail, and residential development. In addition, the proposed project would compliment existing and new residential, commercial, and retail development in the vicinity of the project site and would allow for live/work opportunities near existing transit facilities. The proposed project would not generate excessive noise, light, dust, odors, or hazardous emissions that could be considered incompatible with existing or planned adjacent uses.

### *Consistency with Adopted Plans, Policies, and Zoning (Scenario A & B)*

The following discussion analyzes consistency with adopted plans, goals, policies, and zoning for the proposed project under Scenarios A and B. The analysis focuses on the project's overall consistency with adopted goals and policies; however; it does not address each goal or policy individually. **Appendix C** includes a more detailed overview of the project's consistency with specific goals and policies.

*City of Sacramento General Plan*

The project site is designated as Mixed Use in the General Plan. The proposed project would not change the land use designation and would not require a General Plan amendment in order to be approved by the City.

The General Plan includes specific goals and policies designed to support a balanced system of residential and retail facilities throughout the city. Policies 1, 2, and 6 under Goal C of the Residential Land Use Element seek to identify areas where a mix of densities and uses would be appropriate and would support redevelopment and rehabilitation efforts. The proposed project would develop high-density residential in conjunction with retail uses in an area that is identified for redevelopment and diversification of uses. The proposed project would be bordered by Folsom Boulevard and 65th Streets which are major thoroughfares and is adjacent to an existing Regional Transit light rail/bus transfer station. Policy 1 under Citywide Goal A of the Commerce and Industry Land Use Element encourages high-density mixed uses near light rail stations. The proposed project would comply with Policy 1 as there is an existing light rail/bus transfer station located on Q Street.

Policies 5 and 6 under Goal A in the Residential Land Uses Element aim to improve the quality of residential neighborhoods by protecting, preserving, and enhancing their character. The proposed project

would rehabilitate an underutilized area of the Folsom Boulevard and 65th Street corridor and enhance pedestrian access to a transit corridor. The proposed project would include adequate open spaces, walkways, and landscaping to buffer the residential uses from surrounding office and industrial uses.

The proposed project is considered consistent with all applicable General Plan land use goals and policies pertaining to the provision of residential, retail, commercial, and office uses including Smart Growth Principals identified in the General Plan. The proposed project would also be consistent with all applicable goals and policies identified in the General Plan Update 2030 (Appendix C). However, as the General Plan Update 2030 would not be adopted prior to project approval specific guidelines identified in the General Plan Update 2030 would not apply.

*65th Street/University Transit Village Plan*

The proposed project would be consistent with all applicable land use goals and policies identified in the Transit Village Plan. Under the Mixed-Use Village Element, the proposed project would be consistent with all applicable policies as it would develop: ground level retail, encourage transit ridership and pedestrian access, and would include a high-density residential component. Moreover, the proposed project would allow future employee housing opportunities on the project site and the proposed project may include either an affordable housing component or pay an in lieu fee to the City pursuant to Goal 2, Policy 2.2 of the Transit Village Plan.

The proposed project is consistent with the Commercial Development Element as the project components would include a high-density retail/commercial component that would encourage transit use, enhance pedestrian access to the project site, and would provide jobs for the existing labor pool.

The proposed project is consistent with the Open Space and Community Facilities Element as the project would include public gathering spaces and sufficient landscaping to reduce the amount of impermeable surfaces on-site.

*City of Sacramento Zoning Ordinance*

The proposed project's requested entitlements include:

- Special Permit for project exceeds 40,000 square feet in General Commercial Transit Overlay (C-2-TO) Zone
- Special Permit to exceed the required height limit in General Commercial Transit Overlay (C-2-TO) Zone
- Special Permit for New Construction of Residential Condominium
- Special Permit for Parking Reduction
- Tentative Map to create four lots that two of them are for condominium purposes.

The proposed project is consistent with the existing zoning designations for the project site. The C-2 (TO) designation allows for general commercial activities including office, and retail uses. The TO zone allows for a mix of moderate to high-density uses. The proposed project would include high-density residential units and would promote transit ridership as the project site is located within walking distance of an

existing light rail/bus transfer station. The Project Applicant has requested a variance to allow for a structural height increase over and above what is allotted in the TO zoning overlay (a maximum range of 55 -75 feet). This height increase would allow for additional residential development, office space, and retail space and would not be inconsistent with surrounding land uses.

*Sacramento Area Council of Governments Blueprint*

The intent of the Blueprint is to target areas of the Sacramento Region for urban growth while preserving natural resources. If the project site were developed in line with current growth trends, the Base Case Scenario indicates that the site would be developed with industrial uses. Although the Blueprint is not intended to guide development in a parcel-by-parcel manner, the Blueprint Preferred Scenario currently suggests that the project site be developed as High-density Mixed-Use Center or Corridor.

The proposed project would be consistent with the smart growth principles identified in the Blueprint as it would: provide a variety of transportation choices, offer housing choices and opportunities, take advantage of compact development, use existing assets, mixed land uses, and encourage distinctive, attractive communities with quality design. The proposed project would construct multi-family residential, retail, commercial, and office uses, providing compact development in an underutilized urban area. The project site's proximity to an existing light rail/bus transfer station allows for additional transportation choices. Future site residents can take advantage of the existing roadway network in the area and proximity to existing regional connectors. The proposed project is consistent with the objectives set forth in the Blueprint Preferred Scenario.

# 4.3 TRANSPORTATION AND CIRCULATION

## 4.3.1 INTRODUCTION

This chapter describes potential impacts on the City's transportation system near the proposed Station 65 project. This transportation impact analysis examines the roadway, transit, and bicycle/pedestrian components of the overall transportation system under the following scenarios:

- Existing without Station 65 project
- Baseline (existing conditions with approved and pending projects) without Station 65 project
- Baseline with Station 65 Scenario A Project
- Baseline with Station 65 Scenario B Project
- Cumulative without Station 65 project
- Cumulative with Station 65 Scenario A Project
- Cumulative with Station 65 Scenario B Project

For the "with project" scenarios, significant impacts as defined by CEQA are identified, and, to the extent feasible, mitigation measures are identified to offset the impacts.

The following information was used to prepare this chapter:

- Data from the regional travel model provided by the Sacramento Area Council of Governments (SACOG)
- A list of funded and probable transportation projects as provided by City of Sacramento Staff and as listed in the SACOG 2035 Metropolitan Transportation Plan
- Proposed land use information provided by the project applicant
- Freeway ramp and intersection traffic count data collected for Fehr & Peers
- Freeway traffic count data provided by Caltrans

While not required as part of the CEQA analysis, this chapter has an informational section where other project considerations are described. This section describes the following issues:

- California State University, Sacramento (CSUS) Shuttle operations in the hotel drop-off area
- Driveway operations
- Pedestrian Access from the 65th Street Transit Station
- Folsom Boulevard/67th Street design considerations
- Alternative cumulative analysis assuming the Draft 2030 General Plan has been adopted along with the Alternative C roadway newtwork for the 65th St Station Area Study
    - Cumulative (with Alternative C roadway network) without Station 65 project
    - Cumulative (with Alternative C roadway network) with Station 65 Scenario A Project
    - Cumulative (with Alternative C roadway network) with Station 65 Scenario B Project

## 4.3.2 PROJECT DESCRIPTION

The Station 65 Project is a proposed transit-oriented, mixed-use development located within the City of Sacramento, California, on an approximately 4.39-acre site on the southeast corner of 65th Street and Folsom Boulevard. The site is bounded by Q Street to the south and 67th Street on the east. **Figure 4.3-1** shows the project location, the study intersections, and the number of lanes on the surrounding roadways.

As described above, the Station 65 project has two proposed land use programs. The Scenario A land use program includes the following uses:

- 50,000 square feet of retail
- 14,000 square feet of high turnover restaurant
- A 30,000 square foot health club
- A 148 room hotel
- 52,290 square feet of office space
- 68 apartment units
- 618 unit parking structure
- 35 on-street parking stalls

The Scenario B land use program includes the following uses:

- 50,000 square feet of retail
- 14,000 square feet of high turnover restaurant
- A 30,000 square foot health club
- A 148 room hotel
- 71,290 square feet of office space
- 120 apartments units
- 751 unit parking structure
- 35 on-street parking stalls

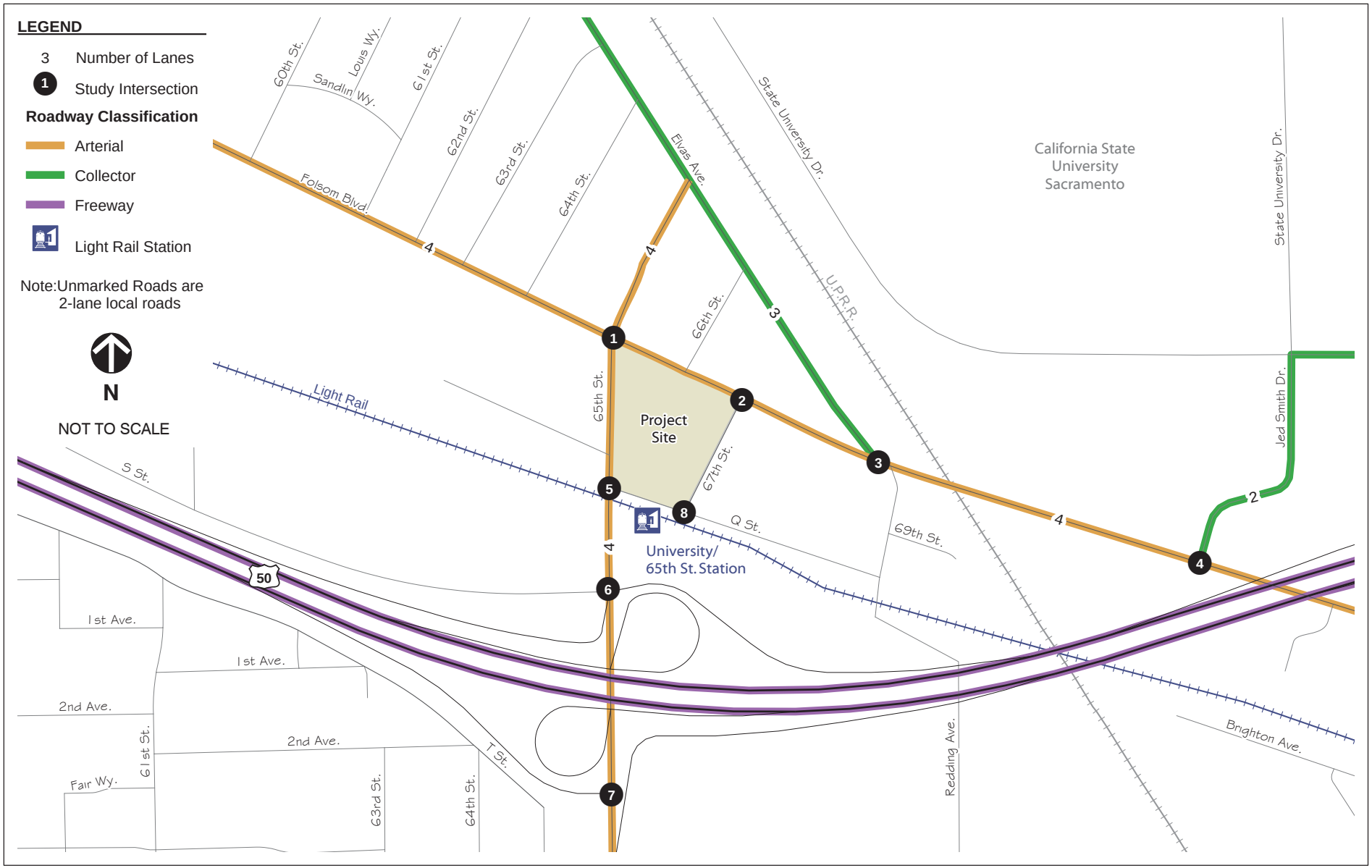
In summary, the Scenario B project contains an additional 19,000 square feet of office uses, 58 apartment units, and 133 parking spaces.

## 4.3.3 EXISTING ENVIRONMENTAL SETTING

### ROADWAY SYSTEM – REGIONAL ACCESS

Regional access to the Station 65 site is provided by US Highway 50, Folsom Boulevard, and 65th Street. These facilities are described below:

- **US Highway 50** (US 50) is a major regional highway extending from Interstate 80 (I-80) in West Sacramento through the Sacramento metropolitan area into the Sierra Nevada Mountains and the State of Nevada. Within the study area, Highway 50 is an eight-lane freeway at the 65th Street




SOURCE: Fehr & Peers, 2008; AES, 2008

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**Figure 4.3-1**

Project Location, Study Intersections, Roadway Classification and Number of Lanes

interchange with four mixed-flow lanes in both the eastbound and westbound directions. Auxiliary lanes are also provided in both the eastbound and westbound directions between 65th Street and

- Howe Avenue/Hornet Drive. Ramp metering is provided at the westbound slip on-ramp and loop on-ramp at the 65th Street interchange during the AM and PM peak periods.
- **Folsom Boulevard** is an east-west arterial roadway that extends from Alhambra Boulevard in midtown Sacramento, through Sacramento County, the City of Rancho Cordova, and into the City of Folsom. It provides two to four travel lanes in each direction within the study area and serves mainly commercial and industrial uses. It has a posted speed limit of 35 mph and provides access into the CSUS campus via State University East Drive.
- **65th Street** is a north-south arterial roadway that extends from Elvas Avenue in the City of Sacramento to Florin Road in Sacramento County. South of 14th Avenue, it becomes the 65th Street Expressway. It provides two travel lanes in each direction with a short section under the Highway 50 overcrossing that provides three travel lanes in each direction. Within the study area, it has a posted speed limit of 35 mph north of S Street and 40 mph south of S Street and primarily serves residential and commercial uses. An at-grade crossing with the Gold Line light rail tracks is located between Q Street and S Street.

### ROADWAY SYSTEM – LOCAL ACCESS

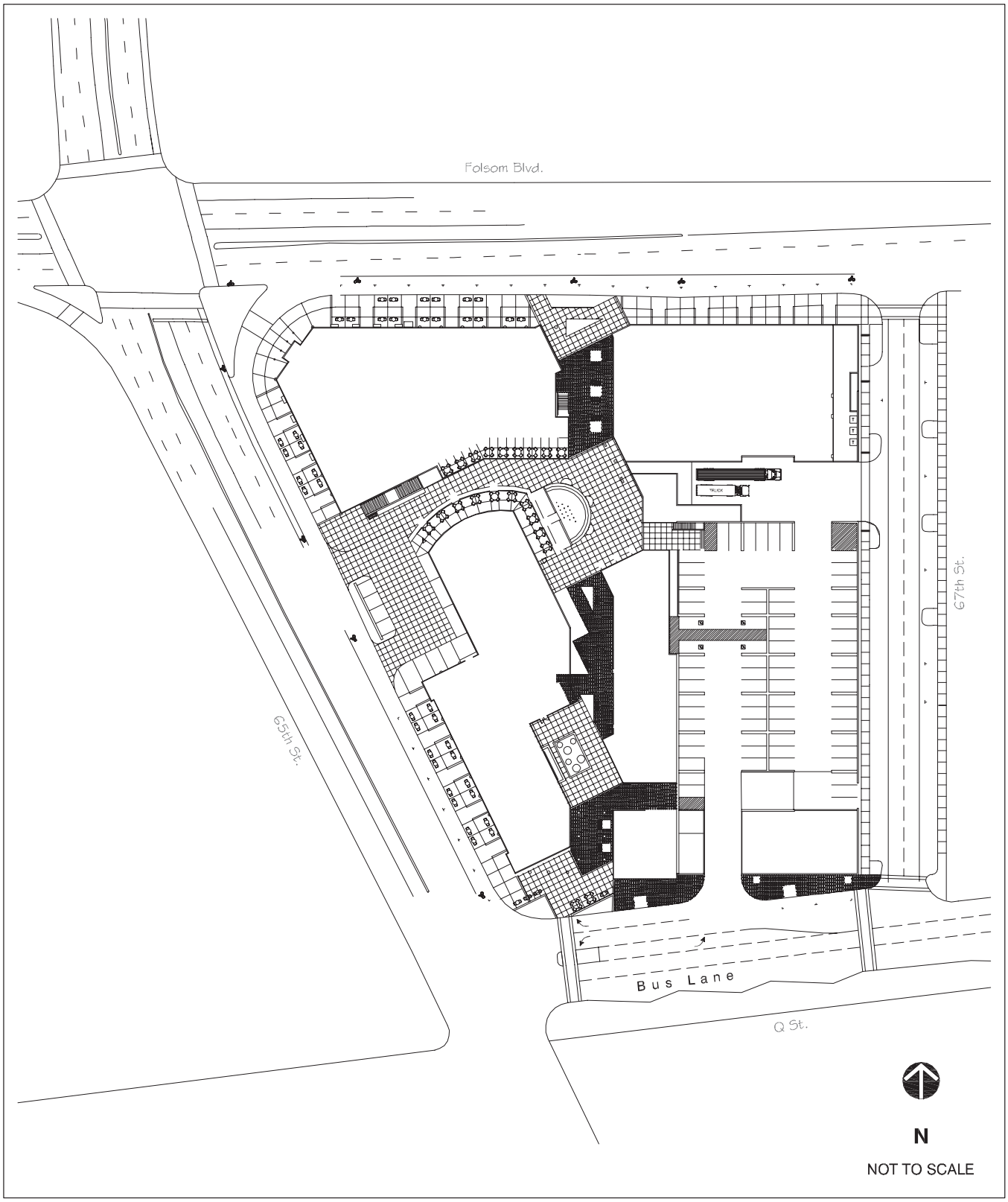
As shown in the project site plan on **Figure 4.3-2**, local access to the Station 65 project will be provided via Q Street and 67th Street. These facilities are described below:

- **Q Street** is a two-lane road located south of the project site. Q Street runs from 65th Street in the west to Redding Avenue to the east.
- **67th Street** is a two-lane local street that runs between Folsom Boulevard in the north to Q Street in the south. Currently, on-street parking is available on 67th Street north of the transit station.

### BICYCLE AND PEDESTRIAN SYSTEM

The existing bicycle and pedestrian network near the project area is intermittent and lacks an overall consistency with the visions outlined by the City of Sacramento in the *2010 Sacramento City/County Bikeway Master Plan* (1995), *City of Sacramento's Pedestrian Master Plan* (2006), *65th Street/University Transit Village Plan* (2002), and the *South 65th Street Area Plan* (2004). **Figures 4.3-3** and **4.3-4** present the existing and planned bicycle facilities, and existing pedestrian facilities, respectively.

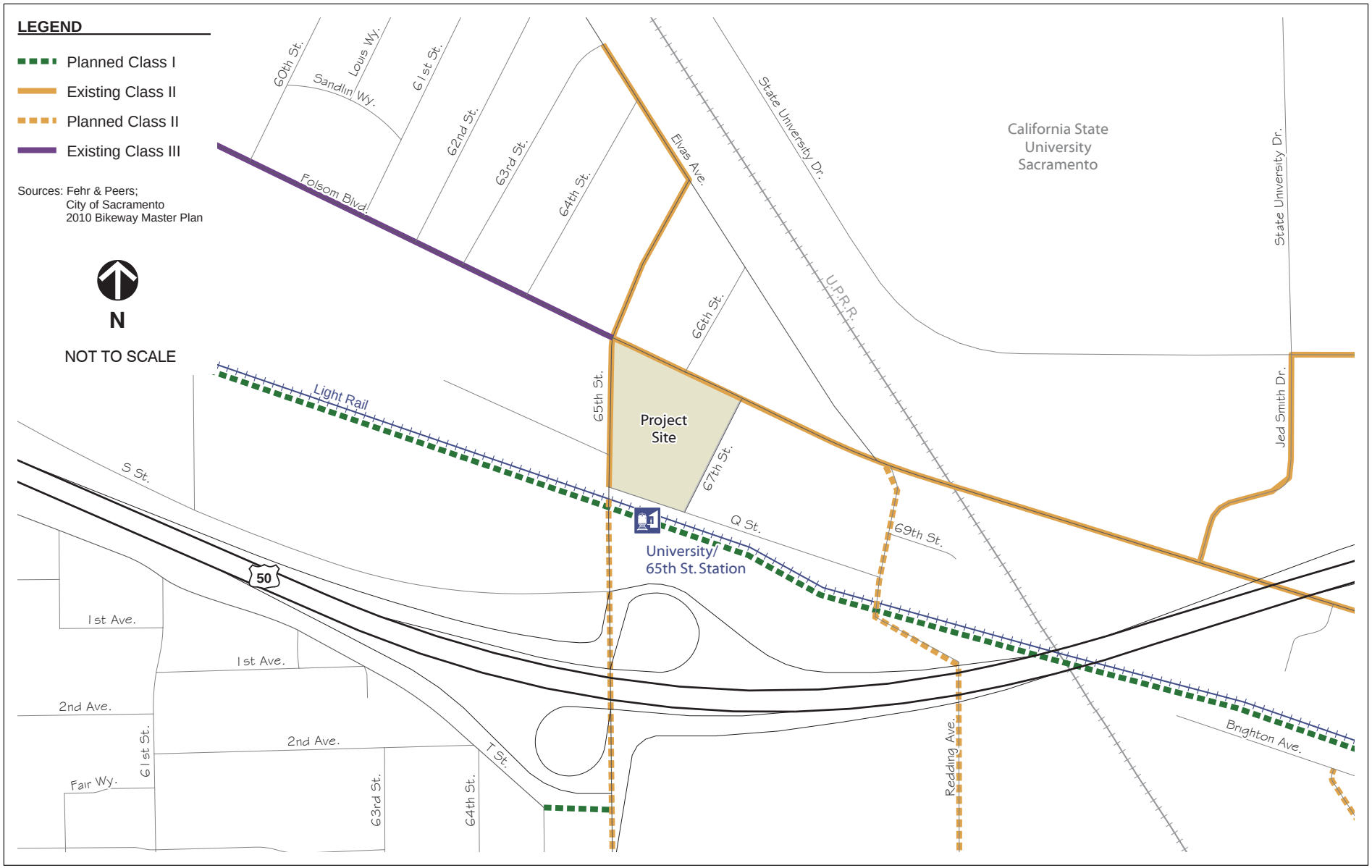
For bicycles and pedestrians, Folsom Boulevard provides access to the project area from the west and east, while 65th Street provides access from the north and south. Folsom Boulevard west of 65th Street has no striped bike lanes and has sidewalk coverage on both sides of the street until just east of 63rd Street, where the southern sidewalk ends. Folsom Boulevard east of 65th Street has intermittent bike lanes and generally lacks sidewalk coverage, except for the portion between 65th and 66th Street. Bicyclists accessing the transit station from the east must continue along narrow bike lanes on Folsom Boulevard as it crosses under the railroad.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-2**
Project Site Plan




SOURCE: Fehr & Peers, 2008; AES, 2008

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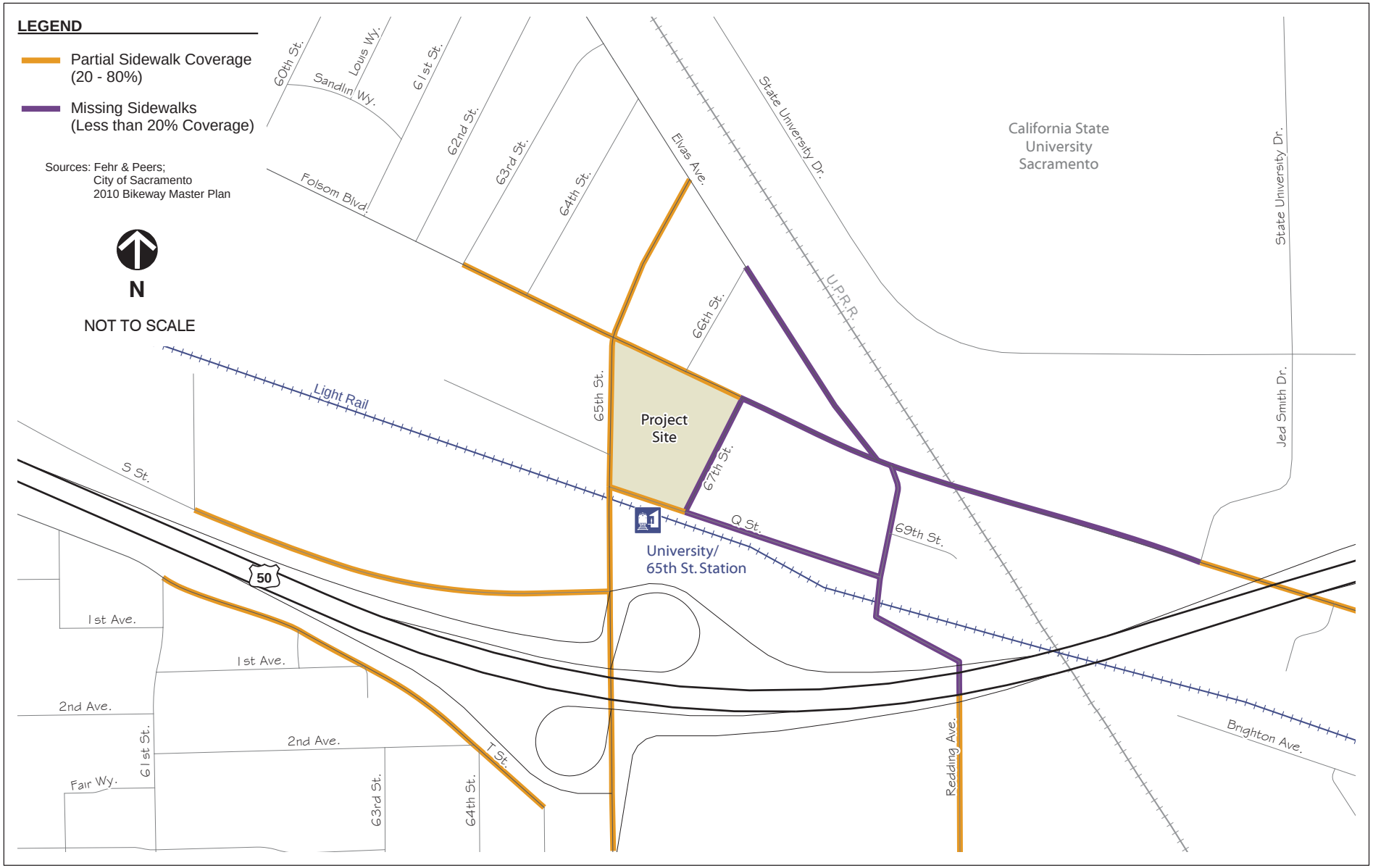
**Figure 4.3-3**
Existing and Planned Bicycle Facilities




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-4**

Station 65 Project Traffic Study – Existing Sidewalk Coverage

Bike lanes are not provided on 65th Street (south of Q Street) for bicyclists desiring to access the project area from the south. A bike lane is provided between Q Street and Folsom Boulevard, but only on the east side of 65th. In general, complete and continuous sidewalks line 65th Street within the study area.

Neither Q Street nor 67th Street has bike lanes near the project site; however, bike lockers are provided along the north side of Q Street at the transit station. Sidewalks are located on both sides of Q Street between 65th Street and 67th Street, but they do not extend east of 67th Street. The only sidewalk on 67th Street is on the east side of the street in front of the transit station.

Field observations found heavy pedestrian activity near the project site, with the focus being the 65th Street transit station. Many of the pedestrian trips generated by the light rail trains were to the bus station on the north side of Q Street. While a high-visibility crosswalk is provided at the Q Street/67th Street intersection, the majority of pedestrians were observed crossing mid-block between 65th and 67th Streets. The crosswalks at the Q Street/65th Street intersection were also well utilized by transit patrons. Several bicyclists were also observed in the area.

## TRANSIT SYSTEM

Sacramento Regional Transit District (RT) provides public transit service and facilities to the study area, including nine bus routes and light rail transit (LRT) service. **Figure 4.3-5** illustrates the existing transit facilities and routes within the study area.

### *65th Street Light Rail Station*

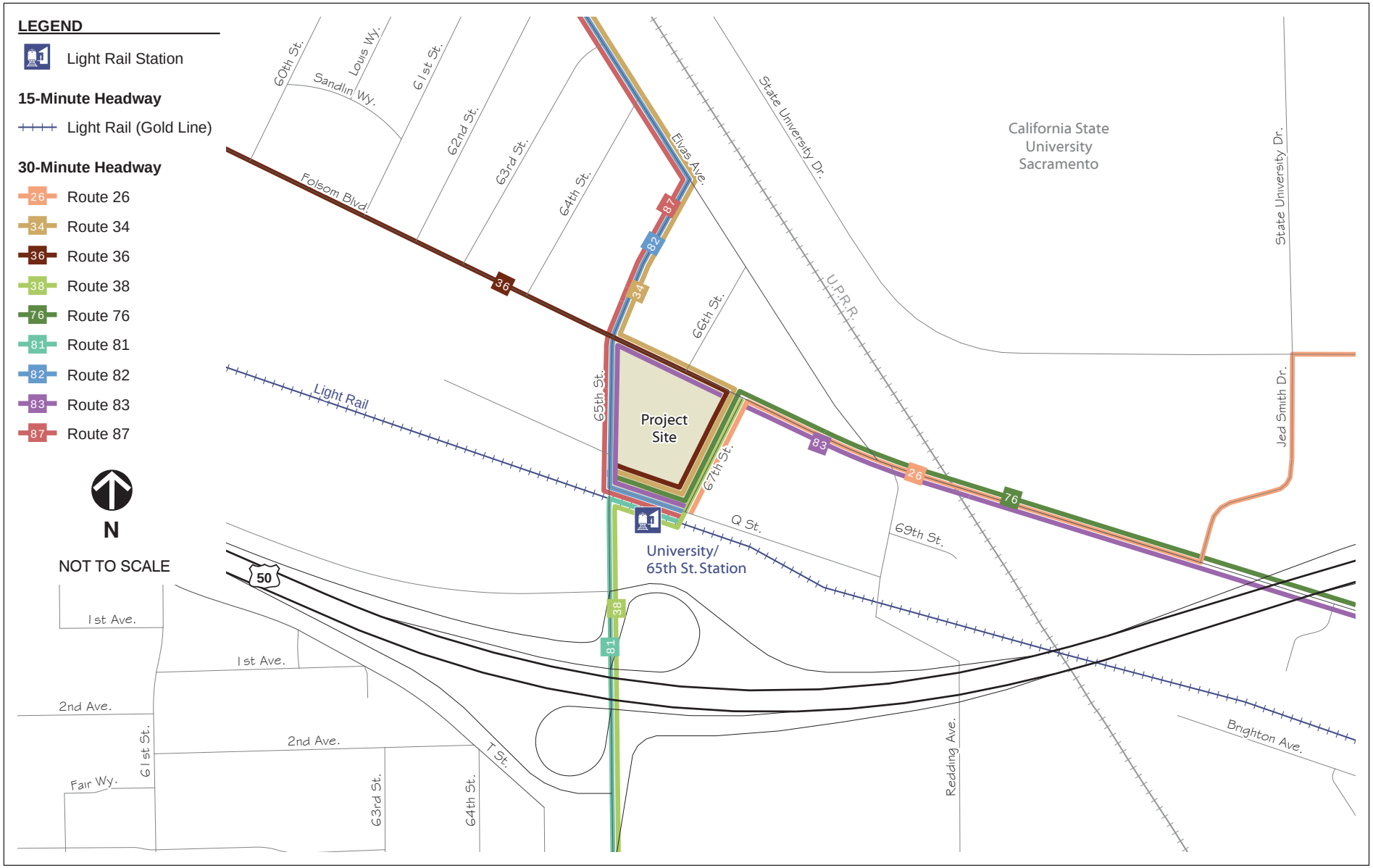
The 65th Street light rail station is the fifth largest transfer station in RT's transit system and is located southeast of the 65th Street/Folsom Boulevard intersection. This station serves many patrons destined for California State University, Sacramento (CSUS) to the north. Eleven bus routes operate within the study area, with nine serving the 65th Street station. The 65th Street station has over 3,200 average daily light rail boarding/departures. **Table 4.3-1** shows the average light rail boardings and departures at the 65th Street station during AM, midday, and PM peak periods between January and March of 2007.

**TABLE 4.3-1.** AVERAGE LIGHT RAIL BOARDINGS AND DEPARTURES JANUARY 2007 – MARCH 2007

| Station | AM Peak Trips (6:00 AM – 9:00 AM) | | Midday Trips (9:00 AM - 3:30 PM) | | PM Peak Trips (3:30 PM – 6:00 PM) | |
|---|---|---|---|---|---|---|
| | Boardings | Departures | Boardings | Departures | Boardings | Departures |
| 65th Street | 293 | 390 | 619 | 619 | 225 | 329 |
| Source: Sacramento Regional Transit, 2007 | | | | | | |

### *Bus Network Within Study Area*

RT Bus Routes 26, 34, 36, 38, 81, 82, and 87 operate at the 65th Street Station. In addition, routes 210 and 211 drop off riders in the afternoon. **Table 4.3-2** shows the headways, average daily boardings, and on-time performance on weekdays for each of these transit routes. Currently, several bus routes generate a high number of weekday boardings. Route 81, for example, has the second greatest ridership level in RT's




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-5**
Existing Transit Facilities

bus system with a farebox recovery rate of 42 percent on weekdays. RT bus stops are provided within the study area as well. Many bus stop facilities within the study area are marked by a posted sign and include a bench located on a four- to five-foot sidewalk. Details of the RT Routes are described below:

- **Route 26** is a Cross-town Route that provides service between the University/65th Street LRT Station in East Sacramento and the Watt/I-80 LRT Station. This route operates primarily along Howe Avenue, Fulton Avenue, Auburn Boulevard, and Watt Avenue. Weekday trip headways are 30 minutes and Saturday, Sunday, and holiday trip headways are 60 minutes.

- **Route 34** is a Radial Route that provides service between the 8th Street/O Street LRT Station in Downtown Sacramento and the University/65th Street LRT Station in East Sacramento. This route operates primarily along 7th, 8th, and F Streets, McKinley Boulevard, and Elvas Avenue. Weekday headways are 30 minutes except for AM and PM Peak outbound trips that are 15 minutes. Saturday and Sunday/holiday trip headways are 60 minutes.

- **Route 36** is a Radial Route that provides service between 3rd & J Street in Old Sacramento and the University/65th Street LRT Station in East Sacramento. This route operates primarily along 3rd, 19th, J, and L Streets, Capitol Avenue, and Folsom Boulevard. Weekday trip headways are 30 minutes, and Saturday, Sunday, and holiday trip headways are 60 and 75 minutes.

- **Route 38** is a Radial Route that provides service between 5th Street and Broadway in Land Park and the University/65th Street LRT Station in East Sacramento. This route operates primarily along 3rd, 5th, 65th, P, Q, and T Streets, Stockton Boulevard, Broadway, and Muir Way. Weekday trip headways are 30 minutes during the AM Peak, midday, and PM Peak and 60 minutes during the post-PM Peak "other" period. Saturday, Sunday, and holiday trip headways are 60 minutes.

- **Route 81** is a Cross-town Route that provides service between the University/65th Street LRT Station in East Sacramento, Florin Mall Transit Center in Florin, Florin LRT Station in South Sacramento, and the intersection of Florin Road and Riverside Boulevard in the Greenhaven Neighborhood. This route operates primarily along Q and 65th Streets, Florin Road, and Indian Lane. Weekday and Saturday trip headways are 15 and 30 minutes. Sunday and holiday headways are 30 minutes.

**TABLE 4.3-2.** WEEKDAY BUS ROUTE INFORMATION JULY 2005 – JUNE 2006

| RT Route | Headways (minutes) | Average Daily Boardings | On-time Performance |
|---|---|---|---|
| **26** | 30 | 1,272 | 82% |
| **34** | 30 | 933 | 92% |
| **36** | 30 | 635 | 96% |
| **38** | 30 | 1,226 | 96% |
| **81** | 30 | 4,231 | 89% |
| **82** | 30 | 631 | 96% |
| **87** | 30 | 1,479 | 97% |
| Source: Sacramento Regional Transit, 2007 | | | |

- **Route 82** is a Cross-town Route that provides service between the University/65th Street LRT Station and CSUS Transit Center in East Sacramento, Arden-Arcade, Town & Country Village, and the American River College (ARC) Transit Center. This route operates primarily along 65th Street, Fair Oaks Boulevard, Morse Avenue, Watt Avenue, and Whitney Avenue. Weekday trip headways are 30 minutes and Saturday, Sunday, and holiday headways are 60 minutes.

- **Route 87** is a Cross-town Route that provides service between the Marconi/Arcade LRT Station in Hagginwood, the CSUS Transit Center, and the University/65th Street LRT Station in East Sacramento. This route operates primarily along 65th Street, Elvas Avenue, Fair Oaks Boulevard, Howe Avenue, and Marconi Avenue. Weekday trip headways are 30 minutes for the AM Peak, midday, and PM Peak periods and 60 minutes for the post-PM Peak "other" period. Saturday, Sunday, and holiday headways are 60 minutes.

## 4.3.4 REGULATORY SETTING

Existing transportation policies, laws, and regulations that would apply to the Proposed Project are summarized below. This information provides a context for the impact discussion related to the project's consistency with applicable regulatory conditions.

### FEDERAL

No pertinent federal regulations affect the proposed project.

### STATE

The *State Route 50 Transportation Concept Report* identifies the existing LOS on US 50 in the study area as LOS F. Based on the *Guide for the Preparation of Traffic Impact Studies* (Caltrans, December 2002), if a freeway facility is operating at an unacceptable LOS (e.g., LOS F), then the existing measure of effectiveness should be maintained. Therefore, an impact is defined to occur if the addition of project trips leads to a perceptible decrease in density on freeway mainline or ramp junctions, or a perceptible increase in service volume in a weaving area. In addition, a project impact is said to occur when the addition of project trips causes a queue at a ramp terminal intersection to extend outside of its storage area and onto the freeway mainline.

After releasing the Notice of Preparation for the Station 65 project, Caltrans sent the City a comment letter. In that letter, Caltrans noted that the transportation analysis should identify locations where project traffic leads to a significant impact at ramps, ramp intersections, and mainline segments. The letter goes on to note that if mitigation measures are required to reduce the significance of project-related impacts, the City of Sacramento should consult with Caltrans about which mitigation measures are acceptable for the project to complete. Potential mitigation measures include ramp improvements, ramp metering, signal modifications, mainline improvements, and off-highway improvements.

## CITY OF SACRAMENTO

The currently adopted City of Sacramento General Plan (1988) outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The City of Sacramento's General Plan includes three overall goals related to transportation:

- Create a safe, efficient surface transportation network for the movement of people and goods.
- Provide all citizens in all communities of the City with access to a transportation network that serves both the City and region, either by personal vehicle or transit. Make a special effort to maximize alternatives to single-occupant vehicle use, such as public transit.
- Maintain a desirable quality of life, including good air quality, while supporting planned land use and population growth.

The General Plan also includes the following goals related to transportation planning:

- Establish and implement a comprehensive regional transportation plan that identifies needs, integrates the existing transportation network with planned growth, and proposes new facilities.
- Consider air quality along with traffic flow efficiency when making decisions about transportation.

The General Plan includes the following goals related to streets and roads:

- Create a street system that would ensure the safe and efficient movement of people and goods within and through communities and to other areas in the City and region.
- Maintain the quality of the City's street system.
- Create and maintain a street system that protects residential neighborhoods from unnecessary levels of traffic.
- Work towards achieving an overall Level of Service "C" on the City's local and major street systems.

The General Plan includes the following additional goals for non-vehicular transportation:

- Pedestrians: Increase the use of the pedestrian mode as a mode of choice for all areas of the City.
- Bikeways: Develop bicycling as a major transportation and recreational mode.

In 2002, the City of Sacramento developed the *65th Street/University Transit Village Plan* to coordinate the development of the area around the Folsom Boulevard/65$^{th}$ Street intersection. The 65$^{th}$ Street Transit Village Plan includes the Station 65 project site and the adjacent sites on each side of the light rail tracks, 67$^{th}$ Street, 65$^{th}$ Street, and Folsom Boulevard. An Environmental Impact Report was prepared for the 65$^{th}$ Street Transit Village Plan. The EIR identified impacts related to the development of the area and recommended mitigations to reduce the significance of those impacts.

While the 1988 General Plan was in place at the time this study was initiated, the City is currently working on updating the General Plan, with adoption expected in early 2009. In general, the *Draft 2030 General Plan* (City of Sacramento, May 2008) update includes similar goals with respect to the transportation system

that were described in the 1988 General Plan. However, the goal related to roadway LOS is significantly different under the Draft 2030 General Plan update:

- The City shall allow for flexible LOS standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.
    - Level of Service Standards for Multi-Modal Districts – The City shall seek to maintain the following standards in multi-modal districts including the Central Business District, areas within ½ mile walking distance of light rail stations, and mixed-use corridors characterized by frequent transit service, enhanced pedestrian and bicycle systems, a mix of uses, and higher-density development:
    - Maintain operations on all roadways and intersections at LOS E or better at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of LOS E may be acceptable, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation as part of a development project or City-initiated project.
    - Base Level of Service Standard – The City shall seek to maintain the following standards for all areas outside of multi-modal districts:
        - Maintain operations on all roadways and intersections at LOS D or better at all times unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of LOS D may be acceptable, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation as part of a development project or City-initiated project.

As part of the 2030 General Plan update process, the City has released a Draft Environmental Impact Report (DEIR) for the Draft 2030 General Plan (City of Sacramento, July 2008). The DEIR identifies an internal inconsistency in the Draft General Plan update between the land use element and the transportation element. Specifically, the land uses in portions of the City are higher in intensity than can be supported by the proposed roadway system while still meeting the LOS goals discussed above. A mitigation measure is proposed to address this inconsistency by exempting the roadways in the core area (defined as the Central Business District and Midtown Sacramento) and 47 other roadway segments that "do not meet the proposed LOS D-E goal."

The following roadway segments near the Station 65 project site are exempt from the LOS policy:

- Folsom Boulevard between 65th Street and Watt Avenue
- 65th Street between Folsom Boulevard and 14th Avenue

In addition, the City is exploring the possibility of narrowing some roadway segments to improve the pedestrian and bicycle environment. The DEIR for the Draft General Plan update notes that the proposed

narrowing projects will not meet the LOS D-E goal described earlier. The DEIR proposed a mitigation measure to exempt the narrowed roadway segments from the LOS policy, if and when the roadways are narrowed. The following roadway segment, which will potentially be narrowed, is near the Station 65 project site:

- Folsom Boulevard between 59th Street and 65th Street

## STANDARDS OF SIGNIFICANCE

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. For the purposes of this analysis, an impact is considered significant if implementation of the project would have the effects described below.

The standards of significance in this analysis are based upon the current practice of the appropriate regulatory agencies. For most areas related to transportation and circulation, the standards of the City of Sacramento have been used. For traffic flow on the freeway system and associated interchanges, the standards of Caltrans have been used.

*Roadway Segments*

In the City of Sacramento, a significant impact occurs when:

- The traffic generated by a project degrades peak period level of service (LOS) from A, B, or C (without project) to D,E, or F (with project); or
- The LOS (without project) is D, E, or F, and the project-generated traffic increases the volume-to-capacity Ratio (V/C) by 0.02 or more.

*Intersections*

In the City of Sacramento, a significant traffic impact occurs at a signalized or unsignalized intersection (except for freeway ramp/arterial intersections within North Natomas) when:

- The traffic generated by the project degrades peak period level of service (LOS) from A, B, or C (without the project) to D, E, or F (with the project); or,
- The level of service (without project) is D, E, or F and project generated traffic increases the average vehicle delay by 5 seconds or more.

These standards have been developed consistent with a goal set forth in the City of Sacramento, General Plan Update (1988). Specifically, Section 5-11 - Goal D, states to "Work towards achieving a Level of Service C on the City's local and major street system."

*Transit*

For the purposes of this EIR, impacts to the transit system are considered significant if the Proposed Project would:

- Increase ridership, when added to the existing or future ridership, would exceed available or planned system capacity. Capacity is defined as the total number of passengers the system of buses and light rail vehicles can carry during the peak hours of operations.

*Bicycle Facilities*

For the purposes of this EIR, impacts to bikeways are considered significant if the Proposed Project would:

- Hinder or eliminate an existing designated bikeway, or interfered with implementation of a proposed bikeway; or
- Result in unsafe conditions for bicyclists, including unsafe bicycle/pedestrian or bicycle/motor vehicle conflicts.

*Freeway Facilities*

Caltrans considers the following to be significant impacts:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway.
- Project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service.
- Project traffic increases that cause the freeway level of service to deteriorate beyond the level of service threshold defined in the Caltrans Route Concept Report for the facility.
- The expected queue is greater than the storage capacity.

*Traffic Circulation and Safety*

For the purposes of this EIR, impacts to traffic circulation and safety are considered significant if the Proposed Project would:

- Not comply with City design standards or normal traffic engineering practices.

*Pedestrian Circulation*

For the purposes of this EIR, impacts to pedestrian circulation are considered significant if the Proposed Project would:

- Result in unsafe conditions or create a hindrance for pedestrians, including unsafe pedestrian/bicycle or pedestrian/motor vehicle access.

*Parking*

For the purposes of this EIR, impacts to parking are considered significant if the Proposed Project would:

- Result in parking demand that exceeds the available or planned parking supply. However, the impact would not be significant if the project is consistent with the parking requirements stipulated in the City code.

## STUDY AREA

To determine the impacts of the proposed Station 65 project on the transportation system, the roadway facilities listed below will be analyzed. These facilities are shown on **Figure 4.3-1.** In addition, project impacts will be identified for the bicycle, pedestrian, and transit systems that are adjacent to the roadway facilities.

### *Study Intersections*

1. Folsom Boulevard/65th Street
2. Folsom Boulevard/67th Street
3. Folsom Boulevard/Elvas Avenue
4. Folsom Boulevard/State University Drive East
5. 65th Street/Q Street
6. 65th Street/S Street/Westbound US 50 Off-ramp
7. 65th Street/Eastbound US 50 Off-Ramp

### *Study Roadway Segments*

1. Folsom Boulevard between 59th Street and 65th Street
2. Folsom Boulevard between 65th Street and Elvas Avenue
3. Folsom Boulevard between Elvas Avenue and State University Drive East 65th Street/Q Street
4. 65th Street between Folsom Boulevard and S Street

### *Study Freeway Facilities*

1. Eastbound and Westbound US 50 mainline segment between 59th Street and 65th Street
2. Eastbound 65th Street Off-ramp diverge area
3. Westbound 65th Street Slip On-ramp merge area
4. Westbound 65th Street Loop On-ramp merge area
5. Eastbound 65th Street Loop On-ramp merge area
6. Eastbound and Westbound US 50 weaving areas between 65th Street and Howe Avenue

## 4.3.5 EXISTING TRAFFIC OPERATIONS

This section presents the methodology used to analyze the existing conditions traffic operations at the study facilities identified above. The results of the traffic operations analysis are also presented.

### METHODOLOGY

Each study roadway facility was analyzed using the concept of Level of Service (LOS). LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents severe congestion and delay under stop-and-go conditions.

Traffic operations at the study intersections were analyzed using procedures and methodologies contained in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2000. The HCM methodology determines the LOS at signalized intersections by comparing the average control delay per vehicle at the intersection to the thresholds shown in **Table 4.3-3** below. At two-way or side-street stop-controlled intersections, LOS is calculated for each movement rather than for the intersection as a whole. If an approach consists of a single lane from which vehicles can make multiple movements, the LOS is based on the average control delay for all movements from that approach. The LOS reported at side-street stop-controlled intersections is for the maximum control delay experienced on a specific approach for movement.

**Table 4.3-3** displays the delay range associated with each LOS category for signalized and unsignalized intersections based on the HCM. **Table 4.3-4** compares the daily traffic volume thresholds for roadway segments with each LOS category based on the City of Sacramento's Traffic Impact Analysis Guidelines (1996).

**TABLE 4.3-3.** LEVEL OF SERVICE DEFINITIONS FOR STUDY INTERSECTIONS

| Level of Service | Average Control Delay (seconds/vehicle) | |
|---|---|---|
| | Signalized | Unsignalized |
| A | ≤ 10.0 | ≤ 10.0 |
| B | 10.1 – 20.0 | 10.1 – 15.0 |
| C | 20.1 – 35.0 | 15.1 – 25.0 |
| D | 35.1 – 55.0 | 25.1 – 35.0 |
| E | 55.1 – 80.0 | 35.1 – 50.0 |
| F | > 80.0 | > 50.0 |

Notes: The average delay reported for signalized intersections is for all vehicles passing through the intersection, whereas the average delay reported for unsignalized intersections is for the minor street movement with the greatest delay.

Source: *Highway Capacity Manual* (Transportation Research Board, 2000)

**TABLE 4.3-4.** DAILY VOLUME THRESHOLDS FOR ROADWAY SEGMENTS

| Facility Type | Number of Lanes | Daily Volume Threshold (Level of Service) 1 | | | | |
|---|---|---|---|---|---|---|
| | | LOS A | LOS B | LOS C | LOS D | LOS E |
| Arterial, low access control | 2 | 9,000 | 10,000 | 12,000 | 13,500 | 15,000 |
| | 4 | 18,000 | 21,000 | 24,000 | 27,000 | 30,000 |
| | 6 | 27,000 | 31,500 | 36,000 | 40,500 | 45,000 |
| Arterial, moderate access control | 2 | 10,800 | 12,600 | 14,400 | 16,200 | 18,000 |
| | 4 | 21,600 | 25,200 | 28,800 | 32,400 | 36,000 |
| | 6 | 32,400 | 37,800 | 43,200 | 48,600 | 54,000 |
| Freeway | 6 | 42,000 | 64,800 | 92,400 | 111,600 | 120,000 |
| | 8 | 56,000 | 86,400 | 123,200 | 148,800 | 160,000 |

| Facility Type | Stops/Mile | Driveways | Speed |
|---|---|---|---|
| Arterial, low access control | 4+ | Frequent | 25 – 35 MPH |
| Arterial, moderate access control | 2-4 | Limited | 35 – 45 MPH |

Notes: LOS = level of service
The rural two lane road and high access control arterial thresholds were omitted since none of the study roadway segments are classified as such.
[1] City of Sacramento Traffic Impact Analysis Guidelines, 1996

Traffic operations at the study intersections were assessed using the SimTraffic microsimulation software package. Microsimulation differs from more typical macroscopic analysis tools (Synchro, Traffix, HCS+) in that each vehicle traveling on the roadway network is modeled, as opposed to the general flow rates that are analyzed by the macroscopic tools. Microsimulation is appropriate for congested locations like the Station 65 study area because it can account for the effects of bottlenecks and queue spillback between adjacent intersections. Macroscopic tools treat all intersections as isolated locations that are not impacted by operations at adjacent locations.

The ability of microsimulation to account for bottlenecks and queues gives a more accurate picture of conditions in congested areas, but it can lead to results where the addition of traffic at certain locations leads to better operations at other locations. This occurs when the additional traffic creates or exacerbates a bottleneck, which reduces the amount of traffic that can arrive at downstream intersections. Additionally, microsimulation models have a random component to reflect the variations in driver behavior. This variation can lead to differences between two runs with the same inputs, with the variation generally increasing as congestion increases.

Freeway operations were also analyzed using the procedures and methodologies contained in the HCM. The HCS+ analysis software was used to determine the AM and PM peak hour freeway operations for the ramp merge, ramp diverge, and mainline segments described above. Consistent with the methodology described in the *Highway Design Manual* (Caltrans, last updated July 1, 2008), the Leisch Method was used to analyze weaving areas.

## ANALYSIS EVALUATION CRITERIA

The current City of Sacramento General Plan identifies LOS C as the minimum acceptable LOS for roadway facilities in the City. However, as described above, the City's Draft 2030 General Plan update proposes an alternative LOS standard that allows for a lower LOS standard (i.e., LOS E) for the central city and areas within a one half-mile distance from light rail stations (which would encompass the entire study area for the Station 65 project).

## EXISTING TRAFFIC VOLUMES AND OPERATIONS

Fehr & Peers conducted daily roadway segment and AM (7:00 – 9:00) and PM (4:00 – 6:00) peak hour intersection turning movement counts in May 2007 while CSUS and the Sacramento City Unified School District were still in full session. **Figure 4.3-6** displays the existing average daily traffic (ADT) volumes for various roadway segments.

## ROADWAY SEGMENT OPERATIONS

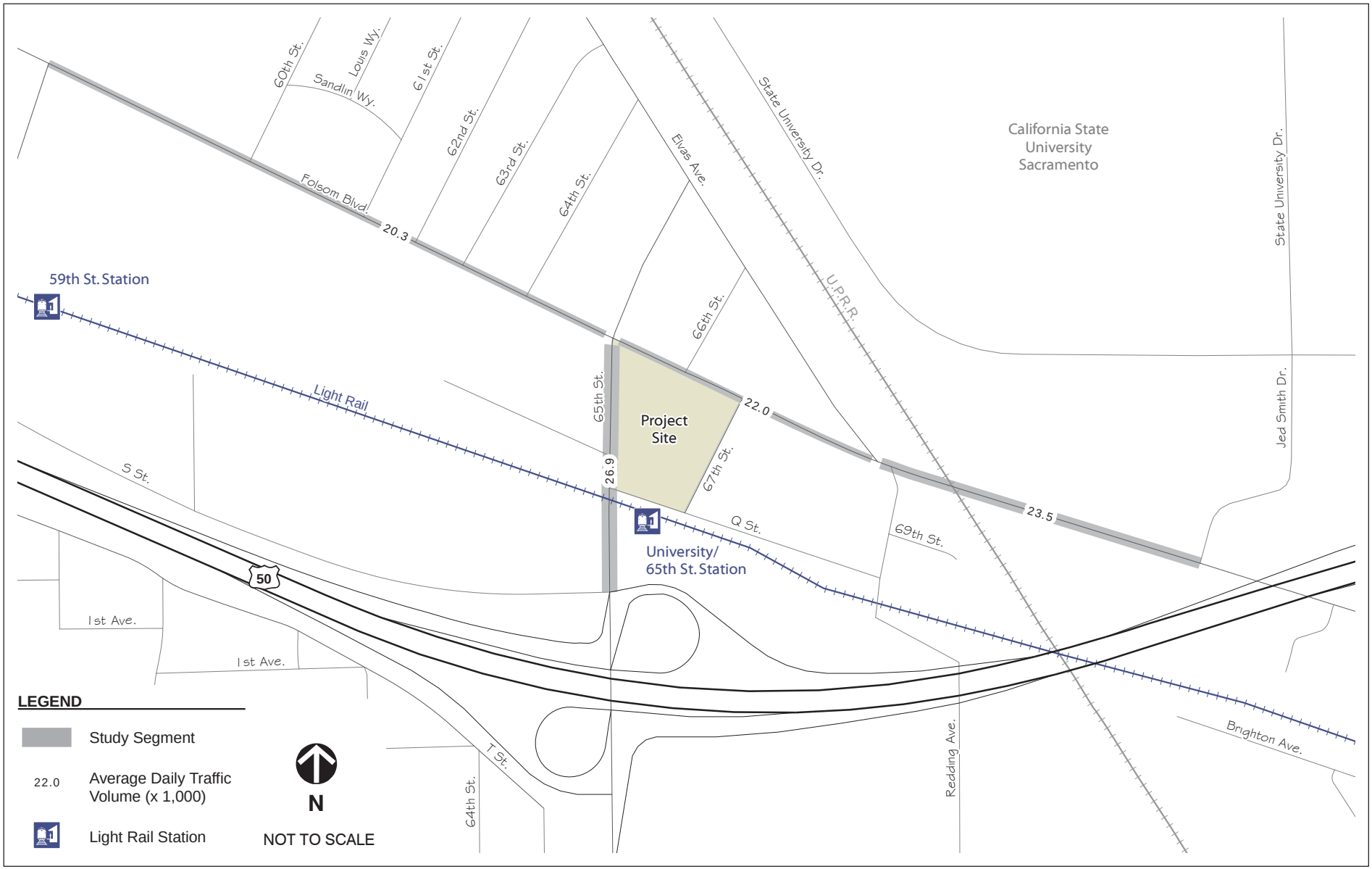
**Table 4.3-5** summarizes the existing daily traffic volumes and the corresponding levels of service according the thresholds shown in **Table 4.3-4**. As shown, the roadway segment of Folsom Boulevard between 59th Street and 65th Street operates at LOS C or better. The segment of 65th Street between Folsom Boulevard and S Street operates at LOS D, which is acceptable under the Draft General Plan LOS standard, but is unacceptable under the currently adopted General Plan LOS standard. The segments of Folsom Boulevard between 65th Street and Elvas Avenue and between Elvas Avenue and State University Drive East operate at an unacceptable LOS F.

**TABLE 4.3-5.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – EXISTING CONDITIONS

| Roadway Segment | Access Control | Number of Lanes | Average Daily Traffic (ADT) Volume | Level of Service (LOS) |
|---|---|---|---|---|
| 1. Folsom Blvd – from 59th Street to 65th Street | Low | 4 | 20,300 | B |
| 2. Folsom Blvd – from 65th Street to 66th Street | Low | 4 | 22,000 | B |
| 3. Folsom Blvd – from 66th Street to Elvas Avenue | Low | 2 | 22,000 | F |
| 4. Folsom Blvd – from Elvas Avenue to State University Drive East | Moderate | 2 | 23,500 | F |
| 5. 65th Street – from Folsom Boulevard to S Street | Low | 4 | 26,900 | D |
| Source: Fehr & Peers, 2008 | | | | |

## INTERSECTION OPERATIONS

**Figure 4.3-7** shows the existing AM and PM peak hour intersection turning movement volumes and lane configurations. **Table 4.3-6** summarizes the existing peak hour intersection operations at the study intersections.

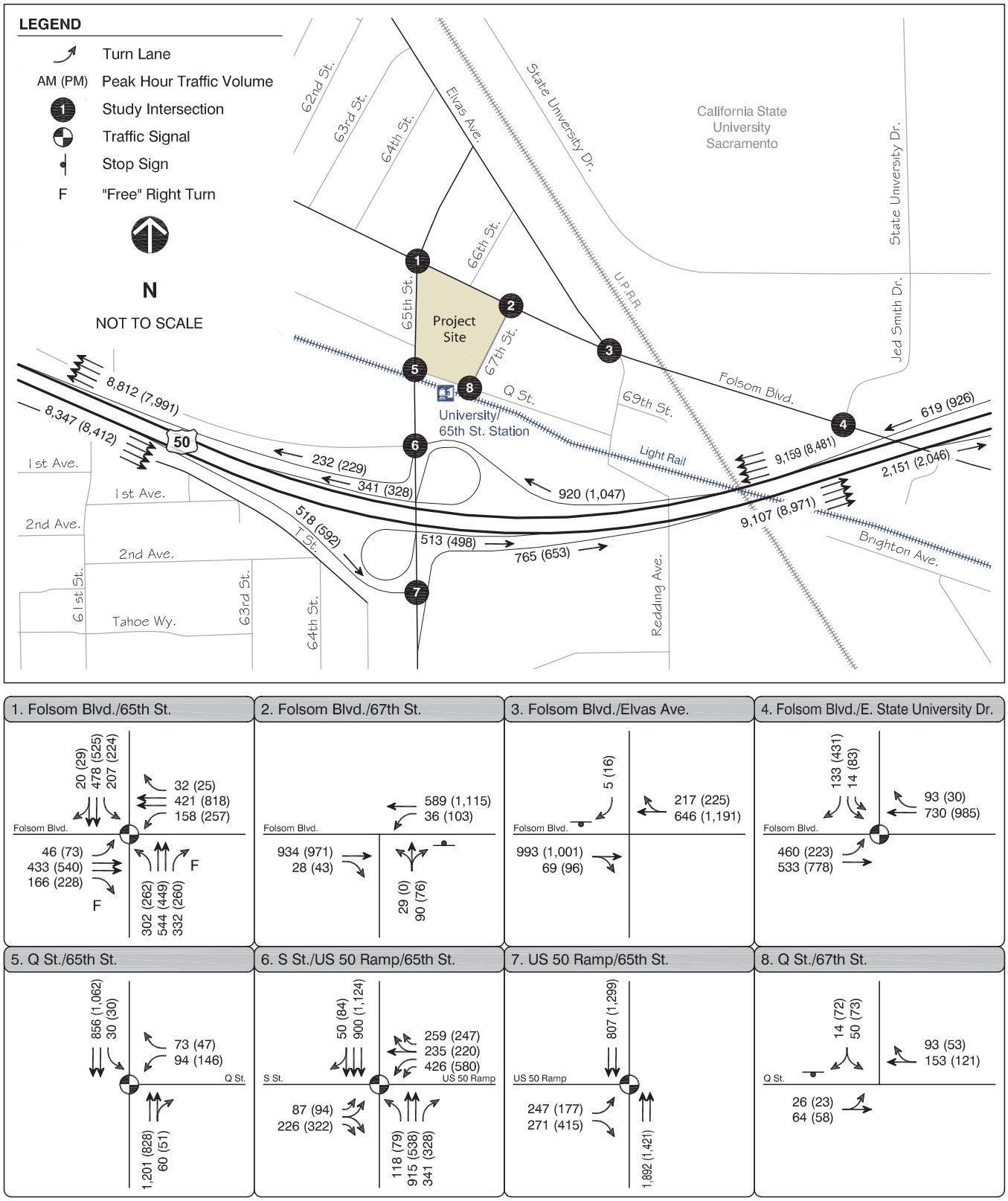



SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-6**

Average Daily Traffic Volumes – Existing Conditions




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-7**

Peak Hour Traffic Volumes and Lane Configurations – Existing Conditions

**TABLE 4.3-6.** INTERSECTION OPERATIONS – EXISTING CONDITIONS

| Intersection | Control | AM Peak | | PM Peak | |
|---|---|---|---|---|---|
| | | LOS[1] | Delay[2] | LOS[1] | Delay[2] |
| 1. Folsom Boulevard/65th Street | Signalized | D | 52 | E | 78 |
| 2. Folsom Boulevard/67th Street | Side Street Stop | B<br>(E) | 10<br>(48) | A<br>(D) | <10<br>(31) |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A<br>(B) | <10<br>(12) | B<br>(C) | 10<br>(16) |
| 4. Folsom Boulevard/State University Drive East | Signalized | C | 30 | C | 33 |
| 5. Q Street/65th Street | Signalized | C | 24 | D | 38 |
| 6. S Street/65th Street/ US 50 WB Off-ramp | Signalized | D | 39 | E | 70 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 14 | B | 17 |
| 8. Q Street/67th Street | Side Street Stop | A<br>A | <10<br><10 | A<br>(A) | <10<br>(<10) |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop controlled intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Source: Fehr & Peers, 2008

As shown in **Table 4.3-6**, all the study intersections operate at LOS E or better under existing conditions, which is within the LOS threshold of the Draft General Plan update. However, the following intersections operate at LOS D or worse in the AM and/or PM peak hour, which exceeds the currently adopted General Plan LOS threshold:

- Folsom Boulevard/65th Street
- Q Street/65th Street
- S Street/US 50 Westbound Off-ramp/65th Street

## 65TH STREET LIGHT RAIL CROSSING

As previously described, an at-grade crossing of the Gold Line light rail tracks is located on 65th Street between Q Street and S Street. Observations of peak period traffic in the study area found that this crossing significantly impacts traffic progression and delay throughout the study area. As a westbound train approaches the 65th Street station, the crossing arms come down as soon as the train enters the station area and remain down until the train clears 65th Street. This process takes about 60 seconds and includes approximately 30 seconds of boarding time at the station. In the eastbound direction, the crossing arms come down when the train is well east of the station. The arms remain in place until the train clears 65th Street and enters the station; however, the arms are raised when the train is boarding. Because the arms come down when the train is well east of 65th Street, the crossing arms are down for approximately 60 seconds for eastbound trains as well.

During the one minute the crossing arms are down, significant queues begin to form on 65th Street. The 65th Street/Q Street signal is coordinated with the crossing arms and allows for southbound left-turns from 65th Street to Q Street, but this movement is relatively light and the southbound through traffic queue eventually blocks the left-turn pocket. Ultimately, Fehr & Peers observed queues extending on 65th Street as far as Folsom Boulevard in the north and the EB US 50 off-ramp in the south. These queues lead to additional delay at all of the study intersections along 65th Street, which are reflected in the results presented in **Table 4.3-6**. After approximately two-to-five minutes, the queues related to the crossing arms dissipate and traffic operations return to normal.

## FREEWAY OPERATIONS

Freeway facility operations were analyzed using the following data:

- AM and PM peak hour on-ramp and off-ramp counts from the 65th Street/US 50 interchange ramp terminal intersections collected in May 2007
- AM and PM peak hour on-ramp and off-ramp counts from the Howe Avenue/US 50 interchange ramp terminal intersections collected in May 2007
- AM and PM peak hour freeway mainline volumes collected throughout 2007 and published in the 2007 Caltrans Transportation System Network (TSN) database

The AM and PM peak hour freeway operations are presented in **Table 4.3-7** and the peak hour freeway volumes are shown on **Figure 4.3-7**.

As shown in **Table 4.3-7** the following freeway facilities operate at LOS F in the AM and/or PM peak hour:

- Westbound US 50 from 65th Street to 59th Street
- Eastbound US 50 off-ramp to 65th Street
- Westbound US 50 slip on-ramp from 65th Street
- Westbound US 50 loop on-ramp from 65th Street
- Eastbound US 50 loop on-ramp from 65th Street
- Eastbound US 50 weaving area between 65th Street and Howe Avenue
- Westbound US 50 weaving area between Howe Avenue/Hornet Drive and 65th Street

The results presented in **Table 4.3-7** match field observations and are consistent with the findings of the *State Route 50 Transportation Concept Report* (Caltrans, 1998).

**TABLE 4.3-7.** FREEWAY OPERATIONS – EXISTING CONDITIONS

| Freeway Facility | Type | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|
| | | LOS[1] | Density or Service Flow[2] | Volume[3] | LOS[1] | Density or Service Flow[2] | Volume[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 43.2 | 8,347 | E | 44.1 | 8,412 |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 8,812 | E | 39.1 | 7,791 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | F | 39.9 | 518 | F | 40.6 | 592 |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 36.6 | 232 | D | 29.5 | 229 |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 35.1 | 341 | D | 28.0 | 328 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | F | 32.5 | 513 | F | 32.3 | 498 |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,128 | 9,107 | F | 2,087 | 8,481 |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 1,951 | 9,159 | F | 1,928 | 8,481 |

Notes: [1] LOS = level of service

[2] For mainline, ramp merge, and ramp diverge section, density is measured in passenger car equivalents per mile per lane; for weaving sections, service flow in passenger car equivalents per lane per hour is reported.

[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas).

Source: Fehr & Peers, 2008

In addition to freeway facility LOS, queuing at the ramp terminal intersections was also evaluated. The results of the queuing analysis are presented below and indicate that adequate storage is provided on the off-ramps:

- Westbound 65th Street Off-ramp – Average maximum queue, 725 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 325; storage length, 1,375 feet

## 4.3.6 BASELINE CONDITIONS ANALYSIS

To account for the traffic associated with planned and approved developments near the Station 65 study area, “baseline conditions” traffic forecasts were developed and traffic operations were analyzed. This section describes the transportation system under baseline conditions with and without the Station 65 project.

## APPROVED AND PENDING PROJECTS

City of Sacramento staff provided the following list of approved and pending projects near the study area:

- CSUS Faculty and Staff Housing Village
- Jackson Office Project
- South 65th Street Center (Target Project)

Baseline traffic forecasts were developed by adding the traffic related to these projects to the traffic counts collected for the existing conditions analysis.

Associated with the development of these projects is one roadway improvement, which would add a third through lane and bike lane on 65th Street from just north of 4th Avenue to the eastbound US 50 slip on-ramp. Additionally a new crosswalk will be constructed at the 65th Street/Eastbound US 50 Off-ramp intersection. No other roadway, bicycle, pedestrian, or transit improvements are expected under baseline conditions.

## BASELINE WITHOUT PROJECT ANALYSIS

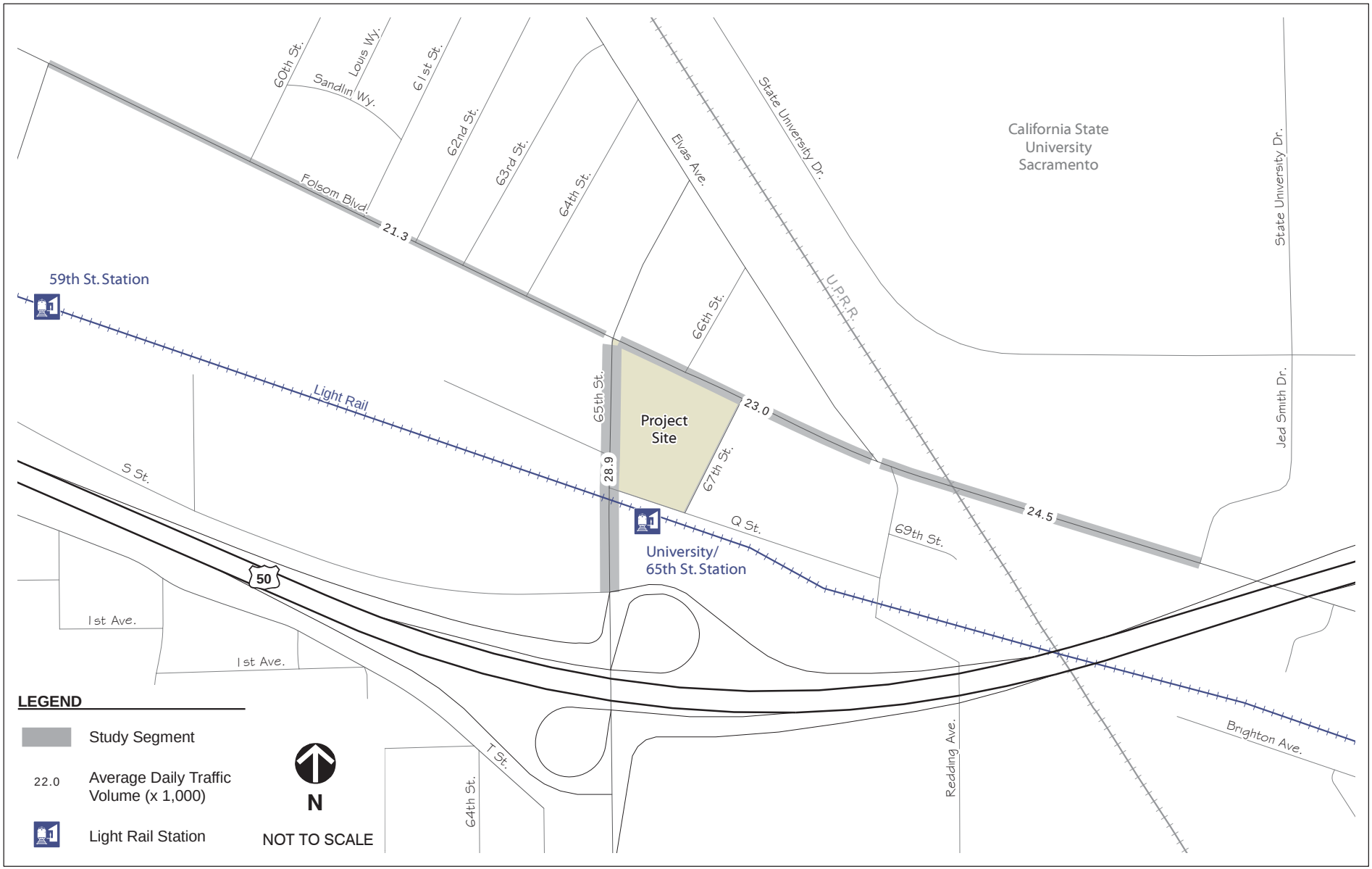
This section provides the results of the baseline without project analysis.

### *Roadway Segment Operations*

**Figure 4.3-8** shows the baseline without project daily roadway segment volumes and **Table 4.3-8** presents the results of the roadway segment LOS analysis.

As shown in **Table 4.3-8**, the roadway LOS is the similar between existing and baseline conditions, although the LOS on the segment of Folsom Boulevard between 59th Street and 65th Street changes from LOS B to LOS C. Also, the LOS on the segment of 65th Street between Folsom Boulevard and S Street changes from LOS D to LOS E.

Under baseline without project conditions, only the segment of Folsom Boulevard between 59th Street and 66th Street operates at an acceptable LOS C or better per the current General Plan and only this segment and the segment of 65th Street between Folsom Boulevard and S Street operate at an acceptable LOS E or better per the Draft 2030 General Plan.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-8**

Average Daily Traffic Volumes – Baseline No Project Conditions

**TABLE 4.3-8.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – BASELINE CONDITIONS

| Roadway Segment | Number of Lanes | Average Daily Traffic (ADT) Volume | Level of Service (LOS) |
|---|---|---|---|
| 1. Folsom Blvd – from 59th Street to 65th Street | 4 | 21,300 | C |
| 2. Folsom Blvd – from 65th Street to 66th Street | 4 | 23,000 | C |
| 3. Folsom Blvd – from 66th Street to Elvas Avenue | 2 | 23,000 | F |
| 4. Folsom Blvd – from Elvas Avenue to State University Drive East | 2 | 24,500 | F |
| 5. 65th Street – from Folsom Boulevard to S Street | 4 | 28,900 | E |
| Source: Fehr & Peers, 2008 | | | |

### *Intersection Operations*

**Figure 4.3-9** presents the peak hour turning movement volumes and lane configurations under baseline without project conditions and **Table 4.3-9** summarizes the results of the intersection LOS analysis.

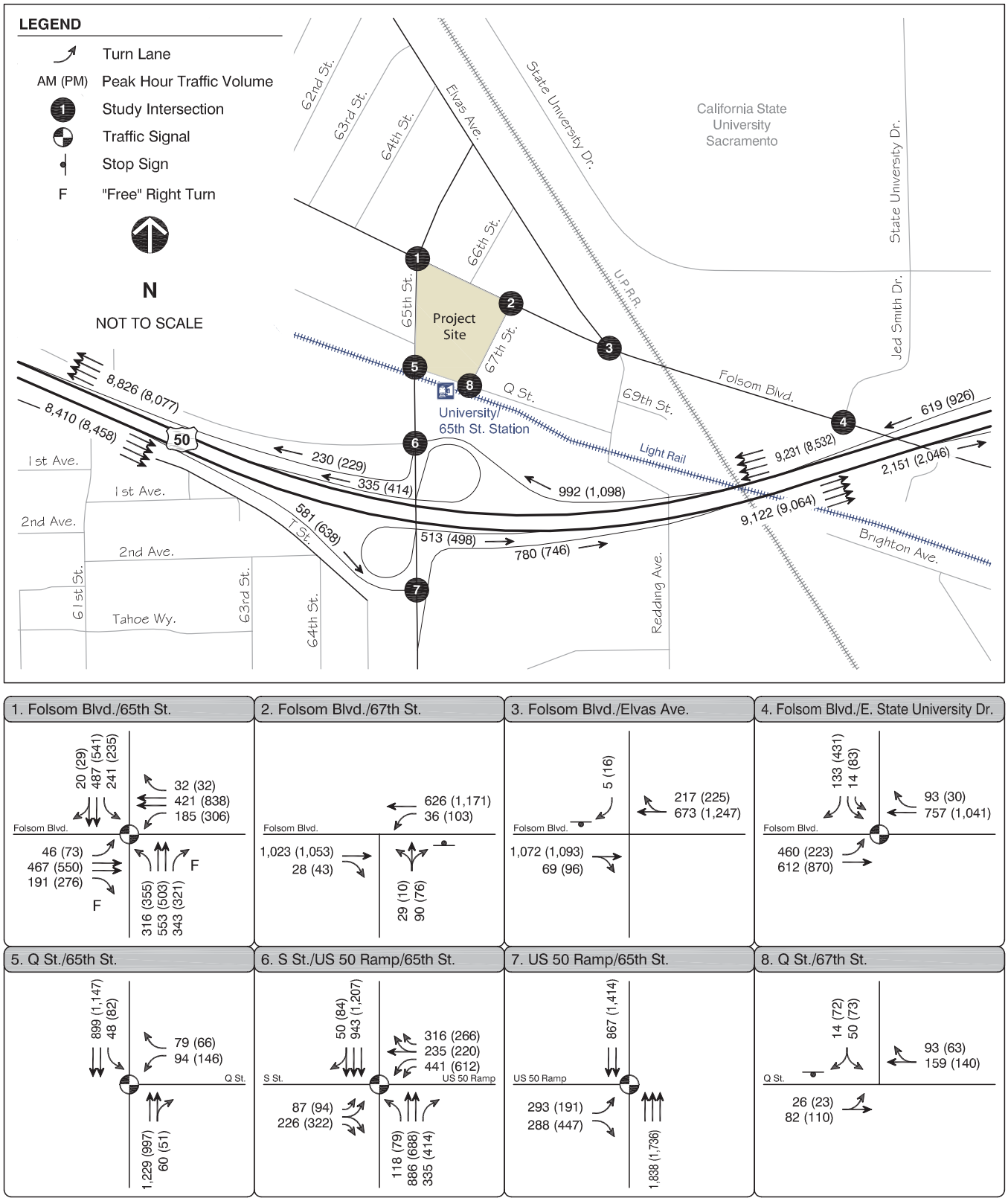
As shown in **Table 4.3-9** the majority of the study intersections operate at LOS E or better during the AM and PM peak hours under baseline without project conditions, with the exception of the following:

- Folsom Boulevard/65th Street operates at LOS F conditions in the PM peak hour
- S Street/65th Street operates at LOS F conditions in the PM peak hour

The following intersections operate at LOS of D or worse in the AM and/or PM peak hour, which exceeds the currently adopted General Plan LOS threshold:

- Folsom Boulevard/65th Street operates at LOS E in the AM peak hour and LOS F in the PM peak hour
- Folsom Boulevard/State University Drive East* operates at LOS D in the PM peak hour
- Q Street/65th Street operates at LOS D in the PM peak hour
- S Street/Westbound US 50 Ramps/65th Street operates at LOS E in the AM peak hour and LOS F in the PM peak hour

Overall, the results presented above are consistent with the findings of other studies completed in the area. Namely, the traffic related to the development of the proposed projects described earlier has impacts to the intersections along the Folsom Boulevard and 65th Street corridors.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-9**

Peak Hour Traffic Volumes and Land Configurations – Baseline No Project Conditions

**TABLE 4.3-9.** INTERSECTION OPERATIONS – BASELINE WITHOUT PROJECT CONDITIONS

| Intersection | Control | AM Peak | | PM Peak | |
|---|---|---|---|---|---|
| | | LOS[1] | Delay[2] | LOS[1] | Delay[2] |
| 1. Folsom Boulevard/65th Street | Signalized | E | 58 | F | 80 |
| 2. Folsom Boulevard/67th Street | Side Street Stop | A (E) | <10 (46) | B (D) | 12 (27) |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A (B) | <10 (12) | C (D) | 17 (28) |
| 4. Folsom Boulevard/State University Drive East | Signalized | C | 34 | D | 36 |
| 5. Q Street/65th Street | Signalized | C | 23 | D | 42 |
| 6. S Street/65th Street/ US 50 WB Off-ramp | Signalized | E | 71 | F | 125 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 13 | C | 21 |
| 8. Q Street/67th Street | Side Street Stop | A (A) | <10 (<10) | A (A) | <10 (<10) |

Notes: [1] LOS = level of service
[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.
Source: Fehr & Peers, 2008

### *Freeway Operations*

**Table 4.3-10** summarizes the results of the baseline without project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-9**.

**Table 4.3-10** indicates all the study freeway facilities operate at LOS F conditions during the AM and/or PM peak hour under baseline without project conditions.

US 50 off-ramp queuing was also evaluated under baseline without project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, greater than 1,500 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 400; storage length, 1,375 feet

The queuing results indicate that the westbound 65th Street off-ramp queue will extend beyond the available storage space. The eastbound 65th Street off-ramp queue will be accommodated within the ramp storage space under baseline without project conditions.

**TABLE 4.3-10.** FREEWAY OPERATIONS – BASELINE WITHOUT PROJECT CONDITIONS

| Freeway Facility | Type | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|
| | | LOS[1] | Density or Service Flow[2] | Volume[3] | LOS[1] | Density or Service Flow[2] | Volume[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 44.1 | 8,410 | F | 44.7 | 8,458 |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 8,826 | E | 40.0 | 8,077 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | F | 40.5 | 581 | F | 41.0 | 638 |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 36.7 | 232 | D | 30.2 | 229 |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 35.2 | 335 | D | 38.7 | 414 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | F | 32.5 | 513 | F | 32.3 | 498 |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,138 | 9,122 | F | 2,105 | 9,064 |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 1,975 | 9,231 | F | 1,946 | 8,532 |

Notes: [1] LOS = level of service
[2] For mainline, ramp merge, and ramp diverge section, density is measured in passenger car equivalents per mile per lane; for weaving sections, service flow in passenger car equivalents per lane per hour is reported.
[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas).
Source: Fehr & Peers, 2008

### *Bicycle, Pedestrian, and Transit Operations*

As described above, a new bicycle lane will be built on northbound 65th Street from just north of 4th Avenue to the Eastbound US 50 on-ramp. In addition, a new crosswalk will be provided at the 65th Street/Eastbound US 50 Off-ramp intersection. There are no planned transit improvements expected under baseline without project conditions. No significant changes are expected in the operations of these systems when compared to existing conditions.

## PROJECT TRIP GENERATION AND TRIP DISTRIBUTION

This section describes the trip generation and trip distribution characteristics of the proposed Station 65 project.

### *Trip Generation*

As described in **Section 4.3.2**, Project Description, two different land plans are being evaluated for the Station 65 project. In general, Scenario A is a lower density land use program that was described in detail in the development application submitted to the City. Scenario B was generically described in the development application as a higher density alternative.

### *Scenario A*

**Table 4.3-11** presents the trip generation estimate for the Scenario A land use plan. The daily, AM peak hour, and PM peak hour trip generation estimates were based on information compiled by the Institute of Transportation Engineers and published in *Trip Generation*, 7th Edition (2003) and *Trip Generation Handbook*, 2nd Edition (2004).

Since the Station 65 project is not being designed as a typical suburban shopping center like those observed in *Trip Generation*, Fehr & Peers counted PM peak hour retail trip generation at the "F65" development located at the southwest corner of the Folsom Boulevard/65th Street intersection. Similar to the Station 65 project, F65 is a mixed-use center located at the Folsom Boulevard/65th Street intersection; however, F65 is a "horizontal" mixed-use project with street oriented retail buildings and residential units at the back of the site. This design allows for an independent traffic count of the retail portion of the site. The F65 trip generation observations indicated that the ITE's average trip rate estimates for a shopping center underestimated the actual trip generation, but the equation-based trip generation estimates overestimated trip generation. A closer match for the actual trip generation of F65 was developed by separating the restaurant uses from the retail uses and applying the average trip generation rate for each use. Since Station 65 will be composed of a similar mix of retail and restaurant uses, the same methodology was employed and retail/restaurant trip generation estimates were individually calculated using the average rates.

**TABLE 4.3-11.** TRIP GENERATION – SCENARIO A LAND USE PLAN

| Land Use | ITE Land Use Code | Quantity[1] | Trip Rates[2] | | | AM Peak Hour Trips | | | PM Peak Hour Trips | | | Daily Trips |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | PM | Daily | In | Out | Total | In | Out | Total | |
| Shopping Center | 820 | 50.00 KSF | 1.03 | 3.75 | 42.94 | 31 | 20 | 52 | 90 | 98 | 188 | 2,147 |
| High Turnover Restaurant | 932 | 14.00 KSF | 13.53 | 18.80 | 127.2 | 98 | 91 | 189 | 145 | 118 | 263 | 1,780 |
| Health Club | 492 | 30.00 KSF | 1.21 | 4.05 | 32.93 | 15 | 21 | 36 | 62 | 60 | 122 | 988 |
| Hotel | 310 | 148 Rooms | 0.56 | 0.59 | 8.17 | 51 | 32 | 83 | 46 | 41 | 87 | 1,209 |
| Office | 710 | 52.29 KSF | N/A | N/A | N/A | 99 | 13 | 112 | 23 | 114 | 137 | 810 |
| Apartments | 220 | 68.00 DU | 0.51 | 0.62 | 6.72 | 7 | 28 | 35 | 27 | 15 | 42 | 457 |
| Gross Trips | | | | | | 301 | 206 | 507 | 393 | 445 | 839 | 7,391 |
| Internal Trips[3] | | | | | | -17 | -13 | -32 | -38 | -37 | -74 | -837 |
| Pass-By Trips[4] | | | | | | -16 | -16 | -32 | -79 | -79 | -158 | -494 |
| Transit/Alternative Mode Trips[5] | | | | | | -24 | -13 | -37 | -23 | -33 | -56 | -523 |
| **Net New Trips** | | | | | | **244** | **164** | **406** | **253** | **296** | **550** | **5,537** |

Notes: [1] KSF – thousand square feet, D.U. – dwelling units

[2] Trip rates based on data published in *Trip Generation 7th Edition* (ITE, 2003).

[3] Internal trip reductions calculated using the *Trip Generation Handbook* (ITE, 2004) and using local retail/household data. Internalization percentages range between 6 percent for the AM peak hour and 11 percent for daily conditions.

[4] 15 percent of daily and AM peak hour, and 34 percent of PM peak hour trips generated by the shopping center were assumed to be pass-by trips based on data contained in the *Trip Generation Handbook* (ITE, 2004).

[5] Transit/alternative mode trips were reduced by the following percentages, based on local data: Shopping Center, Restaurant, Hotel, and Health Club – Daily: 7 percent, AM & PM peak hours: 5 percent; Office – Daily: 6 percent, AM & PM peak hours: 14 percent; Residential – Daily: 10 percent, AM & PM peak hours: 9 percent.

N/A = rate not applicable since equation was used

Source: Fehr & Peers, 2008

Since no comparable office buildings could be readily observed near the Station 65 site, the more conservative best fit equation rate was used to estimate the trip generation associated with the office component of the project. Average trip rates were used to estimate trip generation for all other components of the project (hotel, apartments, etc.).

The internal trip reductions between the retail, health club, restaurant, hotel, and office uses were calculated based on the methodology from the *Trip Generation Handbook* (Institute of Transportation Engineers, 2004). However, because the project has a relatively small residential component, it was determined that the *Trip Generation Handbook* methodology would have overstated residential trip internalization[1].

To develop a more reasonable estimate of residential internalization, a separate calculation was used to determine the residential-to-retail internalization rate. Based on average retail employment data from the Sacramento region (according to the base year land uses contained in the Sacramento Area Council of Governments SACMET travel demand forecasting model), it was determined that each dwelling unit in the Station 65 project could support approximately 75 square feet of retail uses, for a total of 5,100 retail square feet. Using this information, we determined the number of locally supported retail trips by multiplying the retail square footage calculated above by the shopping center trip generation rate from *Trip Generation*. Lastly, we assumed that 40 percent of all home-based retail trips would be internal to the project site (which is reasonable given the presence of a drug store and restaurant uses). This led us to a final PM internalization rate of 10 percent for residential trips, which is much lower than the 40 percent predicted by the *Trip Generation Handbook* methodology. Internalization between all the other uses in the Station 65 project (office-to-retail, office-to-health club, etc.) was calculated using the *Trip Generation Handbook* methodologies. The overall project trip internalization is summarized below for each time period:

- AM Peak Hour Internalization Rate: 6 percent
- PM Peak Hour Internalization Rate: 9 percent
- Daily Internalization Rate: 11 percent

A reduction for pass-by trips was also taken, consistent with the methodologies described in the *Trip Generation Handbook*. A pass-by trip is a trip that goes to a retail use because it is on the way between two primary trip ends (e.g., going to a drug store between work and home). To account for pass-by trips, a conservative 15 percent reduction was applied for retail and high turnover restaurant trips for daily and AM peak hour conditions. In the PM peak hour, a 34 percent pass-by reduction was applied for retail and a 43 percent reduction was applied for the high turnover restaurant, which is based on data published in the *Trip Generation Handbook*.

Since Station 65 is proposed as a prominent transit-oriented development, the project trip generation was also adjusted to account for trips using alternative modes. Unlike the trip internalization and pass-by methodologies described above, there is no national standard that accounts for the vehicle trip reduction characteristics of transit-oriented developments. To estimate the transit trip reductions for the Station 65 project, research from Fehr & Peers using Sacramento area data and submitted to the ITE Journal

[1] The *Trip Generation Handbook* estimated that approximately 67 percent of the residential-to-retail trips would remain on-site, which is unlikely considering the abundance of retail alternatives in the area.

(*Quantifying Transit-Oriented Development's Ability to Change Travel Behavior*, ITE Journal, November 2007) was used. The ITE Journal article estimates the increase in alternative mode share by comparing developments that are near light rail stations to similar developments that are not near a station. The results of the study indicate a substantial difference in mode share associated with transit-oriented developments.

Based on the ITE Journal research, the number of AM and PM peak hour trips for each land use was reduced by 5 percent for the shopping center, restaurant, hotel, and health club; and the number of daily trips was reduced by 7 percent to account for trips made by transit or any non-auto mode. The number of daily office trips was reduced by 6 percent, and the AM and PM peak hour trips were reduced by 14 percent. In addition, 10 percent of daily trips for the apartments and 9 percent of AM and PM peak hour trips were assumed to use the nearby transit options or an alternate mode of transportation. These transit trip reductions are similar in magnitude to those assumed for the 65th Street Transit Village EIR, which assumed a 7 percent reduction in residential and office trip generation during all time periods (daily, AM peak hour, and PM peak hour).

### *Scenario B*

The trip generation potential for the Scenario B land use plan was determined using the same methodologies as described above. **Table 4.3-12** summarizes the Scenario B trip generation information. As shown in

**TABLE 4.3-12.** TRIP GENERATION – SCENARIO B LAND USE PLAN

| Land Use | ITE Land Use Code | Quantity[1] | Trip Rates[2] | | | AM Peak Hour Trips | | | PM Peak Hour Trips | | | Daily Trips |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | PM | Daily | In | Out | Total | In | Out | Total | |
| Shopping Center | 820 | 50.00 KSF | 1.03 | 3.75 | 42.94 | 31 | 20 | 52 | 90 | 98 | 188 | 2,147 |
| High Turnover Restaurant | 932 | 14.00 KSF | 13.53 | 18.80 | 127.2 | 98 | 91 | 189 | 145 | 118 | 263 | 1,780 |
| Health Club | 492 | 30.00 KSF | 1.21 | 4.05 | 32.93 | 15 | 21 | 36 | 62 | 60 | 122 | 988 |
| Hotel | 310 | 148 Rooms | 0.56 | 0.59 | 8.17 | 51 | 32 | 83 | 46 | 41 | 87 | 1,209 |
| Office | 710 | 71.29 KSF | N/A | N/A | N/A | 126 | 17 | 143 | 27 | 132 | 159 | 1,028 |
| Apartments | 220 | 120 DU | 0.51 | 0.62 | 6.72 | 12 | 49 | 61 | 48 | 26 | 74 | 806 |
| Gross Trips | | | | | | 334 | 231 | 564 | 418 | 474 | 893 | 7,958 |
| Internal Trips[3] | | | | | | -18 | -13 | -32 | -44 | -43 | -87 | -991 |
| Pass-By Trips[4] | | | | | | -16 | -16 | -32 | -79 | -79 | -158 | -485 |
| Transit/Alternative Mode Trips[5] | | | | | | -28 | -15 | -44 | -25 | -37 | -62 | -571 |
| **Net New Trips** | | | | | | **271** | **186** | **457** | **270** | **316** | **586** | **5,912** |

Notes: [1] KSF – thousand square feet, D.U. – dwelling units

[2] Trip rates based on data published in *Trip Generation 7th Edition* (ITE, 2003).

[3] Internal trip reductions calculated using the *Trip Generation Handbook* (ITE, 2004) and using local retail/household data. Internalization percentages range between 6 percent for the AM peak hour and 12 percent for daily conditions.

[4] 15 percent of daily and AM peak hour, and 34 percent of PM peak hour trips generated by the shopping center were assumed to be pass-by trips based on data contained in the *Trip Generation Handbook* (ITE, 2004).

[5] Transit/alternative mode trips were reduced by the following percentages, based on local data: Shopping Center, Restaurant, Hotel, and Health Club – Daily: 7 percent, AM & PM peak hours: 5 percent: Office – Daily: 6 percent, AM & PM peak hours: 14 percent; Residential – Daily: 10 percent, AM & PM peak hours: 9 percent.

N/A = rate not applicable since equation was used

Source: Fehr & Peers, 2008

**Table 4.3-12**, the greater land use intensity in Scenario B leads to an increase in overall trip generation when compared to Scenario A. Under daily conditions, trip generation increases by about 7 percent (from 5,537 to 5,912 trips), under AM peak hour conditions trip generation increases by about 13 percent (from 406 to 457 trips), and under PM peak hour conditions trip generation increases by about 7 percent (from 550 to 586 trips). For more details about the Trip Generation estimate, please see **Appendix F**.

### *Trip Distribution*

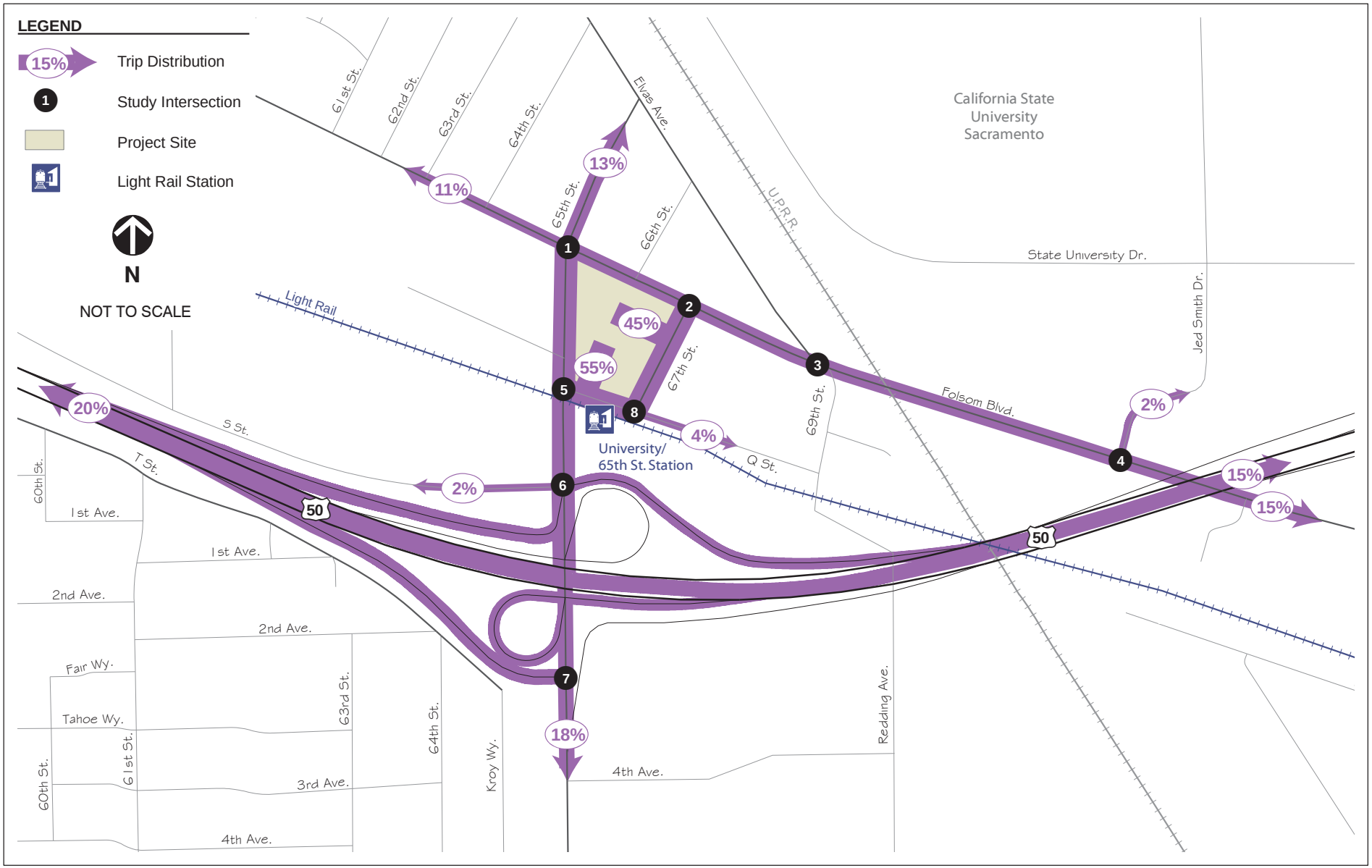
In addition to estimating trip generation, the trip distribution pattern for the Station 65 project was also determined. The project's trip distribution characteristics are summarized on **Figure 4.3-10** and described below.

| Directionality | Percentage |
|---|---|
| To/from the north on Elvas Ave. | 13% |
| To/from the west on Folsom Blvd. | 11% |
| To/from the east on Folsom Blvd. | 15% |
| To/from the north on State University Dr. East | 2% |
| To/from the east on Q St. | 4% |
| To/from the west on S St. | 2% |
| To/from the east on US 50 | 15% |
| To/from the west on US 50 | 20% |
| To/from the south on 65th St. | 18% |
| **Total** | **100%** |

The project trip distribution is based on the distribution of project trips estimated by the Sacramento Area Council of Governments SACMET travel demand forecasting model.

## BASELINE WITH SCENARIO A PROJECT ANALYSIS

This section presents the results of the transportation analysis under baseline with Scenario A project conditions.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-10**
Project Trip Distribution

## ROADWAY SEGMENT OPERATIONS

**Figure 4.3-11** shows the baseline with Scenario A project daily roadway segment volumes, and **Table 4-13** presents the results of the roadway segment LOS analysis.

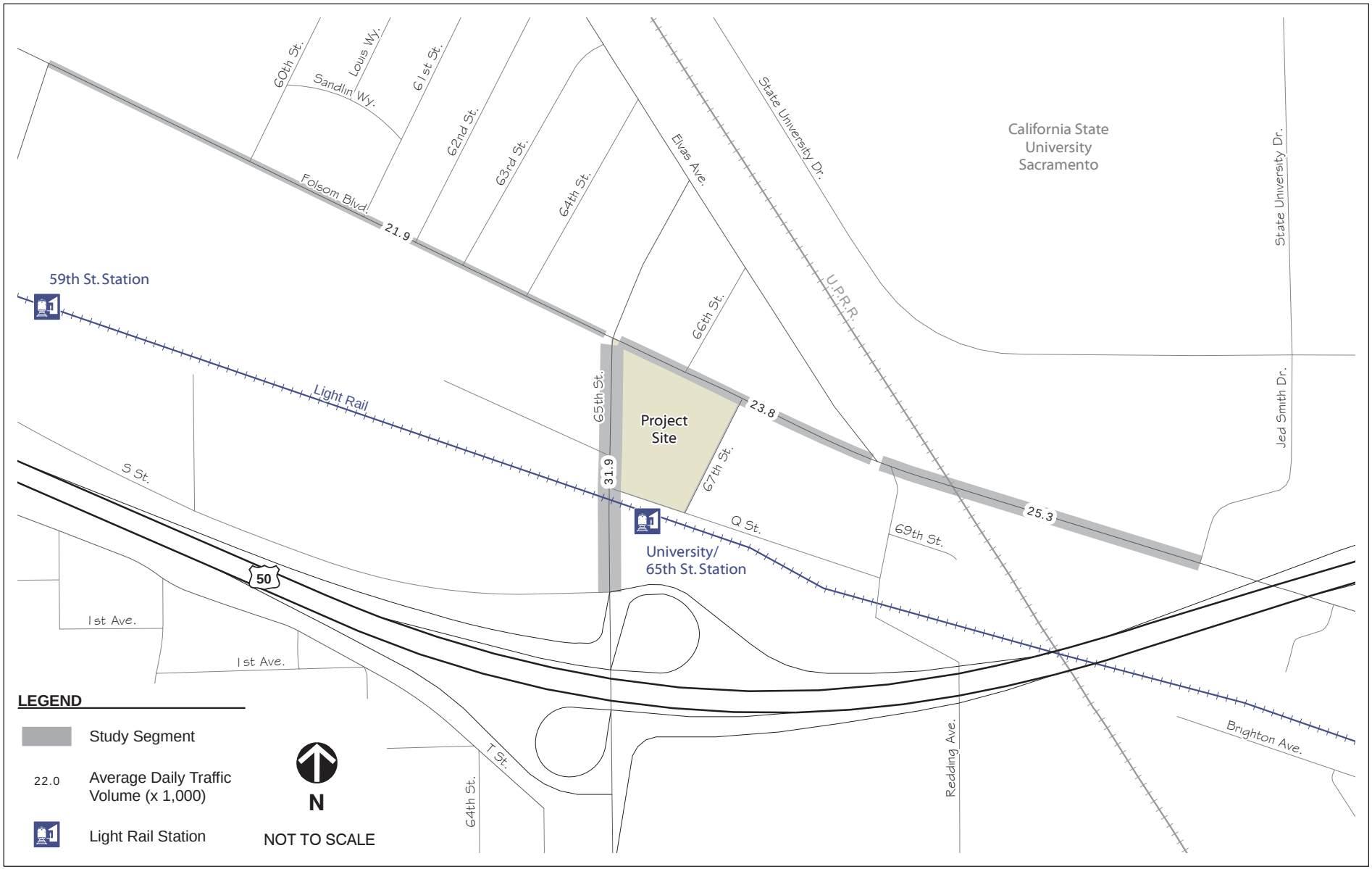
As shown in **Table 4.3-13**, the addition of the Scenario A project traffic does not degrade operations to an unacceptable LOS (per the current General Plan) on the segment of Folsom Boulevard between 59th Street and 66th Street. However, the traffic associated with the Scenario A development either degrades roadway segments from LOS E to LOS F, or it adds traffic to roadway segments operating at LOS F conditions under baseline without project conditions.

**TABLE 4.3-13.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – BASELINE WITH SCENARIO A PROJECT CONDITIONS

| Roadway Segment | Number of Lanes | Without Project | | With Scenario A Project | | | |
|---|---|---|---|---|---|---|---|
| | | ADT[1] | LOS[2] | Current GP Threshold | | Draft 2030 GP Threshold | |
| | | | | ADT | LOS | ADT | LOS |
| 1. Folsom Blvd – from 59th Street to 65th Street | 4 | 21,300 | C | 21,900 | C | 21,900 | C |
| 2. Folsom Blvd – from 65th Street to 66th Street | 2 | 23,000 | C | 23,800 | C | 23,800 | C |
| 3. Folsom Blvd – from 66th Street to Elvas Avenue | 4 | 23,000 | F | **23,800** | **F** | **23,800** | **F** |
| 4. Folsom Blvd – from Elvas Avenue to State University Drive East | 2 | 24,500 | F | **25,300** | **F** | **25,300** | **F** |
| 5. 65th Street – from Folsom Boulevard to S Street | 4 | 28,900 | E | **31,900** | **F** | **31,900** | **F** |

Notes: [1] ADT = average daily traffic
[2] LOS = level of service
Bold indicates project impact.

Source: Fehr & Peers, 2008




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-11**

Average Daily Traffic Volumes – Baseline Plus Project Conditions – Scenario A

## INTERSECTION OPERATIONS

**Figure 4.3-12** presents the peak hour turning movement volumes and lane configurations under baseline with Scenario A project conditions, and **Table 4.3-14** summarizes the results of the intersection LOS analysis.

As shown in **Table 4.3-14** the majority of the study intersections operate at LOS F during either the AM or PM peak hour under baseline with Scenario A project conditions; these intersections are listed below:

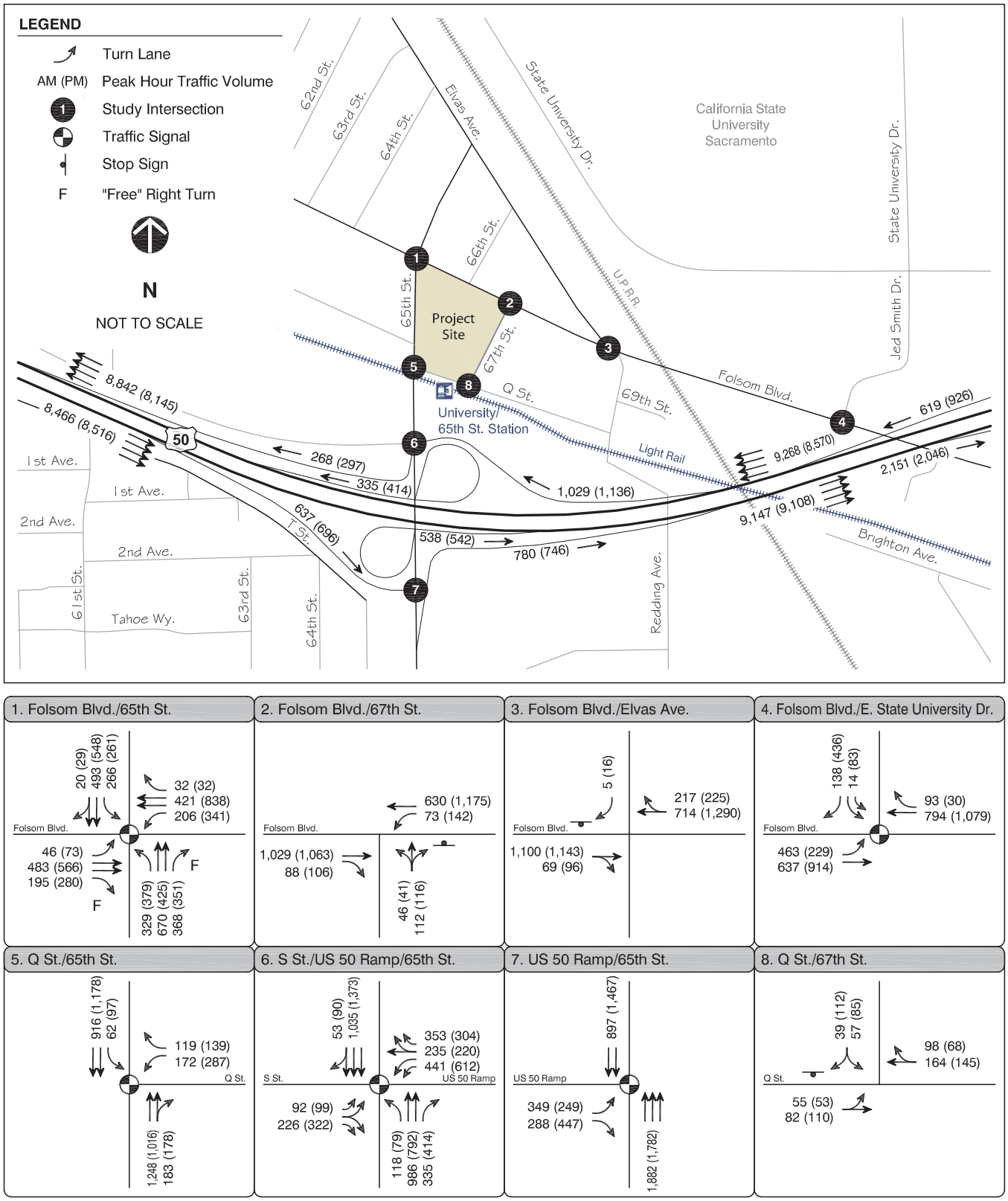
- Folsom Boulevard/65th Street operates at LOS F during the PM peak hour
- Q Street/65th Street operates at LOS F during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS F during the PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

When considering the existing General Plan LOS C threshold, all but one of the intersections are expected to operate at LOS D or worse during either the AM or PM peak hours:

- Folsom Boulevard/65th Street operates at LOS E during the AM peak hour and LOS F during the PM peak hour
- Folsom Boulevard/67th Street operates at LOS E conditions during the PM peak hour
- Folsom Boulevard/Elvas Avenue operates at LOS D conditions during the PM peak hour
- Folsom Boulevard/State University Drive East operates at LOS E conditions during the PM peak hour
- Q Street/65th Street operates at LOS F conditions during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS E during the AM peak hour and LOS F during the PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

During the AM peak hour, the results from the baseline with Scenario A project analysis are similar to the without project analysis results, except that overall congestion levels on 65th Street were higher. This additional traffic combined with the light rail crossings led to additional delay at the 65th Street study intersections. Delay also increased substantially at Folsom Boulevard/67th Street since it is difficult for project trips to turn left across Folsom Boulevard.

In the PM peak hour, the simulation results indicated that many of the model runs became completely gridlocked because of congestion at Folsom Boulevard/67th Street. Without a traffic signal at this location, very few northbound vehicles can depart, which in turn leads to queues forming on 67th Street and Q Street. Eventually, 65th Street and Folsom Boulevard also become blocked.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-12**

Peak Hour Traffic Volumes and Lane Configurations – Baseline Plus Project Conditions – Scenario A

**TABLE 4.3-14.** INTERSECTION OPERATIONS – BASELINE WITH SCENARIO A PROJECT CONDITIONS

| Intersection | Control | Without Project | | | | With Scenario A Project | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | PM Peak | | Current GP Threshold | | | | Draft 2030 GP Threshold | | | |
| | | | | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay |
| 1. Folsom Boulevard/65th Street | Signalized | E | 58 | F | 80 | **E** | **67** | **F** | **88** | E | 67 | **F** | **88** |
| 2. Folsom Boulevard/67th Street | Side Street Stop | A (E) | <10 (46) | B (D) | 12 (27) | C (F) | 17 (110) | **E (F)** | **39 (>500)** | C (F) | 17 (110) | E (F) | 39 (>500) |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A (B) | <10 (12) | C (D) | 17 (28) | A (B) | <10 (15) | **D (F)** | **34 (58)** | A (B) | <10 (15) | D (F) | 34 (58) |
| 4. Folsom Boulevard/State University Drive East | Signalized | C | 34 | D | 36 | C | 29 | **E** | **55** | C | 29 | E | 55 |
| 5. Q Street/65th Street | Signalized | C | 23 | D | 42 | C | 31 | **F** | **89** | C | 31 | **F** | **89** |
| 6. S Street/65th Street/US 50 WB Off-ramp | Signalized | E | 71 | F | 125 | **F** | **117** | **F** | **203** | **F** | **117** | **F** | **203** |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 13 | C | 21 | B | 16 | C | 31 | B | 16 | C | 31 |
| 8. Q Street/67th Street | Side Street Stop | A (A) | <10 (<10) | A (A) | <10 (<10) | A (C) | <10 (16) | **F (F)** | **164 (475)** | A (C) | <10 (16) | **F (F)** | **164 (475)** |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Bold indicates project impact.

Source: Fehr & Peers, 2008

## FREEWAY OPERATIONS

**Table 4.3-15** summarizes the results of the baseline with Scenario A project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-12**.

**Table 4.3-15** indicates that all the study freeway facilities operate at LOS F conditions during the AM and/or PM peak hour under baseline with Scenario A project conditions. The project adds trips to the freeway facilities, but the increases are less than one percent of the existing freeway traffic volumes.

US 50 off-ramp queuing was evaluated under baseline with Scenario A project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, greater than 1,500 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 375; storage length, 1,375 feet

The queuing results indicate that the westbound 65th Street off-ramp queue will extend beyond the available storage space. The eastbound 65th Street off-ramp queue will be accommodated within the ramp storage space under baseline with Scenario A project conditions.

### *Bicycle, Pedestrian, and Transit Operations*

The Station 65 project will make significant improvements to the bicycle and pedestrian systems in front of the project site. These improvements include the completion of sidewalks around the perimeter of the site and the construction of pedestrian walkways between the buildings on-site. Moreover, the pedestrian environment will be enhanced with outdoor eating areas, landscaping, and other streetscape improvements.

The bicycle system will also be improved through the construction of on-street bike lanes along eastbound Folsom Boulevard in front of the project site.

The implementation of the Station 65 project will include the relocation of the existing bus stops to the perimeter of the project site, as shown on **Figure 4.3-2**. By itself, the relocated bus stops will not have an impact on bus operations and they will have a positive overall impact by generally reducing walk distances for people transferring between the light rail and bus systems. The redeveloped Station 65 project site will also have a better overall environment for bus patrons due to the enhanced streetscape and availability of retail services immediately adjacent to the bus stops.

As suggested by the results of the intersection operations analysis, the project traffic will lead to additional travel time when compared to the baseline without project scenario.

**TABLE 4.3-15.** FREEWAY OPERATIONS – BASELINE WITH SCENARIO A PROJECT CONDITIONS

| Freeway Facility | Type | Without Project | | | | | | With Scenario A Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | | PM Peak | | | AM Peak | | | PM Peak | | |
| | | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 44.1 | 8,410 | F | 44.7 | 8,458 | E | 44.8 | 8,466 | **F** | **>45** | **8,516** |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 8,826 | E | 40.0 | 8,077 | **F** | **>45** | **8,842** | E | 40.8 | 8,145 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | F | 40.5 | 581 | F | 41.0 | 638 | **F** | **41.0** | **637** | **F** | **41.6** | **696** |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 36.7 | 232 | D | 30.2 | 229 | **F** | **36.8** | **268** | **F** | **30.8** | **297** |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 35.2 | 335 | D | 38.7 | 414 | F | 35.1 | 335 | D | 38.7 | 414 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | F | 32.5 | 513 | F | 32.3 | 498 | **F** | **32.5** | **538** | **F** | **32.7** | **542** |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,138 | 9,122 | F | 2,105 | 9,064 | **F** | **2,138** | **9,147** | **F** | **2,114** | **9,108** |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 1,975 | 9,231 | F | 1,946 | 8,532 | **F** | **1,987** | **9,268** | **F** | **1,958** | **8,570** |

Notes: [1] LOS = level of service

[2] MOE = measure of effectiveness. For mainline, ramp merge, and ramp diverge sections, the MOE is density, measured in passenger car equivalents per mile per lane; for weaving sections, the MOE is service flow, measured in passenger car equivalents per lane.

[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas).

Bold indicates a project impact.

Source: Fehr & Peers, 2008

## BASELINE WITH SCENARIO B PROJECT ANALYSIS

This section presents the results of the transportation analysis under baseline with Scenario B project conditions.

### *Roadway Segment Operations*

**Figure 4.3-13** shows the baseline with Scenario B project daily roadway segment volumes and **Table 4.3-16** presents the results of the roadway segment LOS analysis.

As shown in **Table 4.3-16**, the addition of the Scenario B project traffic does not lead to a degradation of LOS on the segment of Folsom Boulevard between 59th Street and 66th Street. However, the traffic associated with the Scenario B development either degrades roadway segments from LOS E to LOS F, or adds traffic to roadway segments operating at LOS F conditions under baseline without project conditions.

**TABLE 4.3-16.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – BASELINE WITH SCENARIO B PROJECT CONDITIONS

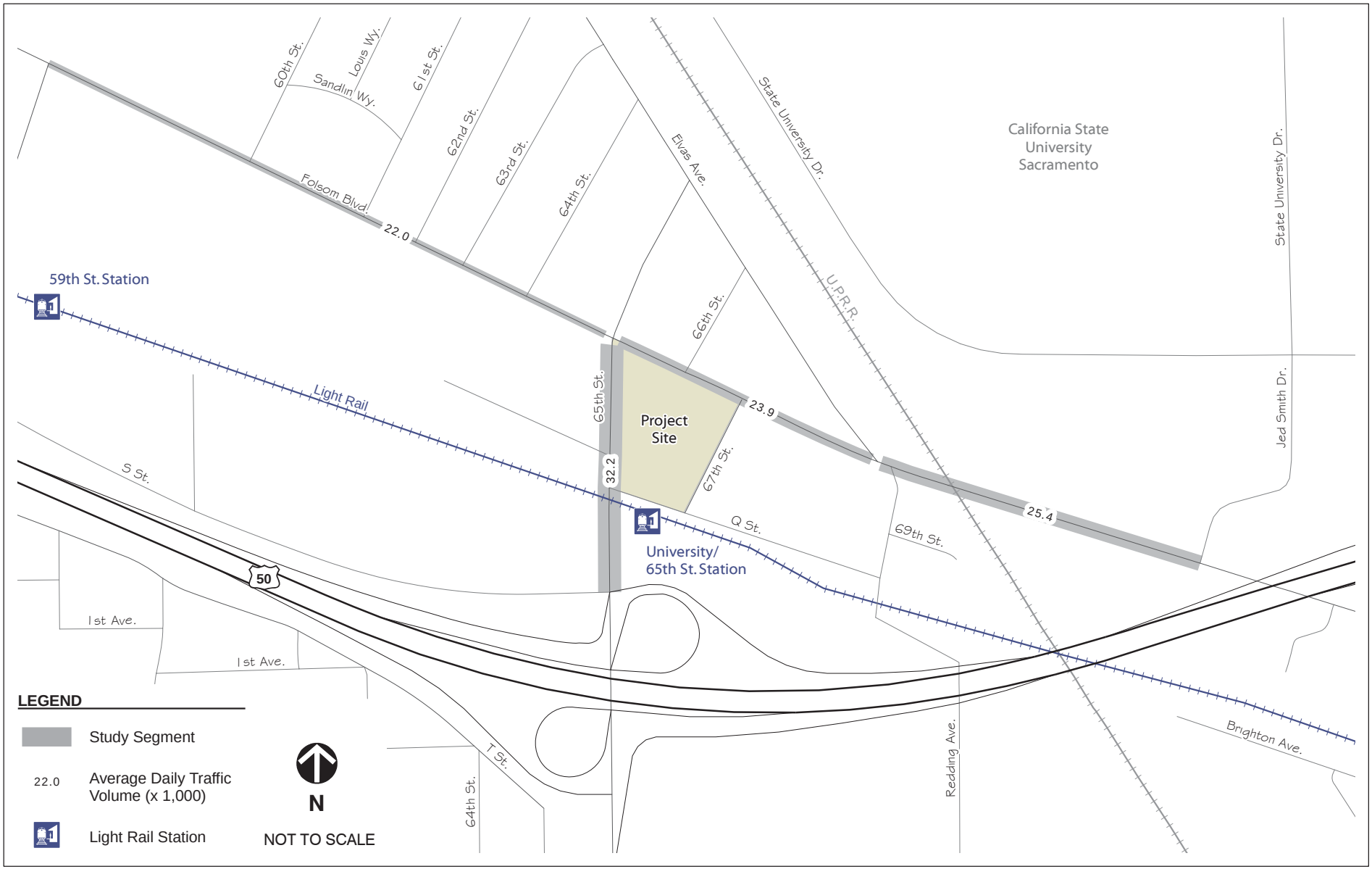
| Roadway Segment | Number of Lanes | Without Project | | With Scenario B Project | | | |
|---|---|---|---|---|---|---|---|
| | | ADT[1] | LOS[2] | Current GP Threshold | | Draft 2030 GP Threshold | |
| | | | | ADT | LOS | ADT | LOS |
| 1. Folsom Blvd – from 59th Street to 65th Street | 4 | 21,300 | C | 22,000 | C | 22,000 | C |
| 2. Folsom Blvd – from 65th Street to 66th Street | 2 | 23,000 | C | 23,900 | C | 23,900 | C |
| 3. Folsom Blvd – from 66th Street to Elvas Avenue | 4 | 23,000 | F | **23,900** | **F** | **23,900** | **F** |
| 4. Folsom Blvd – from Elvas Avenue to State University Drive East | 2 | 24,500 | F | **25,400** | **F** | **25,400** | **F** |
| 5. 65th Street – from Folsom Boulevard to S Street | 4 | 28,900 | E | **32,200** | **F** | **32,200** | **F** |

Notes: [1] ADT = average daily traffic
[2] LOS = level of service
Bold indicates project impact.

Source: Fehr & Peers, 2008

## INTERSECTION OPERATIONS

**Figure 4.3-14** presents the peak hour turning movement volumes and lane configurations under baseline with Scenario B project conditions, and **Table 4.3-17** summarizes the results of the intersection LOS analysis.

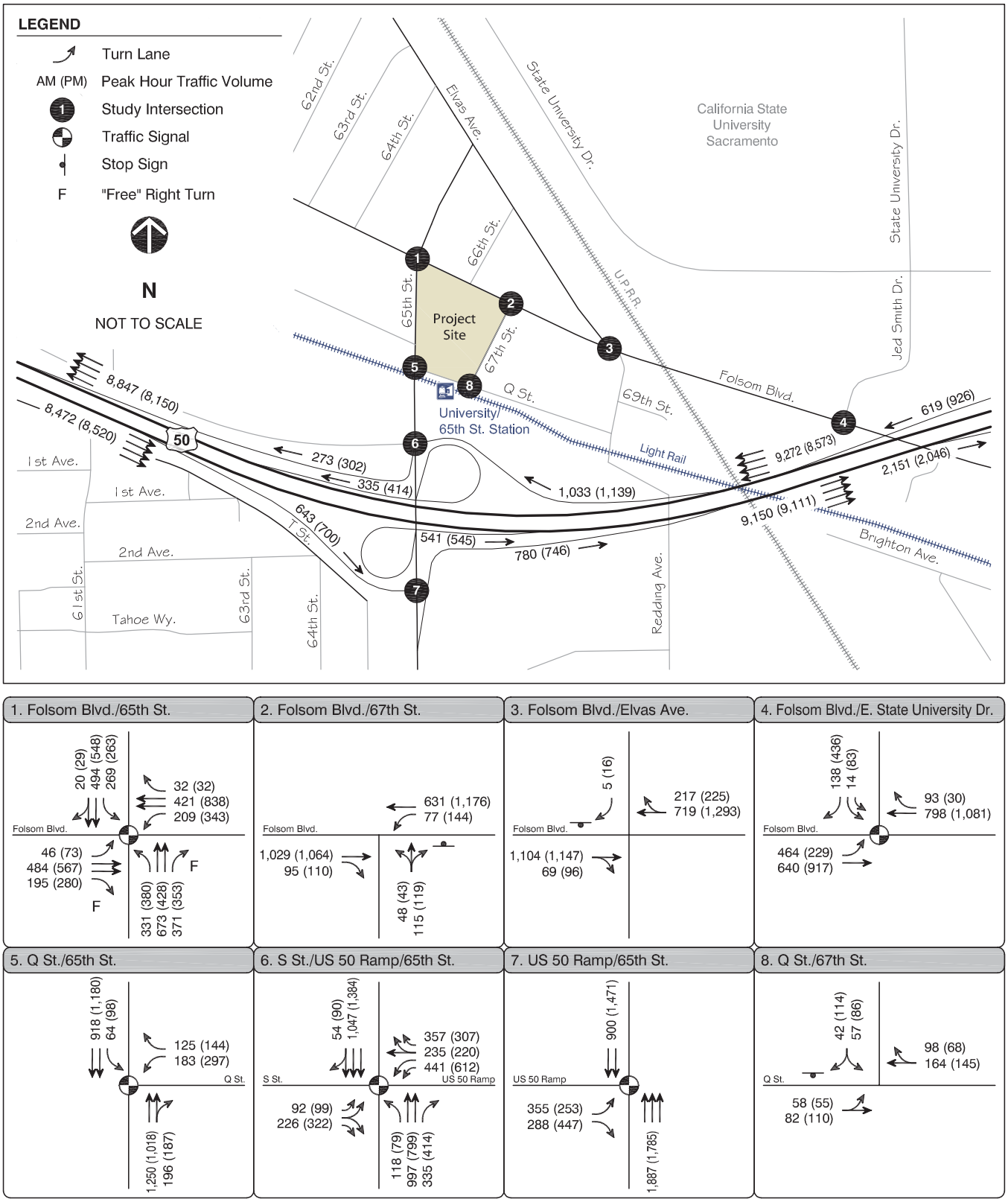



SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-13**

Average Daily Traffic Volumes – Baseline Plus Project Conditions – Scenario B




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-14**

Peak Hour Traffic Volumes and Lane Configurations – Baseline Plus Project Conditions – Scenario B

As shown in **Table 4.3-17** the majority of the study intersections operate at LOS F during either the AM or PM peak hour under baseline with Scenario B project conditions; these intersections are listed below:

- Folsom Boulevard/65th Street operates at LOS F during the PM peak hour
- Folsom Boulevard/67th Street operates at LOS F during the PM peak hour
- Q Street/65th Street operates at LOS F during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS F during the AM and PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

When considering the existing General Plan LOS C threshold, all of the intersections are expected to operate at LOS D or worse during either the AM or PM peak hours:

- Folsom Boulevard/65th Street operates at LOS E during the AM peak hour and LOS F during the PM peak hour
- Folsom Boulevard/67th Street operates at LOS F conditions during the PM peak hour
- Folsom Boulevard/Elvas Avenue operates at LOS E conditions during the PM peak hour
- Folsom Boulevard/State University Drive East operates at LOS E conditions during the PM peak hour
- Q Street/65th Street operates at LOS F conditions during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS F during the AM and PM peak hour
- 65th Street/US 50 Eastbound Off-ramp operates at LOS D during the PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

A review of the traffic simulation results indicated that the Scenario B results were generally similar to the Scenario A results, except that overall congestion levels were higher, as expected.

## FREEWAY OPERATIONS

**Table 4.3-18** summarizes the results of the baseline with Scenario B project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-14**.

**Table 4.3-18** indicates that all the study freeway facilities operate at LOS F conditions during the AM and/or PM peak hour under baseline with Scenario B project conditions. The project adds trips to the freeway facilities, but the increases are less than one percent of the existing freeway traffic volumes.

US 50 off-ramp queuing was also evaluated under baseline with Scenario B project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, greater than 1,500 feet; storage length, 1,300 feet

**TABLE 4.3-17.** INTERSECTION OPERATIONS – BASELINE WITH SCENARIO B PROJECT CONDITIONS

| Intersection | Control | Without Project | | | | With Scenario B Project | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | PM Peak | | Current GP Threshold | | | | Draft 2030 GP Threshold | | | |
| | | | | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay |
| 1. Folsom Boulevard/65th Street | Signalized | E | 58 | F | 80 | E | 62 | **F** | **141** | E | 62 | **F** | **141** |
| 2. Folsom Boulevard/67th Street | Side Street Stop | A (E) | <10 (46) | B (D) | 12 (27) | C (F) | 19 (127) | **F (F)** | **54 (>500)** | C (F) | 19 (127) | **F (F)** | **54 (>500)** |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A (B) | <10 (12) | C (D) | 17 (28) | C (D) | 15 (32) | **E (F)** | **41 (67)** | C (D) | 15 (32) | E (F) | 41 (67) |
| 4. Folsom Boulevard/State University Drive East | Signalized | C | 34 | D | 36 | D | 46 | **E** | **67** | D | 46 | E | 67 |
| 5. Q Street/65th Street | Signalized | C | 23 | D | 42 | C | 34 | **F** | **114** | C | 34 | **F** | **114** |
| 6. S Street/65th Street/US 50 WB Off-ramp | Signalized | E | 71 | F | 125 | **F** | **150** | **F** | **281** | **F** | **150** | **F** | **281** |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 13 | C | 21 | B | 17 | **D** | **54** | B | 17 | D | 54 |
| 8. Q Street/67th Street | Side Street Stop | A (A) | <10 (<10) | A (A) | <10 (<10) | B (C) | 12 (18) | **F (F)** | **260 (>500)** | B (C) | 12 (18) | **F (F)** | **260 (>500)** |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Bold indicates project impact.

Source: Fehr & Peers, 2008

**TABLE 4.3-18.** FREEWAY OPERATIONS – BASELINE WITH SCENARIO B PROJECT CONDITIONS

| Freeway Facility | Type | Without Project | | | | | | With Scenario B Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | | PM Peak | | | AM Peak | | | PM Peak | | |
| | | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 44.1 | 8,410 | F | 44.7 | 8,458 | E | 44.9 | 8,472 | **F** | **>45** | **8,520** |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 8,826 | E | 40.0 | 8,077 | **F** | **>45** | **8,847** | E | 40.8 | 8,150 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | F | 40.5 | 581 | F | 41.0 | 638 | **F** | **41.1** | **643** | **F** | **41.6** | **700** |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 36.7 | 232 | D | 30.2 | 229 | **F** | **36.9** | **273** | **F** | **30.8** | **302** |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 35.2 | 335 | D | 38.7 | 414 | **F** | **35.1** | 335 | D | 38.7 | 414 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | F | 32.5 | 513 | F | 32.3 | 498 | **F** | **32.7** | **541** | **F** | **32.7** | **545** |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,138 | 9,122 | F | 2,105 | 9,064 | **F** | **2,143** | **9,150** | **F** | **2,115** | **9,111** |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 1,975 | 9,231 | F | 1,946 | 8,532 | **F** | **1,987** | **9,272** | **F** | **1,959** | **8,573** |

Notes: [1] LOS = level of service

[2] MOE = measure of effectiveness. For mainline, ramp merge, and ramp diverge sections, the MOE is density, measured in passenger car equivalents per mile per lane; for weaving sections, the MOE is service flow, measured in passenger car equivalents per lane.

[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas).

Bold indicates a project impact.

Source: Fehr & Peers, 2008

- Eastbound 65th Street Off-ramp – Average maximum queue, 425; storage length, 1,375 feet

The queuing results indicate that the westbound 65th Street off-ramp queue will extend beyond the available storage space. The eastbound 65th Street off-ramp queue will be accommodated within the ramp storage space under baseline with Scenario B project conditions.

### BICYCLE, PEDESTRIAN, AND TRANSIT OPERATIONS

The changes to the bicycle, pedestrian, and transit systems under the Scenario B development plan will be identical to those described under the Scenario A alternative. However, as shown in the intersection operations analysis, the additional project traffic will lead to bus route delays when compared to baseline without project conditions.

## 4.3.7 CUMULATIVE CONDITIONS ANALYSIS

This section describes cumulative conditions with and without the Station 65 project. The cumulative conditions land use, roadway network, bicycle facilities, pedestrian facilities, and transit system assumptions are described, along with the traffic forecasting methodology and the results of the transportation impact analysis.

As discussed earlier, the City of Sacramento is currently updating its General Plan. In addition to the changes in the LOS policy, there are also changes to the land use and transportation elements of the document. Specifically, the Draft 2030 General Plan update allows for higher land use densities around the Station 65 project site and explores different roadway scenarios around the area. This proposed change in land use and roadway network in the Draft 2030 General Plan would supersede the Current General Plan and the 65th Street Transit Village Plan. However, since the Draft 2030 General Plan has not yet been adopted and the planning studies for the roadway modifications have not been completed, this study will analyze cumulative conditions with and without the project assuming the existing General Plan and 65th Street Transit Village Plan are in place.

A discussion of the project's impacts to the transportation system assuming the Draft 2030 General Plan is in place is presented for informational purposes in **Section 4.3.9**, Other Considerations.

### LAND USES

Land uses under cumulative conditions are based on information contained the version of the SACMET travel demand forecasting model developed for the Sacramento General Plan Transportation Analysis. To improve the reliability of the traffic forecasts, additional roadway network detail was added the base (2005) year model to reflect the roadway network in the Station 65 area and the traffic analysis zones were disaggregated. After these modifications were incorporated, this version of the SACMET model was validated to traffic conditions around the Station 65 study area.

Under cumulative without project conditions, the existing land uses were assumed to remain on the Station 65 project site. However, new development is anticipated in the immediate area, consistent with the 65th Street Transit Village Plan.

### ROADWAY NETWORK

The version of the SACMET travel demand forecasting model contains the fully funded (Tier 1) projects described in the 2035 SACOG Metropolitan Transportation Plan (MTP). The roadway projects near the Station 65 project area are listed below and shown on **Figure 4.3-15**:

- US 50 – Add carpool lanes between Sunrise Boulevard and Downtown Sacramento
- Folsom Boulevard – Widen to four lanes between 65th Street and Hornet Drive
- 65th Street – Add third southbound lane between Folsom Boulevard and S Street
- Ramona Avenue – Extend northward into CSUS campus and provide a new intersection with Folsom Boulevard (eastbound left turn prohibited)

In addition, City of Sacramento staff identified the following intersection improvements under cumulative conditions:

- Folsom Boulevard/65th Street – Construct second westbound left-turn lane (as described in the 65th Street Transit Village Plan)
- Folsom Boulevard/67th Street – Install traffic signal and construct separate northbound left-turn lane
- 65th Street/US 50 Eastbound On-ramp – Reconfigure northbound right turn lane to a shared through-right lane ( as described in the 65th Street Center Project)
- Q Street/67th Street – Install all-way stop control

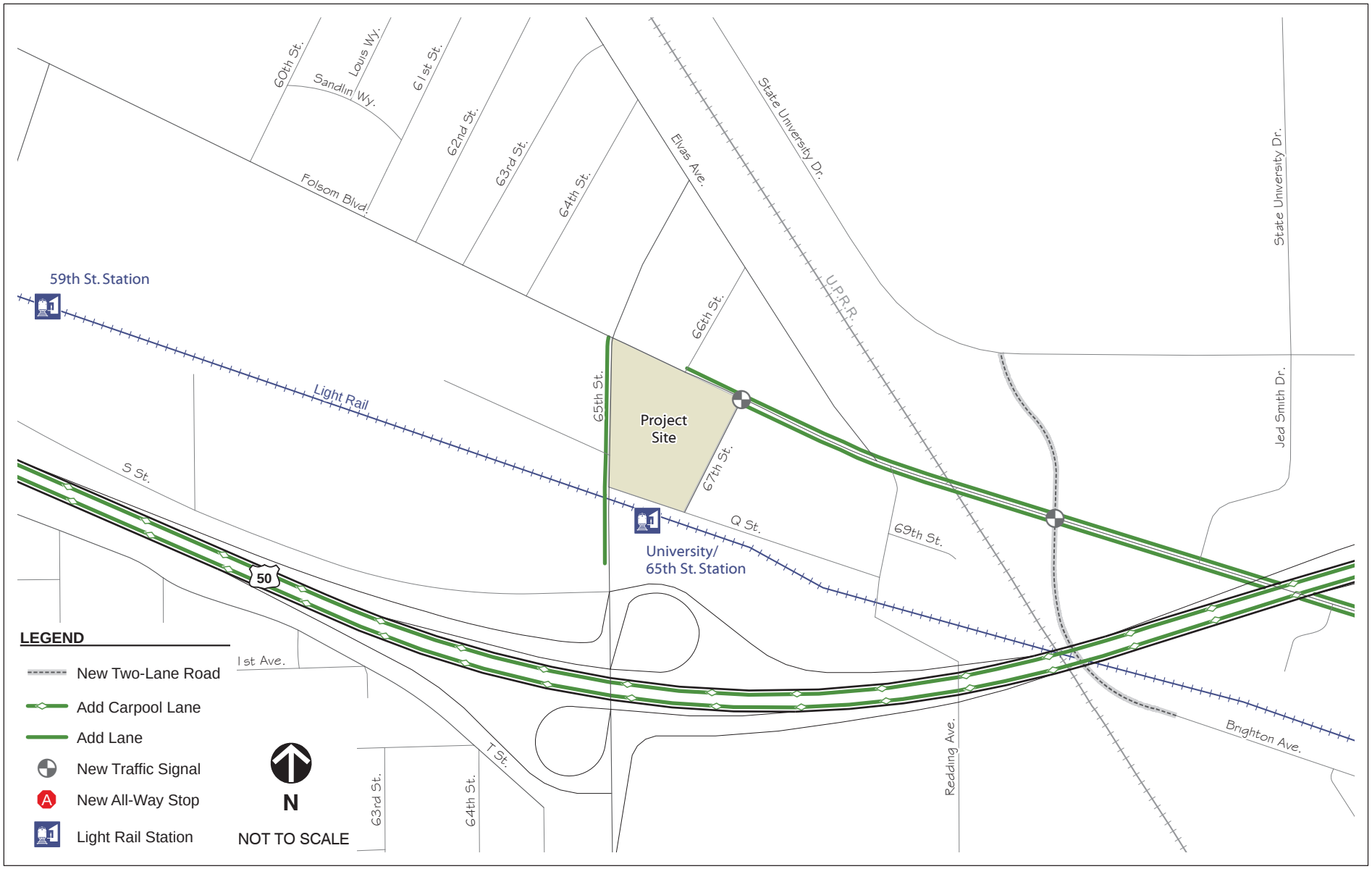
Typically signal timings are not assumed to change in the future; however, because of the extensive roadway projects planned under cumulative conditions, the traffic signals throughout the study area would have to be re-timed to accommodate the new lanes. Therefore, it was also assumed that the traffic signal timings were optimized throughout the study area.

### TRANSIT SYSTEM

A review of the 2035 MTP indicated no planned transit improvements near the Station 65 project area. Correspondence with RT staff confirmed this assessment.

### PEDESTRIAN AND BICYCLE SYSTEMS

As described in **Section 4.3.3**, the 2010 Sacramento City/County Bikeway Master Plan (1995) and the City of Sacramento Pedestrian Master Plan (2006) define the future pedestrian and bicycle systems in the Station 65 project area. Although the 2035 MTP does not define any specific improvements within the Station 65 study area, much of the pedestrian and bicycle infrastructure will likely be completed as part of frontage improvements associated with future development.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-15**

Planned Roadway Improvements – Cumulative Conditions

## TRAFFIC FORECASTS

To determine future year traffic volumes, the SACMET travel demand forecasting model was run under the following three scenarios:

- 2005 conditions
- 2035 (cumulative) without project conditions (this condition assumes the existing uses remain on the project site)
- cumulative "zero project" conditions (this condition assumes no development is on the site)

Cumulative year forecasts were developed using an industry standard method to reduce model error known as the "difference method." The difference method works by taking the difference between the 2035 raw model volumes and the 2005 raw model volumes to determine the growth in traffic between base and future year versions of the model. The growth in traffic is then added to existing traffic counts to yield adjusted cumulative conditions traffic forecasts.

To determine the cumulative with project traffic conditions, the cumulative "zero project" model was run and processed using the difference method. The trip generation associated with the two Station 65 land use plans was then added to the cumulative "zero project" traffic forecasts to develop cumulative with Scenario A and cumulative with Scenario B traffic forecasts.

## CUMULATIVE WITHOUT PROJECT ANALYSIS

This section provides the results of the cumulative without project transportation analysis assuming the currently adopted 65th Street Transit Village Plan is in place.

## ROADWAY SEGMENT OPERATIONS

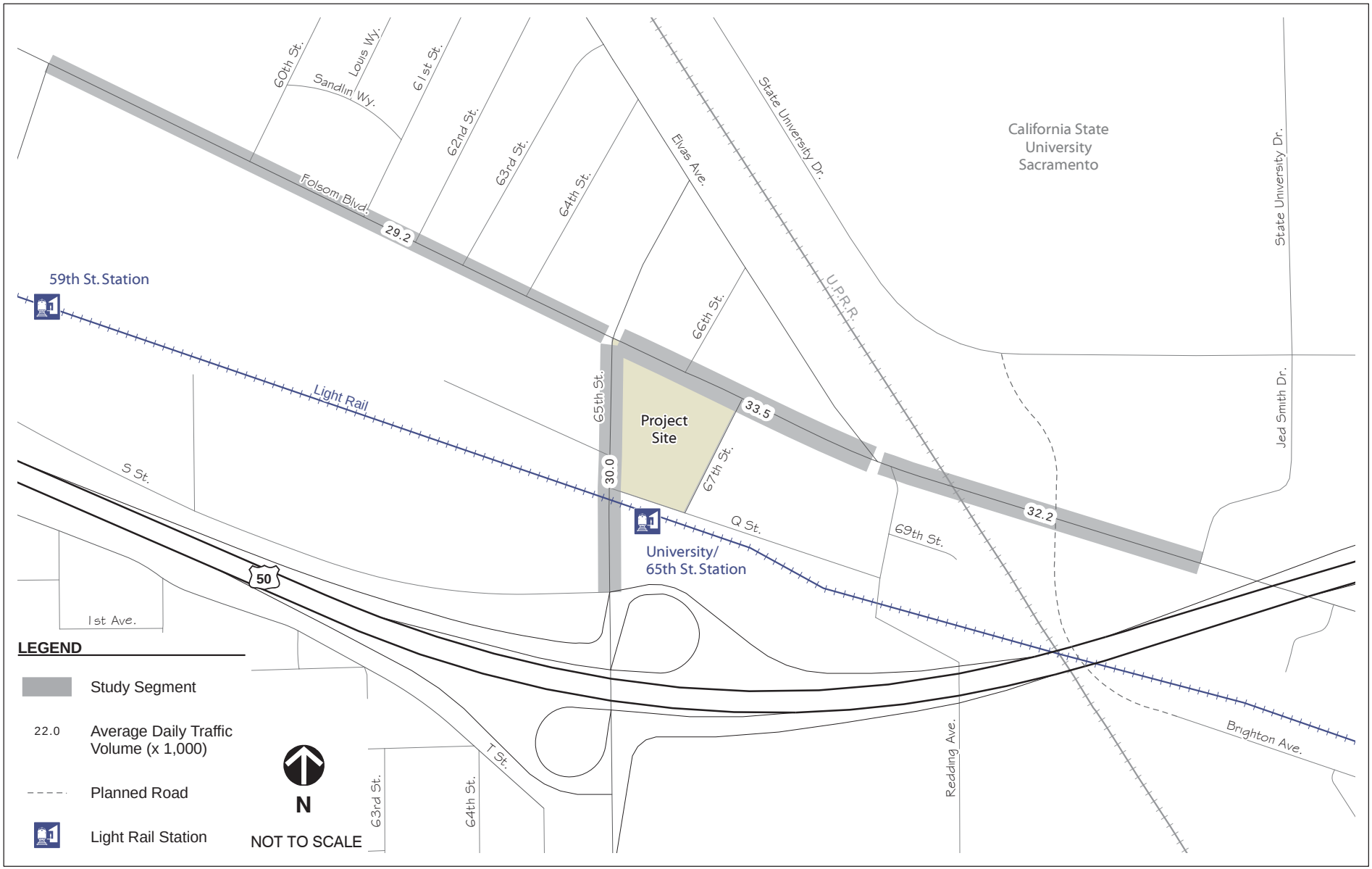
**Figure 4.3-16** shows the cumulative without project daily roadway segment volumes, and **Table 4.3-19** presents the results of the roadway segment LOS analysis.

**TABLE 4.3-19.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – CUMULATIVE WITHOUT PROJECT CONDITIONS

| Roadway Segment | Access Control | Number of Lanes | Average Daily Traffic (ADT) Volume | Level of Service (LOS) |
|---|---|---|---|---|
| 1. Folsom Blvd – from 59th Street to 65th Street | Low | 4 | 29,200 | E |
| 2. Folsom Blvd – from 65th Street to Elvas Avenue | Low | 4 | 33,500 | F |
| 3. Folsom Blvd – from Elvas Avenue to State University Drive East | Moderate | 4 | 32,200 | D |
| 4. 65th Street – from Folsom Boulevard to S Street | Low | 4 | 30,000 | E |

Notes: Bold indicates unacceptable operations (LOS D or worse) under current General Plan. Shaded areas indicate unacceptable operations under draft General Plan (LOS F).

Source: Fehr & Peers, 2008




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-16**

Average Daily Traffic Volumes – Cumulative No Project Conditions

As shown in **Table 4.3-19**, the roadway widening projects proposed under the current General Plan improve traffic operations when compared to baseline conditions. However, even with the widening projects all the roadway segments operate at LOS D or worse.

Under the Draft 2030 General Plan update, the acceptable LOS threshold is LOS E and only the segment of Folsom Boulevard between 65th Street and Elvas Avenue fails to meet this standard.

## INTERSECTION OPERATIONS

**Figure 4.3-17** presents the peak hour turning movement volumes and lane configurations under cumulative without project conditions, and **Table 4.3-20** summarizes the results of the intersection LOS analysis.

As shown in **Table 4.3-20**, the additional capacity planned under the currently adopted General Plan improves intersection operations when compared to baseline conditions. However, several intersections do not meet the LOS C or better threshold established under the current General Plan; these intersections are listed below:

- Folsom Boulevard/65th Street operates at LOS D during the AM peak hour and LOS F during the PM peak hour
- Folsom Boulevard/Elvas Avenue operates at LOS D during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS D during the AM and PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

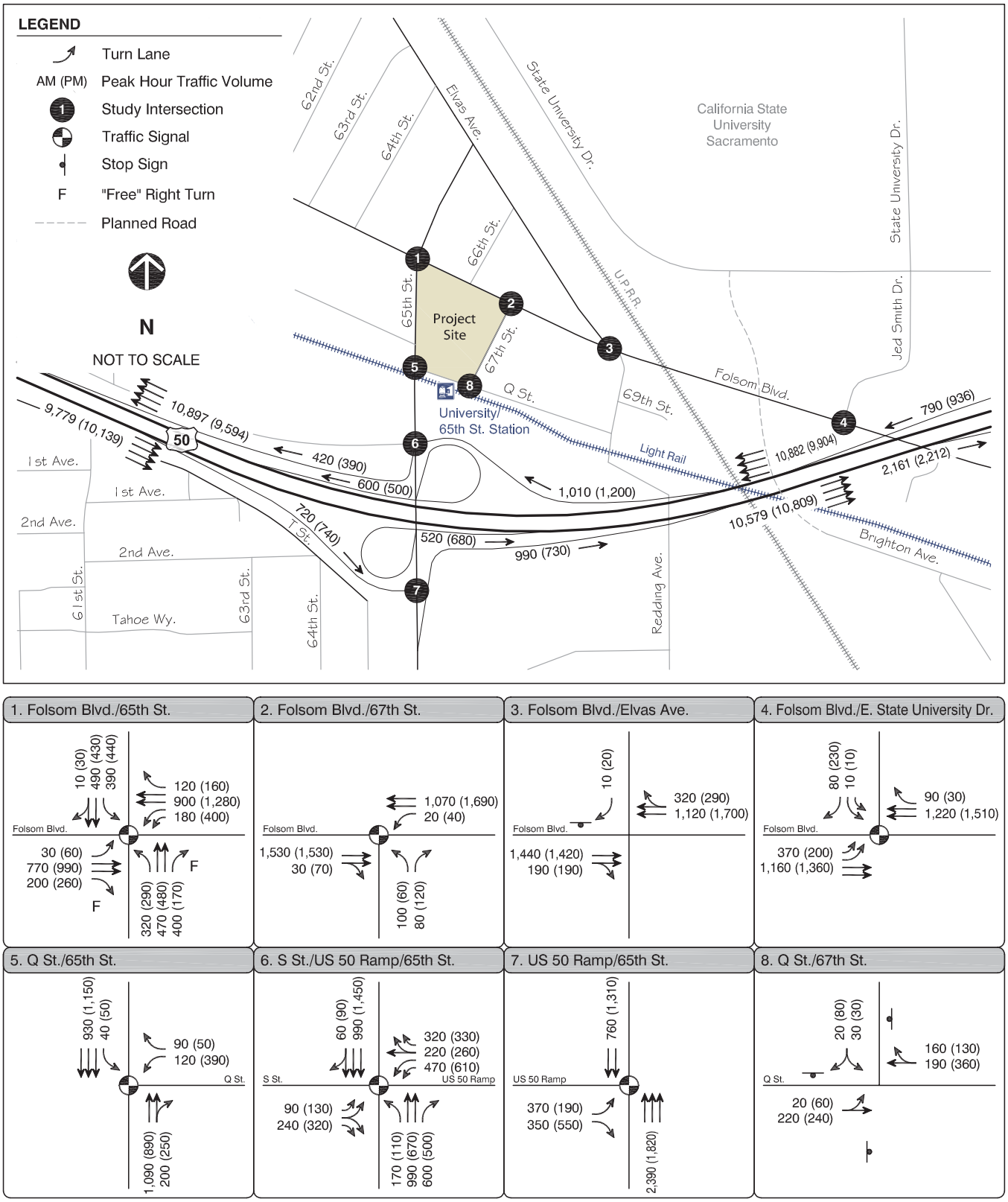
**TABLE 4.3-20.** INTERSECTION OPERATIONS – CUMULATIVE WITHOUT PROJECT CONDITIONS

| Intersection | Control | AM Peak | | PM Peak | |
|---|---|---|---|---|---|
| | | LOS[1] | Delay[2] | LOS[1] | Delay[2] |
| 1. Folsom Boulevard/65th Street | Signalized | D | 43 | F | 92 |
| 2. Folsom Boulevard/67th Street | Signalized | A | 10 | C | 29 |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A<br>(C) | <10<br>(24) | D<br>(E) | 28<br>(46) |
| 4. Folsom Boulevard/State University Drive East | Signalized | B | 12 | B | 15 |
| 5. Q Street/65th Street | Signalized | C | 21 | C | 24 |
| 6. S Street/65th Street/ US 50 WB Off-ramp | Signalized | D | 45 | D | 48 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 20 | C | 30 |
| 8. Q Street/67th Street | All-way Stop | B | 13 | F | 77 |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Source: Fehr & Peers, 2008




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-17**

Peak Hour Traffic Volues and Lane Configurations – Cumulative No Project Conditions

Under the Draft 2030 General Plan LOS E threshold, the following intersections operate unacceptably during either the AM or PM peak hours:

- Folsom Boulevard/65th Street operates at LOS F during the PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

The traffic simulation results indicated much less congested conditions throughout the study area when compared to baseline conditions. The reduction in congestion is related to the roadway widening projects and the more efficient signal timing. However, even with the additional capacity, congestion was observed, particularly in the PM peak hour and some queue spillback was observed at the Folsom Boulevard/67th Street intersection, which causes delays at the Folsom Boulevard/Elvas Avenue intersection. Additionally, queue spillback at the 65th Street/Q Street intersection leads to delays at the 67th Street/Q Street intersection.

## FREEWAY OPERATIONS

**Table 4.3-21** summarizes the results of the baseline without project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-17**.

**TABLE 4.3-21.** FREEWAY OPERATIONS – CUMULATIVE WITHOUT PROJECT CONDITIONS

| Freeway Facility | Type | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|
| | | LOS[1] | Density or Service Flow[2] | Volume[3] | LOS[1] | Density or Service Flow[2] | Volume[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 39.0 | 9,779 | E | 43.1 | 10,139 |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 10,897 | E | 37.2 | 9,594 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | E | 39.4 | 720 | F | 41.1 | 740 |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 38.9 | 420 | C | 27.7 | 390 |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 35.7 | 600 | C | 25.3 | 500 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | C | 27.6 | 520 | F | 31.9 | 680 |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,161 | 10,579 | F | 2,131 | 10,809 |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 1,998 | 10,882 | E | 1,875 | 9,904 |

Notes: [1] LOS = level of service
[2] For mainline, ramp merge, and ramp diverge section, density is measured in passenger car equivalents per mile per lane; for weaving sections, service flow in passenger car equivalents per lane per hour is reported.
[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas). Note that under cumulative conditions, an HOV lane is assumed on the freeway. It is assumed that the HOV lane will be full and will carry 1,800 vehicles per hour in the AM and PM peak hours.
Source: Fehr & Peers, 2008

Overall, the results presented in **Table 4.3-21** indicate that the additional capacity provided by new carpool lanes on US 50 leads to a slight improvement in freeway operations. However, the majority of the freeway facilities operate at LOS F during either the AM or PM peak hour.

US 50 off-ramp queuing was evaluated under cumulative without project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, 875 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 450; storage length, 1,375 feet

The queuing results indicate that US 50 off-ramps will provide adequate queue storage under cumulative without project conditions.

## CUMULATIVE WITH SCENARIO A PROJECT ANALYSIS

This section presents the results of the transportation analysis under cumulative with Scenario A project conditions assuming the currently adopted general plan is in place.

### *Roadway Segment Operations*

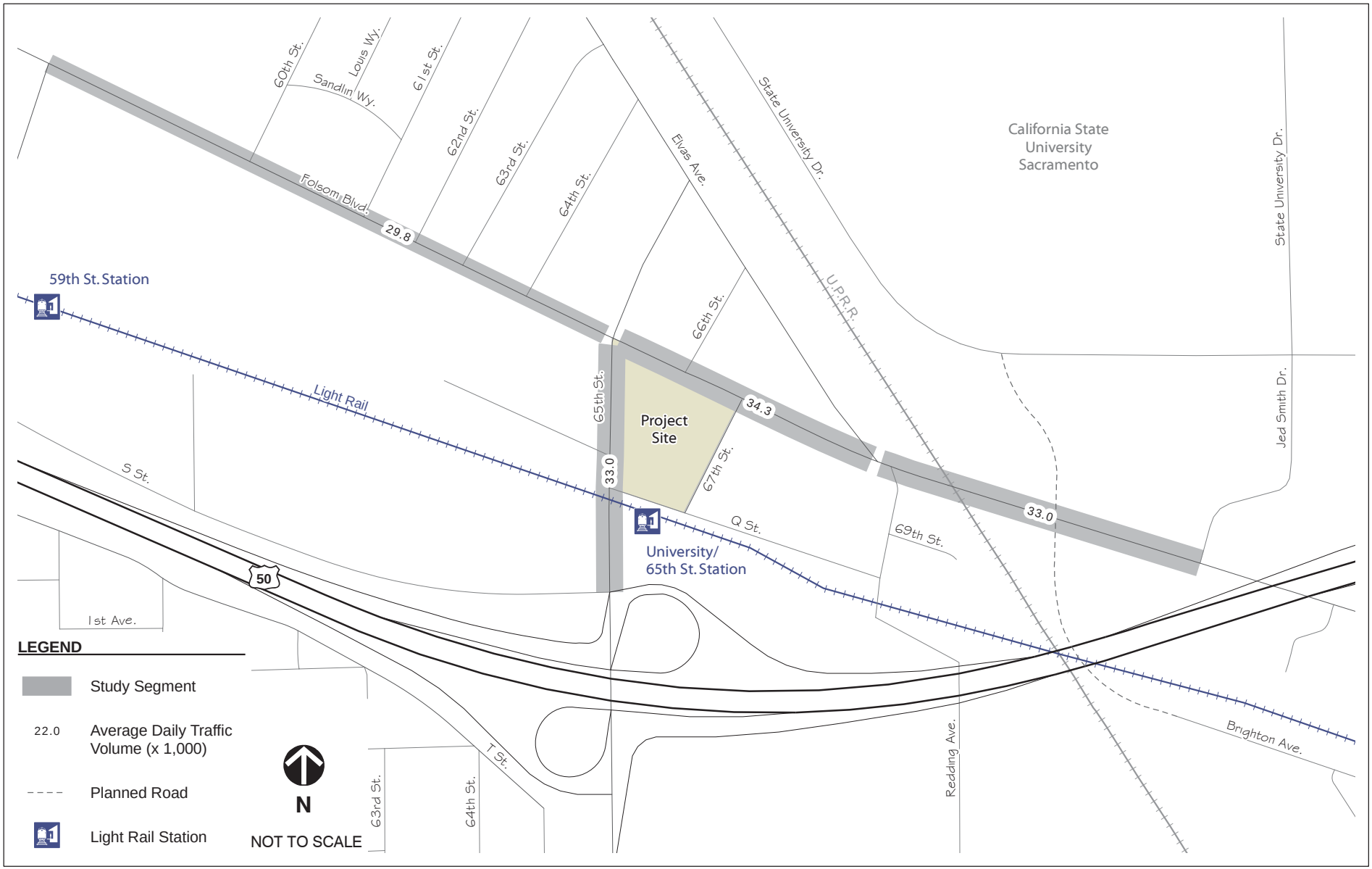
**Figure 4.3-18** shows the cumulative with Scenario A project daily roadway segment volumes, and **Table 4.3-22** presents the results of the roadway segment LOS analysis.

**TABLE 4.3-22.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – CUMULATIVE WITH SCENARIO A PROJECT CONDITIONS

| Roadway Segment | Number of Lanes | Without Project | | With Scenario A Project | | | |
|---|---|---|---|---|---|---|---|
| | | ADT[1] | LOS[2] | Current GP Threshold | | Draft 2030 GP Threshold | |
| | | | | ADT | LOS | ADT | LOS |
| 1. Folsom Blvd – from 59th Street to 65th Street | 4 | 29,200 | E | 29,800 | E | 29,800 | E |
| 2. Folsom Blvd – from 65th Street to Elvas Avenue | 4 | 33,500 | F | **34,300** | **F** | **34,300** | **F** |
| 3. Folsom Blvd – from Elvas Avenue to State University Drive East | 4 | 32,200 | D | **33,000** | **E** | 33,000 | E |
| 4. 65th Street – from Folsom Boulevard to S Street | 4 | 30,000 | E | **33,000** | **F** | **33,000** | **F** |

Notes: [1] ADT = average daily traffic
[2] LOS = level of service
Bold indicates project impact.

Source: Fehr & Peers, 2008




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-18**

Average Daily Traffic Volumes – Cumulative Plus Project Conditions – Scenario A

As shown in **Table 4.3-22**, the addition of traffic from Scenario A degrades LOS on the segment of Folsom Boulevard between Elvas Avenue and State University Drive East from LOS D to LOS E and on the segment of 65th Street between Folsom Boulevard and S Street from LOS E to LOS F. Additionally, project traffic is added to segments of Folsom Boulevard between 59th Street and Elvas Avenue that operate at LOS E or F conditions without the project.

### *Intersection Operations*

**Figure 4.3-19** presents the peak hour turning movement and lane configurations under cumulative with Scenario A project conditions, and **Table 4.3-23** summarizes the results of the intersection LOS analysis.

As shown in **Table 4.3-23**, the results for the cumulative with Scenario A project conditions are similar to the cumulative without project conditions. As was the case under cumulative without project conditions, the following intersections do not meet the currently adopted General Plan LOS threshold:

- Folsom Boulevard/65th Street operates at LOS D during the AM peak hour and LOS F during the PM peak hour
- Folsom Boulevard/Elvas Avenue operates at LOS E during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS D during the AM and PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

Under the Draft 2030 General Plan LOS E threshold, the following intersections operate unacceptably during either the AM or PM peak hours:

- Folsom Boulevard/65th Street operates at LOS F during the PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

### *Freeway Operations*

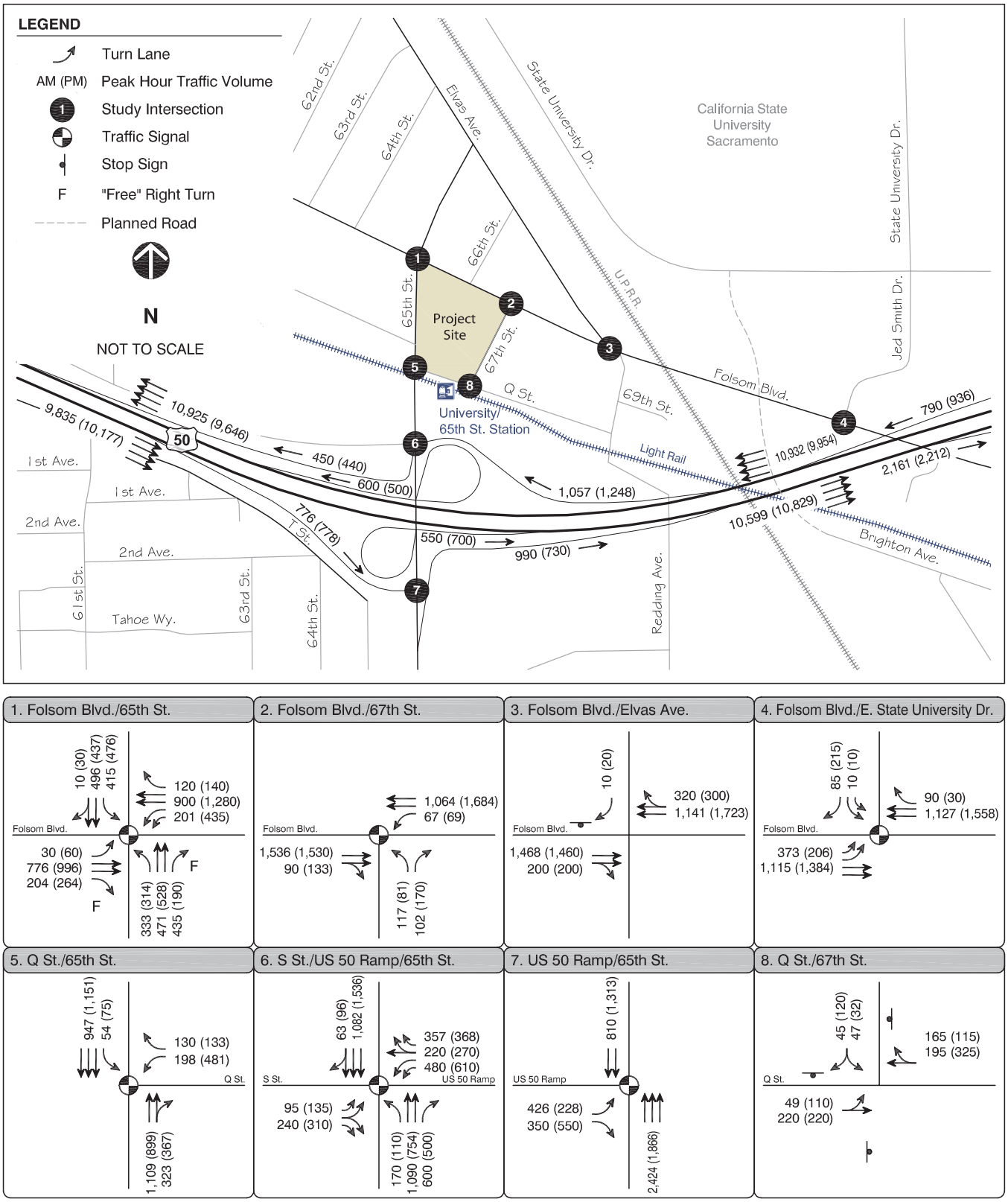
**Table 4.3-24** summarizes the results of the cumulative with Scenario A project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-19**.

**Table 4.3-24** indicates that freeway operations are similar under cumulative without and with Scenario A project conditions. This result is expected as the project adds a relatively small amount of traffic (less than one percent) to the freeway mainline.

US 50 off-ramp queuing was also evaluated under cumulative with Scenario A project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, 875 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 475; storage length, 1,375 feet

The queuing results indicate that US 50 off-ramps will provide adequate queue storage under cumulative with Scenario A project conditions.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-19**

Peak Hour Traffic Volumes and Lane Configurations – Cumulative Conditions – Scenario A

**TABLE 4.3-23.** INTERSECTION OPERATIONS – CUMULATIVE WITH SCENARIO A PROJECT CONDITIONS

| Intersection | Control | Without Project | | | | With Scenario A Project | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | PM Peak | | Current GP Threshold | | | | Draft 2030 GP Threshold | | | |
| | | | | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay |
| 1. Folsom Boulevard/65th Street | Signalized | D | 43 | F | 92 | D | 46 | F | 94 | D | 46 | F | 94 |
| 2. Folsom Boulevard/67th Street | Signalized | A | 10 | C | 29 | B | 11 | C | 30 | B | 11 | C | 30 |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A (C) | <10 (24) | D (E) | 28 (46) | A (A) | <10 (<10) | D (E) | 33 (38) | A (A) | <10 (<10) | D (E) | 33 (38) |
| 4. Folsom Boulevard/State University Drive East | Signalized | B | 12 | B | 15 | B | 12 | B | 14 | B | 12 | B | 14 |
| 5. Q Street/65th Street | Signalized | C | 21 | C | 24 | C | 28 | C | 22 | C | 28 | C | 22 |
| 6. S Street/65th Street/US 50 WB Off-ramp | Signalized | D | 45 | D | 48 | **D** | **54** | D | 51 | **D** | **54** | D | 51 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 20 | C | 30 | C | 22 | C | 28 | C | 22 | C | 28 |
| 8. Q Street/67th Street | All-way Stop | B | 13 | F | 77 | E | 40 | **F** | **85** | E | 40 | **F** | **85** |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Bold indicates project impact.

Source: Fehr & Peers, 2008

**TABLE 4.3-24.** FREEWAY OPERATIONS – CUMULATIVE WITH SCENARIO A PROJECT CONDITIONS

| Freeway Facility | Type | Without Project | | | | | | With Scenario A Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | | PM Peak | | | AM Peak | | | PM Peak | | |
| | | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 39.0 | 9,779 | E | 43.1 | 10,139 | E | 39.6 | 9,835 | E | 43.6 | 10,177 |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 10,897 | E | 37.2 | 9,594 | **F** | **>45** | **10,925** | E | 37.6 | 9,646 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | E | 39.4 | 720 | F | 41.1 | 740 | E | 40.0 | **776** | **F** | **41.4** | **778** |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 38.9 | 420 | C | 27.7 | 390 | **F** | **39.2** | **450** | D | 28.1 | **440** |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 35.7 | 600 | C | 25.3 | 500 | F | 35.7 | 600 | C | 25.3 | 500 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | C | 27.6 | 520 | F | 31.9 | 680 | C | 27.9 | 550 | **F** | **32.0** | **700** |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,161 | 10,579 | F | 2,131 | 10,809 | **F** | **2,162** | **10,599** | **F** | **2,135** | **10,829** |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 1,998 | 10,882 | E | 1,875 | 9,904 | **F** | **2,013** | **10,932** | E | 1,892 | 9,954 |

Notes: [1] LOS = level of service

[2] MOE = measure of effectiveness. For mainline, ramp merge, and ramp diverge sections, the MOE is density, measured in passenger car equivalents per mile per lane; for weaving sections, the MOE is service flow, measured in passenger car equivalents per lane.

[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas). Note that under cumulative conditions, an HOV lane is assumed on the freeway. It is assumed that the HOV lane will be full and will carry 1,800 vehicles per hour in the AM and PM peak hours.

Bold indicates a project impact.

Source: Fehr & Peers, 2008

### *Bicycle, Pedestrian, and Transit Operations*

As described under baseline with project conditions, the Station 65 project will make significant improvements to the bicycle and pedestrian systems in front of the project site. It is expected that the Station 65 bicycle and pedestrian enhancements will integrate well with the improvements that will be built by other future projects in the area.

Based on discussions with City and Regional Transit staff, the existing 65th Street transit station will remain in its current configuration under cumulative without project conditions. Therefore, the implementation of the Station 65 project will have a similar impact as described under baseline with project conditions.

As suggested by the results of the intersection operations analysis, the project traffic will lead to additional travel time when compared to the cumulative without project scenario. However, the additional travel time will be less when compared to the baseline condition because of the additional roadway capacity assumed under cumulative conditions.

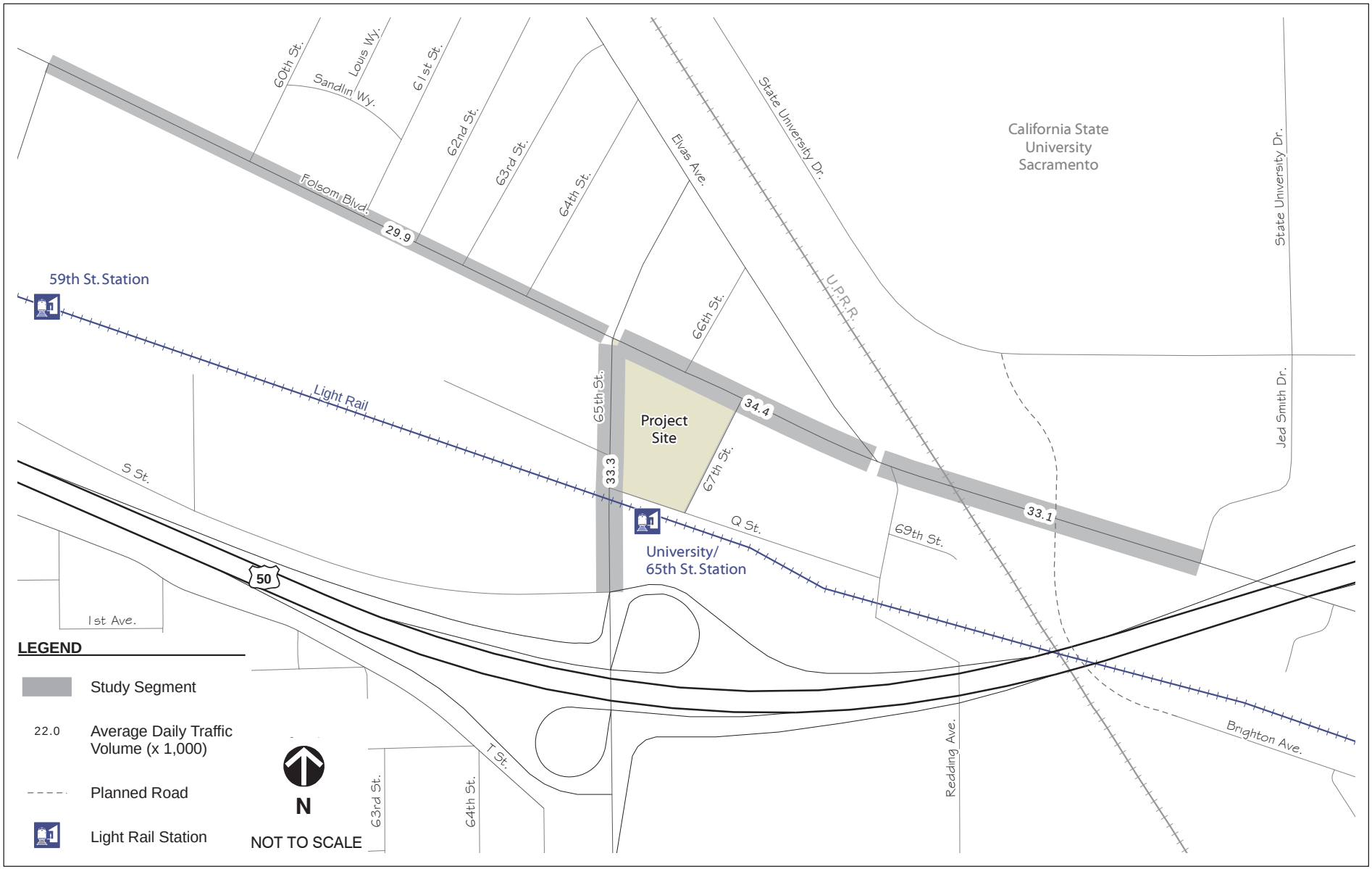
## CUMULATIVE WITH SCENARIO B PROJECT ANALYSIS

This section presents the results of the transportation analysis under cumulative with Scenario B project conditions.

### *Roadway Segment Operations*

**Figure 4.3-20** shows the cumulative with Scenario B project daily roadway segment volumes, and **Table 4.3-25** presents the results of the roadway segment LOS analysis.

As shown in **Table 4.3-25**, the addition of traffic from Scenario B degrades LOS on the segment of Folsom Boulevard between Elvas Avenue and State University Drive East from LOS D to LOS E and on the segment of 65th Street between Folsom Boulevard and S Street from LOS E to LOS F. Additionally, project traffic is added to segments of Folsom Boulevard between 59th Street and Elvas Avenue that operate at LOS E or F conditions without the project.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-20**

Average Daily Traffic Volumes – Cumulative Plus Project Conditions – Scenario B

**TABLE 4.3-25.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – CUMULATIVE WITH SCENARIO B PROJECT CONDITIONS

| Roadway Segment | Number of Lanes | Without Project | | With Scenario B Project | | | |
|---|---|---|---|---|---|---|---|
| | | ADT[1] | LOS[2] | Current GP Threshold | | Draft 2030 GP Threshold | |
| | | | | ADT | LOS | ADT | LOS |
| 1. Folsom Blvd – from 59th Street to 65th Street | 4 | 29,200 | E | **29,900** | **E** | 29,900 | E |
| 2. Folsom Blvd – from 65th Street to Elvas Avenue | 4 | 33,500 | F | **34,400** | **F** | **34,400** | **F** |
| 3. Folsom Blvd – from Elvas Avenue to State University Drive East | 4 | 32,200 | D | **33,100** | **E** | 33,100 | E |
| 4. 65th Street – from Folsom Boulevard to S Street | 4 | 30,000 | E | **33,300** | **F** | **33,300** | **F** |

Notes: [1] ADT = average daily traffic
[2] LOS = level of service
Bold indicates project impact.

Source: Fehr & Peers, 2008

### *Intersection Operations*

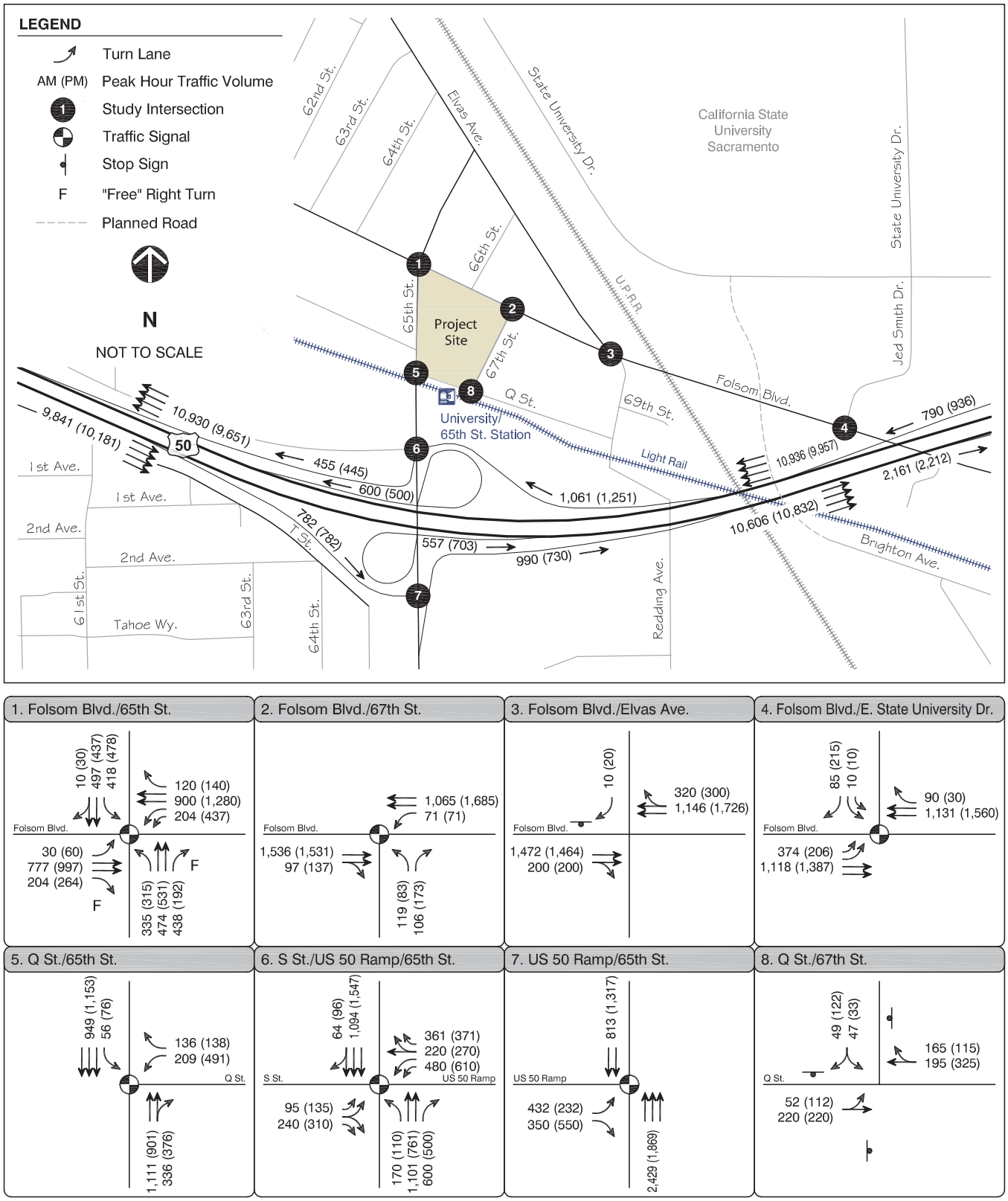
**Figure 4.3-21** presents the peak hour turning movement and lane configurations under cumulative with Scenario B project conditions, and **Table 4.3-26** summarizes the results of the intersection LOS analysis.

As shown in **Table 4.3-26**, the results for the cumulative with Scenario B project conditions are similar to the cumulative without project conditions. The following intersections do not meet the currently adopted General Plan LOS threshold:

- Folsom Boulevard/65th Street operates at LOS D during the AM peak hour and LOS F during the PM peak hour
- Folsom Boulevard/Elvas Avenue operates at LOS D during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS E during the AM and PM peak hour
- Q Street/67th Street operates at LOS F during the AM and PM peak hour

Under the Draft 2030 General Plan LOS E threshold, the following intersections operate unacceptably during either the AM or PM peak hours:

- Folsom Boulevard/65th Street operates at LOS F during the PM peak hour
- Q Street/67th Street operates at LOS F during the AM and PM peak hour




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-21**

Peak Hour Traffic Volumes and Lane Configurations – Cumulative Conditions – Scenario B

**TABLE 4.3-26.** INTERSECTION OPERATIONS – CUMULATIVE WITH SCENARIO B PROJECT CONDITIONS

| Intersection | Control | Without Project | | | | With Scenario BProject | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | PM Peak | | Current GP Threshold | | | | Draft 2030 GP Threshold | | | |
| | | | | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay |
| 1. Folsom Boulevard/65th Street | Signalized | D | 43 | F | 92 | **D** | **49** | F | 93 | D | 49 | F | 93 |
| 2. Folsom Boulevard/67th Street | Signalized | A | 10 | C | 29 | B | 12 | C | 31 | B | 12 | C | 31 |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A (C) | <10 (24) | D (E) | 28 (46) | A (A) | <10 (<10) | D (E) | 30 (50) | A (A) | <10 (<10) | D (E) | 30 (50) |
| 4. Folsom Boulevard/State University Drive East | Signalized | B | 12 | B | 15 | B | 12 | B | 17 | B | 12 | B | 17 |
| 5. Q Street/65th Street | Signalized | C | 21 | C | 24 | C | 26 | C | 23 | C | 26 | C | 23 |
| 6. S Street/65th Street/US 50 WB Off-ramp | Signalized | D | 45 | D | 48 | **E** | **58** | **E** | **56** | E | 58 | E | 56 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 20 | C | 30 | C | 21 | C | 25 | C | 21 | C | 25 |
| 8. Q Street/67th Street | All-way Stop | B | 13 | F | 77 | **F** | **58** | **F** | **90** | **F** | **58** | **F** | **90** |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Bold indicates project impact.

Source: Fehr & Peers, 2008

### *Freeway Operations*

**Table 4.3-27** summarizes the results of the cumulative with Scenario B project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-21**.

**Table 4.3-27** indicates that freeway operations are similar under cumulative without and with Scenario B project conditions. This result is expected as the project adds a relatively small amount of traffic (less than one percent) to the freeway mainline.

US 50 off-ramp queuing was also evaluated under cumulative with Scenario B project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, 950 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 400; storage length, 1,375 feet

The queuing results indicate that US 50 off-ramps will provide adequate queue storage under cumulative with Scenario B project conditions.

### *Bicycle, Pedestrian, and Transit Operations*

The changes to the bicycle, pedestrian, and transit systems under the Scenario B development plan will generally be similar to those described under the Scenario A plan. However, as shown in the intersection operations analysis, the additional project traffic will lead to a slight increase in bus travel times when compared to cumulative without project conditions.

## 4.3.8 IMPACTS AND MITIGATION

This section contains the project-specific impact statements and mitigation measures for the roadway system, bicycle and pedestrian systems, and transit systems under baseline conditions and cumulative conditions.

The study roadway segments and intersections have two project scenarios and two impact evaluation methodologies (current General Plan LOS policy and Draft 2030 General Plan LOS policy).

### BASELINE CONDITIONS IMPACTS AND MITIGATIONS

This section describes the impacts and mitigation measures under baseline with Station 65 project conditions.

**TABLE 4.3-27.** FREEWAY OPERATIONS – CUMULATIVE WITH SCENARIO B PROJECT CONDITIONS

| Freeway Facility | Type | Without Project | | | | | | With Scenario B Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | | PM Peak | | | AM Peak | | | PM Peak | | |
| | | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 39.0 | 9,779 | E | 43.1 | 10,139 | E | 39.7 | 9,841 | E | 43.7 | 10,181 |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 10,897 | E | 37.2 | 9,594 | **F** | **>45** | **10,930** | E | 37.7 | 9,651 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | E | 39.4 | 720 | F | 41.1 | 740 | E | 40.1 | **782** | **F** | **41.5** | **782** |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 38.9 | 420 | C | 27.7 | 390 | **F** | **39.2** | **455** | D | 28.2 | **445** |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 35.7 | 600 | C | 25.3 | 500 | **F** | **35.7** | 600 | C | 25.3 | 500 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | C | 27.6 | 520 | F | 31.9 | 680 | C | 27.9 | 557 | **F** | **32.0** | **703** |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,161 | 10,579 | F | 2,131 | 10,809 | **F** | **2,163** | **10,606** | **F** | **2,136** | **10,832** |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 1,998 | 10,882 | E | 1,875 | 9,904 | **F** | **2,018** | **10,936** | E | 1,895 | 9,957 |

Notes: [1] LOS = level of service

[2] MOE = measure of effectiveness. For mainline, ramp merge, and ramp diverge sections, the MOE is density, measured in passenger car equivalents per mile per lane; for weaving sections, the MOE is service flow, measured in passenger car equivalents per lane.

[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas). Note that under cumulative conditions, an HOV lane is assumed on the freeway. It is assumed that the HOV lane will be full and will carry 1,800 vehicles per hour in the AM and PM peak hours.

Bold indicates a project impact.

Source: Fehr & Peers, 2008

### *4.3-1 Roadway Segments*

**Impact**

**4.3-1-1 Folsom Boulevard between 59th Street and 65th Street**

Under either development scenario, the addition of project traffic does not cause the LOS on this roadway segment to degrade below LOS C conditions. Therefore, this impact is considered less than significant under the currently adopted General Plan and the Draft General Plan LOS thresholds. **Less than Significant.**

**Mitigation Measures**: None required.

**Impact**

**4.3-1-2 Folsom Boulevard between 65th Street and State University Drive East**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under Scenario A conditions, the project adds traffic to a roadway segment operating at LOS F under baseline without project conditions, increasing the volume to capacity ratio by 0.05, which exceeds the City's 0.02 threshold. The Scenario B project increases the volume to capacity ratio by 0.06. These impacts are considered *significant* under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this roadway segment from the generally applicable LOS threshold under certain conditions. However, that DEIR acknowledges that the resulting impact will be significant and unavoidable.

The impacts described above could be mitigated to a less than significant level by adding one lane of roadway capacity, which would result in a decrease in volume to capacity ratios when compared to baseline without project conditions. However, the City is currently studying a revised circulation and financing plan for the 65th Street University TVP area to more closely conform to the pedestrian and transit orientation goals and policies of the TVP. The 65th Street Station Area Study and financing plan is anticipated to be presented to the City Council by June 2009 for adoption. Widening Folsom Boulevard may be seen as inconsistent with those goals and policies and, therefore, requiring the widening at this time is determined to be infeasible, as the widening may conflict with what is eventually adopted for the area. The project will be required to participate in whatever financing mechanism is in place at the time of issuance of building permits to fund, on a fair-share basis, the cost of installation of the improvements. Implementation of Mitigation Measure 4.3-1-1 may not reduce the impact of the project development to a less-than-significant level because the certainty and the effectiveness of the mitigation measure cannot be guaranteed at the time. For this reason, the impact would remain significant and unavoidable. **Significant and Unavoidable**.

**Mitigation Measures**: 4.3-1-1 The project will be required to participate in whatever financing mechanism is in place at the time of issuance of building permits to fund, on a fair-share basis, the cost of installation of the improvements.

**Figure 4.3-22** shows the proposed mitigation.

**Impact**

**4.3-1-3 65th Street between Folsom Boulevard and S Street**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under both development scenarios, the project causes roadway segment LOS to degrade from LOS E to LOS F, while increasing the volume to capacity ratio by 0.1. This impact is considered *significant* under both the currently adopted General Plan and the Draft General Plan LOS thresholds. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this roadway segment from the generally applicable LOS threshold under certain conditions. However, that DEIR acknowledges that the resulting impact will be significant and unavoidable.

The impacts described above could be mitigated to a less than significant level by adding one lane of roadway capacity, which would result in a decrease in volume to capacity ratios when compared to baseline without project conditions. However, the City is currently studying a revised circulation and financing plan for the 65th Street University TVP area to more closely conform to the pedestrian and transit orientation goals and policies of the TVP. The 65th Street Station Area Study and financing plan is anticipated to be presented to the City Council by June 2009 for adoption. Widening 65th Street may be seen as inconsistent with those goals and policies and, therefore, requiring the widening at this time is determined to be infeasible, as the widening may conflict with what is eventually adopted for the area. The project will be required to participate in whatever financing mechanism is in place at the time of issuance of building permits to fund, on a fair-share basis, the cost of installation of the improvements. Implementation of Mitigation Measure 4.3-1-2 may not reduce the impact of the project development to a less-than-significant level because the certainty and the effectiveness of the mitigation measure cannot be guaranteed at the time. For this reason, the impact would remain significant and unavoidable. **Significant and Unavoidable.**

**Mitigation Measures**: 4.3-1-2: Implement Mitigation Measure4.3-1-1

**Figure 4.3-22** shows the proposed mitigation.

## *4.3-2 Intersections*

### Impact

### 4.3-2-1 Folsom Boulevard/65th Street Intersection

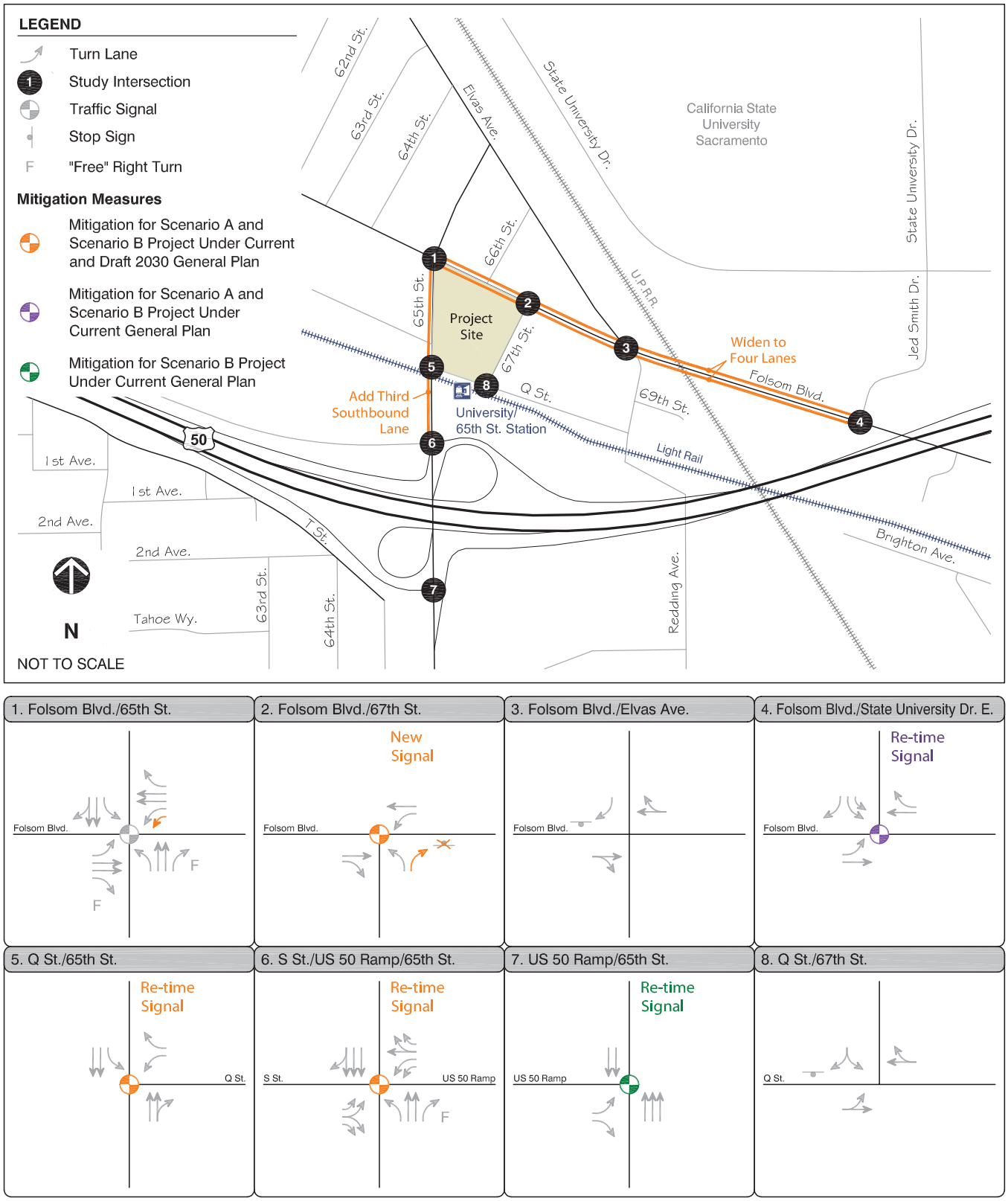
| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under both Station 65 development scenarios, the addition of project traffic exacerbates unacceptable LOS F conditions in the PM peak hour and adds more than five seconds of average delay at the intersection. This is considered a *significant impact* as defined by both the currently adopted General Plan and the Draft 2030 General Plan. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this intersection from the generally applicable LOS threshold under certain conditions. Therefore, the DEIR acknowledges that the resulting impact will be significant and unavoidable.

The impacts described above could be mitigated to a less than significant level by constructing a second westbound left-turn lane at the Folsom Boulevard/65th Street intersection .The construction of the a second westbound left-turn would reduce overall intersection delay such that it is within five seconds of the baseline without project condition. However, as explained above, construction of a second westbound left turn is infeasible since it may be seen as inconsistent with the pedestrian and transit goals and policies of the 65th Street University village TVP and the subject on going study. The project will be required to participate in whatever financing mechanism is in place at the time of issuance of building permits to fund, on a fair-share basis, the cost of installation of the improvement.

Implementation of Mitigation Measure 4.3-1-2 may not reduce the impact of the project development to a less-than-significant level because the certainty and effectiveness of the mitigation measure cannot be guaranteed to fully mitigate the impact. For this reason, the impact would remain significant and unavoidable. **Significant and Unavoidable.**

**Mitigation Measures:** 4.3-2-1 Implement Mitigation Measure 4.3-1-1




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-22**

Mitigation Measures – Baseline Conditions

**Impact**

### 4.3-2-2 Folsom Boulevard/67th Street Intersection

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under both Station 65 development scenarios, the addition of project traffic causes intersection operations to degrade from LOS D and LOS E in the AM and PM peak hours, respectively, to LOS F in the AM and PM peak hours. The addition of project traffic also adds more than five seconds of average delay at the intersection. This is considered a *significant impact* as defined by both the currently adopted General Plan and the Draft 2030 General Plan. However, the DEIR for the 2030 General Plan contains a mitigation measure to exempt this intersection from the LOS threshold, which would lead to a less than significant impact at this intersection.

To mitigate the impacts described above, the implementation of **Mitigation Measure 4.3-2-2** would reduce overall intersection delay and provide LOS C or better conditions. **Less than Significant with Mitigation.**

**Mitigation Measure 4.3-2-2:** The project applicant shall construct a traffic signal at the Folsom Boulevard/67th Street intersection and ensure that separate right and left-turn lanes are constructed on the northbound approach to the intersection.

A signal warrant analysis was performed under AM and PM peak hour conditions for the baseline with Scenario A project condition. The Scenario A project met the signal warrants, and since the Scenario B project generates slightly more traffic, it will also meet the AM and PM peak hour signal warrants.

Note that Folsom Boulevard currently has two eastbound lanes that extend approximately 25 feet east of the 67th Street intersection. The installation of a traffic signal at 67th Street would create a merging hazard if this short lane is maintained. The design of the traffic signal should ensure that this short merging section is eliminated. The final design of the intersection and signal design will be subject to review and approval by the City of Sacramento Department of Transportation.

The project applicant shall enter into agreement with the City that if a finance plan is later adopted and implemented that includes the signal, the applicant shall be considered for credits or reimbursement for cost incurred beyond its fair share.

**Figure 4.3-22** shows the proposed mitigation, and **Tables 4-28** and **4-29** present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively.

**Impact**

### 4.3-2-3 Folsom Boulevard/Elvas Avenue Intersection

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | |
| Scenario B | ✓ | |

Under both Station 65 development scenarios, the addition of project traffic degrades intersection operations from LOS C to an unacceptable LOS D or worse during the PM peak hour. This is considered a significant impact as defined by the currently adopted General Plan LOS threshold.

However, neither development scenario causes the intersection to deteriorate to LOS F conditions. Therefore, this impact is considered less than significant as defined by the Draft 2030 General Plan.

The delay at this intersection is caused by congestion spilling back from the Folsom Boulevard/65th Street and Folsom Boulevard/67th Street intersections. By implementing **Mitigation Measures 4.3-2-1** and **4.3-2-2**, overall intersection delays would be within five seconds of the baseline without project condition. Therefore, the impact is **less than significant** with mitigation. **Less than Significant with Mitigation**.

> **Mitigation Measure 4.3-2-3:** Implement Mitigation Measures 4.3-2-1 and 4.3-2-2.
>
> **Figure 4.3-22** shows the proposed mitigation, and **Tables 4-28** and **4-29** present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively.

**Impact**

### 4.3-2-4 Folsom Boulevard/State University Drive East Intersection

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | |
| Scenario B | ✓ | |

Under both Station 65 development scenarios, the addition of project traffic exacerbates unacceptable LOS D conditions in the PM peak hour and adds more than five seconds of average delay at the intersection. This is considered a significant impact as defined by the currently adopted General Plan.

However, neither development scenario causes the intersection to deteriorate to LOS F conditions. Therefore, this impact is considered less than significant as defined by the Draft 2030 General Plan

The implementation of **Mitigation Measure 4.3-2-4** would reduce overall intersection delay and provide LOS C or better conditions. **Less than Significant with Mitigation**.

> **Mitigation Measures 4.3-2-4:** The project applicant shall pay for the City of Sacramento Traffic Operations Center to monitor and re-time the Folsom Boulevard/State University Drive East traffic signal, when required, to optimize flow through the intersection.
>
> **Figure 4.3-22** shows the proposed mitigation, and **Tables 4-28** and **4-29** present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively.

**Impact**

**4.3-2-5 65th Street/Q Street Intersection**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under both Station 65 development scenarios, the addition of project traffic degrades intersection operations from LOS D to LOS F conditions in the PM peak hour while adding more than five seconds of overall delay. This is considered a significant impact as defined by both the currently adopted General Plan and the Draft 2030General Plan. However, the DEIR for the 2030 General Plan contains a mitigation measure to exempt this intersection from the LOS threshold, which would lead to a less than significant impact at this intersection.

To mitigate the impacts described above, the implementation of **Mitigation Measure 4.3-2-5** would reduce overall intersection delay such that it is within five seconds of the baseline without project condition. **Less than Significant with Mitigation**.

> **Mitigation Measures 4.3-2-5:** The project applicant shall pay a fair share contribution to the City of Sacramento Traffic Operations Center to monitor and re-time the 65th Street/Q Street traffic signal, when required, to optimize flow through the intersection.
>
> It is important to note that this mitigation measure was also identified under baseline with project conditions for the South 65th Street Center (Target project), the 65th Street Transit Village project, and other projects. **Figure 4.3-22** shows the proposed mitigation, and **Tables 4-28** and **4-29** present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively.

**Impact**

**4.3-2-6 65th Street/S Street/US 50 Westbound Off-ramp Intersection**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under both Station 65 development scenarios, the addition of project traffic degrades intersection operations from LOS E to LOS F in the AM peak hour while adding more than five seconds of overall delay. Additionally, project traffic exacerbates unacceptable LOS F conditions in the PM peak hour. This is considered a significant impact as defined by both the currently adopted General Plan and the Draft 2030 General Plan. However, the DEIR for the 2030 General Plan contains a mitigation measure to exempt this intersection from the LOS threshold, which would lead to a less than significant impact at this intersection.

To mitigate the impacts described above, the implementation of **Mitigation Measure 4.3-2-6** would reduce overall intersection delay such that it is within five seconds of the baseline without project condition. **Less than Significant with Mitigation**.

> **Mitigation Measures 4.3-2-6:** The project applicant shall pay a fair share contribution to the City of Sacramento Traffic Operations Center to monitor and re-time the 65th Street/S Street/US 50 Westbound Off-ramp traffic signal to optimize flow through the intersection, when required.
>
> It is important to note that this mitigation measure was also identified under baseline with project conditions for the South 65th Street Center (Target project), the 65th Street Transit Village project, and other projects. **Figure 4.3-22** shows the proposed mitigation, and **Tables 4-28** and **4-29** present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively.

**Impact**

**4.3-2-7 65th Street/US 50 Eastbound Off-ramp Intersection**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | | |
| Scenario B | ✓ | |

Under Scenario B, the addition of project traffic degrades intersection operations from LOS C to LOS D in the PM peak hour. This is considered a significant impact as defined by the currently adopted General Plan.

The implementation of **Mitigation Measure 4.3-2-7** would reduce overall intersection delay such that it is within five seconds of the baseline without project condition. **Less than Significant with Mitigation**.

> **Mitigation Measures 4.3-2-7:** The project applicant shall pay a fair share contribution to the City of Sacramento Traffic Operations Center to monitor and re-time the 65th Street/US 50 Eastbound Off-ramp traffic signal, when required, to optimize flow through the intersection.
>
> It is important to note that this mitigation measure was also identified under baseline with project conditions for the South 65th Street Center (Target project), the 65th Street Transit Village project, and other projects. **Figure 4.3-22** shows the proposed mitigation, and **Tables 4-28** and **4-29** present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively.

**Impact**

**4.3-2-8 Q Street/67th Street Intersection**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under both scenarios, the addition of project traffic degrades intersection operations from LOS A to LOS F in the PM peak hour. The degraded operations at this intersection are caused by queue spillback from the 65th Street/Q Street intersection. This is considered a significant impact as defined by both the currently adopted General Plan and the Draft 2030 General Plan.

The implementation of **Mitigation Measure 4.3-2-5** would reduce overall intersection delay and improve operations to LOS D conditions for the Scenario A project and LOS E conditions for the Scenario B project.

Therefore, the impact is less than significant with mitigation when considering the Draft 2030 LOS thresholds. However, even with the mitigation measure, the intersection degrades from LOS A conditions without the project to LOS D or worse conditions with the addition of either project scenario. Additional time could be allocated to the westbound movement at the 65th Street/Q Street intersection, which would reduce the significance of the impact at the Q Street/67th Street intersection. However, by allocating more westbound time, northbound and southbound delays would increase and would degrade the operations at the 65th Street/Q Street intersection significantly.

Additionally, intersection operations could be improved by adding lanes to Q Street between 65th Street and 67th Street and by adding a southbound left-turn lane at the Q Street/67th Street intersection. However, these improvements would increase the crossing distance of pedestrians between the light rail platform and the bus stops immediately in front of the project site. This improvement would conflict with the pedestrian-oriented theme of the 65th Street transit station and the Station 65 project.

A traffic signal with eastbound protected-permissive left-turn phasing could be installed at this location. The traffic signal would have to be coordinated with the Q Street/65th Street intersection to minimize conflicts between the signals and it is recommended that a crosswalk be striped on the east leg of the intersection. The installation of a traffic signal would not significantly reduce delays at the intersection, but the LOS would improve since there are different LOS thresholds for signalized and unsignalized intersections. A peak hour signal warrant was evaluated at this location and the results indicate that this location does not meet the peak hour traffic volume warrant. However, given the proximity of the intersection to the light rail station, it is probable that the intersection would meet one of the pedestrian-based signal warrants. Therefore the installation of a traffic signal would have a secondary beneficial impact of improving the pedestrian crossing environment at this location.

The installation of the Q Street/67th traffic signal would provide acceptable LOS C conditions under the Scenario A alternative, which would reduce the significance of this intersection to a **less than significant** level. However, because the new signal operates at LOS D conditions under the Scenario B alternative, this impact is considered **significant and unavoidable** under the currently adopted General Plan LOS threshold.

**Mitigation Measures:** 4.3-2-8

a. Implement Mitigation Measure 4.3-2- 5

b. The project applicant shall construct a traffic signal at the Q Street/67th Street intersection and enter into agreement with the City that if a finance plan is later adopted and implemented that includes the signal, the applicant shall be considered for credits or reimbursement for cost incurred beyond its fair share.

**Figure 4.3-22** shows the proposed mitigation, and **Tables 4-28** and **4-29** present the LOS results for Scenario A with mitigation and Scenario B with mitigation, respectively.

### Impact

### 4.3-3 Freeway Facilities

Both the Scenario A and Scenario B development alternatives would add traffic to freeway facilities that operate at LOS F conditions during either the AM or PM peak hour under baseline without project conditions. The impacted freeway facilities are listed below:

- Eastbound US 50 mainline segment from 59th Street to 65th Street – PM peak hour
- Westbound US 50 mainline segment from 65th Street to 59th Street – AM peak hour

**TABLE 4.3-28.** INTERSECTION OPERATIONS – BASELINE WITHOUT PROJECT AND WITH SCENARIO A PROJECT WITH AND WITHOUT MITIGATION

| Intersection | Control | Without Project | | | | With Scenario A Project | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | PM Peak | | Without Mitigation | | | | With Mitigation | | | |
| | | | | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay |
| 1. Folsom Boulevard/65th Street | Signalized | E | 58 | F | 80 | E | 67 | F | 88 | E | 67 | F | 88 |
| 2. Folsom Boulevard/67th Street | Signalized | A (E) | <10 (46) | B (D) | 12 (27) | C (F) | 17 (110) | E (F) | 39 (>500) | B | 19 | C | 25 |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A (B) | <10 (12) | C (D) | 17 (28) | A (B) | <10 (15) | D (F) | 34 (58) | -[3] | - | C (D) | 19 (29) |
| 4. Folsom Boulevard/State University Drive East | Signalized | C | 34 | D | 36 | C | 29 | E | 55 | - | - | C | 28 |
| 5. Q Street/65th Street | Signalized | C | 23 | D | 42 | C | 31 | F | 89 | - | - | D | 44 |
| 6. S Street/65th Street/US 50 WB Off-ramp | Signalized | E | 71 | F | 125 | F | 117 | F | 203 | D | 55 | E | 64 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 13 | C | 21 | B | 16 | C | 31 | - | - | - | - |
| 8. Q Street/67th Street | All-way Stop | A (A) | <10 (<10) | A (A) | <10 (<10) | A (C) | <10 (16) | F (F) | 164 (475) | - | - | D (F) | 34 (81) |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Source: Fehr & Peers, 2008

**TABLE 4.3-29:** INTERSECTION OPERATIONS – BASELINE WITHOUT PROJECT AND WITH SCENARIO B PROJECT WITH AND WITHOUT MITIGATION

| Intersection | Control | Without Project | | | | With Scenario B Project | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | PM Peak | | Without Mitigation | | | | With Mitigation | | | |
| | | | | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay |
| 1. Folsom Boulevard/65th Street | Signalized | E | 58 | F | 80 | E | 62 | F | 141 | E | 62 | F | 141 |
| 2. Folsom Boulevard/67th Street | Signalized | A (E) | <10 (46) | B (D) | 12 (27) | C (F) | 19 (127) | F (F) | 54 (>500) | B | 19 | C | 28 |
| 3. Folsom Boulevard/Elvas Avenue | Side Street Stop | A (B) | <10 (12) | C (D) | 17 (28) | C (D) | 15 (32) | E (F) | 41 (67) | -[3] | - | C (E) | 21 (35) |
| 4. Folsom Boulevard/State University Drive East | Signalized | C | 34 | D | 36 | D | 46 | E | 67 | - | - | C | 29 |
| 5. Q Street/65th Street | Signalized | C | 23 | D | 42 | C | 34 | F | 114 | - | - | D | 44 |
| 6. S Street/65th Street/US 50 WB Off-ramp | Signalized | E | 71 | F | 125 | F | 150 | F | 281 | E | 58 | E | 70 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | B | 13 | C | 21 | B | 17 | D | 54 | - | - | B | 16 |
| 8. Q Street/67th Street | Signalized | A (A) | <10 (<10) | A (A) | <10 (<10) | B (C) | 12 (18) | F (F) | 260 (>500) | - | - | E (F) | 38 (82) |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Source: Fehr & Peers, 2008

- Eastbound US 50 off-ramp diverge area at 65th Street – AM and PM peak hour
- Westbound US 50 slip on-ramp merge area from 65th Street – AM peak hour
- Westbound US 50 loop on-ramp merge area from 65th Street – AM peak hour
- Eastbound US 50 loop on-ramp merge area from 65th Street – AM and PM peak hour
- Eastbound US 50 weaving area between 65th Street and Howe Avenue – AM and PM peak hour
- Westbound US 50 weaving area between Howe Avenue/Hornet Drive and 65th Street – AM and PM peak hour

While either project scenario increases freeway mainline traffic volumes by less than one percent, freeway facility density and service flow increase measurably. Based on Caltrans' standards, this is considered a significant impact.

Given that the Station 65 project is already a transit-oriented development, freeway impacts could be reduced by encouraging additional residents and workers at the Station 65 project to take transit. This could be achieved by implementing **Mitigation Measure 4.3-3**. This mitigation measure would reduce peak hour freeway volumes through the establishment of a travel demand management (TDM) program. The TDM program could include incentives to take transit, carpool, bike, or walk, or it could include pricing mechanisms (e.g., peak period parking charges) to make it more costly to travel at peak times. While this mitigation measure is feasible to implement and would lead to a reduction in overall peak period auto trips, it cannot be guaranteed that enough trips would shift away from the freeway to reduce the freeway facility impacts to a less than significant level.

Because the mitigation measures identified above are either infeasible or would not reduce the significance of the freeway impact to a less than significant level, this impact remains significant and unavoidable. **Significant and Unavoidable**.

**Mitigation Measure 4.3-3:** Establish a Travel Demand Management program for the Station 65 project.

### Impact

### 4.3-4 Freeway Ramp Queuing

Under both project scenarios, the addition of project-related traffic would cause the ramp queue at the Westbound US 50 off-ramp to extend beyond the available storage length. This is considered a significant impact.

This off-ramp queuing impact was also identified in the 65th Street Transit Village Plan EIR and mitigation was proposed to widen the US 50 westbound off-ramp to increase the storage area. This ramp widening mitigation measure will also work to reduce the significance of the Station 65 project-related impact at this location. Therefore, by implementing **Mitigation Measure 4.3-4**, the impact is less than significant. **Less than Significant with Mitigation**.

**Mitigation Measure 4.3-4:** Pay fair share to widen the westbound US 50 off-ramp as described in the 65th Street Transit Village Plan EIR.

### *4.3-5 Pedestrian and Bicycle Circulation Impacts*

**Impact**

**4.3-5-1 Pedestrian Impacts**

As described in earlier sections, the project will construct all frontage improvements which include, but are not limited to, curb, gutter, sidewalk, and planters to the satisfaction of the City of Sacramento Traffic Engineering department. Therefore, the project would not adversely affect the existing or planned pedestrian system in the project vicinity and the project's impact to pedestrian circulation is considered less than significant. **Less than Significant.**

**Mitigation Measure:** None required.

**Impact**

**4.3-5-2 Bicycle Impacts**

As described previously, the project will construct bike lanes along eastbound Folsom Boulevard in front of the project site. Additionally, the project will not adversely affect any existing or planned bicycle lanes described in the *2010 Sacramento City/County Bikeway Master Plan* or other relevant documents. However, the construction of the Station 65 project will remove the existing bicycle locker facilities located at the 65th Street transit station. Since the project adversely impacts existing bicycle facilities, this impact is considered significant.

Through the implementation of **Mitigation Measure 4.3-5-1**, the bicycle facilities removed by the project will be replaced. **Less than Significant with Mitigation**.

**Mitigation Measure 4.3-5-1:** The City shall ensure that Regional Transit relocate/ replaces the RT bicycle facilities that are currently located on the Station 65 project site. The project applicant shall construct an adequate number of bicycle lockers and racks to meet the demand created by the Station 65 project. The project applicant shall coordinate with City staff to determine the appropriate number of bicycle lockers and racks.

### *4.3-6 Transit System*

**Impact**

**4.3-6-1 Transit Capacity**

As shown in **Table 4.3-11**, Scenario A of the Station 65 project is expected to generate 37 AM and 56 PM peak hour transit trips, respectively. **Table 4.3-12** shows that Scenario B is expected to generate 44 AM and 62 PM peak hour transit trips, respectively. Considering that

the transit trips will be split between incoming and outgoing travel on the light rail line and seven bus lines, it is unlikely that the Station 65 project will exceed the capacity of the transit system serving the 65th Street transit station. **Less than Significant**.

**Mitigation Measure:** None required.

**Impact**

**4.3-6-2 Transit Delay**

As described above, the addition of project traffic leads to increased delays at the study intersections. The additional intersection delay could result in increased travel times for busses serving the area. Considering the bus routes serving the area are between 30 and 60 minutes in length, a three minute increase in travel time is considered a significant impact.

Based on the results of the intersection analysis, overall delay for some bus routes could increase by three or more minutes, particularly if the bus utilizes the segment of Folsom Boulevard between 65th Street and State University Drive East. This is considered a significant impact.

Through the implementation of **Mitigation Measures 4.3-2-1** through **4.3-2-7**, the overall delay at the study intersections will be reduced to within five seconds of the baseline without project condition. At many of the study intersections, delay will decrease below the baseline without project condition. Therefore, with the intersection mitigation measures implemented, the project will not lead to increases in transit times that exceed 10 percent. **Less than Significant with Mitigation**.

**Mitigation Measure 4.3-6-2:** Implement Mitigation Measures 4.3-2-1 through 4.3-2-7.

**Impact**

**4.3-7 Parking**

The City Code contains the parking requirements shown in **Table 4.3-30**.

Based on the City parking code, the Scenario A development plan would require 966 parking spaces, and the Scenario B development plan would require 1,095 spaces. However, considering the design of the Station 65 project, which features paid parking located in a parking structure, and the transit-oriented nature of the study area, the Central City parking requirements may also be appropriate in this case. Assuming the Central City parking requirements, the Scenario A plan would require 888 parking spaces and the Scenario B plan would require 975 spaces.

**TABLE 4.3-30.** SACRAMENTO CITY CODE PARKING REQUIREMENTS

| Use | Parking Requirement | |
|---|---|---|
| | Central City | Other Areas |
| Residential | 1.06 spaces per unit[1] | 1.56 spaces per unit[1] |
| Hotel | 0.5 spaces per room | 0.5 spaces per room |
| Office | 1 space per 600 square feet | 1 space per 400 square feet |
| Retail | 1 space per 250 square feet | 1 space per 250 square feet |
| Health Club | 1 space per 100 square feet | 1 space per 100 square feet |
| Restaurant | 1 space per 3 seats | 1 space per 3 seats |

Note: [1] 1 or 1.5 spaces per unit, plus 1 guest space per every 15 units.

Source: City of Sacramento, 2008

As noted in the project description, the Station 65 project proposes to construct 618 off-street and 35 on-street (metered) parking spaces under Scenario A. Under Scenario B, the project would construct 751 off-street and 35 on-street spaces. Based on the parking requirements listed above, the project does not meet the City's parking requirements.

The City of Sacramento parking requirements are established to provide ample parking for single-use development projects. However, since the Station 65 project is a mixed-use project, meeting the City Parking requirements would fail to recognize that parking demand peaks at different times for different uses. For example, parking demand for an office building peaks during the midday, while parking demand for an apartment peaks late at night. Moreover, as described above, mixed-use centers have internalized trips, where a vehicle parks once and goes to several uses on site, further reducing parking demand.

To account for the effects of shared parking at the Station 65 site, the project applicant hired International Parking Design to estimate parking demand and size the parking facilities. The complete parking study is contained in **Appendix F**.

Fehr & Peers reviewed the International Parking Design report and found that it conforms to industry standard practices for estimating shared parking demand. Much like the trip generation calculations presented in **Section 4.3.6**, Baseline Conditions Analysis, International Parking Design estimated the gross parking demand for the project and then took reductions related to transit use, internalization, time-of-day demand variations, and seasonal demand variations for the Scenario A development plan. The results indicate that the gross unadjusted parking demand for the project is 1,137 spaces; however, taking transit trips and internalization effects into account reduces the peak demand to 888 spaces. Finally, by taking into account the time-of-day and seasonal variations of the on-site uses, the study found that the peak parking demand would be 630 vehicles, which would occur on a weekday afternoon in December. Since the project plans to construct a total of 653 on- and off-street parking spaces,

the maximum parking demand will be accommodated, resulting in a less than significant impact.

While the International Parking Design report did not study the Scenario B development plan, the additional 133 parking spaces provided exceed the 129 additional spaces required by the City's parking code (87 additional spaces would be required assuming the City's Central City parking requirements). Therefore the parking impact under the Scenario B project is less than significant. **Less than Significant.**

**Mitigation Measure:** None required.

**Impact**

**4.3-8 Construction Impacts**

Construction activities would include disruptions to the transportation network near the project site, including the possibility of temporary lane closures, street closures, sidewalk closures, and bikeway closures. Transit access may also be disrupted due to road and lane closures and as the bus stops are reconstructed. These activities could result in degraded roadway, intersection, bicycle, pedestrian, and transit conditions. Therefore, the impacts are considered significant.

The implementation of **Mitigation Measure 4.3-8**, which would develop a Construction Traffic and Parking Management Plan, subject to the approval of the City traffic engineer, would reduce the project's contribution to this impact to a less than significant level. **Less than Significant with Mitigation.**

**Mitigation Measures 4.3-8**: Before issuance of grading permits for the project site, the project applicant shall prepare a detailed Traffic Management Plan that will be subject to review and approval by the City Department of Transportation, Regional Transit, and local emergency service providers, including the City of Sacramento fire and police departments. The plan shall ensure maintenance of acceptable operating conditions on local roadways and transit routes. At a minimum, the plan shall include:

- The number of truck trips, time, and day of street closures
- Time of day of arrival and departure of trucks
- Limitations on the size and type of trucks; provision of a staging area with a limitation on the number of trucks that can be waiting
- Provision of a truck circulation pattern
- Provision of a driveway access plan to maintain safe vehicular, pedestrian, and bicycle movements (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas)
- Safe and efficient access routes for emergency vehicles
- Efficient and convenient transit routes
- Manual traffic control when necessary

- Proper advance warning and posted signage concerning street closures
- Provisions for pedestrian safety
- Provisions for temporary bus stops, if necessary

A copy of the construction traffic management plan shall be submitted to local emergency response agencies and these agencies shall be notified at least 14 days before the commencement of construction that would partially or fully obstruct roadways.

## CUMULATIVE CONDITIONS IMPACTS AND MITIGATIONS

This section describes the impacts and mitigation measures under cumulative conditions assuming the 65th Street Transit Village Plan is in place.

### *4.3-9 Roadway Segments*

**Impact**

**4.3-9-1 Folsom Boulevard between 59th Street and 65th Street**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | |
| Scenario B | ✓ | |

Under Scenario A conditions, the project adds traffic to a roadway operating at LOS E conditions and increases the volume to capacity ratio by 0.02, which equals the City's 0.02 volume to capacity threshold. The Scenario B project increases the volume to capacity ratio by 0.03. These impacts are considered significant under the currently adopted General Plan LOS thresholds.

However, since the addition of project trips from either of the development scenarios does not degrade roadway operations to LOS F conditions, this impact is less than significant as defined by the Draft 2030 General Plan.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impacts described above. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement **Mitigation Measure 4.3-3** and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. **Significant and Unavoidable.**

**Mitigation Measure 4.3-9-1:** Implement Mitigation Measure 4.3-3.

**Impact**

**4.3-9-2 Folsom Boulevard between 65th Street and Elvas Avenue**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under Scenario A and Scenario B conditions, the project adds traffic to a roadway segment operating at LOS F under cumulative without project conditions, increasing the volume to capacity ratio by 0.03, which exceeds the City's 0.02 threshold. These impacts are considered significant under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the DEIR for the 2030 General Plan contains a mitigation measure to exempt this roadway segment from the LOS threshold, which would lead to a less than significant impact.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impacts described above. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement **Mitigation Measure 4.3-3** and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable**.

**Mitigation Measure 4.3-9-2:** Implement Mitigation Measure 4.3-3.

**Impact**

**4.3-9-3 Folsom Boulevard between Elvas Avenue and State University Drive East**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | |
| Scenario B | ✓ | |

Under Scenario A conditions, the project adds traffic to a roadway operating at LOS D conditions and increases the volume to capacity ratio by 0.02, which equals the City's 0.02

threshold. The Scenario B project increases the volume to capacity ratio by 0.03. These impacts are considered significant under the currently adopted General Plan LOS thresholds.

However, since the addition of project trips from either of the development scenarios does not degrade roadway operations to LOS F conditions, this impact is less than significant as defined by the Draft 2030 General Plan.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impact. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement **Mitigation Measure 4.3-3** and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable**.

**Mitigation Measure 4.3-9-3:** Implement Mitigation Measure 4.3-3.

**Impact**

**4.3-9-4 65th Street between Folsom Boulevard and S Street**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under both development scenarios, the project causes roadway segment LOS to degrade from LOS E to LOS F, while increasing the volume to capacity ratio by 0.1. This impact is considered significant under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the DEIR for the 2030 General Plan contains a mitigation measure to exempt this roadway segment from the LOS threshold, which would lead to a less than significant impact.

Right-of-way is available to widen 65th Street to six lanes, which would add capacity to the roadway segment and reduce the significance of the impact. Additionally, Draft 2030 General Plan Circulation Element designates 65th Street as a six-lane road. However, the approved 65th Street Transit Village Plan has a mitigation measure to add only a third southbound lane in the future. An additional northbound lane would be counter to this plan and the City's desire to improve the pedestrian environment in the area and reduce barriers to walking. Therefore, this mitigation measure is considered infeasible.

The project could implement **Mitigation Measure 4.3-3** and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement, and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from 65th Street to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable**.

**Mitigation Measure 4.3-9-4:** Implement Mitigation Measure 4.3-3.

### *4.3-10 Intersections*

**Impact**

**4.3-10-1 Folsom Boulevard/65th Street Intersection**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | | |
| Scenario B | ✓ | |

Under Scenario B, the addition of project traffic adds more than five seconds of intersection delay to an intersection operating at LOS D in the AM peak hour. This is considered a significant impact as defined by the currently adopted General Plan.

Both development scenarios add traffic in the PM peak hour, but the increase in overall intersection delay is less than five seconds.

Additionally, since the addition of project trips from either of the development scenarios does not degrade intersection operations to LOS F in the AM peak hour, or add more than five seconds of overall intersection delay in the PM peak hour, this impact is less than significant as defined by the Draft 2030 General Plan.

Based on the City's desire to promote alternative modes of travel in the study area, additional lanes at this intersection are not feasible. Moreover, as described in **Section 4.3.7**, Cumulative Conditions Analysis, the traffic signals are already assumed to be optimized and no other signalization improvements can be made.

The Scenario B impact at this location could be reduced if **Mitigation Measure 4.3-3** is implemented. The TDM program shall be monitored to ensure that project-related AM peak hour trip generation is reduced by approximately 13 percent, which would make it equal to the Scenario A project trip generation. The lower trip generation related to the implementation of this mitigation measure would reduce the significance of the impact to a less than significant level. **Less than Significant with Mitigation**.

**Mitigation Measures 4.3-10-1:** Implement Mitigation Measure 4.3-3.

**Impact**

**4.3-10-2 65th Street/S Street/US 50 Westbound Off-ramp Intersection**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | |
| Scenario B | ✓ | |

Under both development scenarios, the project adds traffic to an intersection operating at LOS D conditions in the AM and PM peak hour, while adding more than five seconds of overall delay. This is considered a significant impact as defined by the currently adopted General Plan.

Since the addition of project trips from either of the Station 65 development scenarios does not degrade intersection operations to LOS F, this impact is less than significant as defined by the Draft 2030 General Plan.

The 65th Street Transit Village Plan identifies ramp widening as a cumulative mitigation to reduce the significance of queuing on the Westbound US 50 off-ramp, but this widening would not add new lanes to the intersection and therefore would not benefit intersection operations. Based on right-of-way constraints, no additional widening is possible at this intersection. Additionally, the signal timing is already assumed to be optimized.

The project could implement **Mitigation Measure 4.3-3** and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from this intersection to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable**.

**Mitigation Measures 4.3-10-2** Implement Mitigation Measure 4.3-3.

**Impact**

**4.3-10-3 Q Street/67th Street Intersection**

| Project Scenario | Impact | |
|---|---|---|
| | Current General Plan (LOS C) | Draft 2030 General Plan (LOS E) |
| Scenario A | ✓ | ✓ |
| Scenario B | ✓ | ✓ |

Under both Station 65 development scenarios, the addition of project traffic exacerbates LOS F conditions in the PM peak hour. The degraded operations at this intersection are caused by queue spillback from the 65th Street/Q Street intersection. This impact is considered *significant*

under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds.

Intersection operations could be improved by adding lanes to Q Street between 65th Street and 67th Street and by adding a southbound left-turn lane at the Q Street/67th Street intersection. However, these improvements would increase the crossing distance of pedestrians between the light rail platform and the bus stops immediately in front of the project site. This improvement would be in conflict with the pedestrian oriented theme of the 65th Street transit station and the Station 65 project. Implementing **Mitigation Measure 4.3-3** is feasible and would reduce project-related auto trips. However, given the proximity of this intersection to the two project driveways, the TDM program would not likely substantially reduce the significance of the impact.

A traffic signal with eastbound protected-permissive left-turn phasing could be installed at this location. The traffic signal would have to be coordinated with the Q Street/65th Street intersection to minimize conflicts between the signals and it is recommended that a crosswalk be striped on the east leg of the intersection. Because the delays at this intersection are largely a result of queue spillback from the Q Street/65th Street intersection, the installation of a traffic signal would not significantly reduce delays at the intersection and impacts would be expected to remain under both development alternatives.

A peak hour signal warrant was evaluated at this location and the results indicate that this location does not meet the peak hour traffic volume warrant. However, given the proximity of the intersection to the light rail station, it is probable that the intersection would meet one of the pedestrian-based signal warrants. Therefore the installation of a traffic signal would have a secondary beneficial impact of improving the pedestrian crossing environment at this location.

Since no feasible mitigation measures are available to reduce intersection delays to be within five seconds of “without project” conditions, this impact is considered significant and unavoidable. **Significant and Unavoidable**.

**Mitigation Measure 4.3-10-3:** Implement Mitigation Measure 4.3-3 and Mitigation Measure 4.3-2-8b

### Impact

### 4.3-11 Freeway Facilities

Both the Scenario A and Scenario B project alternatives would add traffic to freeway facilities that operate at LOS F conditions during either the AM or PM peak hour under cumulative without project conditions. The impacted freeway facilities are listed below:

- Westbound US 50 mainline segment from 65th Street to 59th Street – AM peak hour
- Eastbound US 50 off-ramp diverge area at 65th Street – PM peak hour
- Westbound US 50 slip on-ramp merge area from 65th Street – AM peak hour
- Westbound US 50 loop on-ramp merge area from 65th Street – AM peak hour

- Eastbound US 50 loop on-ramp merge area from 65th Street – PM peak hour
- Eastbound US 50 weaving area between 65th Street and Howe Avenue – AM and PM peak hour
- Westbound US 50 weaving area between Howe Avenue/Hornet Drive and 65th Street – AM peak hour

While either project scenario increases freeway mainline traffic volumes by less than one percent, freeway facility density and service flow increase measurably. Based on Caltrans' standards, this is considered a significant impact.

As described above, the 65th Street Transit Village Plan identified Westbound US 50 off-ramp widening as a cumulative mitigation measure. The Station 65 project will make a fair share contribution to this project, which would reduce the queue length on the off-ramp. However, because the freeway operations in this area are constrained by heavy mainline volumes, this mitigation measure would not reduce the significance of the freeway mainline, weaving area, or ramp area impacts to a less than significant level.

Alternatively, **Mitigation Measure 4.3-3** could be implemented. This mitigation measure would reduce peak hour freeway volumes through the establishment of a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would lead to a reduction in overall peak period auto trips, it cannot be guaranteed that enough trips would shift away from the freeway to reduce the freeway facility impacts to a less than significant level.

Because the mitigation measures identified are either infeasible or would not reduce the significance of the freeway impact to a less than significant level, this impact remains significant and unavoidable. **Significant and Unavoidable**.

**Mitigation Measure 4.3-11:** Pay fair share to widen the westbound US 50 off-ramp as described in the 65th Street Transit Village Plan EIR. Also, implement Mitigation Measures 4.3-3.

**Impact**

**4.3-12 Freeway Ramp Queuing**

Under both project scenarios, the addition of project-related traffic does not cause the off-ramp queues to extend beyond the available storage length. **Less than Significant**.

**Mitigation Measure:** None required.

### *4.3-13 Pedestrian and Bicycle Circulation Impacts*

**Impact**

**4.3-13-1 Pedestrian Impacts**

The impacts to the pedestrian system under cumulative conditions with the currently adopted General Plan in place are the same as those described under baseline conditions. Therefore, the project's impact to pedestrian circulation is considered less than significant. **Less than Significant.**

**Mitigation Measure:** None required.

**Impact**

**4.3-13-2 Bicycle Impacts**

The impacts to the bicycle system under cumulative conditions with the currently adopted General Plan in place are the same as those described under baseline conditions. Therefore, the project's impact to the bicycle system is considered significant. Implementation of **Mitigation Measure 4.3-5-1** will reduce the significance of this impact to a less than significant level. **Less than Significant with Mitigation**.

**Mitigation Measures 4.3-13-1:** Implement Mitigation Measure 4.3-5-1.

### *4.3-14 Transit System*

**Impact**

**4.3-14-1 Transit Capacity**

As shown in **Table 4.3-11**, Scenario A of the Station 65 project is expected to generate 37 AM and 56 PM peak hour transit trips, respectively. **Table 4.3-12** shows that Scenario B is expected to generate 44 AM and 62 PM peak hour transit trips, respectively. Considering that the transit trips will be split between incoming and outgoing travel on the light rail line and seven bus lines, it is unlikely that the Station 65 project will exceed that capacity of the planned transit system serving the 65$^{th}$ Street transit station under cumulative conditions. Therefore, this impact is considered less than significant. **Less than Significant.**

**Mitigation Measure:** None required.

**Impact**

**4.3-14-2 Transit Delay**

The addition of project traffic leads to increased delays at the study intersections. However based on the results of the intersection operations analysis, the project will not lead to an increase in travel time of three minutes or more for any given bus route when compared to the cumulative without project condition. **Less than Significant**.

**Mitigation Measure:** None required.

## 4.3.9 OTHER CONSIDERATIONS

This section describes issues that are not impacts as defined by the City policies described in **Section 4.3.4**, Regulatory Setting. However, the issues presented below can lead to project-related impacts and are relevant from the overall perspective of transportation and circulation for the Station 65 project.

### CSUS SHUTTLE AND HOTEL DROP-OFF

California State University, Sacramento (CSUS) is planning to implement a shuttle service between the 65th Street transit station and the main campus. Because of limited space for additional buses at the transit station, the CSUS shuttle stop is currently proposed to be within the Station 65 hotel's porte-cochere, which is also envisioned as a hotel patron loading and valet parking drop-off location. As shown on **Figure 4.3-2**, the porte-cochere is located on 65th Street midway between Q Street and Folsom Boulevard.

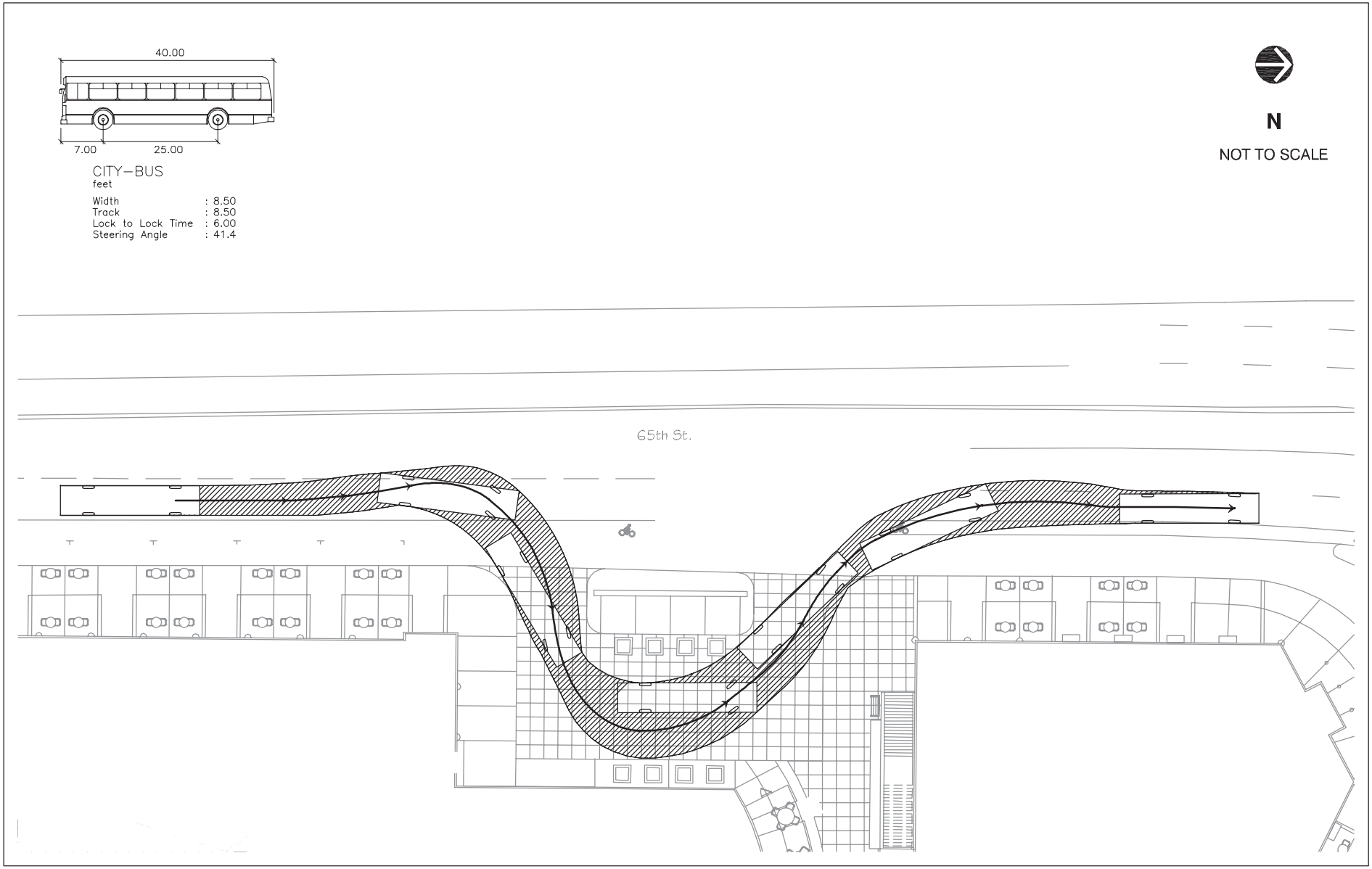
A vehicle turning template was analyzed through the porte-cochere to determine if the CSUS shuttle could navigate the space and also to determine if valet parking could take place within the porte-cochere. Since the ultimate design for the CSUS shuttle has not been determined, a standard 40-foot bus was used for the turning analysis, per the recommendation of the transportation consultant working with CSUS on the shuttle project. Since the CSUS shuttle will likely be smaller and more maneuverable than the 40-foot bus, this presents a worst case scenario.

The results of the CSUS shuttle turning movement analysis are presented on **Figure 4.3-23** and indicate that the shuttle can fit within the porte-cochere (assuming adequate vertical clearance). However, the swept path of the shuttle consumes nearly all the available drop off space at the hotel.

The results of the CSUS shuttle analysis indicate that if the shuttle stop is to remain within the porte-cochere, no vehicles can stop in the shaded section of the porte-cochere shown on **Figure 4.3-23**. Therefore, hotel patron loading valet parking cannot be accommodated within the porte-cochere without blocking the CSUS shuttle.

The turning analysis shown on **Figure 4.3-23** also indicates that a 40-foot bus must "oversteer" to enter the porte-cochere. In other words, the bus must briefly enter the left lane of northbound 65th Street to enter and exit the driveway. Under congested conditions, this could pose a problem for shuttle operations. However, if the CSUS shuttle is more maneuverable than the 40-foot bus used for the analysis, oversteering will not be an issue.

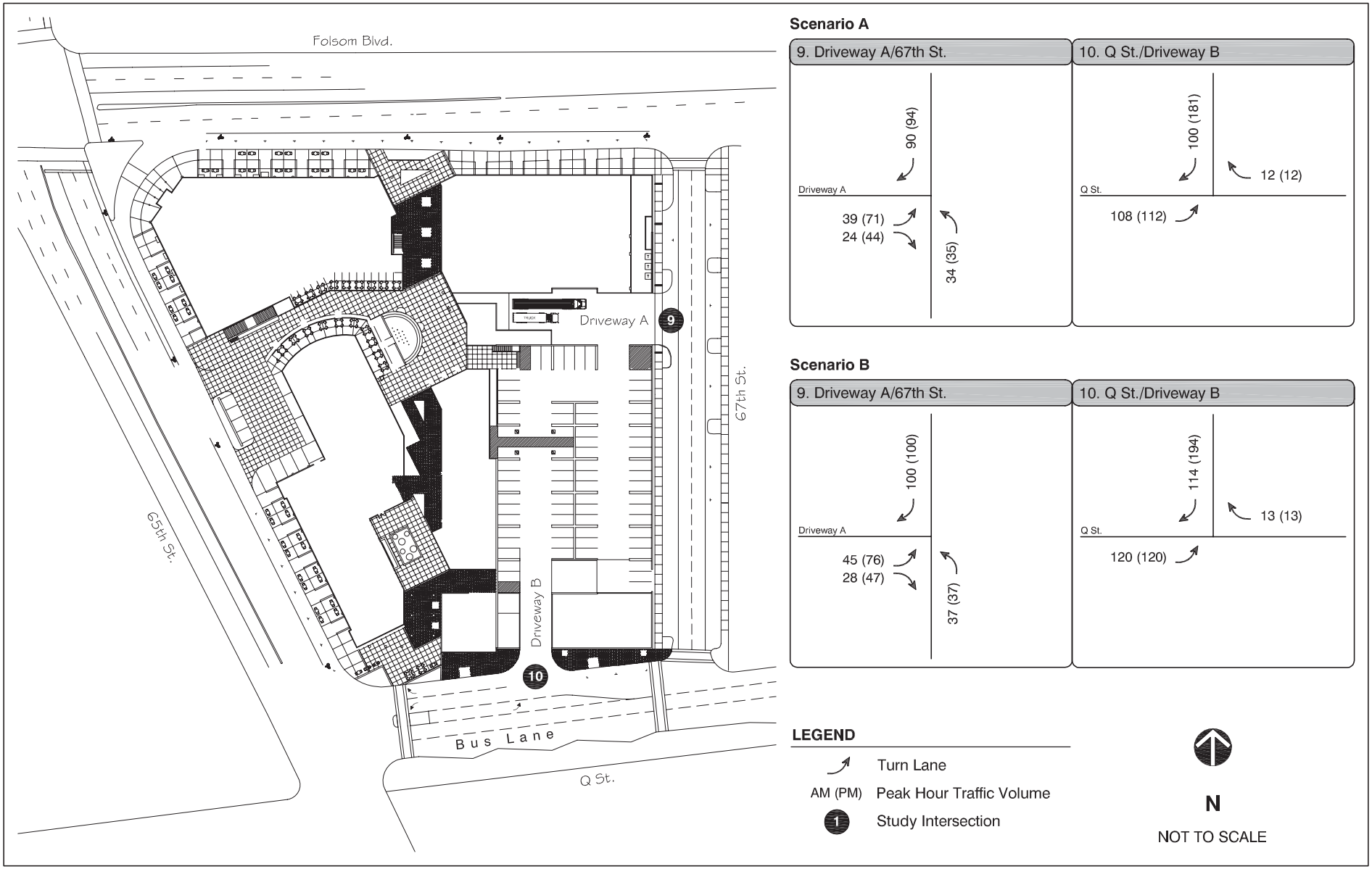
Based on the results of the analysis described above, it is recommended that the CSUS shuttle stop be relocated or revised to provide acceptable turning movement to accommodate the operation of the CSUS shuttle and the hotel drop-off/pick-up service. The revised site plan shall be subject to review and approval of the City of Sacramento, Department of Transportation. This recommendation is summarized on **Figure 4.3-25**.




SOURCE: Fehr & Peers, 2008; AES, 2008



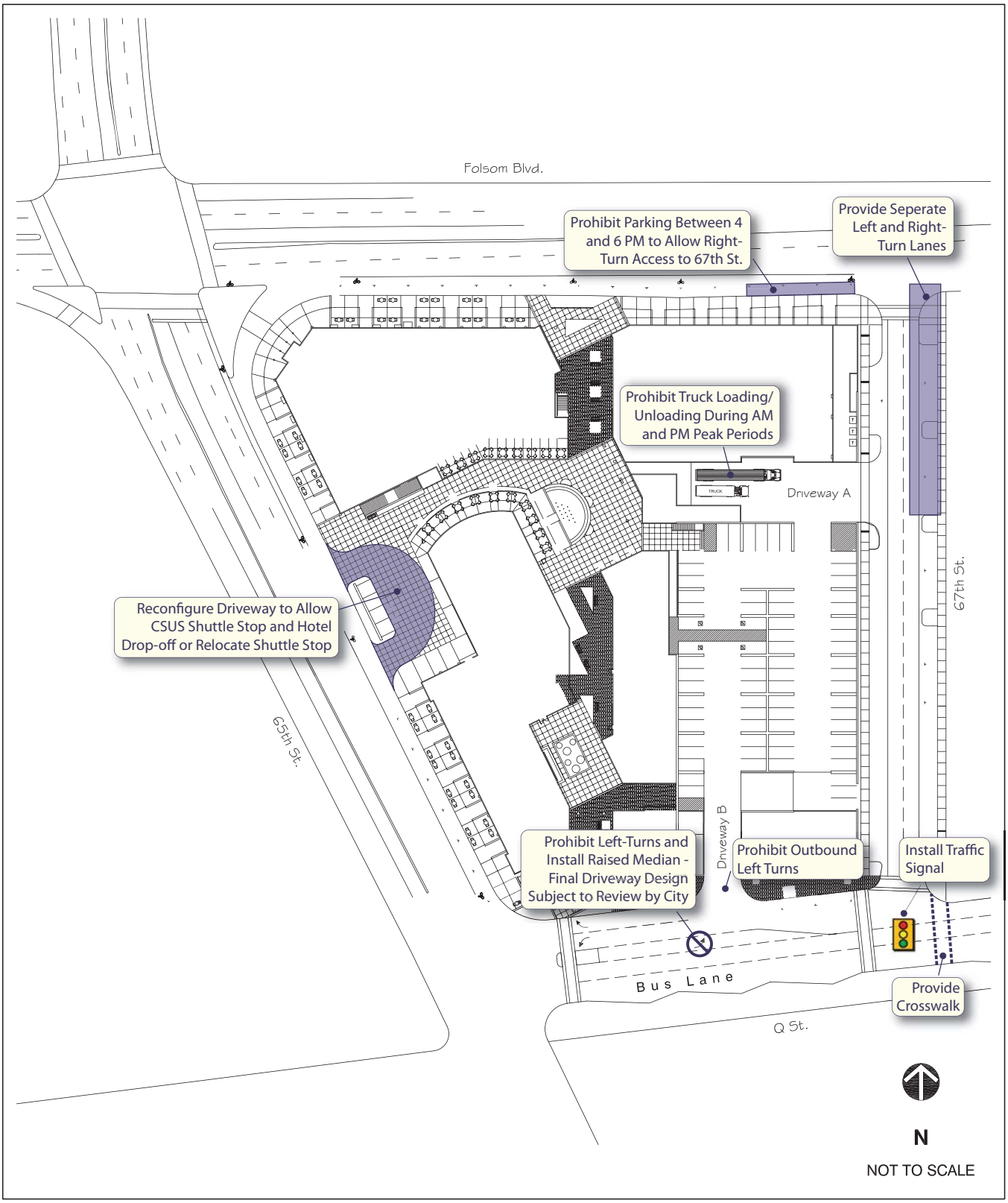
**Figure 4.3-23**
Csus Shuttle Turning Path




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-24**
Project Driveway Turning Movement Volumes




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-25**
Project Site Plan Recommendations

## DRIVEWAY OPERATIONS

Several key issues related to driveway operations were analyzed for the Station 65 project. **Figure 4.3-24** shows the expected driveway volumes under the Scenario A and Scenario B development plans. The driveway volumes do not change between baseline and cumulative conditions.

## Q STREET DRIVEWAY ACCESS

As shown on **Figure 4.3-24**, approximately 55 percent of the project trips will enter or exit from the driveway on Q Street. As proposed, this driveway functions as a left-in/right-in/right-out driveway, with no outbound left turns permitted onto Q Street. The inbound left-turn is served by a short (approximately 65 foot long) turn pocket. The site plan shows a small raised island immediately downstream of the 65$^{th}$ Street intersection, which will prevent direct entry into the turn lane from 65$^{th}$ Street.

Given the high AM and PM peak hour volumes entering the driveway from eastbound Q Street, a primary concern at this driveway is whether the eastbound left-turn queue would extend back into the 65$^{th}$ Street intersection. The traffic analysis indicated that the westbound queue from the 65$^{th}$ Street/Q Street intersection consistently extends beyond the Q Street driveway during the AM and PM peak hours under baseline and cumulative conditions. If the area in front of the driveway is not kept clear, vehicles attempting to enter the project driveway from eastbound Q Street will rapidly queue back into the 65$^{th}$ Street intersection, which would impair intersection operations, transit operations, bicycle operations, and lead to a traffic hazard. Therefore this is considered a significant impact.

Several options are available to reduce the significance of this impact as described below:

- **Access Mitigation Option I** – This option would be to prohibit left-turns from eastbound Q Street into the project driveway. To enforce this prohibition, a raised median shall be on Q Street between 65$^{th}$ Street and 67$^{th}$ Street. Restricting this movement would shift inbound traffic from the Q Street driveway to the 67$^{th}$ Street driveway. To determine if any secondary impacts were caused by this change in access, a new project trip distribution was determined and traffic operations were analyzed at the following intersections immediately adjacent to the project site:

    - Folsom Boulevard/65$^{th}$ Street
    - Folsom Boulevard/67$^{th}$ Street
    - Q Street/65$^{th}$ Street
    - Q Street/67$^{th}$ Street

    Traffic operations were analyzed under Scenario B conditions since this development scenario has the highest trip generation. Both baseline with Scenario B conditions and cumulative with Scenario B conditions were evaluated. Given the increased traffic at the Q Street/67$^{th}$ Street intersection, was assumed that Mitigation Measure 4.3-2-8-b was implemented and the intersection was signalized. These recommendations are summarized on Figure 4-25.

The results of the intersection operations analysis under baseline and cumulative conditions are presented in Table 4-31 and Table 4-32, respectively. The results indicate that there are no secondary traffic operations impacts related to the restriction of the left turn from Q Street into the project driveway. In addition, there are no secondary transit impacts expected under this access option. Since this mitigation has acceptable intersection operations under Scenario B conditions, it is also expected to have acceptable operations under Scenario A conditions.

- **Access Mitigation Option II** – This option would be similar to Access Option I except that a second inbound only access would be added on 67th Street north of Q Street. Under this option, it is also recommended that the Q Street driveway be restricted to outbound right-turn movements only. Similar to the situation described above, it was assumed that the Q Street/67th Street signalization mitigation measure 4.3-2-8-b was implemented.

  Given that the southerly 67th Street driveway is located approximately 65 feet north of the Q Street intersection, it is recommended that a "Keep Clear" area be signed and striped for southbound 67th Street traffic to facilitate the inbound left turning vehicles.

  Intersection operations under this access scenario are expected to be similar to what is shown in **Tables 4-31** and **4-32**. Therefore no secondary traffic impacts are anticipated.

  Providing the southerly driveway on 67th Street will conflict with one of the Regional Transit bus bays planned on the west side of 67th Street (as shown on the project site plan). As part of this mitigation measure, it is recommended that City of Sacramento Department of Transportation staff and the project applicant work with Regional Transit to relocate this bus bay.

- **Access Mitigation Option III** – The previously described queuing analysis at the Q Street driveway was restricted to AM and PM peak hour conditions only. By eliminating left-turn access from Q Street into the project driveway during times when queuing would cause a traffic hazard, the Q Street driveway impact described above would be mitigated. Therefore, this Access Mitigation Option would allow left-turns from Q Street into the project driveway during certain off-peak hours subject to a determination by the City Traffic Engineer that off-peak queues in the left-turn pocket would not cause a traffic hazard.

**TABLE 4.3-31.** INTERSECTION OPERATIONS – BASELINE WITH SCENARIO A PROJECT CONDITIONS WITH NO LEFT-IN ACCESS FROM Q STREET

| Intersection | Control | AM Peak | | PM Peak | |
|---|---|---|---|---|---|
| | | LOS[1] | Delay[2] | LOS[1] | Delay[2] |
| 1. Folsom Boulevard/65th Street | Signalized | D | 54 | E | 78 |
| 2. Folsom Boulevard/67th Street | Signalized | B | 18 | C | 21 |
| 5. Q Street/65th Street | Signalized | C | 34 | D | 45 |
| 8. Q Street/67th Street | Signalized | C | 23 | E | 62 |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle.

Source: Fehr & Peers, 2008

**TABLE 4.3-32.** INTERSECTION OPERATIONS – CUMULATIVE WITH SCENARIO B PROJECT CONDITIONS WITH NO LEFT-IN ACCESS FROM Q STREET

| Intersection | Control | AM Peak | | PM Peak | |
|---|---|---|---|---|---|
| | | LOS[1] | Delay[2] | LOS[1] | Delay[2] |
| 1. Folsom Boulevard/65th Street | Signalized | D | 47 | F | 95 |
| 2. Folsom Boulevard/67th Street | Signalized | B | 13 | C | 31 |
| 5. Q Street/65th Street | Signalized | C | 25 | C | 25 |
| 8. Q Street/67th Street | Signalized | C | 31 | E | 75 |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle.

Source: Fehr & Peers, 2008

**Mitigation Measure 4.3-15**:

1. Revise the site plan to relocate the CSUS shuttle stop or to provide acceptable turning movements to accommodate the operation of both the CSUS shuttle and the hotel drop-off/ pick-up service. The revised site plan shall be subject to review and approval by the City of Sacramento, Department of Transportation.
2. Implement one of the following mitigation measures to reduce the significance of the Q Street driveway impact:
    i. Design project driveway at Q Street to operate as right-in/right-out only. A raised median shall be required to prohibit the left turn into the driveway from Q Street and out to Q Street. Since driveway approval is within the authority of the City's Traffic Engineer, the final design and lane geometry at this location shall be subject to review and approval of the City's Traffic Engineer.
    ii. Design project driveway at Q Street to operate as right-out only. A raised median shall be required to prohibit the left turn into the driveway from Q Street and out to Q Street. The project applicant shall also provide a left-in/right-in driveway on 67th Street located between the proposed northerly driveway and Q Street. In

association with the driveway, a "Keep Clear" area should be signed and striped on southbound 67th Street. Since driveway approval is within the authority of the City's Traffic Engineer, the final design and lane geometry at these locations shall be subject to review and approval of the City's Traffic Engineer. City of Sacramento Department of Transportation staff and the project applicant shall work with Regional Transit to relocate the bus bay that is eliminated by the new 67th Street driveway

iii. Design project driveway at Q Street to operate as right in/right out during all hours of the day, with left in turns allowed during certain off peak hours. Since driveway approval is within the authority of the City's Traffic Engineer, the final design and lane geometry at this location, and specification of enforcement mechanisms to preclude left in turn, shall be subject to review and approval of the City's Traffic Engineer .

### PARKING STRUCTURE ENTRANCES

Station 65 proposes to have paid parking for both monthly and transient users of the parking structure. The project would have ticket machines with gates at the entrances to the structure and pay booths and gates at the exits. Based on data from International Parking Design, the 95th percentile queue at the Q Street entrance gate to the parking structure will be two vehicles based on the conservative assumption that all entering vehicles are transient parkers that require a ticket from the machine. Since the entry throat depth of the parking structure is 60 feet, this two-vehicle queue can be fully accommodated with no impacts to vehicles on Q Street. However, to minimize queuing, it is recommended that the entrance gates be located to accommodate two-car lengths of queuing ( not less than 50 feet) and that gates with rapid response times be selected to dispense tickets, read monthly permits, and open.

In addition, since the driveway at 67th Street is also proposed to access a truck loading area, it is recommended that truck loading/unloading activities be prohibited during the AM and PM peak periods (7-9AM and 4-6 PM).

## FOLSOM BOULEVARD/67TH STREET INTERSECTION

City of Sacramento staff requested Fehr & Peers evaluate the need for a dedicated right-turn lane at the Folsom Boulevard/67th Street intersection. Under baseline with project conditions, the eastbound right turn volume varies from 88 under Scenario A conditions during the AM peak hour, to 110 under Scenario B conditions during the PM peak hour. While the Scenario B traffic volumes are on the borderline of being considered for a dedicated right-turn lane, given the pedestrian oriented nature of the study area, this lane may not be appropriate (particularly since Folsom Boulevard is being considered for narrowing under the Draft 2030 General Plan). Under cumulative conditions, the dedicated right-turn lane is also not recommended in order to minimize the pedestrian crossing distances.

To maintain the pedestrian crossing distances while accommodating peak turning movement volumes, it is recommended that a PM peak period parking restriction be established along eastbound Folsom Boulevard.

Specifically, it is recommended that that the three on-street parking immediately west of the 67th Street intersection have parking prohibited from 4 PM to 6 PM seven days a week to enable right-turning vehicles to more easily turn onto 67th Street. This recommendation is depicted on **Figure 4.3-25**.

## CUMULATIVE CONDITIONS TRANSPORTATION IMPACT ANALYSIS ASSUMING THE DRAFT 2030 GENERAL PLAN UPDATE IS ADOPTED WITH THE ALTERNATIVE C ROADWAY SCENARIO (ALTERNATIVE C).

As described in **Section 4.3.7**, Cumulative Conditions Analysis, the City of Sacramento is currently updating its General Plan. Since the Draft 2030 General Plan update has not yet been adopted by the City Council, the previously described cumulative conditions impacts and mitigations were assessed under the assumption that the currently adopted General Plan is in place. However, since there is the potential that the Draft 2030 General Plan could be adopted prior to the construction of the Station 65 project, this section presents, for informational purposes only, the results of the cumulative conditions transportation impact analysis under 2035 conditions assuming the Draft 2030 General Plan is in place.

Also, since it is assume under this analysis scenario that the Draft 2030 General Plan is in place, project-related impacts are assessed under the Draft 2030 General Plan LOS threshold only.

### LAND USES

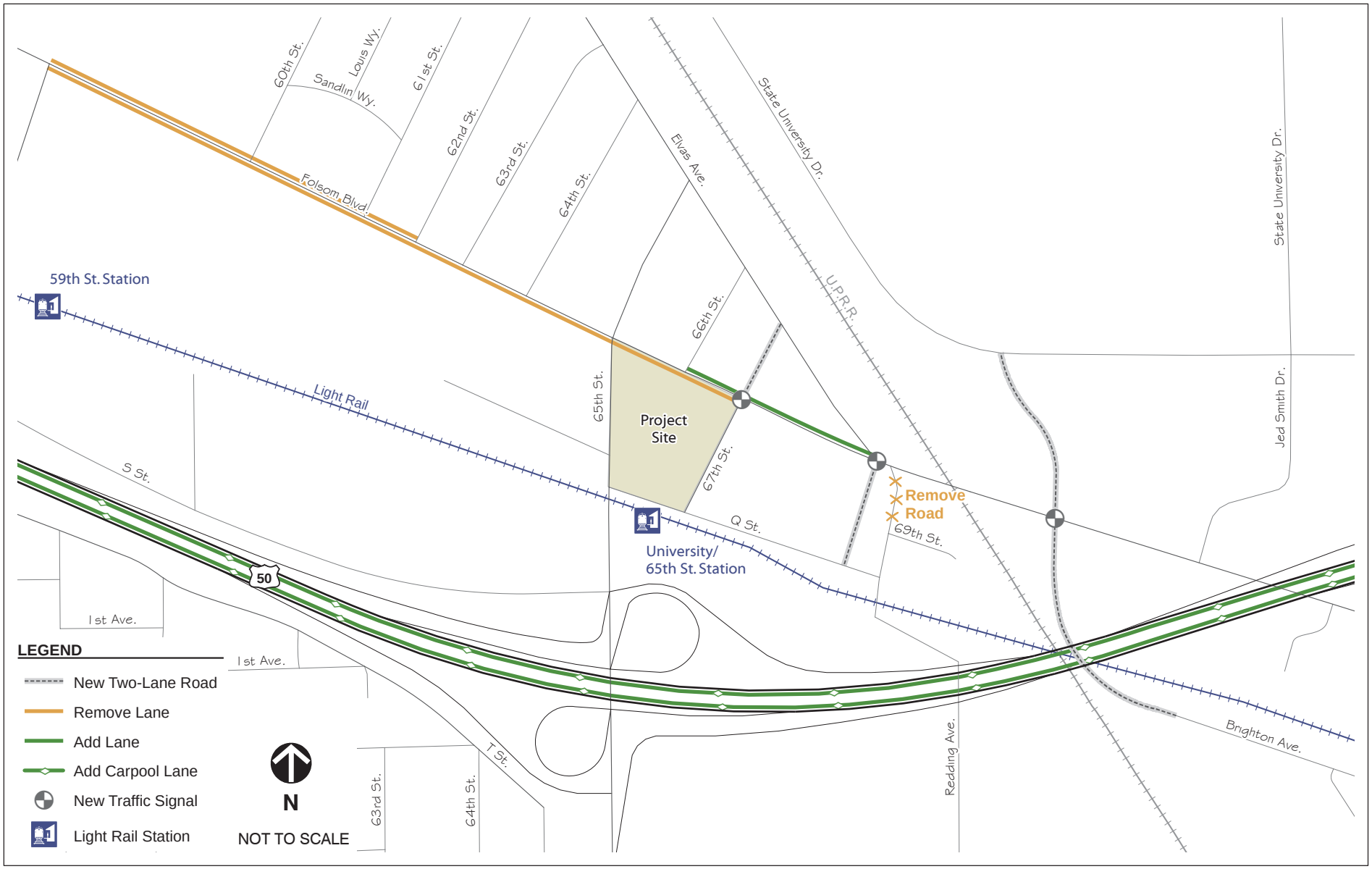
The same validated version of the SACMET travel demand forecasting model that was developed for the cumulative conditions analysis was used to develop the forecasts assuming the Draft 2030 General Plan is in place. The roadway network was modified in the area to reflect the proposed changes (described below) and the land uses were updated to reflect the higher densities allowed under the Draft 2030 General Plan.

Under “without project” conditions, the existing land uses were assumed to remain on the project site and new development is anticipated in the immediate area, consistent with the land uses described in the Draft 2030 General Plan.

### ROADWAY NETWORK

The Draft 2030 General Plan describes several roadway alternatives for the Station 65 project area. One alternative would implement the roadway system from the 65th Street Transit Village Plan (described in **Section 4.3.7**). The City is also studying several options to reduce the number of lanes in the area to make the neighborhood more bicycle and pedestrian friendly. Although a final decision on the roadway configuration has not been made, the City directed Fehr & Peers to assess the Station 65 project’s impacts assuming that the roadway alternative with the least capacity is in place, which is denoted as Alternative C in the ongoing 65th Street Area Transportation Study. This roadway network will depict a “maximum congestion” future scenario. The roadway network modifications assumed for this scenario are shown on **Figure 4.3-26** and described below:

- US 50 – Add carpool lanes between Sunrise Boulevard and Downtown Sacramento




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-26**

Planned Roadway Improvements – Cumulative Conditions with Alternative C Roadway Network

- Folsom Boulevard – Remove second eastbound through lane between 59th Street and 67th Street; add second westbound lane between Elvas Avenue and 66th Street; remove second westbound lane between 62nd Street and 59th Street
- 67th Street – extend northward to Elvas Avenue
- Elvas Avenue – Modify Folsom Boulevard intersection and extend south to Q Street (left turns prohibited from Folsom Boulevard)
- Ramona Avenue – Extend northward into CSUS campus and provide a new intersection with Folsom Boulevard (eastbound left turn prohibited)

In addition to the roadway improvements described above, City of Sacramento staff identified the following intersection improvements under cumulative conditions:

- Folsom Boulevard/67th Street – Install traffic signal and construct separate northbound left-turn lane
- 65th Street/US 50 Eastbound On-ramp – Reconfigure northbound right turn lane to a shared through-right lane

### TRANSIT SYSTEM

A review of the 2035 MTP indicated that there are no planned transit improvements near the Station 65 project area. Correspondence with RT staff confirmed this assessment.

### PEDESTRIAN AND BICYCLE SYSTEMS

As described in **Section 4.3.3**, Existing Environmental Setting, the *2010 Sacramento City/County Bikeway Master Plan* (1995) and the *City of Sacramento Pedestrian Master Plan* (2006) define the future pedestrian and bicycle systems in the Station 65 project area. Although the 2035 MTP does not define any specific improvements within the Station 65 study area, it is anticipated that much of the pedestrian and bicycle infrastructure will be completed as part of frontage improvements associated with future development.

### TRAFFIC FORECASTS

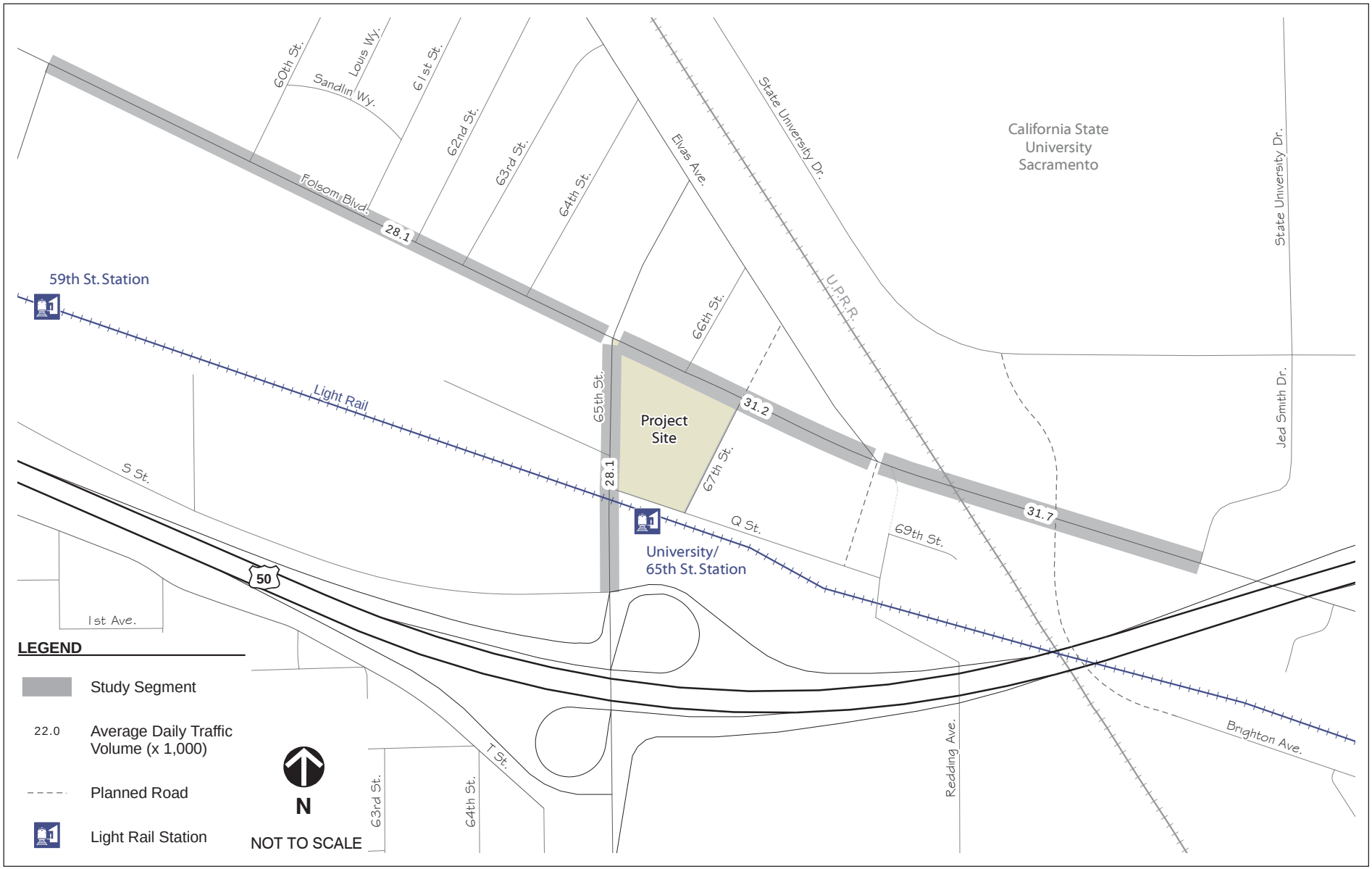
The methodology to prepare cumulative year traffic volume forecasts described in **Section 4.3.7** was also used to develop cumulative conditions traffic forecasts assuming the Draft 2030 General Plan with the Alternative C roadway network is in place. Refer to the previous traffic forecasts section for details.

## CUMULATIVE (WITH ALTERNATIVE C) WITHOUT PROJECT ANALYSIS

This section provides the results of the cumulative without project transportation analysis assuming the Draft 2030 General Plan is in place and the Alternative C roadway network has been implemented.

### ROADWAY SEGMENT OPERATIONS

**Figure 4.3-27** shows the cumulative (Alternative C) without project daily roadway segment volumes, and **Table 4.3-33** presents the results of the roadway segment LOS analysis.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-27**

Average Daily Traffic Volumes – Cumulative No Project Conditions with Alternative C Roadway Network

As shown in **Table 4.3-28**, the majority of roadways are expected to operate at LOS F conditions under cumulative (Alternative C) conditions. The exception is the segment of 65th Street between Folsom Boulevard and S Street, which operates at LOS E conditions.

**TABLE 4.3-33:** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – CUMULATIVE (ALTERNATIVE C) WITHOUT PROJECT CONDITIONS

| Roadway Segment | Access Control | Number of Lanes | Average Daily Traffic (ADT) Volume | Level of Service (LOS) |
|---|---|---|---|---|
| 1. Folsom Blvd – from 59th Street to 65th Street | Low | 2 | 28,100 | F |
| 2. Folsom Blvd – from 65th Street to Elvas Avenue | Low | 2 | 31,200 | F |
| 3. Folsom Blvd – from Elvas Avenue to State University Drive East | Moderate | 2 | 31,700 | F |
| 4. 65th Street – from Folsom Boulevard to S Street | Low | 4 | 28,100 | E |
| Source: Fehr & Peers, 2008 | | | | |

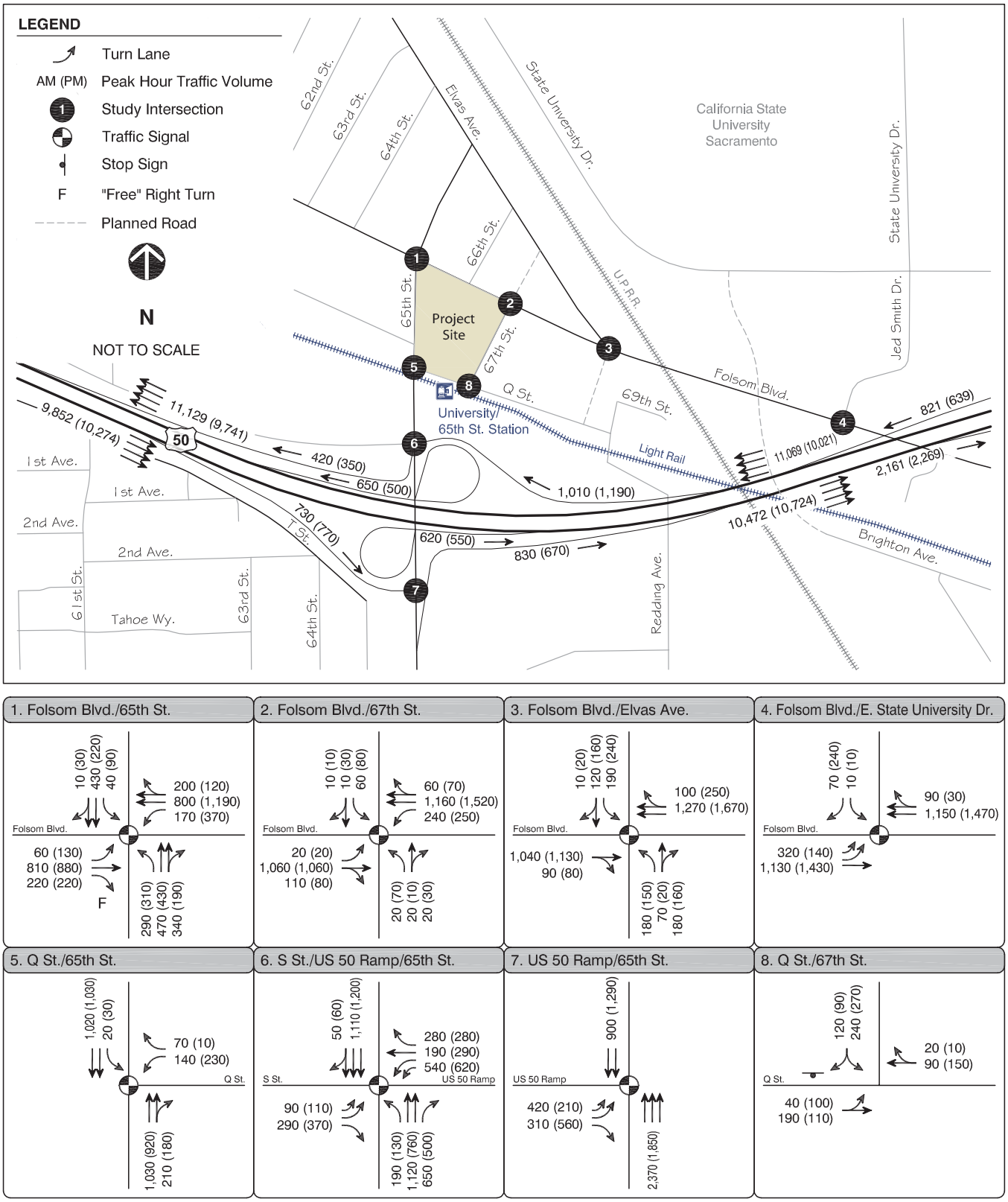
## INTERSECTION OPERATIONS

**Figure 4.3-28** presents the peak hour turning movement volumes and lane configurations under cumulative (Alternative C) without project conditions, and **Table 4.3-34** summarizes the results of the intersection LOS analysis.

As shown in **Table 4.3-34**, the following intersections operate at LOS F conditions during the AM or PM peak hour, which exceeds the LOS threshold established in the Draft 2030 General Plan:

- Folsom Boulevard/65th Street operates at LOS F during the PM peak hour
- Folsom Boulevard/State University Drive East operates at LOS F during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS F during the AM and PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

The traffic simulation results indicate that congestion is much more severe under cumulative (Alternative C) conditions when compared to cumulative conditions assuming the current General Plan is in place. The additional congestion is related to the reduced capacity on Folsom Boulevard and 65th Street, which leads to significant intersection queuing, which extends between adjacent intersections.




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-28**

Peak Hour Traffic Volumnes and Lane Configurations – Cumulative Conditions with Alternative C Roadway Network – No Project

**TABLE 4.3-34.** INTERSECTION OPERATIONS – CUMULATIVE (ALTERNAITVE C) WITHOUT PROJECT CONDITIONS

| Intersection | Control | AM Peak | | PM Peak | |
|---|---|---|---|---|---|
| | | LOS[1] | Delay[2] | LOS[1] | Delay[2] |
| 1. Folsom Boulevard/65th Street | Signalized | E | 70 | F | 88 |
| 2. Folsom Boulevard/67th Street | Signalized | C | 30 | D | 41 |
| 3. Folsom Boulevard/Elvas Avenue | Signalized | E | 68 | E | 74 |
| 4. Folsom Boulevard/State University Drive East | Signalized | D | 50 | F | 195 |
| 5. Q Street/65th Street | Signalized | E | 61 | D | 53 |
| 6. S Street/65th Street/ US 50 WB Off-ramp | Signalized | F | 82 | F | 172 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | C | 32 | D | 42 |
| 8. Q Street/67th Street | Side Street Stop | A (C) | <10 (16) | D (F) | 29 (78) |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Source: Fehr & Peers, 2008

## FREEWAY OPERATIONS

**Table 4.3-35** summarizes the results of the cumulative (Alternative C) without project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-28**.

The results presented in **Table 4.3-35** are similar to those presented under cumulative (Alternative C) conditions assuming the 65th Street Transit Village Plan is in place. This result is reasonable as the differences between the roadway networks (65th Street Transit Village Plan and Alternative C roadway networks) do not have a large impact on freeway operations. As was the case before, **Table 4.3-35** shows that the majority of the freeway segments operate at LOS F conditions during the AM or PM peak hour; although the new HOV lane does improve conditions when compared to the baseline condition.

**TABLE 4.3-35.** FREEWAY OPERATIONS – CUMULATIVE (ALTERNATIVE C) WITHOUT PROJECT CONDITIONS

| Freeway Facility | Type | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|
| | | LOS[1] | Density or Service Flow[2] | Volume[3] | LOS[1] | Density or Service Flow[2] | Volume[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 38.7 | 9,752 | E | 44.9 | 10,274 |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 11,129 | E | 38.0 | 9,741 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | E | 39.4 | 730 | F | 41.8 | 770 |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 41.0 | 420 | D | 28.5 | 350 |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 37.8 | 650 | C | 26.2 | 500 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | D | 28.1 | 620 | F | 31.7 | 550 |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,067 | 10,472 | F | 2,077 | 10,724 |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 2,047 | 11,069 | E | 1,798 | 10,021 |

Notes: [1] LOS = level of service

[2] For mainline, ramp merge, and ramp diverge section, density is measured in passenger car equivalents per mile per lane; for weaving sections, service flow in passenger car equivalents per lane per hour is reported.

[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas). Note that under cumulative conditions, an HOV lane is assumed on the freeway. It is assumed that the HOV lane will be full and will carry 1,800 vehicles per hour in the AM and PM peak hours.

Source: Fehr & Peers, 2008

US 50 off-ramp queuing was evaluated under cumulative without project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, greater than 1,500 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 600 feet; storage length, 1,375 feet

The queuing results indicate that the Westbound US 50 off-ramp to 65th Street will queue onto the US 50 mainline. The Eastbound US 50 off-ramp will provide adequate queue storage under cumulative without project conditions.

## CUMULATIVE (ALTERNATIVE C) WITH SCENARIO A PROJECT ANALYSIS

This section presents the results of the transportation analysis under cumulative with Scenario A project conditions assuming the Draft 2030 General Plan is in place, along with the Alternative C roadway network.

### ROADWAY SEGMENT OPERATIONS

**Figure 4.3-29** shows the cumulative (Alternative C) with Scenario A project daily roadway segment volumes, and **Table 4.3-36** presents the results of the roadway segment LOS analysis.

**TABLE 4.3-36.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – CUMULATIVE (ALTERNATIVE C) WITH SCENARIO A PROJECT CONDITIONS

| Roadway Segment | Number of Lanes | Without Project | | With Scenario A Project | |
|---|---|---|---|---|---|
| | | Average Daily Traffic Volume | Level of Service (LOS) | Average Daily Traffic Volume | Level of Service (LOS) |
| 1. Folsom Blvd – from 59th Street to 65th Street | 2 | 28,100 | F | **28,700** | **F** |
| 2. Folsom Blvd – from 65th Street to Elvas Avenue | 2 | 31,200 | F | **32,000** | **F** |
| 3. Folsom Blvd – from Elvas Avenue to State University Drive East | 2 | 31,700 | F | **32,500** | **F** |
| 4. 65th Street – from Folsom Boulevard to S Street | 4 | 28,100 | E | **31,100** | **F** |

Notes: Bold indicates project impact under Draft 2030 General Plan LOS threshold (LOS E).

Source: Fehr & Peers, 2008

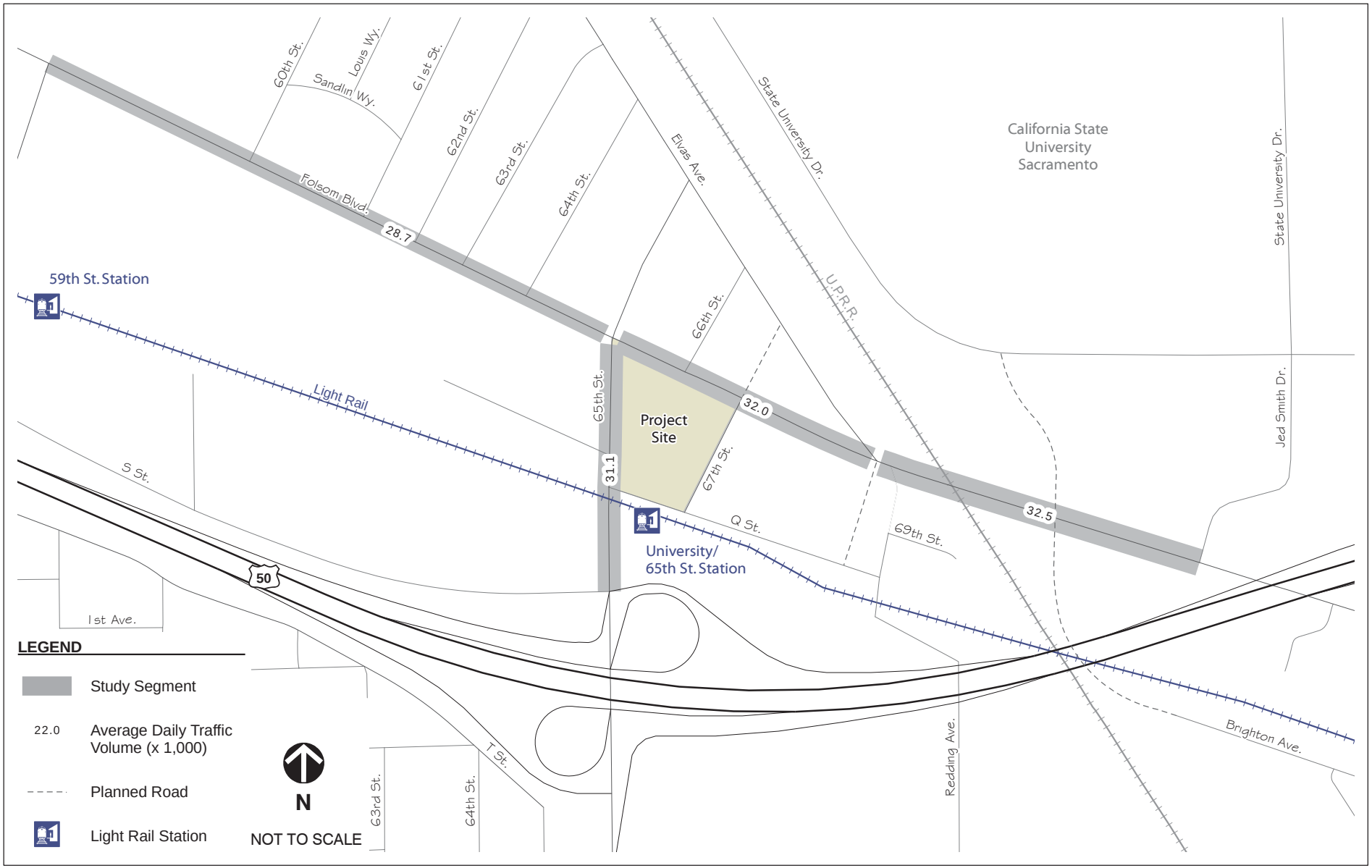
As shown in **Table 4.3-36** the addition of the Scenario A project traffic degrades the LOS on the segment of 65th Street between Folsom Boulevard from LOS E to LOS F conditions. The project also adds traffic to the segments of Folsom Boulevard that operate at LOS F without the project.

### INTERSECTION OPERATIONS

**Figure 4.3-30** presents the peak hour turning movement volumes and lane configurations under cumulative (Alternative C) with Scenario A project conditions, and **Table 4.3-37** summarizes the results of the intersection LOS analysis.

As shown in **Table 4.3-37**, the results for the cumulative (Alternative C) with Scenario A project conditions generally show more congested conditions when compared to cumulative (Alternative C) without project conditions. In particular, the Folsom Boulevard corridor shows a substantial increase in congestion levels.

This increase in delay between “with project” and “without project” conditions is larger than was the case under the cumulative conditions described in **Section 4.3.7** because the roadway system is more congested and the additional project trips create new bottlenecks. In fact, these new bottlenecks actually improve conditions on 65th Street since traffic on Folsom Boulevard bound for 65th Street is occasionally blocked at the 65th Street and 67th Street intersections and less traffic arrives on the 65th Street corridor, thereby reducing delay.




SOURCE: Fehr & Peers, 2008; AES, 2008

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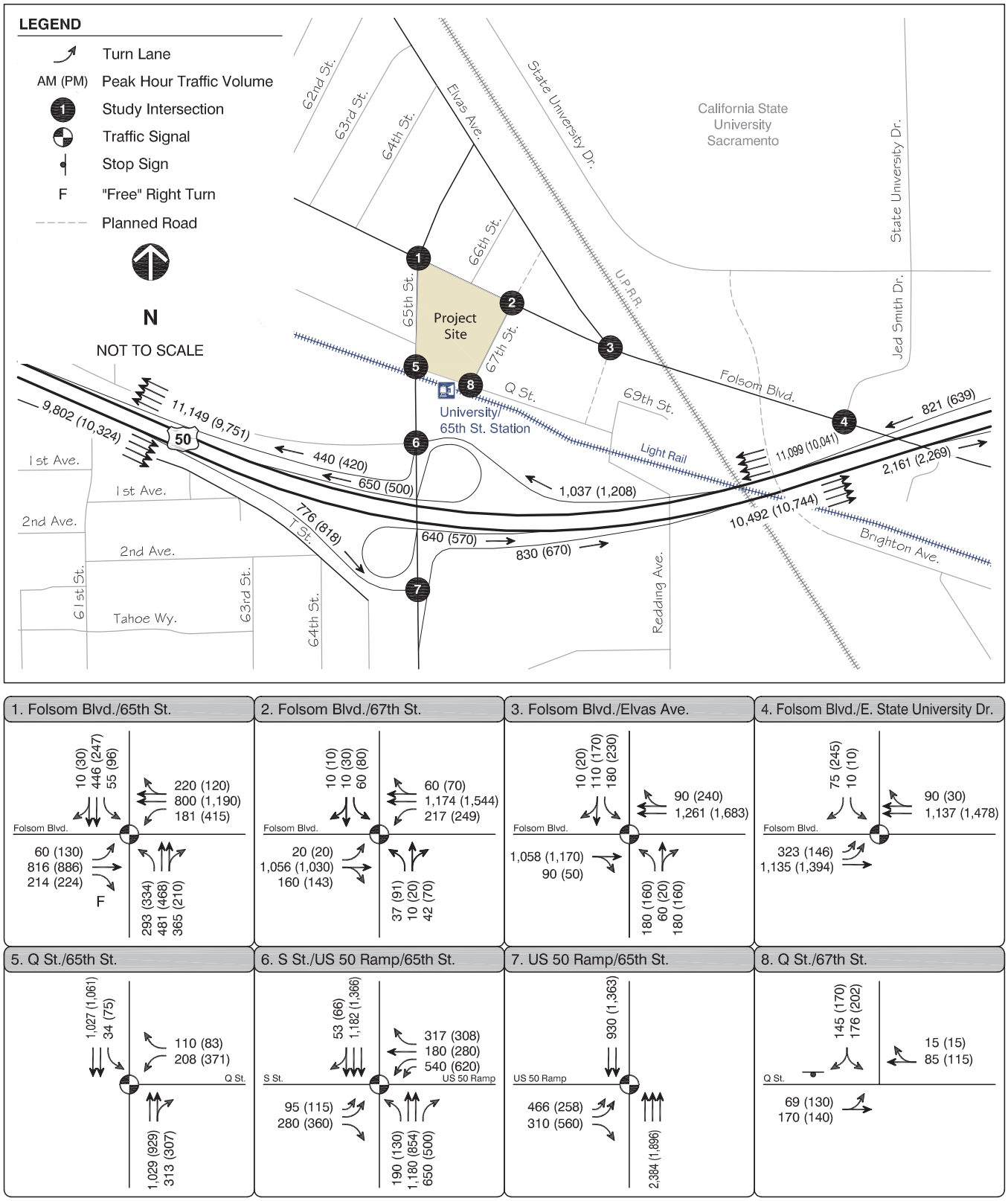
**Figure 4.3-29**

Average Daily Traffic Volumes – Cumulative Plus Project Conditions with Alternative C Roadway Network – Scenario A




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-30**

Peak Hour Traffic Volumnes and Lane Configurations – Cumulative Conditions with Alternative C Roadway Network – Scenario A

**TABLE 4.3-37:** INTERSECTION OPERATIONS – CUMULATIVE (ALTERNATIVE C) WITH SCENARIO A PROJECT CONDITIONS

| Intersection | Control | Without Project | | | | With Scenario A Project | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay | LOS | Delay |
| 1. Folsom Boulevard/65th Street | Signalized | E | 70 | F | 88 | **F** | **82** | **F** | **104** |
| 2. Folsom Boulevard/67th Street | Signalized | C | 30 | D | 41 | D | 49 | E | 76 |
| 3. Folsom Boulevard/Elvas Avenue | Signalized | E | 68 | E | 74 | E | 78 | **F** | **92** |
| 4. Folsom Boulevard/State University Drive East | Signalized | D | 50 | F | 195 | E | 67 | **F** | **229** |
| 5. Q Street/65th Street | Signalized | E | 61 | D | 53 | E | 66 | D | 48 |
| 6. S Street/65th Street/ US 50 WB Off-ramp | Signalized | F | 82 | F | 172 | **F** | **96** | F | 108 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | C | 32 | D | 42 | C | 24 | C | 35 |
| 8. Q Street/67th Street | Side Street Stop | A (C) | <10 (16) | D (F) | 29 (78) | C (E) | 21 (39) | **F (F)** | **155 (314)** |

Notes: [1] LOS = level of service
[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.
Bold indicates project impact under Draft 2030 General Plan LOS Thresholds.
Source: Fehr & Peers, 2008

As shown in **Table 4.3-37**, the following intersections operate at LOS F conditions during the AM or PM peak hour, which exceeds the LOS threshold established in the Draft 2030 General Plan:

- Folsom Boulevard/65th Street operates at LOS F during the AM and PM peak hour
- Folsom Boulevard/Elvas Avenue operates at LOS F during the PM peak hour
- Folsom Boulevard/State University Drive East operates at LOS F during the PM peak hour

- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS F during the AM and PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour

## FREEWAY OPERATIONS

**Table 4.3-38** summarizes the results of the cumulative (Alternative C) with Scenario A project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-30**.

**Table 4.3-38** indicates that freeway operations are similar under cumulative (Alternative C) without and with Scenario A project conditions. This result is expected as the project adds a relatively small amount of traffic (less than one percent) to the freeway mainline. However, because the eastbound mainline segment of US 50 between 59th Street and 65th Street was within 0.1 passenger car equivalents per mile per lane of LOS F conditions without the project, the addition of project traffic causes this segment to change from LOS E to LOS F conditions.

**TABLE 4.3-38.** FREEWAY OPERATIONS – CUMULATIVE (ALTERNATIVE C) WITH SCENARIO A PROJECT CONDITIONS

| Freeway Facility | Type | Without Project | | | | | | With Scenario A Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | | PM Peak | | | AM Peak | | | PM Peak | | |
| | | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 38.7 | 9,752 | E | 44.9 | 10,274 | E | 39.2 | 9,802 | **F** | **>45** | **10,324** |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 11,129 | E | 38.0 | 9,741 | **F** | **>45** | **11,149** | E | 38.7 | 9,751 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | E | 39.4 | 730 | F | 41.8 | 770 | E | 39.9 | 776 | **F** | **42.3** | **818** |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 41.0 | 420 | D | 28.5 | 350 | **F** | **41.1** | **440** | D | 29.0 | 420 |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 37.8 | 650 | C | 26.2 | 500 | **F** | **37.8** | **650** | C | 26.2 | 500 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | D | 28.1 | 620 | F | 31.7 | 550 | D | 28.3 | 640 | **F** | **31.9** | **570** |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,067 | 10,472 | F | 2,077 | 10,724 | **F** | **2,071** | **10,492** | **F** | **2,081** | **10,744** |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 2,047 | 11,069 | E | 1,798 | 10,021 | **F** | **2,057** | **11,099** | E | 1,804 | 10,041 |

Notes: [1] LOS = level of service

[2] MOE = measure of effectiveness. For mainline, ramp merge, and ramp diverge sections, the MOE is density, measured in passenger car equivalents per mile per lane; for weaving sections, the MOE is service flow, measured in passenger car equivalents per lane.

[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas). Note that under cumulative conditions, an HOV lane is assumed on the freeway. It is assumed that the HOV lane will be full and will carry 1,800 vehicles per hour in the AM and PM peak hours.

Bold indicates a project impact.

Source: Fehr & Peers, 2008

US 50 off-ramp queuing was also evaluated under cumulative with Scenario A project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, 1,300 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 450; storage length, 1,375 feet

The queuing results indicate that the westbound 65th Street off-ramp queue will occupy the entire storage area provided on the ramp. Queues could spill-back onto the mainline under unusual circumstances (traffic incident, special event, etc.). The eastbound 65th Street off-ramp queue will be accommodated within the ramp storage space under cumulative (Alternative C) with Scenario A project conditions.

The queuing analysis results for cumulative (Alternative C) with Scenario A project conditions indicate that the off-ramp queues will be shorter when compared to cumulative without project conditions. This result is reasonable considering that overall operations on 65th Street improve under "with project" conditions because of the new bottlenecks created by the project along Folsom Boulevard.

### BICYCLE, PEDESTRIAN, AND TRANSIT OPERATIONS

Although the roadway system is different under cumulative conditions assuming the Alternative C roadway network is in place, the project-related changes to the bicycle, pedestrian, and transit systems are the same as described in **Section 4.3.7**.

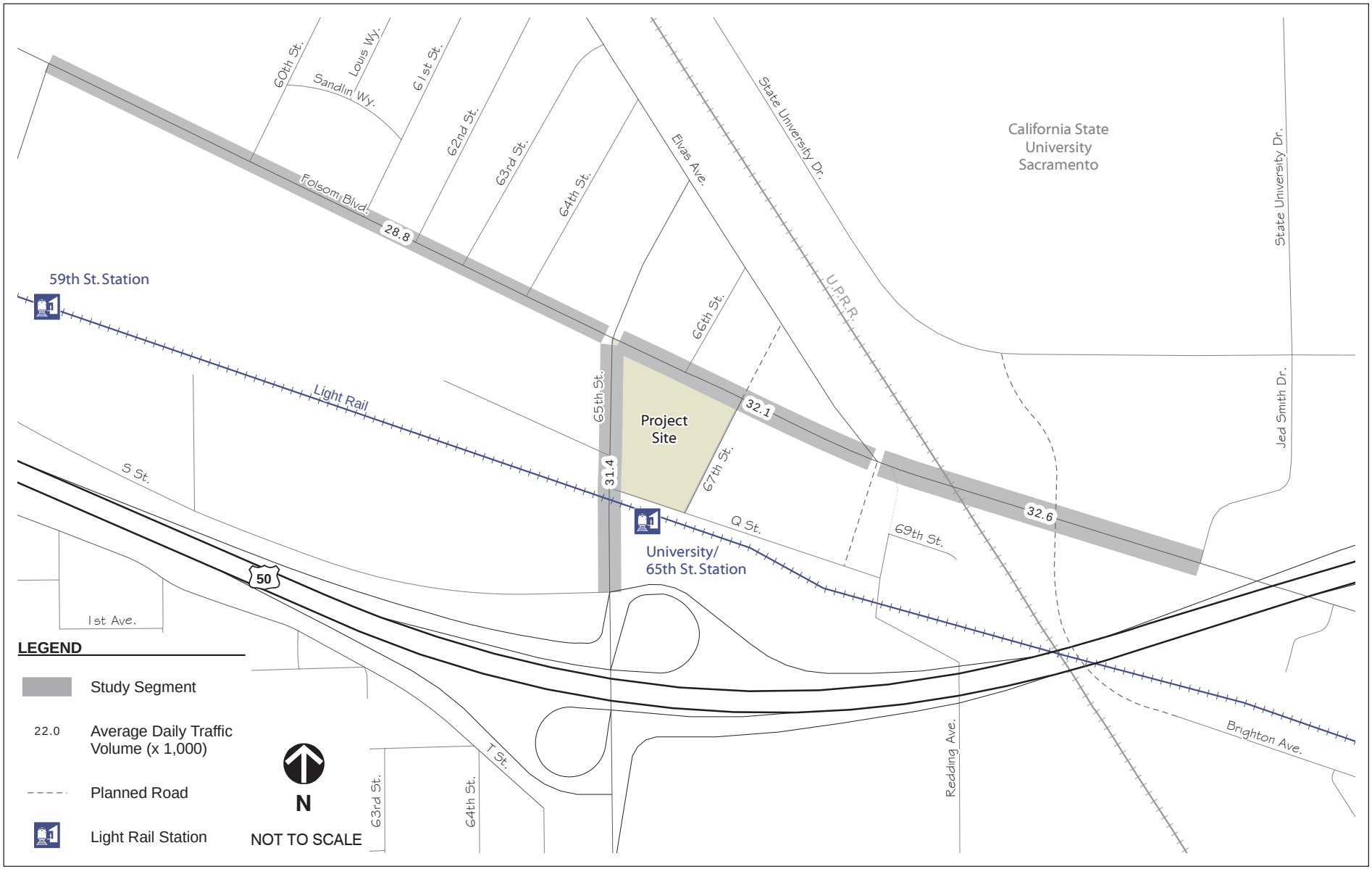
## CUMULATIVE (ALTERNATIVE C) WITH SCENARIO B PROJECT ANALYSIS

This section presents the results of the transportation analysis under cumulative with Scenario B project conditions assuming the Draft 2030 General Plan is in place, along with the Alternative C roadway network.

### ROADWAY SEGMENT OPERATIONS

**Figure 4.3-31** shows the cumulative (Alternative C) with Scenario B project daily roadway segment volumes, and **Table 4.3-39** presents the results of the roadway segment LOS analysis.

As shown in **Table 4.3-39**, the addition of the Scenario B project traffic degrades the LOS on the segment of 65th Street between Folsom Boulevard from LOS E to LOS F conditions. The project also adds traffic to the segments of Folsom Boulevard that operate at LOS F without the project.




SOURCE: Fehr & Peers, 2008; AES, 2008

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**Figure 4.3-31**

Average Daily Traffic Volumes – Cumulative Plus Project Conditions – with Alternative C Roadway Network – Scenario B

**TABLE 4.3-39.** AVERAGE DAILY TRAFFIC VOLUMES FOR STUDY ROADWAY SEGMENTS – CUMULATIVE (ALTERNATIVE C) WITH SCENARIO B PROJECT CONDITIONS

| Roadway Segment | Number of Lanes | Without Project | | With Scenario B Project | |
|---|---|---|---|---|---|
| | | Average Daily Traffic Volume | Level of Service (LOS) | Average Daily Traffic Volume | Level of Service (LOS) |
| 1. Folsom Blvd – from 59th Street to 65th Street | 2 | 28,100 | F | **28,800** | **F** |
| 2. Folsom Blvd – from 65th Street to Elvas Avenue | 2 | 31,200 | F | **32,100** | **F** |
| 3. Folsom Blvd – from Elvas Avenue to State University Drive East | 2 | 31,700 | F | **32,600** | **F** |
| 4. 65th Street – from Folsom Boulevard to S Street | 4 | 28,100 | E | **31,400** | **F** |

Notes: Bold indicates project impact under the Draft 2030 General Plan LOS threshold.

Source: Fehr & Peers, 2008

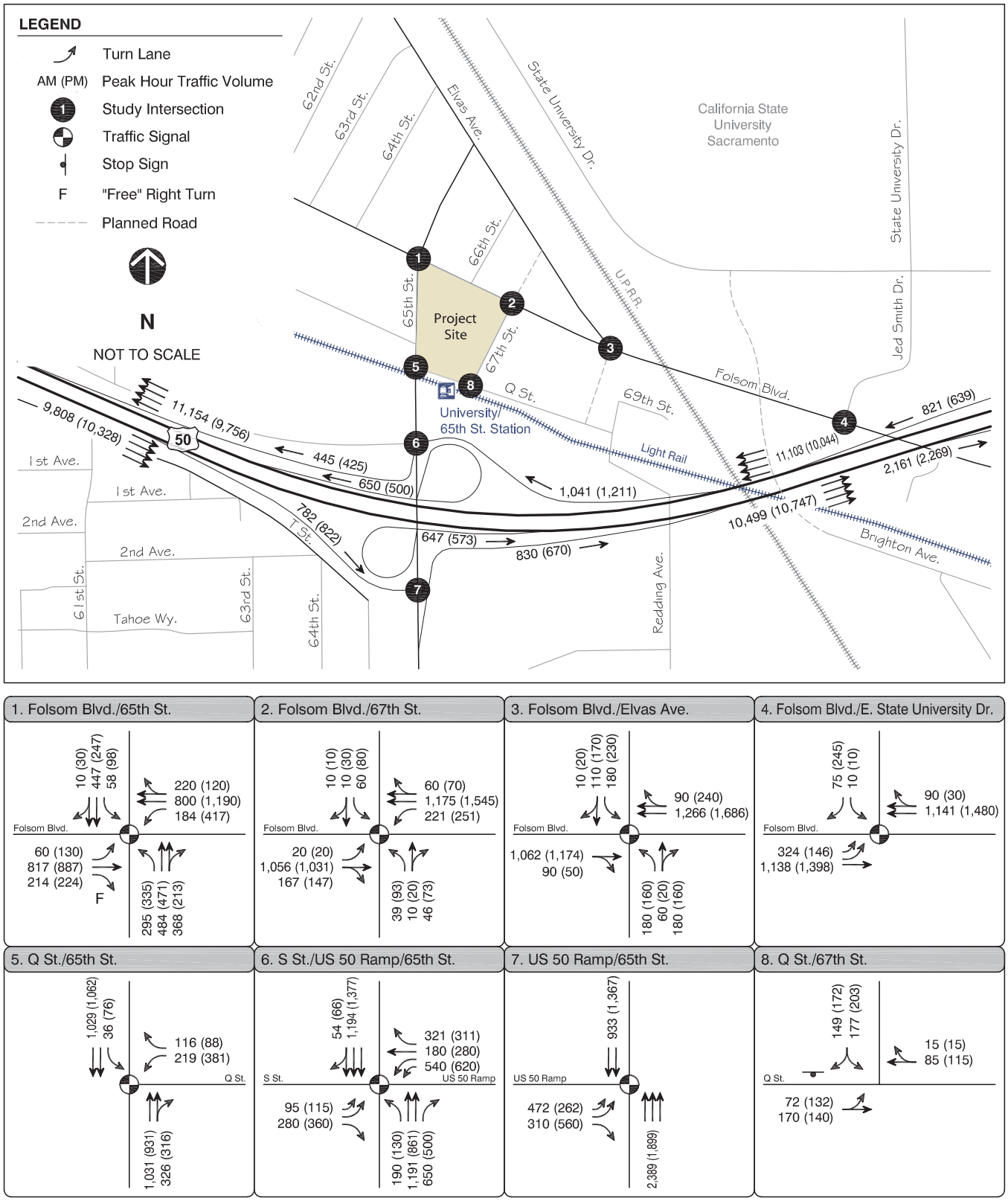
## INTERSECTION OPERATIONS

**Figure 4.3-32** presents the peak hour turning movement volumes and lane configurations under cumulative (Alternative C) with Scenario B project conditions, and **Table 4.3-40** summarizes the results of the intersection LOS analysis.

The results shown in **Table 4.3-40** are similar to those shown under cumulative (Alternative C) with Scenario A project conditions. The addition of Scenario B project traffic increases AM peak hour delay at the majority of the intersections. The PM peak hour delay also increases, but as was the case under Scenario A conditions, the additional congestion on Folsom Boulevard limits the amount of traffic that can reach the 65th Street corridor, and delays tend to decrease slightly at the intersections along 65th Street.

**Table 4.3-40** shows that the following intersections operate at LOS F conditions during the AM or PM peak hour, which exceeds the LOS threshold established in the Draft 2030 General Plan:

- Folsom Boulevard/65th Street operates at LOS F during the AM and PM peak hour
- Folsom Boulevard/67th Street operates at LOS F during the PM peak hour
- Folsom Boulevard/Elvas Avenue operates at LOS F during the AM and PM peak hour
- Folsom Boulevard/State University Drive East operates at LOS F during the PM peak hour
- S Street/65th Street/US 50 Westbound Off-ramp operates at LOS F during the AM and PM peak hour
- Q Street/67th Street operates at LOS F during the PM peak hour




SOURCE: Fehr & Peers, 2008; AES, 2008



**Figure 4.3-32**

Peak Hour Traffic Volumes and Lane Configurations – Cumulative Conditions with Alternative C Roadway Network – Scenario B

**TABLE 4.3-40.** INTERSECTION OPERATIONS – CUMULATIVE (ALTERNATIVE C) WITH SCENARIO B PROJECT CONDITIONS

| Intersection | Control | Without Project | | | | With Scenario B Project | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay | LOS | Delay |
| 1. Folsom Boulevard/65th Street | Signalized | E | 70 | F | 88 | E | 77 | **F** | **102** |
| 2. Folsom Boulevard/67th Street | Signalized | C | 30 | D | 41 | D | 40 | **F** | **94** |
| 3. Folsom Boulevard/Elvas Avenue | Signalized | E | 68 | E | 74 | E | 76 | **F** | **107** |
| 4. Folsom Boulevard/State University Drive East | Signalized | D | 50 | F | 195 | F | 89 | **F** | **254** |
| 5. Q Street/65th Street | Signalized | E | 61 | D | 53 | E | 66 | D | 50 |
| 6. S Street/65th Street/ US 50 WB Off-ramp | Signalized | F | 82 | F | 172 | F | 82 | F | 135 |
| 7. US 50 EB Off-ramp/ 65th Street | Signalized | C | 32 | D | 42 | C | 26 | D | 37 |
| 8. Q Street/67th Street | Side Street Stop | A (C) | <10 (16) | D (F) | 29 (78) | C (E) | 22 (40) | **F (F)** | **174 (421)** |

Notes: [1] LOS = level of service

[2] For signalized intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, the delay and LOS for the most-delayed individual movement is shown in parentheses below the average intersection delay and LOS.

Bold indicates project impact under Draft 2030 General Plan LOS Threshold.

Source: Fehr & Peers, 2008

## FREEWAY OPERATIONS

**Table 4.3-41** summarizes the results of the cumulative (Alternative C) with Scenario B project freeway operations analysis. The peak hour freeway volumes are presented in **Figure 4.3-32**.

**Table 4.3-41** indicates that freeway operations are similar under cumulative (Alternative C) without and with Scenario B project conditions. This result is expected as the project adds a relatively small amount of traffic (less than one percent) to the freeway mainline. However, because the eastbound mainline segment of US 50 between 59th Street and 65th Street was within 0.1 passenger car equivalents per mile of LOS F conditions without the project, the addition of project traffic causes this segment to change from LOS E to LOS F conditions.

US 50 off-ramp queuing was also evaluated under (Alternative C) with Scenario B project conditions. The results are presented below:

- Westbound 65th Street Off-ramp – Average maximum queue, greater than 1,500 feet; storage length, 1,300 feet
- Eastbound 65th Street Off-ramp – Average maximum queue, 375; storage length, 1,375 feet

**TABLE 4.3-41.** FREEWAY OPERATIONS – CUMULATIVE (ALTERNATIVE C) WITH SCENARIO B PROJECT CONDITIONS

| Freeway Facility | Type | Without Project | | | | | | With Scenario B Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | | PM Peak | | | AM Peak | | | PM Peak | | |
| | | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] | LOS[1] | MOE[2] | Vol.[3] |
| 1. Eastbound US 50 from 59th Street to 65th Street | Mainline | E | 38.7 | 9,752 | E | 44.9 | 10,274 | E | 39.3 | 9,808 | **F** | **>45** | **10,328** |
| 2. Westbound US 50 from 65th Street to 59th Street | Mainline | F | >45 | 11,129 | E | 38.0 | 9,741 | **F** | **>45** | **11,154** | E | 38.7 | 9,756 |
| 3. Eastbound US 50 Off-ramp to 65th Street | Diverge | E | 39.4 | 730 | F | 41.8 | 770 | E | 39.9 | 782 | **F** | **42.3** | **822** |
| 4. Westbound US 50 Slip On-ramp from 65th Street | Merge | F | 41.0 | 420 | D | 28.5 | 350 | **F** | **41.2** | **445** | D | 29.1 | 425 |
| 5. Westbound US 50 Loop On-ramp from 65th Street | Merge | F | 37.8 | 650 | C | 26.2 | 500 | **F** | **37.8** | **650** | C | 26.2 | 500 |
| 6. Eastbound US 50 Loop On-ramp from 65th Street | Merge | D | 28.1 | 620 | F | 31.7 | 550 | D | 28.3 | 647 | **F** | **31.9** | **573** |
| 7. Eastbound US 50 Weave Between 65th Street and Howe Avenue | Weave | F | 2,067 | 10,472 | F | 2,077 | 10,724 | **F** | **2,073** | **10,499** | **F** | **2,081** | **10,747** |
| 8. Westbound US 50 Weave Between Howe Avenue and 65th Street | Weave | F | 2,047 | 11,069 | E | 1,798 | 10,021 | **F** | **2,058** | **11,103** | E | 1,805 | 10,044 |

Notes: [1] LOS = level of service

[2] MOE = measure of effectiveness. For mainline, ramp merge, and ramp diverge sections, the MOE is density, measured in passenger car equivalents per mile per lane; for weaving sections, the MOE is service flow, measured in passenger car equivalents per lane.

[3] Volume refers to freeway mainline volume or ramp at the study facility (mainline volumes reported for weaving areas). Note that under cumulative conditions, an HOV lane is assumed on the freeway. It is assumed that the HOV lane will be full and will carry 1,800 vehicles per hour in the AM and PM peak hours.

Bold indicates a project impact.

Source: Fehr & Peers, 2008

### BICYCLE, PEDESTRIAN, AND TRANSIT OPERATIONS

Although the roadway system is different under cumulative conditions assuming the Alternative C roadway network is in place, the project-related changes to the bicycle, pedestrian, and transit systems the same as described in **Section 4.3.7**.

## CUMULATIVE (ALTERNATIVE C) CONDITIONS IMPACTS AND MITIGATIONS

This section describes the impacts and mitigation measures under cumulative conditions assuming the Draft 2030 General Plan has been adopted along with the Alternative C roadway network. Based on this assumption, project-related impacts are not assessed against the currently adopted General Plan LOS thresholds. As described earlier, this section is for informational purposes only since the Draft 2030 General Plan has not yet been adopted by the City Council and the study to determine the impacts of the Alternative C roadway network has not been completed.

**Impact**

**4.3-15 Roadway Segments**

Under both development scenarios, the project causes roadway segment LOS to degrade from LOS E to LOS F, or exacerbates LOS F conditions while increasing the volume to capacity ratio by more than 0.02 on the following roadway segments:

- Folsom Boulevard between 59th Street and 65th Street
- Folsom Boulevard between 65th Street and Elvas Avenue
- Folsom Boulevard between Elvas Avenue and State University Drive East
- 65th Street between Folsom Boulevard and S Street

This impact is considered significant under the Draft 2030 General Plan LOS threshold. However, the DEIR for the Draft 2030 General Plan contains a mitigation measure to exempt these roadway segments from the LOS threshold, which would lead to a less than significant impact.

The roadway segments could be widened to reduce the significance of the project's impact; however, widening would conflict with the overall goal of the Alternative C roadway network scenario. To maintain the pedestrian-oriented design of the study area, roadway widening is considered infeasible.

The project could implement **Mitigation Measure 4.3-3**, which is described in **Section 4.3.8**, Impacts and Mitigation, and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it is unlikely that enough trips would shift to alternative modes of travel to reduce the impact to a less than significant level. Therefore, this impact remains **significant and unavoidable**.

**Mitigation Measure 4.3-16:** Implement Mitigation Measure 4.3-3.

**Impact**

**4.3-16 Intersections**

Based on the Draft 2030 General Plan LOS threshold, significant impacts were identified at the intersections shown in **Table 4.3-42**.

**TABLE 4.3-4.** CUMULATIVE (ALTERNATIVE C) INTERSECTION IMPACTS

| Intersection | Impact | |
|---|---|---|
| | Scenario A | Scenario B |
| Folsom Boulevard/65th Street | ✓ | ✓ |
| Folsom Boulevard/67th Street | | ✓ |
| Folsom Boulevard/Elvas Avenue | ✓ | ✓ |
| Folsom Boulevard/State University Drive East | ✓ | ✓ |
| Q Street/65th Street | ✓ | |
| Q Street/67th Street | ✓ | ✓ |
| Source: Fehr & Peers, 2008 | | |

Impacts at these intersections were identified because traffic from either development scenario led to one of the following:

- Degradation of LOS from LOS E under cumulative without project conditions to LOS F or worse under cumulative with project conditions during the AM or PM peak hour
- Project-related traffic added five seconds of average delay to an intersection operating at LOS F under cumulative without project conditions

Note that the DEIR for the Draft 2030 General Plan contains a mitigation measure to exempt the Folsom Boulevard and 65th Street intersections from the LOS threshold, which would lead to a less than significant impact at these intersections. However, the significant impact at the Q Street/67th Street intersection would remain for both development scenarios.

Lanes could be added to the intersections above to reduce the significance of the project-related impacts; however, widening would conflict with the overall goal of the Alternative C roadway network scenario. To maintain the pedestrian-oriented design of the study area, intersection widening is considered infeasible.

The project could implement **Mitigation Measure 4.3-3** and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it is unlikely that enough trips would shift to alternative modes, or non-peak periods of travel to reduce the impact to a less than significant level. Additionally, the project could construct a traffic signal at Q Street/67th Street; however, as described previously, this improvement is not expected to provide acceptable intersection operations or reduce overall intersection delays to within five seconds of the “no project” scenario. Therefore, this impact remains **significant and unavoidable**.

**Mitigation Measure 4.3-17:** Implement Mitigation Measure 4.3-3 *and construct a traffic signal at the Q Street/67th Street intersection.*.

**Impact**

**4.3-17 Freeway Facilities**

Both the Scenario A and Scenario B project alternatives would either degrade freeway facility operations to LOS F conditions with the addition of project traffic, or would add traffic to freeway facilities that operate at LOS F conditions during either the AM or PM peak hour under cumulative without project conditions. The impacted freeway facilities are listed below:

- Eastbound US 50 mainline segment from 59th Street to 65th Street – PM peak hour
- Westbound US 50 mainline segment from 65th Street to 59th Street – AM peak hour
- Eastbound US 50 off-ramp diverge area at 65th Street – PM peak hour
- Westbound US 50 slip on-ramp merge area from 65th Street – AM peak hour
- Westbound US 50 loop on-ramp merge area from 65th Street – AM peak hour
- Eastbound US 50 loop on-ramp merge area from 65th Street – PM peak hour
- Eastbound US 50 weaving area between 65th Street and Howe Avenue – AM and PM peak hour
- Westbound US 50 weaving area between Howe Avenue/Hornet Drive and 65th Street – AM peak hour

While either project scenario increases freeway mainline traffic volumes by less than one percent, freeway facility density and service flow increase measurably. Based on Caltrans' standards, this is considered a *significant impact*.

As described previously, the 65th Street Transit Village Plan identified Westbound US 50 off-ramp widening as a cumulative mitigation measure. The Station 65 project will make a fair share contribution to this project, which would reduce the queue length on the off-ramp. However, because the freeway operations in this area are constrained by heavy mainline volumes, this mitigation measure would not reduce the significance of freeway mainline, weaving area, or ramp area impacts to a less than significant level.

The project could pay its fair share toward re-timing the westbound ramp meters at the 65th Street interchange and pay its fair share toward the installation of ramp meters for the eastbound 65th Street on-ramps. Decreasing the ramp metering rate by an amount equal to the project trip generation (under either Scenario A or Scenario B) would reduce the significance of the project impact. However, since the ramp meters are controlled by Caltrans, neither the City nor the project applicant can guarantee that the metering rate will be changed. Therefore, this mitigation measure is infeasible.

Alternatively, **Mitigation Measure 4.3-3** could be implemented. This mitigation measure would reduce peak hour freeway volumes through the establishment of a travel demand management

(TDM) program. While this mitigation measure is feasible to implement and would lead to a reduction in overall peak period auto trips, it cannot be guaranteed that enough trips would shift away from the freeway to reduce the freeway facility impacts to a less than significant level.

Because the mitigation measures identified are either infeasible or would not reduce the significance of the freeway impact to a less than significant level, this impact remains **significant and unavoidable.**

**Mitigation Measures 4.3-18:** Pay fair share to widen the westbound US 50 off-ramp as described in the 65th Street Transit Village Plan EIR. Also, implement Mitigation Measures 4.3-3.

**Impact**

**4.3-18 Freeway Ramp Queuing**

Under both project scenarios, the addition of project-related traffic would cause the ramp queue at the Westbound US 50 off-ramp to extend beyond the available storage length. This is considered a significant impact.

As described previously, the 65th Street Transit Village Plan identified Westbound US 50 off-ramp widening as a cumulative mitigation measure. By implementing **Mitigation Measure 4.3-19**, this impact would be **less than significant** with mitigation.

**Mitigation Measures 4.3-19:** Pay fair share to widen the westbound US 50 off-ramp as described in the 65th Street Transit Village Plan EIR.

### *4.3-19 Pedestrian and Bicycle Circulation Impacts*

**Impact**

**4.3-19-1 Pedestrian Impacts**

The impacts to the pedestrian system under cumulative conditions with the Alternative C roadway network in place are the same as those described under baseline conditions. Therefore, the project's impact to pedestrian circulation is considered **less than significant**.

**Mitigation Measures:** None required.

**Impact**

**4.3-19-2 Bicycle Impacts**

The impacts to the bicycle system under cumulative conditions with the Alternative C roadway network in place are the same as those described under baseline conditions. Therefore, the project's impact to the bicycle system is considered significant.

Implementation of **Mitigation Measure 4.3-5-1** will reduce the significance of this impact to a **less than significant** level.

**Mitigation Measure 4.3-20-1:** Implement Mitigation Measure 4.3-5-1.

### *4.3-20 Transit System*

**Impact**

**4.3-20-1 Transit Capacity**

As shown in **Table 4.3-11**, Scenario A of the Station 65 project is expected to generate 37 AM and 56 PM peak hour transit trips, respectively. **Table 4.3-12** shows that Scenario B is expected to generate 44 AM and 62 PM peak hour transit trips, respectively. Considering that the transit trips will be split between incoming and outgoing travel on the light rail line and seven bus lines, the Station 65 project will not likely exceed the capacity of the planned transit system serving the 65th Street transit station under cumulative conditions. Therefore, this impact is considered **less than significant**.

**Mitigation Measures:** None required.

**Impact**

**4.3-20-2 Transit Delay**

The addition of project traffic leads to increased delays at the study intersections. Based on the results of the intersection analysis, overall delay for some bus routes could increase by three or more minutes, particularly if the bus utilizes the portion of Folsom Boulevard between 65th Street and State University Drive East. This is considered a significant impact.

Roadway widening or intersection widening could reduce the delay to buses by reducing overall delay; however, as described in the roadway and intersection impacts section above, widening is not feasible under cumulative conditions with the Alternative C roadway network in place. Exclusive bus lanes could be provided to give priority to buses and reduce delays; however, to maintain vehicle accessibility, some roadway and intersection widening would be required, which is considered infeasible. **Mitigation Measure 4.3-3** could be implemented to establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it is unlikely that enough trips would shift to alternative modes or non-peak periods of travel to reduce the impact to a less than significant level. Therefore, the impact is considered significant and unavoidable. **Significant and Unavoidable.**

**Mitigation Measure 4.3-21-1:** Implement Mitigation 4.3-3.

# 4.4 NOISE AND VIBRATION

## 4.4.1 INTRODUCTION

This section addresses the potential for the Proposed Project to result in noise impacts and to be exposed to existing and future sources of noise. Following an overview of the noise setting in **Subsection 4.4.2** and the relevant regulatory setting in **Subsection 4.4.3**, project-related impacts and recommended mitigation measures are presented in **Subsection 4.4.4**.

## 4.4.2 ENVIRONMENTAL SETTING

### *Sound*

Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The main characteristics of these air pressure waves are amplitude, which we experience as a sound's loudness, and frequency, which we experience as a sound's pitch. The standard unit of sound amplitude is the decibel (dB); it is a measure of the physical magnitude of the pressure variations relative to the human threshold of perception. The human ear's sensitivity to sound amplitude is frequency-dependent; it is more sensitive to sound with a frequency at or near 1,000 cycles per second than to sound with much lower or higher frequencies.

Most sounds in our everyday environment (e.g., a dog barking, a car passing) are complex mixtures of many different frequency components. When the average amplitude of such sounds is measured with a sound level meter, it is common for the meter to apply different adjustment factors to each of the measured sound's frequency components. These factors account for the differences in perceived loudness of each of the sound's frequency components relative to which those the human ear is most sensitive (i.e., those at or near 1,000 cycles per second). This practice is called "A-weighting" And is indicated by the addition of an "A" to the dB.

### *Noise*

Noise is the term generally given to the "unwanted" aspects of intrusive sound. Many factors influence how a noise is perceived and whether or not it is considered annoying to a listener. These include the physical characteristics of a sound, as well as non-acoustic factors (e.g., the acuity of a listener's hearing ability, the activity of the listener during exposure) that can influence the judgment of listeners regarding the degree to which the sound is unwanted.

### *Effects of Noise on People*

The effects of noise on people generally fall into one of the following categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction.
- Interference with activities such as speech, sleep, and learning.
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. As the response to noise is largely subjective, an objective measurement is difficult. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise. **Table 4.4-1** shows common indoor and outdoor noise levels, which affect the human environment. An important way of predicting a human reaction to a new noise environment is the degree which noise compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise is likely to be judged by receptors. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected.
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

**TABLE 4.4-1.** REPRESENTATIVE ENVIRONMENTAL SOUND LEVELS

| Common Indoor/Outdoor Noise Levels | Noise Level (dBA) |
|---|---|
| Rock Band | 110 |
| Jet Fly-over at 100 feet | 100 |
| Gas Lawnmower at 100 feet. Vacuum Cleaner at 10 feet. Noisy Urban Area during Daytime | 90 |
| Diesel Truck going 50 mph at 50 feet. Garbage Disposal at 3 feet | 80 |
| Gas Lawnmower at 100 feet. Vacuum Cleaner at 10 feet. Noisy Urban Area during Daytime | 70 |
| Commercial Area Normal Speech at 3 feet | 60 |
| Quiet Urban Area during Daytime. Dishwasher in Next Room | 50 |
| Quiet Urban Area during Nighttime. Theater, Large Conference Room (background)<br>Quiet Suburban Area during Nighttime | 40 |
| Library | 30 |
| Quiet Rural Area during Nighttime Bedroom at Night, Concert Hall (background) | 20 |
| Broadcast/Recording Studio | 10 |
| Lowest Threshold of Human Hearing | 0 |
| Source: Caltrans, derived from the Technical Noise Supplement, October 1998 | |

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source,

depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

All quantitative descriptors used to measure environmental noise exposure recognize the strong correlation between the high acoustical energy content of a sound (i.e. its loudness and duration) and the disruptive effect it is likely to have as noise. Since environmental noise fluctuates over time, most such descriptors average the sound level over the time of exposure, and some add "penalties" during the times of day when intrusive sounds would be more disruptive to listeners. The most commonly used descriptors are:

**Equivalent Energy Noise Level (Leq)** is the constant noise level that would deliver the same acoustic energy to the ear of a listener as the actual time-varying noise over the same exposure time. No "penalties" are added to any noise levels during the exposure time Leq would be the same regardless of the time of day during which the noise occurs.

**Day-Night Average Noise Level (Ldn)** is a 24-hour average Leq with a 10 dBA "penalty" added to noise that occurs during the hours of 10:00 p.m. to 7:00 a.m. to account for increased sensitivity that people tend to have to nighttime noise. As a result of this penalty, the Ldn would always be higher than its corresponding 24-hour Leq (e.g., a constant 60 dBA noise over 24 hours would have a 60 dBA Leq, and a 66.4 dBA Ldn).

**Community Noise Equivalent Level (CNEL)** is an Ldn with an additional 5 dBA "penalty" for the evening hours between 7:00 p.m. and 10:00 p.m. Community noise exposures are typically represented by 24-hour descriptors, such as a 24-hour Leq or Ldn. One-hour and shorter-period descriptors are useful for characterizing noise caused by short-term activities, such as the operation of construction equipment.

### *Groundborne Vibration*

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. The ground motion caused by vibration is measured as vibration decibels (VdB). Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel wheeled trains, and automobile traffic on a rough road. If a roadway is smooth, groundborne vibration from traffic is rarely perceptible. Construction activities can generate groundborne vibrations that can pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants. Construction vibrations can either be transient, random, or continuous. Transient construction vibrations occur from blasting, impact pile driving, and wrecking balls. Continuous vibrations result from vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between the source and receptor, duration,

and the number of perceived vibration events. **Table 4.4-2** shows that the threshold for damage to structures ranges from 2 to 6 inches per second (in/sec.). One-half the minimum threshold, or one in/sec peak particle velocity (PPV), is considered a safe criterion that would protect against architectural or structural damage. The threshold of human annoyance is considered to be 0.1 in/sec. Depending on the activity a person is engaged in, vibrations may be a cause of annoyance at much lower levels than those shown in **Table 4.4-2**. Therefore, one-half of the thresholds of human annoyance, or 0.05 in/sec PPV, is considered a reasonable criterion that would protect against human annoyance in most cases.

**TABLE 4.4-2** GENERAL HUMAN AND STRUCTURAL RESPONSES TO VIBRATION LEVELS

| Effects on Structures & People | Peak Vibration Threshold (in/sec PPV) |
|---|---|
| Structural damage to commercial structures | 6 |
| Structural damage to residential buildings | 2 |
| Architectural damage | 1 |
| General threshold of human annoyance | 0.1 |
| General threshold of human perception | 0.01 |
| Sources: Survey of Earth-borne Vibrations due to Highway Construction and Highway Traffic, Caltrans, 1976. | |

## Existing Conditions

### *Existing Noise-Sensitive Receptors*

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, parks, and other outdoor recreation areas generally are more sensitive to noise than are commercial and industrial land uses. A sensitive receptor is defined as any living entity or aggregate of entities whose comfort, health, or well being could be impaired or endangered by the existence of noise.

The nearest residential sensitive receptors to the proposed project are located 175 feet west of the project site along Q Street. Other residential sensitive receptors are located to the north, south, and west of the project site approximately 400 ft., 1,230 ft, and 2,600 ft, respectively. The closest school is California State University at Sacramento, which is located approximately 1,300 feet northeast of the project site on West State University Drive.

### *Existing Ambient Sound Levels*

The noise analysis found that noise at the project site, in the vicinity of 65$^{th}$ Street and Folsom Boulevard in Sacramento, is typical of a suburban environment. The primary noise sources are associated with traffic on surface streets and local commercial retail uses. Temporary noise sources such as construction are also common, and can affect adjacent uses for a finite period of time. Noise sources in the vicinity include vehicular noise on U.S. Highway 50 (US-50), Folsom Boulevard, and Q Street. Generally, traffic noise is the dominant noise source in the project vicinity.

To quantify existing ambient noise levels in the project vicinity, continuous (24-hour) and short-term ambient noise measurements were conducted at various locations on and in the immediate vicinity of the project site. The ambient noise measurement locations are shown on **Figure 4.4-1**. Sites 1, 2, and 3 are 24-hour noise measurement sites and sites A, B, and C are 15-minute noise measurement sites.

Quest Model SE precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a Quest Model QC-10 acoustical sound calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

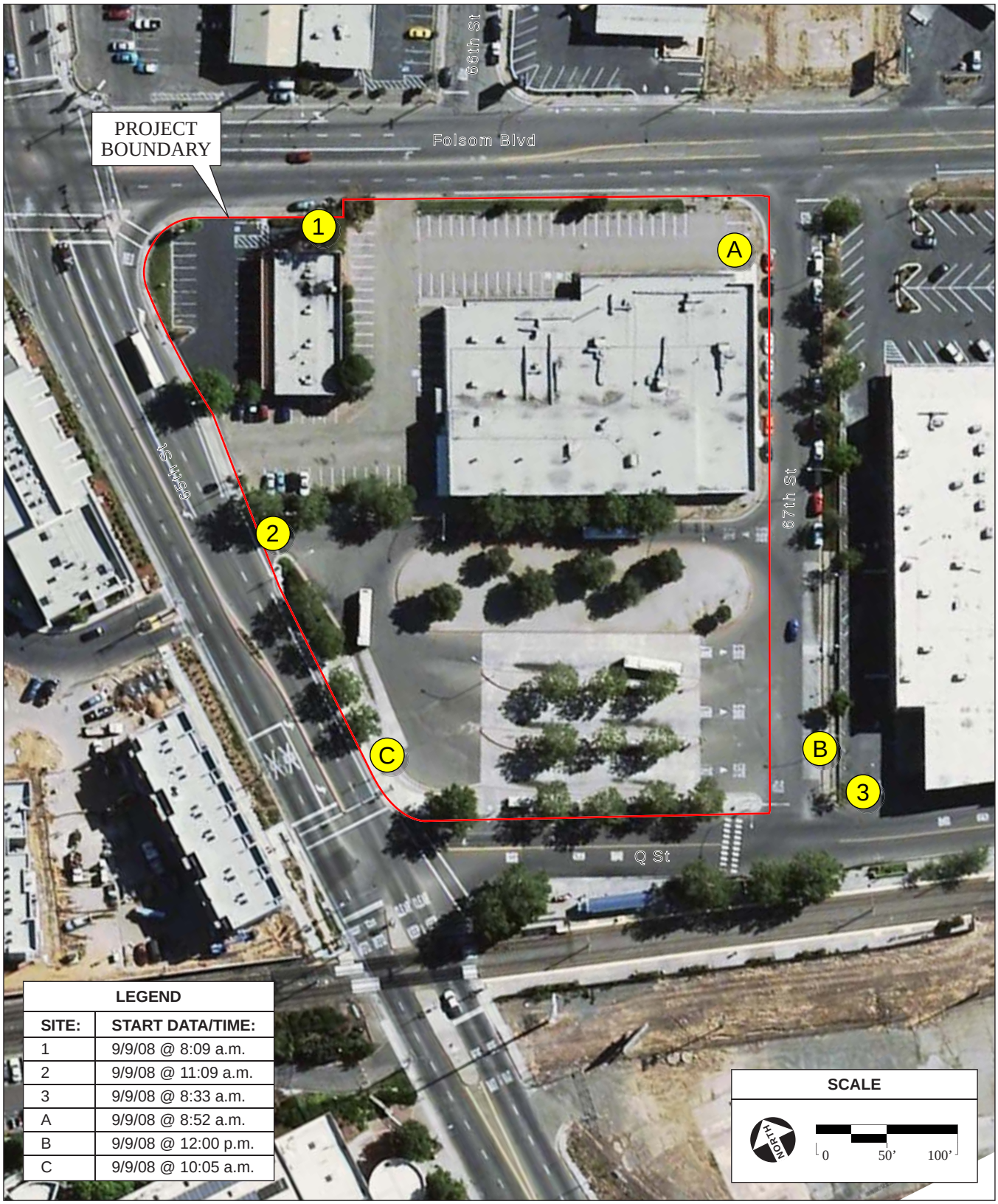
The sound level meters were programmed to record the maximum and average noise level at each site during the survey. The maximum value, denoted Lmax, represents the highest noise level measured. The average value, denoted Leq, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. **Tables 4.4-3** and **4.4-4** summarize results of the measurements.

**TABLE 4.4-3** EXISTING BACKGROUND NOISE MEASUREMENT DATA

| Site | Start Data/Time | Comments | Measured Noise Levels | | |
|---|---|---|---|---|---|
| | | | Ldn | Leq | Lmax |
| 1 | 9/9/08 @ 8:09 a.m. | Corner of Folsom Blvd. and Alley | 69.8 | 69.8 | 82.5 |
| 2 | 9/9/08 @ 11:09 a.m. | Corner of Q and 65th Sts. | 66.8 | 66.8 | 81.9 |
| 3 | 9/9/08 @ 8:33 a.m. | Conner of Q and Alley | 66.7 | 66.7 | 77.7 |
| A | 9/9/08 @ 8:52 a.m. | Folsom Blvd. between 65th and Alley. | 73.8 | 69.9 | 106.1 |
| B | 9/9/08 @ 12:00 p.m. | 65th St. between Folsom Blvd. and Q St. | 72.8 | 69.6 | 99.6 |
| C | 9/9/08 @ 10:05 a.m. | Q St. at Alley | 71.4 | 67.3 | 95.9 |
| Source: AES, 2008. | | | | | |

**TABLE 4.4-4** EXISTING NOISE LEVELS AND DISTANCES TO CONTOURS

| Roadway | Segment | Ldn @ 50 feet (dB) | Distance in Feet to Contour | | |
|---|---|---|---|---|---|
| | | | 65 dB | 60 dB | 55 dB |
| **Scenario A** | | | | | |
| Folsom Blvd. | Between 65th and 69th St. | 70.4 | 150 | 315 | 585 |
| Q St. | Between 65th and 69th St. | 62.4 | 27 | 100 | 205 |
| 65th St. | Between S St. and Folsom Blvd. | 70.5 | 178 | 374 | 650 |
| **Scenario B** | | | | | |
| Folsom Blvd. | Between 65th and 69th St. | 70.4 | 150 | 315 | 585 |
| Q St. | Between 65th and 69th St. | 62.4 | 27 | 100 | 205 |
| 65th St. | Between S St. and Folsom Blvd. | 70.5 | 178 | 374 | 650 |
| Source: AES, 2008. | | | | | |




SOURCE: DigitalGlobe Aerial Photograph, 2008; AES 2008

*Station 65 EIR / 208523* ■

**Figure 4.4-1**
Noise Measurement Locations

#### *Existing Groundborne Vibration*

The most prominent source of groundborne vibration at the project site is roadway truck and bus traffic. Based upon Caltrans research, the maximum vibration levels from truck traffic would not be expected to exceed 0.08 in/sec PPV at a distance of 16 feet from the centerline of the nearest lane of travel (Caltrans, 1976). The proposed project property lines are located approximately 30 feet or more from the centerlines of the adjacent City streets. At this distance, the Caltrans research indicates that PPV vibrations from truck passages would not be expected to exceed 0.05 in/sec. The vibration level is considered to be in the range of perceptibility, but is not likely to cause architectural or structural damage to buildings.

## 4.4.3 REGULATORY CONTEXT

### State

#### *General Plan Guidelines*

The 2003, State of California General Plan Guidelines (Guidelines, 2003) promotes use of the $L_{dn}$ or CNEL descriptors for evaluating land use noise compatibility. Denotation of a land use as "normally acceptable" implies that the highest noise level in that band is the maximum desirable to assure an acceptable indoor noise level in buildings that do not incorporate any special acoustic insulation features. The Guidelines also provide an interpretation as to the suitability of various types of construction with respect to the range of outdoor noise exposure. The objective of the Guidelines is to provide local communities with a means of judging the noise environment it deems to be generally acceptable while recognizing the variability in perceptions of environmental noise that exist between communities and within a given community.

#### *Title 24*

Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA CNEL in any habitable room of new dwellings. Dwellings are required to be designed so that interior noise levels will meet this standard for at least ten years from the time of building permit application.Title 24 of the California Code of Regulations codifies Sound Transmission Control requirements, which establishes uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single family dwellings.

### Local

#### *City of Sacramento General Plan: Health and Safety Element*

This element establishes maximum acceptable interior and exterior noise level criteria for new single-family development, multi-family development, schools, and libraries. These City standards are shown in **Tables 4.4-5** and **4.4-6**. The land use compatibility standards presented in **Table 4.4-5** are similar to those in the State General Plan Guidelines, the only difference being the lack of overlap in the compatibility categories. The General Plan specifies a maximum interior noise level

**TABLE 4.4-5.** COMMUNITY NOISE EXPOSURE LEVELS

| Land Use Category | Community Noise Exposure (Ldn or CNEL, dB) | | | | | | | Interpretation: |
|---|---|---|---|---|---|---|---|---|
| | 55 | 60 | 65 | 70 | 75 | 80 | | |
| Residential | | | | | | | | **Normally Acceptable**<br>Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. |
| Transient lodging, motels, hotels | | | | | | | | |
| Schools, libraries, churches, hospitals, nursing homes | | | | | | | | **Conditionally Acceptable**<br>New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction but with closed windows and fresh air supply systems or air conditioning will normally suffice. |
| Auditoriums, concert halls, amphitheaters | | | | | | | | |
| Sorts arena, outdoor spectator sports | | | | | | | | |
| Playgrounds, neighborhood parks | | | | | | | | |
| Golf courses, riding stables, water recreation, cemeteries | | | | | | | | **Normally Unacceptable**<br>New construction or development should generally be discouraged if new construction or development does proceed a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. |
| Office buildings, business, commercial, and professional | | | | | | | | |
| Industrial, manufacturing, utilities, agriculture | | | | | | | | **Clearly Unacceptable**<br>New construction or development clearly should not be undertaken. |

Source: Sacramento County General Plan., 1988.

**TABLE 4.4-6.** INTERIOR/EXTERIOR ACCEPTABLE NOISE LEVELS FOR NEW DEVELOPMENT MITIGATION

| Noise Source | Land Use | Int. | Ext. | Statement Requirements | Noise Element requirements |
|---|---|---|---|---|---|
| Traffic or fixed source (Industrial, plants, etc.) | Single Family | X | | None | Ldn < 45 dB |
| | Single Family | | X | None | Ldn ≤ 60 dB in backyards |
| | Multi-Family | X | | Ldn < 45 dB | Ldn < 45 dB |
| | Multi-Family | | X | None | Ldn ≤ 60 dB in common outdoor use areas |
| | Schools | X | | None | Noisiest hour Leq ≤ 40 dB during school day |
| | Schools | | X | None | Ldn ≤ 60 dB |
| | Libraries | X | | None | Noisiest hour Leq ≤ 45 dB |
| | Libraries | | X | None | None |
| Aircraft | Single Family | X | | None | Ldn ≤ 45 dB and maximum instantaneous levels of ≤ 50 dBA in bedrooms and ≤ 55 dBA in other habitable rooms. |
| | Single Family | | X | CNEL ≤ 65 dB (SANS)2 requirement does not apply to Mather and McClellan's AFB's | CNEL ≤ 60 for Metro Airports, CNEL ≤ 65 dB for all others |
| | Multi-Family | X | | Ldn ≤ 45 dB | Ldn ≤ 45 dB and maximum instantaneous levels of ≤ 50 dBA in bedrooms and ≤ 55 dBA in other habitable rooms. |
| | Multi-Family | | X | CNEL ≤ 65 dB (SANS)2 requirement does not apply to Mather and McClellan's AFB's | CNEL ≤ 60 for Metro Airports, CNEL ≤ 65 dB for all others |
| | Schools | X | | None | Noisiest hour Leq ≤ 40 dB during school day |
| | Schools | | X | CNEL ≤ 65 dB (SANS)2 requirement does not apply to Mather and McClellan's AFB's | CNEL ≤ 60 for Metro Airports, CNEL ≤ 65 dB for all others |
| | Libraries | X | | None | Noisiest hour Leq ≤ 45 dB |
| | Libraries | | X | None | None |
| Rail Traffic | Single Family | X | | None | Ldn ≤ 45 dB and maximum instantaneous levels of ≤ 50 dBA in bedrooms and ≤ 55 dBA in other habitable rooms. |
| | Single Family | | X | None | Ldn ≤ 60 dB |
| | Multi-Family | X | | Ldn ≤ 45 dB unless there are less than 4 trans per day between 7:00a.m. and 10:00 p.m. and there are no trains between 10:00 p.m. and 7:00 a.m. | Ldn ≤ 45 dB and maximum instantaneous levels of ≤ 50 dBA in bedrooms and ≤ 55 dBA in other habitable rooms. |
| | Multi-Family | | X | None | Ldn ≤ 60 dB |
| | Schools | X | | None | Noisiest hour Leq ≤ 40 dB during school day |
| | Schools | | X | None | Maximum instantaneous levels of ≤ 85 dBA. |
| | Libraries | X | | None | Noisiest hour Leq ≤ 45 dB |
| | Libraries | | X | None | None |
| Source: Sacramento County General Plan, 1988. | | | | | |

in residential uses of 45 dB Ldn and a maximum exterior noise level of 60 dB Ldn. The exterior standard also applies to rear yards for single-family development and in common outdoor use areas in multi-family developments. In addition, the General Plan stipulates maximum interior instantaneous noise levels of 50 dBA in bedrooms and 55 dBA in other habitable rooms. There is a 65 dBA Ldn exterior standard for commercial and office buildings.

The Noise Element of the City of Sacramento General Plan contains the following goals and policies that relating to cultural resources that are applicable to the proposed project.

*Goal A Future development should be compatible with the projected year 2016 noise environment.*

**Policy 1** Require an acoustical report for any project which would be exposed to noise levels in excess of those shown as normally acceptable in Figure 3 (shown as **Table 4.4-5**). The contents of the acoustical report shall be as described in the Noise Assessment Report Guidelines. No acoustical report shall be required where City staff has an existing acoustical report on file which is applicable.

**Policy 2** Require mitigation measures to reduce noise exposure to the "Normally Acceptable Levels" (Figure 3, shown as **Table 4.4-5**) except where such measures are not feasible. It is recognized that there are many areas within the City for which it is not feasible to provide further noise mitigation. It is also recognized that some projects, because of their location, design, or size may not be able to incorporate mitigation measures that are feasible for larger projects or for projects in different locations. Specifically, around McClellan Air Force Base, there are areas where the noise contours indicate that it may be clearly infeasible to achieve the "Normally acceptable" noise level. Projects in these areas may be allowed to exceed the maximum acceptable noise level. However, each project shall be subject to mitigation measures to the maximum extent feasible**.**

**Policy 3** Land uses proposed where the exterior noise level would be below the "normally acceptable" limit may be approved without any requirement for interior or exterior mitigation measures. Where the exterior noise is below the "normally acceptable" limit, it is assumed that any buildings involved are of normal conventional construction without any special interior noise provisions. This will, under normal circumstances, provide an acceptable interior noise level. "Maximum acceptable" interior noise levels have not been established for land use categories in Figure 3 (Shown as **Table 4.4.5**). The types of interior use in these categories vary substantially. As a general rule, acceptable noise mitigation will be that which provides for interior noise levels comparable to the noise levels that would exist in buildings where the exterior noise is below the "normally acceptable" standard.

*Goal C Eliminate or minimize the noise impacts of future development on existing land uses in Sacramento.*

**Policy 1** Review projects that may have noise generation potential to determine what impact they may have on existing uses. Additional acoustical analysis may be necessary to mitigate identified impacts. There are areas of the City which are considered relatively quiet (ambient levels below "normally acceptable" noise levels). While new development in these areas might not cause the "normally acceptable" noise level for existing development to be exceeded, it is recognized that such new development might cause an increase in ambient noise considered significant in terms of impacts on existing uses. Enforce the Sacramento Noise Ordinance as the method to control noise from sources other than transportation sources.

*Goal D Reduce noise levels in areas where noise exposure presently exceeds the standards established in Figure 3 (shown as Table 4.4-5).*

**Policy 2** Encourage the incorporation of the latest noise control technologies in all projects.

***City of Sacramento Draft 2030 General Plan: Environmental Constraints***

*Goal EC 3.1 Noise Reduction. Minimize noise impacts on land uses and human activity to ensure the health and safety of the community.*

**Policies**

**EC 3.1.1** Exterior Noise Standards. The City shall require noise mitigation for all development at locations where the exterior noise standards exceed those shown in **Table 4.4-7**, to the extent feasible.

**EC 3.1.2** Exterior Incremental Noise Standards. The City shall require mitigation for all development that increases existing noise levels by more than the allowable increment as shown in **Table 4.4-8**, to the extent feasible.

**EC 3.1.3** Interior Noise Standards. The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA Ldn for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA Leq (peak hour) for office buildings and similar uses.

**EC 3.1.4** Interior Noise Standards for Single Events. The City may require new development in areas subject to frequent, high-noise events (such as aircraft over-flights and trains) to meet the following interior noise standards during single noise events: 50 dBA SEL1 in bedrooms and 55 dBA SEL in other habitable rooms. In areas where high-noise events are especially frequent (e.g., near major truck routes), the City can require a more stringent standard of 45 dBA SEL in bedrooms unless it is

demonstrated that sleep disturbance can be kept within acceptable limits at 50 dBA SEL.

**TABLE 4.4-7** EXTERIOR NOISE COMPATIBILITY STANDARDS FOR VARIOUS LAND USES

| Land Use Type | Highest Level of Noise Exposure that is Regarded as "Normally Acceptable"1 (Ldn 2 or CNEL3) |
|---|---|
| Residential – Low Density Single Family, Duplex, Mobile Homes | 60 dBA4,5 |
| Residential – Multi-family | 65 dBA |
| Urban Residential Infill6 and Mixed-use Projects7 | 70 dBA |
| Transient Lodging – Motels, Hotels | 65 dBA |
| Schools, Libraries, Churches, Hospitals, Nursing Homes | 70 dBA |
| Auditoriums, Concert Halls, Amphitheaters | Mitigation based on site-specific study |
| Sports Arena, Outdoor Spectator Sports | Mitigation based on site-specific study |
| Playgrounds, Neighborhood Parks | 70 dBA |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries | 75 dBA |
| Office Buildings – Business, Commercial and Professional | 70 dBA |
| Industrial, Manufacturing, Utilities, Agriculture | 75 dBA |

Notes: 1. As defined in the Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements." 2. Ldn or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels. 3. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period. 4. dBA or A-weighted decibel, a measure of noise intensity. 5. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA. 6. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High), Urban Center (Low or High), Urban Corridor (Low or High). 7. All mixed-use projects located anywhere in the City of Sacramento.

Source: Governor's Office of Planning and Research, State of California General Plan Guidelines 2003, October 2003.

**TABLE 4.4-8** EXTERIOR INCREMENTAL NOISE IMPACT STANDARDS FOR NOISE-SENSITIVE USES (DBA)

| Residences and buildings where people normally sleep1 | | Institutional land uses with primarily daytime and evening uses2 | |
|---|---|---|---|
| Existing $L_{dn}$ | Allowable Noise Increment | Existing Peak Hour $L_{eq}$ | Allowable Noise Increment |
| 45 | 8 | 45 | 12 |
| 50 | 5 | 50 | 9 |
| 55 | 3 | 55 | 6 |
| 60 | 2 | 60 | 5 |
| 65 | 1 | 65 | 3 |
| 70 | 1 | 70 | 3 |
| 75 | 0 | 75 | 1 |
| 80 | 0 | 80 | 0 |

Notes: 1. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance. 2. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.

Source: Federal Transit Administration, Transit Noise Impact and Vibration Assessment, May 2006.

**EC 3.1.5** Operational Noise. The City shall require new mixed-use, commercial, and industrial development to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded.

**EC 3.1.6** Compatibility with Park and Recreation Uses. The City shall limit the hours of operation for parks and active recreation areas in residential areas to minimize disturbance to residences.

**EC 3.1.7** Construction Noise. The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses to the extent feasible.

**EC 3.1.8** Alternatives to Sound Walls. The City shall encourage the use of design strategies and other noise reduction methods along transportation corridors in lieu of sound walls to mitigate noise impacts and enhance aesthetics.

**EC 3.1.9** Residential Streets. The City shall discourage widening streets or converting streets to one-way in residential areas where the resulting increased traffic volumes would raise ambient noise levels.

### *65th Street/University Transit Village Plan*

In addition to the General Plan, the City of Sacramento has also developed plans that are more specific to the various communities in the City. The project site is located within the 65th Street/University Transit Village Plan (Transit Village Plan) Station Block Planning area. There are no goals or policies related to noise or vibration for the Station Block Planning area.

### *Sacramento Municipal Code*

The Sacramento Municipal Code also contains regulations concerning noise. These noise regulations are found in Title 8 – Health and Safety, Chapter 8.68 – Noise Control. Of the regulations in Chapter 8.68, not all are applicable to the proposed project. Of the applicable regulations, Section 8.68.060 sets standards for cumulative exterior noise levels at residential and agricultural properties. Section 8.68.060 exempts certain activities from Chapter 8.68, including "noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure" as long as these activities are limited to between the hours of 7 a.m. and 6 p.m. Monday through Saturday, and between the hours of 9 a.m. and 6 p.m. on Sunday. Section 8.68.060 also requires the use of exhaust and intake silencers for internal combustion engines, and provides for construction work to occur outside of the designated hours if the work is of urgent necessity and in the interest of public health and welfare for a period not to exceed three days.

## 4.4.4 IMPACTS AND MITIGATION MEASURES

### Method of Analysis

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels were predicted at a representative distance for baseline, baseline with project cumulative with project, and cumulative conditions. Noise impacts are identified at existing noise-sensitive areas if the noise level increases that result from the project exceed the City's significance threshold. In addition, impacts to project-related noise-sensitive uses are examined to ensure that City standards are not exceeded for new development.

To describe existing and projected noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA PD-96-0098) was used, which replaces the FHWA Noise Prediction model FHWA-RD-77-108. This model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions. To predict traffic noise levels in terms of Ldn the input volume was adjusted to account for the day/night distribution of traffic.

The p.m. peak hour traffic volumes provided in the **Section 4.3** were compiled into segment volumes and converted into daily traffic volumes using a factor of 10. Truck usage and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for baseline and future conditions which would result from the project are provided in terms of Ldn at a standard distance of 100 feet from the centerlines of the project-area roadways.

### Thresholds of Significance

Criteria for determining the significance of impacts to traffic and circulation have been developed based on Appendix G of the CEQA (*guidelines*) and relevant agency thresholds. Impacts to the ambient noise environment would be considered significant if the proposed project would result in:

- Exposes persons(s) to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Exposes person(s) to or generation of excessive groundborne vibration noise levels.
- Create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- Create a substantial temporary or periodic increase in ambient noise levels in vicinity above levels existing without the project.

- For a project located within an airport land use plan or, where such a plan has not been adopted within two miles of a public airport or public use airport, would the project expose people residing or working in area to excessive noise levels.

- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

The City of Sacramento has determined that implementation of the project would result in significant noise and vibration impacts if the project would result in any of the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the City's General Plan or Noise Ordinance. Consistent with the General Plan, exterior community noise levels at residential areas shall not exceed the normally acceptable level of 60 dB, or the conditionally acceptable level of 70 dB.

- The project would result in an increase in noise levels of Ldn 4 to 5 dB and result in a total noise level that would exceed the "normally acceptable" standard for a given land use category. An increase of 6 dB or greater due to the project would be considered significant due to the potential for adverse community response.

- Residential interior noise levels of Ldn 45 dB or greater caused by noise level increases due to the project.

- Construction noise levels exceed the standards in the City of Sacramento Noise Ordinance.

- Existing and/or planned residential and commercial areas exposed to vibration-peak particle velocities greater than 0.5 inches per second due to project construction.

The Federal Transit Administration (FTA) has developed extensive methodologies and significance criteria for the evaluation of vibration impacts from construction activities from surface transportation modes **Table 4.4-9** shows the FTA screening distances for potential vibration impacts in the vicinity of mass transit facilities.

**TABLE 4.4-9.** SCREENING DISTANCES FOR VIBRATION ASSESSMENT

| Type of Project | Critical distances for Land Use Categories Distance from Right-of-Way or Property Line (feet) | | |
|---|---|---|---|
| | Category 1[1] | Category 2[2] | Category 3[3] |
| Convention Commuter Railroad | 600 | 200 | 120 |
| Rail Rapid Transit | 600 | 200 | 120 |
| Light Rail Transit | 450 | 150 | 100 |
| Intermediate Capacity Transit | 200 | 100 | 50 |
| Bus Projects | 100 | 50 | --- |

[1] Tracts of land where quiet is an essential element in their intended purposes.
[2] Residences and buildings where people normally sleep.
[3] Institutional land uses with primarily daytime and evening uses.
Source: FTA, 2006.

## Project Specific Impacts and Mitigation Measures

### Impact

**4.4-1 Noise from construction activities has the potential to expose noise-sensitive receptors to an increased ambient noise level.**

***Scenario A and B***

During construction of the proposed project, noise would be produced through the operation of heavy-duty equipment and various other demolition and construction activities. **Table 4.4-10** shows typical construction noise levels. Similar to other projects in the project area, pile driving could be used in conjunction with drilling. California building standards generally provide a reduction of exterior-to-interior noise levels of about 20 dB with closed windows. Newer buildings generally provide a reduction of 25 dB or more. Accordingly, interior noise levels would be reduced by 20 to 25 dB from the levels. Demolition would take approximately 30 days, but noise associated with construction activities, including site grading, excavation, building construction, and paving would take place over one year, which has the potential to affect existing noise-sensitive receptors.

The closest existing residential use is 175 feet west of the project site and the nearest school is CSUS, which is located 1,300 ft. north of the project site and would not be affected by construction noise. While it is anticipated that most occupants of these closest residential units would be at work during the day and would not be exposed to construction noise. Project construction activities would be limited to the hours of 7 a.m. to 6 p.m. Monday through Saturday, and the hours of 9 a.m. to 6 p.m. on Sunday and so the noise produced from these activities would be exempt from the cumulative exterior noise limits at residential properties set by the Sacramento Municipal Code. **Mitigation Measure 4.4-1** would further reduce impacts and construction activities would be considered less than significant. **Less than Significant with Mitigation**.

**Mitigation Measure 4.4-1.** The applicant shall ensure construction equipment staging areas shall be located away from residential uses; pre-drill pile holes and use quieter "sonic" pile-drivers, where feasible; and restrict high noise activities, such as pile driving, the use of jackhammers, drills, and other generators of sporadic high noise peaks, to the hours of 7 a.m. to 6 p.m. Monday through Friday, or other such hour satisfactory to the City.

**TABLE 4.4-10.** TYPICAL CONSTRUCTION NOISE LEVELS

| Construction Phase | Loudest Construction Equipment | Equipment Noise Level at 50 feet (dBA) |
|---|---|---|
| Site Clearing and Excavation | Dump Truck<br>Backhoe | 84<br>80 |
| Prior to Steel Erection | Impact Pile Driver | 95 |
| Concrete Pouring | Concrete Pump Truck<br>Concrete Mixer Truck | 82<br>85 |
| Steel Erection | Crane<br>Jack Hammer | 85<br>85 |
| Mechanical | Crane<br>Pneumatic Tools | 85<br>85 |
| Clean-Up | Front End Loader<br>Flat Bed Truck | 80<br>84 |
| Source: FWHA, 2008. | | |

### Impact

**4.4-2 Ground-borne vibration from construction activity has the potential to cause structural damage to nearby buildings.**

***Scenario A and B***

In addition to noise, construction activity also produces vibration. Construction-related vibration is normally associated with impact equipment such as jackhammers and pile drivers, and the operation of heavy-duty construction equipment such as trucks and bulldozers. **Table 4.4-11** shows typical vibration levels for construction equipment.

Vibration can damage buildings constructed of reinforced concrete, steel or timber if the strength of the vibration exceeds a peak particle velocity (PPV) of 0.5 inches per second. Ground-borne vibration that can cause structural damage is typically limited to impact equipment, such as pile-drivers. All existing buildings on the project site would be demolished. The nearest existing office and commercial uses are approximately 100 feet from the project boundary. As shown in **Table 4.4-11**, the effect for structural damage would be very limited, less than 100 feet for pile driving and 25 feet or less for other equipment. Pile driving would take place at a distance greater than 100 feet from existing buildings, while other construction activity would take place at a distance greater than 25 feet from existing buildings. Impacts from ground-borne vibration would be less than significant and no mitigation is required. **Less than Significant**.

**TABLE 4.4-11.** TYPICAL VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

| Construction Equipment | PPV (in/sec) | | | |
|---|---|---|---|---|
| | 25 Feet | 100 Feet | 200 Feet | 400 Feet |
| Pile Driver (Impact) | 0.644 | 0.081 | 0.028 | 0.01 |
| Vibratory Roller | 0.21 | 0.026 | 0.009 | 0.003 |
| Large Bulldozer | 0.089 | 0.011 | 0.004 | 0.001 |
| Loaded Trucks | 0.076 | 0.01 | 0.003 | 0.001 |
| Jackhammer | 0.035 | 0.004 | 0.002 | 0.001 |
| Small Bulldozer | 0.003 | <0.001 | <0.001 | <0.001 |
| Source: FHWA, 2006. | | | | |

### Impact

**4.4-3 Operation of the proposed project has the potential to increase the ambient noise level due to increased traffic levels and increased light rail use.**

***Scenario A and B***

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels were predicted at a representative 50 foot distance for baseline, baseline with project, cumulative with project and cumulative no project conditions. To describe existing and projected noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model was used. **Table 4.4-12** shows the predicted increases in traffic noise levels on the local roadway network for baseline and the baseline plus project scenarios, which would result from the proposed project. **Table 4.4-13** shows the day/night (Ldn) for the study area and the distance from the center line of the roadway to various sound levels (Ldn).

The proposed project is expected to result in traffic noise level increases over baseline levels of 0.1 to 1.3 dB on the project area roadways. The 1.3 dB increase in traffic noise levels on 65$^{th}$ street would not exceed the City of Sacramento 6 dB threshold because the resulting exterior noise level of 71.8 dB would exceed the City's "Normally Unacceptable" 60 dB Ldn exterior noise level standard for residential areas. It should be noted that the traffic noise levels predicted in **Table 4.4-12** are calculated for a standard distance of 50 feet from the centerline of the roadway. However, the outdoor use areas for the nearest residential receptor would be lower due to increased distance (the nearest residential receptor is over 175 feet from the centerline of 65$^{th}$ Street) and shielding from an intervening buildings. Because the predicted increase in traffic noise levels would not expose common outdoor use areas to noise levels that exceed threshold of significance when compared to the baseline scenarios, the impact is considered less than significant and no mitigation is required. **Less than Significant**.

**TABLE 4.4-12.** PREDICTED NOISE LEVELS AT SENSITIVE RECEPTORS

| Roadways | Ldn @ 50 feet (db) | | |
|---|---|---|---|
| | Baseline | Baseline w/Project | Project Related Noise Increase |
| **Scenario A** | | | |
| Folsom Boulevard | 70.4 | 70.5 | 0.1 |
| Q Street | 62.4 | 63.3 | 0.9 |
| 65th Street | 70.5 | 71.4 | 0.9 |
| **Scenario B** | | | |
| Folsom Boulevard | 70.4 | 70.5 | 0.1 |
| Q Street | 62.4 | 63.4 | 1.0 |
| 65th Street | 70.5 | 71.8 | 1.3 |
| Source: AES, 2008. | | | |

**TABLE 4.4-13.** EXISTING NOISE LEVELS AND DISTANCES TO CONTOURS

| Roadway | Segment | Ldn @ 50 feet (dB) | Distance in Feet to Contour | | |
|---|---|---|---|---|---|
| | | | 65 dB | 60 dB | 55 dB |
| **Scenario A** | | | | | |
| Folsom Blvd. | Between 65th and 69th St. | 70.5 | 150 | 325 | 600 |
| Q St. | Between 65th and 69th St. | 63.3 | 40 | 120 | 255 |
| 65th St. | Between S St. and Folsom Blvd. | 71.4 | 190 | 380 | 650 |
| **Scenario B** | | | | | |
| Folsom Blvd. | Between 65th and 69th St. | 70.5 | 150 | 325 | 600 |
| Q St. | Between 65th and 69th St. | 63.4 | 40 | 120 | 255 |
| 65th St. | Between S St. and Folsom Blvd. | 71.8 | 190 | 380 | 650 |
| Source: AES, 2008. | | | | | |

### Impact

**4.4-4 Operation of the proposed project has the potential to increase the ambient noise level due to increased noise from on-site stationary sources.**

***Parking Structure Activities***

Parking structure noise levels would not be louder than vehicular traffic on Folsom Boulevard and 65th Street. Based upon the project traffic study, the proposed project would generate approximately 550 p.m. peak hour trips from Scenario A and 586 p.m. peak hour trips from Scenario B at each major entrance into the project site. Assuming that all of these vehicles were to enter and park near the western edge of the parking structure, there would be a setback of approximately 450 feet to the nearest residential uses.

Typical instantaneous noise level (SEL) due to automobile arrivals and departures, including car doors slamming and people conversing is approximately 71 dB, with a maximum level of 63 dB Lmax, at a distance of 50 feet. Based upon a p.m. peak hour

traffic volume of 900 vehicles, the median parking lot noise level would be 65 dB at a distance of 50 feet. Based upon a setback distance of 450 feet, the noise level would be 44 dB at the nearest residential use. Therefore, the parking lot noise level would comply with the City's 55 dB exterior noise level standard, and the noise generated by the parking activities would be less than existing ambient noise levels. Parking lot activities would result in a less than significant impact to existing residential uses and no mitigation is required. **Less than Significant**.

***HVAC Equipment***

Heating, ventilation, and air conditioning (HVAC) equipment can be a primary noise source associated with commercial and office type uses. HVAC equipment is commonly mounted on roof tops, located on the ground or located inside buildings. The noise sources can take the form of fans, pumps, air compressors, chillers or cooling towers. Noise levels from these types of equipment can vary substantially, but generally range between 45 dB to 70 dB at a distance of 50 feet. Therefore, residences located near commercial buildings could be adversely affected by HVAC noise generation.

The proposed project could generate noise levels from on-site activities that could exceed the City's noise ordinance standards at existing and proposed residential uses from the use of HVAC mechanical equipment. Implementation of **Mitigation Measure 4.4-4** would reduce noise from heating, cooling, and ventilation equipment by providing sound barriers around the noise source, which would result in a less than significant impact. **Less than Significant with Mitigation**.

> **Mitigation Measure 4.4-4** The Applicant shall ensure that all commercial heating, cooling and ventilation equipment shall be located within mechanical rooms where possible, or shielded from view with solid barriers or parapets.

## Cumulative Impacts and Mitigation Measures

The cumulative context for noise impacts associated with the proposed project consists of the existing and future noise sources (operation) that could affect the project or surrounding uses in the vicinity of the proposed project. Noise generated by project construction, including vibration, would be temporary and therefore, would not add to the permanent noise. In addition, construction noise is localized and would only be part of the cumulative context if other construction activities would occur immediately adjacent to the project site at the same time that would impact sensitive receptors. It is not anticipated that a construction project would occur adjacent to the proposed project that would combine to impact sensitive receptors; therefore, no cumulative noise impact would occur. **No Cumulative Impacts.**

Noise associated with stationary sources, such as, HVAC systems and truck deliveries, from operation of the proposed project would affect on-site project uses and is considered localized noise that would not contribute to the cumulative noise environment. **No Cumulative Impacts.**

**Impact**

**4.4-5 Operation of the proposed project has the potential to make a cumulatively considerable contribution to the ambient noise levels.**

***Scenario A and B***

Ambient noise levels in the vicinity of the proposed project are dominated by noise associated with traffic. The development and operation of proposed project will contribute to a near-term increase in traffic on local roadways and locate sensitive receptors at the project site. As discussed above, anticipated noise levels (baseline plus project) will be below thresholds established the existing general plan. Assuming all future projects are subject to similar or more stringent ambient noise thresholds, traffic-generate noise levels in the vicinity of the proposed project would not reach significant levels and the proposed project would not make a cumulatively considerable contribution. **Less than Significant**.

# 4.5 AIR QUALITY

## 4.5.1 INTRODUCTION

This section addresses the potential for the Proposed Project to impact air quality. Following an overview of the noise setting in **Subsection 4.5.2** and the relevant regulatory setting in **Subsection 4.5.3**, project-related impacts and recommended mitigation measures, if any, are presented in **Subsection 4.5.4**.

## 4.5.2 ENVIRONMENTAL SETTING

Local air quality is influenced greatly by regional climate, topography, and pollutant sources. The physical characteristics of the Sacramento Valley (Valley) and the surrounding region have the potential for high concentrations of pollutant, which are emitted locally and from areas outside the Sacramento Valley Air Basin (SVAB).

### Climate and Topography

Hot dry summers and mild rainy winters characterize the Mediterranean climate of the Valley. During the year the temperature may range from 20 to 115 degrees Fahrenheit ($^{o}$F) with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches with snowfall being very rare. The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north.

The mountains surrounding the Valley create a barrier to airflow, which can trap air pollutants when meteorological conditions are right. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the Valley. The lack of surface wind during these periods and the reduced vertical flow, which is caused by cooler land mass, reduces the influx of outside air and allows air pollutants to become concentrated in the stagnate air above the Valley floor. The surface concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning or when temperature inversions trap cool air, fog, and pollutants near the ground.

The ozone season (May through October) in the Valley is characterized by stagnant air or light winds with the delta sea breeze arriving in the afternoon out of the southwest. Usually the evening breeze transports the airborne pollutants to the north out of the Valley. During about half of the days from July to September, however, a phenomenon called the “Schultz Eddy” prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north carrying the pollutants out of the Valley, the Schultz Eddy causes the wind pattern to circle back south. Essentially this phenomenon causes the air pollutants to be blown south toward the Sacramento area. This effect exacerbates the pollution levels in the area and increases the likelihood of violating federal or state standards. The effect normally dissipates around noon when the delta sea breeze arrives.

## Criteria Air Pollutants

The U.S. Environmental Protection Agency (EPA) has identified six criteria air pollutants (CAPs) that are both common and detrimental to human health. These CAPs are used as indicators of regional air quality. The six CAPs include: ozone ($O_3$), carbon monoxide (CO), particulate matter ($PM_{10}$ and $PM_{2.5}$), nitrogen dioxide ($NO_2$), and sulfur dioxide ($SO_2$). California identified four additional CAPs: sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles.

CAPs are classified in each air basin, county, or, in some cases, within a specific area. The classification is determined by comparing actual monitoring data with federal and California standards. If a CAP's concentration is lower than the standard or not monitored in an area, the area is classified as attainment or unclassified, unclassified areas are considered attainment areas. If an area exceeds the standard, the area is classified as non-attainment for that CAP.

## Existing Air Quality

**Table 4.5-1** shows the federal and California attainment status for Sacramento County. As shown in the table eight- and one-hour ozone, $PM_{10}$, and $PM_{2.5}$ are designated nonattainment under the California standards and eight-hour and $PM_{10}$ are designated nonattainment under the federal standards. These pollutants are considered pollutants of concern for the SVAB. Although carbon monoxide is designated attainment under federal and California standards, there is a potential for high concentration to accumulate under certain conditions, such as lengthy vehicle idling at intersection that have reached or exceed their capacity.

**TABLE 4.5-1.** AMBIENT AIR QUALITY STATUS

| Pollutant | Standard | | Status | |
|---|---|---|---|---|
| | California | Federal | California | Federal |
| Ozone (1-hour) | 0.09 ppm | - | Nonattainment | Nonattainment |
| Ozone (8-hour) | 0.07 ppm | 0.075 ppm | Nonattainment | N/A |
| $PM_{10}$ (24-hour) | 50 µg/m$^3$ | 150 µg/m$^3$ | Nonattainment | Nonattainment |
| $PM_{2.5}$ | - | 35 µg/m3 | Nonattainment | Attainment |
| Carbon Monoxide (8-hour) | 9.0 ppm | 9.0 ppm | Attainment | Attainment |
| Nitrogen Oxide | 0.18 ppm | - | Attainment | Attainment |
| Lead (30 day average) | 1.5 µg/m$^3$ | - | Attainment | Attainment |
| Sulfur Dioxide (24-hour) | 0.04 ppm | 0.14 ppm | Attainment | Attainment |
| Visibility Reducing Particles | - | N/A | Attainment | N/A |
| Sulfates | 25 µg/m$^3$ | N/A | Attainment | N/A |
| Vinyl Chloride | 0.01 µg/m$^3$ | N/A | Attainment | N/A |
| Hydrogen Sulfide | 0.03 ppm | N/A | Unclassified | N/A |

Note: $PM_{10}$ and $PM_{2.5}$ = particulate matter 10 and 2.5 microns in size, respectively.
N/A = Not applicable
Source: SMAQMD, 2008.

The health effects associated with the SVAB pollutants of concern are summarized below:

### *Ozone*

Ozone is created in the presence of sunlight through a photochemical reactions involving reactive organic gas (ROG) and NOx. ROG and NOx are a result of incomplete combustion of fossil fuels, which is the largest source of ground-level ozone ($O_3$). Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. As a photochemical pollutant, $O_3$ is formed only during daylight hours under appropriate conditions, but is destroyed throughout the day and night. $O_3$ is considered a regional pollutant, as the reactions forming it take place over time and are often most noticeable downwind from the sources of the emissions.

### *Particulate Matter*

Particle matter (PM) is a mixture of microscopic solids and liquid droplets suspended in air. PM is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores). Particulate matter is regulated as either PM10 or PM2.5, which are the upper limit size restrictions for reaching deep into the lungs (PM of 10 microns or less in size) or reaching the bloodstream (PM of 2.5 microns or less in size).

### *Carbon Monoxide*

CO is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes approximately 56 percent of all CO emissions nationwide. Other non-road engines and vehicles (such as construction equipment and boats) contribute approximately 22 percent of all CO emissions nationwide. Higher levels of CO generally occur in areas with heavy traffic congestion. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. CO is described as having only a local influence because it dissipates quickly. High CO concentrations occur in areas of limited geographic size are sometimes referred to as hot spots. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

## Monitoring

Monitors that collect air quality data are located at monitoring stations throughout the City of Sacramento, SVAB, and California. Some monitoring stations collect data on all federal and California CAPs, while others are specialized and only collect data for certain CAPs. **Table 4.5-2** shows state and federal pollutants of concern data collected at the Sacramento T Street monitoring station.

**TABLE 4.5-2.** EXCEEDANCES OF FEDERAL AND CALIFORIA AIR POLLUTION STANDARDS

| Pollutant | 2005 | 2006 | 2007 |
|---|---|---|---|
| **Ozone (1-hour)[1]** | | | |
| Highest (ppm) | 0.108 | 0.106 | 0.109 |
| Days>0.09 ppm | 4 | 6 | 2 |
| **Ozone (8-hour)[1]** | | | |
| Highest (ppm) | 0.087 | 0.090 | 0.089 |
| Days>0.07 ppm (California) | 5 | 14 | 7 |
| Days>0.75 ppm (federal) | 1 | 3 | 1 |
| **PM10[1]** | | | |
| Highest (µg/m3) | 55.0 | 111.0 | 57.4 |
| Days>50 µg/m3 (California) | 4 | 8 | 5 |
| Days>150 µg/m3 (federal) | 0 | 0 | 0 |
| **PM2.5[1]** | | | |
| Highest (µg/m3) | 59.0 | 54.0 | 58.0 |
| Days>35 µg/m3 (federal) | 0 | 0 | 0 |
| **Carbon Monoxide[2]** | | | |
| Highest (ppm) | 2.97 | 3.15 | 5.58 |
| Days>9.0 ppm (California) | 0 | 0 | 0 |
| Days>9.0 ppm (federal) | 0 | 0 | 0 |

Notes
[1] Data provided by the Sacramento – T Street and 3801 Airport Road monitoring stations.
[2] Data provided by the North Highlands – Blackfoot Way monitoring station.
Source: CARB, 2008.

### *Sources*

There are many sources of criteria pollutants in Sacramento County. These sources can be divided into three categories; mobile, stationary, and “area” sources. Mobile sources consist of on-road vehicles and off-road recreational vehicles, as well as mobile construction equipment. Stationary sources consist of large industrial or commercial polluters that generally emit via a stack. Stationary sources can also be smaller, as in the case of small emergency generators or boilers. Area source emissions are normally produced by processes and products that are individually small, but are numerous and widely dispersed. Normally, these sources are associated with everyday activities such as landscape maintenance, painting, and the use of fireplaces and barbecues.

California Air Resource Board (CARB) maintains an emission inventory of air pollutants for California’s air basins as well as for the counties inside those air basins. **Table 4.5-3** presents the latest emission inventory of NOx, ROG, $PM_{2.5,}$ and $PM_{10}$, for Sacramento County.

**TABLE 4.5-3.** SACRAMENTO COUNTY EMISSIONS INVENTORY

| Source Category | ROG | NOx | PM10 | PM2.5 | CO |
|---|---|---|---|---|---|
| | tons per day | | | | |
| **Stationary Sources** | | | | | |
| Fuel Combustion | 0.4 | 3.5 | 0.4 | 0.4 | 3.5 |
| Waste Disposal | 0.3 | 0.1 | 0.0 | 0.0 | 0.1 |
| Cleaning and Surface Coatings | 3.8 | - | - | - | - |
| Petroleum Production and Marketing | 2.4 | - | - | - | - |
| Industrial Processes | 0.9 | 0.2 | 1.6 | 0.5 | 0.2 |
| **Area-Wide Sources** | | | | | |
| Solvent Evaporation | 13.1 | - | 0.0 | 0.0 | - |
| Miscellaneous Processes | 4.1 | 3.1 | 38.7 | 10.0 | 40.1 |
| **Mobile Sources** | | | | | |
| On-Road Motor Vehicles | 25.3 | 48.5 | 2.1 | 1.5 | 235.8 |
| Other Mobile Sources | 14.1 | 26.5 | 1.6 | 1.4 | 86.3 |
| **Total Sacramento County** | **64.4** | **81.8** | **44.4** | **13.9** | **365.9** |
| Source: CARB, 2008. | | | | | |

## Toxic Air Contaminants

In addition to the criteria air pollutants, another group of airborne substances, called Toxic Air Contaminants (TACs) are known to be hazardous to human health. TACs are airborne substances capable of causing short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects. TACs can be emitted from a variety of common sources, including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. Farms, construction sites, and residential areas can also potentially contribute to toxic air emissions.

## Sensitive Receptors

Some receptors are considered more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions source, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality related health problems. Residential areas are considered sensitive to poor air quality, because people usually stay home for extended periods of time, with greater associated exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The land surrounding the project site is primarily retail, commercial, and residential. The nearest residential sensitive receptors are located 175 feet (ft) west of the project site along 65$^{th}$ Street. Other residential sensitive receptors are located to the north, south, and west of the project site approximately

400 feet, 1,230 feet, and 2,600 feet, respectively. The closest school is California State University at Sacramento, which is located approximately 1,300 feet northeast of the project site on West State University Drive.

## Climate Change

Global climate change refers to the change in the average weather of the earth that may be measured by changes in ocean currents, wind patterns, storms, precipitation, and temperature. The climate in California is expected to become increasingly warmer during the 21st century due to the accumulation of Green House Gases (GHGs) in the atmosphere. The extent of change is linked to the rate of certain human activities, such as the burning of fossil fuels. The Intergovernmental Panel on Climate Change (IPCC) Special Report on Emissions Scenarios (SRES) has developed a set of possible future GHG emissions scenarios based on different assumptions about global development. There are three general SRES emissions scenarios for California: a higher emissions scenario, a medium-high emissions scenario, and a lower emissions scenario. The higher emissions scenario represents rapid fossil-fuel intensive economic growth, global population that peaks mid-century then declines, and the introduction of new and more efficient technologies toward the end of the 21st century. The medium-high emissions scenario is based on a projection of continuous population growth combined with slower economic growth and technological change than in the other scenarios. In contrast, the lower emissions scenario represents a world with population growth similar to the highest emissions scenarios, but with rapid changes towards a service and information economy with the introduction of clean and resource-efficient technologies. Under this scenario, despite a reduction in CO2 emissions, the global CO2 concentration would double, relative to its pre-industrial level, by the end of this century. It is important to note that even at the lower emissions scenario; increases in global temperature are predicted to be between 1.7 and 3.0 degrees Celsius (3 to 5.5 degrees Fahrenheit). In the medium-high emissions scenario and the higher emissions scenario, temperatures are predicted to increase between 3.1 and 4.3 degrees Celsius (5.5 to 8 degrees Fahrenheit) and 4.4 to 5.8 degrees Celsius (8 to 10.5 degrees Fahrenheit), respectively. According to these climate models, the temperature rise in California is expected to increase anywhere between 1.7 and 5.8 degrees Celsius. Among other effects, projected climate changes would affect California's public health through changes in air quality.

To date, analysts have yet to define protocols for establishing the effect of a specific local development project on a cumulative global temperature increase. The IPCC notes that “difficulties remain in attributing temperature on smaller than continental scales and over time scales of less than 50 years. Attribution at these scales, with limited exceptions, has not yet been established.” This following discussion focuses on the proposed project’s cumulative contribution to the global climate change by quantifying GHG emissions and qualitatively discussing project GHG reductions, which would be consistent with the regulatory context presented below. The assessment focuses on the quantification of major greenhouse gas, carbon dioxide (CO2), Nitrous oxide (N2O), and methane gas (CH4), which contributes to global warming. Transportation-related emissions ($CO_2$), natural gas consumption

emissions (CO2), and emissions from the combustion of fossil fuels for electricity (CO2) are quantified in **Table 4.5-4**.

**TABLE 4.5-4.** ESTIMATED PROJECT GHG EMISSIONS – CONSTRUTION AND OPERATION

| **$CO_2$ Emissions[1]** | | | | | |
|---|---|---|---|---|---|
| **Mobile Sources** | | **Area Sources** | **Construction4** | | **Total CO2e** |
| **Tons per year** | | **Tons per year** | **Tons per year** | | **Tons per year** |
| 48,071 | | 4,531 | 17,241 | | 69,843 |
| **$CH_4$ and $N_2O$ Emission from Mobile Sources[2]** | | | | | |
| **Emission Factor ($CH_4$/$N_2O$)** | **Miles Traveled** | **$CH_4$** | | **$N_2O$** | **Total $CO_2$e** |
| **g/mile** | **miles/day** | **Tons per year** | | | |
| 0.05/0.05 | 51,717 | 22 | | 323 | 344 |
| **Indirect GHG emissions[2]** | | | | | |
| **Emission Factor (Kg of $CO_2$/$CH_4$/$N_2O$)** | **Estimated kW-h Usage[3]** | **$CO_2$** | **$CH_4$** | **$N_2O$** | **Indirect $CO_2$e** |
| **lb/MW-h** | **MW-h/year** | **Tons per year** | | | |
| 804.54/0.006/0.0037 | 75 | 14 | 0.00 | 0.00 | 14 |
| **Total Operation $CO_2$e tons per year** | | | | | **70,201** |

[1] Estimated from USEPA and CARB approved URBEMIS air quality program (**Appendix R**)
[2] Emission factors from Climate Change Action Registry
[3] Estimated using 7,500 kilowatts-hours/month of power used.
[4] Construction emissions would only occur in the first year.
Source: URBEMIS, 9.2.4 2007; Climate Change Action Registry, 2007.

### *Strategies to Reduce GHG Emissions*

No governmental agency has provided specific guidance on how to conduct GHG analysis for CEQA documents. The following qualitative approach for assessing the project's compliance with AB 32 and other climate change reduction strategies was developed in accordance with several approaches outlined in white papers and technical advisories provided by the Governors Office of Planning and Research, the California Air Pollution Control Officers Association (CAPCOA, 2008), the consulting firm of Jones and Stokes (2007), and the Association of Environmental Professionals (AEP, 2007).

The proposed project would result in high-density mixed-use development within an urbanized area of the city. The project site is within a relatively short distance to downtown Sacramento, which is a regional employment and retail center. Residential development in proximity to the downtown Sacramento area has been shown to reduce average commuting lengths, according to the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan, 2035. Given the high density and mixed use nature of the proposed development coupled with the proximity to existing employment centers and retail attractions in the City, the proposed project could reduce daily vehicle travel. This would aide in California's goal to reduce GHG under AB 32. Furthermore, the City of Sacramento has in their 2030 Draft General Plan has included goals and polices which would reduce GHG emission from future

projects. These policies include Environmental Resources, Air Quality, Mobility, Land Use and Urban Design, Economic Development, Public Health and Safety, Utilities, and Education, Recreation, and Culture Elements.

As discussed under regulatory context below, California's strategies and measures would result in a reduction of statewide emissions, including emissions resulting from the proposed project, to levels below current background levels. **Tables 4.5-5** and **4.5-6** show applicable strategies and early action measures, respectively. The other policies do not apply because they apply to state entities, such as CARB, are planning-level measures, or to particular industries (i.e. auto repair). As shown in **Table 4.5-5** and **4.5-6** the proposed project would be in compliance with the applicable state climate change strategies and early action measures.

**TABLE 4.5-5.** CONSISTENCY WITH STATE EMISSIONS REDUCTION STRATEGIES

| CAT Strategies | Project Consistency |
|---|---|
| **Vehicle Climate Change Standards**: AB 1493 (Pavley) required the state to develop and adopts regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the CARB in September 2004. | These are CARB enforced standards; vehicles that access the proposed project would be required to comply with the standards. |
| **Diesel Anti-Idling**: In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling. | CARB adopted standard. |
| **Transportation Refrigeration Units (TRU)**, **Off-Road Electrification, Port Electrification**: Strategies to reduce emission from TRUs, increase off-road electrification, and increase use of shore-side/port electrification. | The proposed project would include electrification of loading docks. |
| **Achieve 50 percent statewide Recycling Goal**: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed. | Solid waste services are expected to be provided by the City of Sacramento, which are subject to the state's recycling requirements. |
| **Water Use Efficiency**: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions | Use of water conservation facilities would reduce project water consumption, which would comply with current Title 24 Standards. |
| **Building Energy Efficiency Standards in Place and in Progress**: Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings). | The proposed project would comply with current Title 24 Standards. |

| | |
|---|---|
| **Appliance Energy Efficiency Standards in Place and in Progress**: Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California). | The proposed project would utilize energy efficient appliances. |
| **Smart Land Use and Intelligent Transportation Systems (ITS)**: Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use and technology strategies that provide for a prosperous economy, social equity, and a quality environment. | The proposed project is an infill mixed use project, which include retail and residential components close to the central business region in the City of Sacramento. The proposed project is oriented adjacent to the light rail and bus stops. Providing residential units close to transportation and work reduces vehicle miles traveled by commuters. Providing retail in the same facility as residential units also reduces VMT. |
| **Green Building Initiative**: Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. | The proposed project would comply with current building codes, which under EO S-20-04 would require the use of green building designs. |
| **California Solar Initiative**: Installation of 1 million solar roofs or and equivalent 3,000 MW by 2017 on homes and businesses: increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule. | Where feasible the project would implement the use of photo voltaic arrays. |
| **Energy Efficient Appliance Standards**: (Specific mention of lighting standards). CEC has the authority to regulate light bulb efficiency. The California Energy Commission is considering options for light bulb standards and anticipates adopting standards by January 1, 2010. The GHG emissions reductions from this strategy are still to be determined. (The GHG emissions reductions associated with other ongoing energy efficient appliance standards are expected to be 7 MMTCO2E by 2020.) | The proposed project would utilize energy efficient appliances. |
| **Tire Efficiency**: Implementation of California's tire efficiency law, Chapter 8.7 Division 15 of the Public Resources Code. The CEC, in consultation with the California Integrated Waste Management Board, will implement a replacement tire efficiency program of statewide applicability for replacement tires for passenger cars and light-duty trucks, to ensure that replacement tires sold in the state are at least as energy efficient, on average, as the tires sold in the state as original equipment on these vehicles. This strategy is expected to result in GHG emissions reduction of <1 MMTCO2E by 2020. | This would be a State mandated program; thus all vehicles arriving or leavening the proposed project would be subject to the program. |

| | |
|---|---|
| **New Solar Homes Partnership:** In late 2006, the Energy Commission approved implementation rules for new residential solar installations. Effective in January 2007, approved solar systems will receive incentive funds based on system performance above building standards. This program will result in 400 MW of new, emissions-free generating capacity. The GHG emissions reductions from this strategy are still to be determined. | Where feasible the project would implement the use of photo voltaic arrays. |
| **Water Use Efficiency**: DWR will adopt standards for projects and programs funded through water bonds that would require consideration of water use efficiency in construction and operation. This strategy is expected to result in GHG emissions reduction of 1 MMTCO2E by 2020. | Use of water conservation facilities would reduce project water consumption, which would comply with current Title 24 Standards. |
| Note: AB= Assembly Bill; CARB= California Air Resource Board<br>Source: CARB, 2007; Climate Action Team, 2006 | |

**TABLE 4.5-6.** CONSISTENCY WITH CARB STATE EMISSIONS REDUCTION STRATEGIES

| California Air Resource Board Early Action Measures | Project Consistency |
|---|---|
| **Smart Way truck efficiency:** Requirement of existing trucks/trailers to be retrofitted with the best available fuel efficiency and /or CARB approved Technology. | This would be a State mandated program; thus all trucks arriving or leavening the proposed project would be subject to the program. The program would reduce fuel use in trucks. |
| **Low Carbon Fuel Standard (LCFS):** The goal of LCFS is to reduce the "carbon intensity" of California's vehicle fuel by at least 10 percent by 2020. | This would be a State mandated program; thus, reducing carbon emissions from all vehicles arriving and leaving the proposed project. |
| **Anti-Idling enforcement:** Reduce GHG emissions though enhanced monitoring of vehicles and current anti-idleing regulations. | CARB adopted standard. |
| **Tire inflation program:** Require all vehicle service facilities, such as, dealerships, maintenance garages, and smog check stations, to check and inflate tires. | This would be a State mandated program; thus all vehicles arriving or leavening the proposed project would be subject to the program. |
| **Strengthen light-duty vehicle standards:** Adopt new standards to phase in beginning in the 2017 model year (following up on the existing mid-term standards that reach maximum stringency in 2016). | This would be a State mandated program; thus all vehicles arriving or leavening the proposed project would be subject to the program. The program would reduce light-duty vehicle emission. |
| Note: AB= Assembly Bill; CARB= California Air Resource Board<br>Source: CARB, 2007; Climate Action Team, 2006 | |

## 4.5.3 REGULATORY CONTEXT

### Federal

The Federal Clean Air Act (CAA) was enacted for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity.

In 1971 the EPA developed primary and secondary National Ambient Air Quality Standards (NAAQS). Six pollutants of primary concern were designated: carbon monoxide (CO), ozone, suspended particulate matter, sulfur dioxide, $NO_X$, and lead. The primary NAAQS must "protect the public health with an

adequate margin of safety" and the secondary standards must "protect the public welfare from known or anticipated adverse effects (aesthetics, crops, architecture, etc.)". The primary standards were established, with a margin of safety, considering long-term exposures the most sensitive groups in the general population. The EPA allows states the option to develop different (stricter) standards. California elected this option and adopted standards that are more stringent.

If an air basin is not in federal attainment (e.g. does not meet federal standards) for a particular pollutant, the basin is classified as a marginal, moderate, serious, severe, or extreme nonattainment area. Nonattainment areas must take steps towards attainment by a specific timeline. These steps include establishing a transportation control program and clean-fuel vehicle program, decreasing the emissions threshold for new stationary sources and for major sources, and increasing the stationary source emission offset ratio to at least 1.3:1. The above programs are published in the State Implementation Plan (SIP), which is approved by the EPA.

The SIP is a number of documents that set forth the state's strategies for achieving federal air quality standards. The Code of Federal Regulations (CFR Title 40, Chapter I, Part 52, Subpart F, §52.220) lists all of the items that are included in the California SIP. The SIP is not a single document, but a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, State regulations, and Federal controls. Many of California's SIPs detail control strategies, including emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. Local air districts and other agencies, such as the Bureau of Automotive Repair, prepare SIP elements and submit them to California Air Resources Board (CARB) for review and approval. State law makes CARB the lead agency for all purposes related to the SIP.

## State

CARB, a part of the CEPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets state ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's SIP, for which it works closely with the Air Quality Management Districts (AQMDs) and the EPA.

### *California Clean Air Act*

The California Clean Air Act (CCAA) of 1988 requires nonattainment areas to achieve and maintain the state ambient air quality standards by the earliest practicable date and local air districts to develop plans for attaining the state ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide standards. In compliance with the CCAA, the Sacramento Municipal Air Quality Management District (SMAQMD) prepared and submitted the 1991 Air Quality Attainment plan (AQAP) to address mainly Sacramento

County's nonattainment status for ozone and carbon monoxide, and although not required, $PM_{10}$. The CCAA also requires that by the end of 1994 and once every three years thereafter, districts are to assess their progress toward attaining the air quality standards. The triennial assessment is to report the extent of air quality improvement and the amounts of emission reductions achieved from control measures for the preceding three year period.

## *Climate Change*

California has been a leader among the states in outlining and aggressively implementing a comprehensive climate change strategy that is designed to result in a substantial reduction in total statewide GHG emissions in the future. California's climate change strategy is multifaceted and involves a number of state agencies implementing a variety of state laws and policies. Laws and policies are summarized below:

### *Assembly Bill 1493 (AB 1493)*

Signed by the Governor in 2002, AB 1493 requires that the CARB adopt regulations requiring a reduction in GHG emissions emitted by cars in the state. AB 1493 is intended to apply to 2009 and later vehicles; however, the EPA denied a Clean Air Act waiver, which is required to implement AB 1493. Although the state is apparently planning to appeal this decision, at this time it is unclear whether AB 1493 will be implemented (Bee, 2007).

### *Executive Order S-3-05 (EO S-3-05)*

EO S-3-05 was signed by the Governor on June 1, 2005. EO S-3-05 established the following statewide emission reduction targets:

- Reduce GHG emissions to 2000 levels by 2010
- Reduce GHG emissions to 1990 levels by 2020
- Reduce GHG emissions to 80 percent below 1990 levels by 2050

EO S-3-05 created a "Climate Action Team" or "CAT" headed by the CEPA and including several other state jurisdictional agencies. The CAT is tasked by EO S-3-05 with outlining the effects of climate change on California and recommending an adaptation plan. The CAT is also tasked with creating a strategy to meet the target emission reductions. In April 2006 the CAT published an initial report that accomplished these two tasks.

### *Assembly Bill 32 (AB 32)*

Signed by the Governor on September 27, 2006, AB 32 codifies a key requirement of EO S-3-05, specifically the requirement to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 tasks CARB with monitoring state sources of GHGs and designing emission reduction measures to comply with

the law's emission reduction requirements. However, AB 32 also continues the CAT's efforts to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall state climate policy.

In order to accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that could be implemented and would serve to meet about a quarter of the required 2020 emissions reductions (CARB, 2007a). In order to assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions (CAT, 2007). In the October 2007 report, CARB cited the CAT strategies and other existing strategies that may be utilized in achieving the remainder of the emissions reductions. AB 32 requires that CARB prepare a comprehensive "scoping plan" that identifies all strategies necessary to fully achieve the required 2020 emissions reductions. According to AB 32 this scoping plan must be in place no later than January 1, 2009. CARB has initiated preparation of the scoping plan and plans on adopting a final plan in late 2008 (CARB, 2007b).

### *Executive Order S-01-07 (EO S-01-07)*

EO S-01-07 was signed by the Governor on January 18, 2007. It mandates a statewide goal to reduce the carbon intensity of transportation fuels by at least 10 percent by 2020. This target reduction was identified by CARB as one of the AB 32 early action measures identified in their October 2007 report.

### *Senate Bill 97 (SB 97)*

Signed by the governor on August 24, 2007, SB 97 requires that no later than July 1, 2009, the state Office of Planning and Research (OPR) prepare CEQA guidelines for evaluating the effects of GHG emissions and for mitigating such effects. The Resources Agency is required to certify and adopt these guidelines by January 1, 2010. It is anticipated that this guidance would establish standardized significance criteria for the purposes of assessing project impacts pursuant to CEQA. In the absence of specific guidelines, OPR has referred CEQA document authors to existing general guidelines, examples of impact analyses in existing CEQA documents (which OPR acknowledges ranges greatly from little analysis due to the speculative nature of climate change impact analysis to the calculation of GHG emissions and the inclusion of mitigation), and to a variety of white papers on the subject of GHG impact analysis, including one prepared by the Association of Environmental Professionals (AEP, 2007).

### *Governor's Office of Planning and Research – Technical Advisory*

The Governor's Office of Planning and Research (OPR) released a Technical Advisory on June 19, 2008, titled *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review*. The Technical Advisory provides informal, interim guidance for analyzing climate change impacts in advance of comprehensive amendments to the CEQA Guidelines to be prepared pursuant to SB 97, and scheduled for release on or before January 1, 2010. The Technical Advisory provides the following guidance when providing climate change analyses in a CEQA document:

- Each lead agency needs to develop its own approach to performing climate change analyses;
- Lead agencies should determine whether GHGs are generated by the project and, if they are, they must be quantified;
- A project's impact can either be cumulatively or individually significant, but climate change is "ultimately a cumulative issue";
- A lead agency must provide mitigation measures to avoid, reduce, or otherwise mitigate the impacts of GHG emissions;
- There is no standard format for including the analysis in a CEQA document;
- A less than significant impact can be presented using mitigation measures; and
- The Technical Advisory outlines mitigation measures.

## *Toxic Air Contaminants*

Regulation of TACs is achieved through federal and state controls on individual sources. Under the CAA TACs are referred to as Hazardous Air Pollutants (HAPs). The 1990 federal CAA Amendments offer a comprehensive plan for achieving significant reduction in both mobile and stationary source emissions of certain designated HAP.

### *Air Toxics Hot Spots Information and Assessment Act of 1987*

The Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), California Health and Safety Code Section 44300 et seq., provides for the regulation of over 200 TACs and is the primary air contaminant legislation in California. Under the Act, local air districts may request that a facility account for its TAC emissions. Local air districts then prioritize facilities on the basis of emissions, and high priority designated facilities are required to submit a health risk assessment and communicate the results to the affected public.

### *Assembly Bill 1807*

Assembly Bill 1807 (AB 1807), enacted in September 1983, sets forth a procedure for the identification and control of TACs in California. CARB is responsible for the identification and control of TACs, except pesticide use.

### *Senate Bill 656*

In October 2000, CARB released a report entitled Risk Reduction Plan to Reduce PM Emissions from Diesel-Fueled Engines and Vehicles. This plan identifies DPM as the predominant TAC in California and proposes methods for reducing diesel emissions. California propagated Senate Bill 656 in 2003, which was implemented to reduce particulate matter (PM) (including DPM) in California. CARB approved a list of the most readily available, feasible, and cost-effective control measures that can be employed by air districts to reduce PM in 2004. The list is based on rules, regulations, and programs existing in California as of January 1, 2004, for stationary, area-wide, and mobile sources. As a second step air districts must adopt implementation schedules for selected measures from the list.

## Local

### *Sacramento Metropolitan Air Quality Management District*

The SMAQMD is the primary agency responsible for planning to meet federal and state ambient air quality standards in Sacramento County and the larger Sacramento Ozone Nonattainment Area. In order to demonstrate the area's ability to eventually meet the federal ozone standards, the SMAQMD, along with the other air districts in the Nonattainment Area, maintain the region's portion of the SIP for ozone. The Nonattainment Area's part of the SIP is a compilation of regulations that govern how the region and State will comply with the FCAA requirements to attain and maintain the federal ozone standard. The compilation of rules that comprises the Sacramento Nonattainment Area's portion of the SIP is contained in a document called the Sacramento Area Regional Ozone Attainment Plan (Plan). The most recent update of the Plan was adopted on November 15, 1994. Currently, the SMAQMD is working to update the 1994 Plan in recognition of the new federal eight-hour standard for ozone. This process is currently ongoing.

As of June 1, 2006, the SMAQMD established an updated mitigation fee rate of $16,000 per ton of emissions in excess of the SMAQMD NOx threshold. The mitigation fee is based on the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) cost effectiveness cap.

### *Local Air District Rules*

The SMAQMD has several rules that relate to the proposed project, which are summarized below:

**Rule 201** – General Permit Requirements: Requires any project that includes the use of certain equipment capable of releasing emission to the atmosphere as part of project operation to obtain a permit from the SMAQMD prior to operation of the equipment. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact the SMAQMD to determine if a permit is required. Portable construction equipment with an internal combustion engine over 50 horsepower are required to have a SMAQMD permit or a CARB portable equipment registration.

**Rule 403** – Fugitive Dust: Requires a person to take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation.

**Rule 442** – Architectural Coatings: Sets VOC limits for coatings that are applied to stationary structures or their appurtenances. The rule also specifies storage and cleanup requirements for these coatings.

**Rule 460** – Adhesives and Sealants: Limits VOC from the application of products used for bonding two surfaces. Also regulates the storage and disposal of solvents associated with such applications.

**Rule 401** – Ringelmann Chart: Prohibits individuals from discharging into the atmosphere from any single source of emissions whatsoever any air contaminant whose opacity exceeds certain specified limits.

**Rule 411** – Boiler NOx: sets NOx and CO emissions from industrial, institutional, and commercial boilers, steam generators, and process heaters.

### *City of Sacramento General Plan (1988)*

In 2001 the City amended its General Plan to incorporate smart growth principles. These principles, which have informed the development of guiding principles for the 2030 General Plan, are intended to change urban development patterns so that development, through density and mix of land uses, transportation management, and infrastructure design and construction, would discourage urban sprawl, promote infill development, reduce vehicle miles traveled, and minimize air pollutant emissions.

The City has adopted a Sustainability Master Plan "Creating A Sustainable City – A Master Plan to Move the City of Sacramento Towards Sustainability" - which provides targets and goals a broader range of categories related to sustainability. These areas are: 1) energy independence; 2) climate protection; 3) air quality; 4) material resources; 5) public health and nutrition; 6) urban design, land use, green building and transportation; and 7) parks, open space and habitat protection; 8) water resources and flood protection; and 9) public involvement and personal responsibility. A large proportion of the goals and targets in the Sustainability Master Plan apply to the City's internal operations. The Sustainability Master Plan includes the following Goals and Targets pertinent to this discussion as follows:

Goals:

- Meet the intent of the Global Warming Solutions Act (AB32) (or subsequent laws) for:
    - City operations.
    - The community of Sacramento.
- The SACOG region by working with community partners.
- Develop a climate adaptation plan for the region by working with community partners.

Targets (Selected)

- By 2015, the SACOG region will have a climate adaptation plan in place.
- By 2020, the SACOG planning region will have reduced carbon dioxide emissions to 1990 levels.
- By 2050, the SACOG planning region will have reduced carbon dioxide emissions by 80 percent relative to 1990 level emissions (or per subsequent State law).

### *65th Street/University Transit Village Plan*

The 65th Street/University Transit Village Plan does not contain specific goals or policies related to air quality.

## 4.5.4 IMPACTS AND MITIGATION MEASURES

### Method of Analysis

The analysis in this section focuses on the nature and magnitude of the change in the air quality environment due to construction and operation of the proposed project. Air pollutant emissions would result from construction activities, project operations, and increased traffic volumes.

#### *Construction*

URBEMIS 9.2.4 was used to estimate emissions from all construction-related sources of the project scenarios. URBEMIS modeling was performed with the assumption that construction would begin in the summer of 2009 and continue at an average of 22 days per month for 24 months. Emissions results from URBEMIS 9.2.4 modeling are presented below and output files are provided in **Appendix D**.

URBEMIS 9.2.4 provides default values for input where site-specific inputs are not available. The default values for construction equipment were used, other default values are provided in **Appendix D**. Site-specific traffic inputs are derived from **Section 4.3**. Site-specific inputs used in the URBEMIS modeling are as follows:

- Change construction year to 2009
- Change operational year to 2011
- Apartment trip rate changed from 5.29 to 6.72
- Internal trip reduction of 11 percent
- Pass-by trip reduction of 7 percent
- Total acres disturbed changed from 11.91 to 4.29 acres

Emissions associated with construction are compared to applicable City of Sacramento CEQA thresholds to evaluate the effects of construction activities on air quality.

#### *Operation*

URBEMIS 9.2.4 was used to estimate emissions associated with near- and long-term operation of the project scenarios. Input values for the model included URBEMIS 9.2.4 default values, as well as site specific values. The trip generation rates and trip reductions are shown in **Tables 4.3-11** and **4.3-12** of **Section 4.3**.

Consistent with the approach applied in the traffic analysis, the operational effects to air quality were analyzed for both near-term 2011 conditions and cumulative long-term 2025 conditions. Emissions associated with operation are compared to the applicable City of Sacramento significance thresholds to evaluate the effects operational activities on air quality.

### *Toxic Air Contaminates*

Both construction and operational activities would emit TACs, but neither the level of project construction activities nor the type of land uses (residential, hotel, retail, and office) in place after project implementation would pose significant additional health risk to sensitive land uses on or near the project site. The closest sensitive receptors are residences along 64th Street Alley, 400 feet from the project site. AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act, requires the AQMD to compile a list of facilities that emit TACs and prioritize them based on the risk they represent. Office and residential uses are rarely prioritized as high-risk because they do not contain large TAC sources. Mobile sources associated with the proposed project would generate TACs. However, the proposed project would not include truck intensive uses (e.g., large commercial warehouses or distribution centers) that are the most important mobile sources of TACs. Due to the distance of the nearest sensitive receptor to the project site, the nature of the land use proposed, and the lack of mobile sources of TACs near the proposed project, no further analysis is required.

### *Operational Carbon Monoxide and Particulate Matter*

The SMAQMD provides a screening procedure in their *Guide to Air Quality Assessment*, 2004 (Guidance). By comparing the project components to the applicable significance criteria provided in the screening procedure, a significance determination can be made for CO and $PM_{10}$, and $PM_{2.5}$ without CO or PM modeling.

## Thresholds of Significance

Criteria for determining the significance of impacts to air quality have been developed based on Appendix G of the CEQA guidelines and relevant agency thresholds. Impacts to air quality would be considered significant if the Proposed Project would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase in any CAP for which the project region is non-attainment under an applicable federal or state ambient air quality standard
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

Based on the above CEQA standards of significance, the City of Sacramento has provided the following CEQA significance thresholds for pollutants of concern:

- The project short-term construction emissions are above 85 pounds per day NOx
- The project increases either ozone precursors, NOx or ROG, above 65 pounds per day during long-term operation
- The project emits pollutants at a level equal to, or greater than, 5 percent of the CAAQS (50 micrograms/cubic meter for 24 hours) if there is an existing or projected violation; however, if a project is below the ROG and NOx thresholds, it is assumed that the project is below the $PM_{10}$ threshold as well
- Carbon Monoxide (CO): the project results in CO concentrations that exceeds the 1-hour State ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour State ambient standards of 9.0 ppm

## Project Specific Impacts and Mitigation Measures

### Impact

**4.5-1 Construction of the proposed project would generate emissions of NOx and ROG.**

***Scenarios A and B***

The project site currently holds two buildings, which would be demolished prior to rough grading of the project site. The entire project site would be graded before construction begins. Construction-generated emissions are generally short-term, intermittent, and temporary in nature. However, construction activities have potential to represent a significant air quality impact. The construction and development of the project site would result in the temporary generation of emissions of ROG, NOx, $PM_{10}$, and $PM_{2.5}$. $PM_{10}$, and $PM_{2.5}$ are generally the direct result of site grading, excavation, road paving, and exhaust associated with construction equipment. Emissions PM is largely dependent on the amount of ground disturbance associated with site preparation activities. Emissions of NOx and ROG are generally associated employee trips, delivery of materials, and construction equipment exhaust.

**Table 4.5-7** shows mitigated and unmitigated emissions from construction activities within a construction year. The construction year with the maximum emissions is compared to the City's air quality thresholds to determine if the construction of the proposed project would have a significant impact on regional air quality. As shown in **Table 4.5-4** the proposed project would not exceed the City's air quality thresholds; therefore, construction of the proposed project would have a less-than-significant impact on regional air quality. **Less than Significant.**

**TABLE 4.5-7.** UNMITIGATED CONSTRUCTION EMISSIONS

| Year | Pollutants of Concern | | | |
|---|---|---|---|---|
| | ROG | NOx | $PM_{10}$ | $PM_{2.5}$ |
| | pounds per day | | | |
| **Scenario A** | | | | |
| 2009 | 20.25 | 26.51 | 60.94 | 13.68 |
| 2010 | 9.95 | 20.26 | 1.47 | 1.28 |
| 2011 | 22.28 | 34.55 | 2.76 | 2.46 |
| Maximum Emission | 22.29 | 34.55 | 60.94 | 13.68 |
| City of Sacramento Thresholds[1] | N/A | 85 | N/A | N/A |
| Exceed Thresholds | N/A | NO | N/A | N/A |
| **Scenario B** | | | | |
| 2009 | 24.59 | 26.51 | 60.94 | 13.68 |
| 2010 | 24.27 | 21.54 | 1.56 | 1.34 |
| 2011 | 26.93 | 37.71 | 3.02 | 2.68 |
| Maximum Emission | 26.93 | 37.71 | 60.94 | 13.68 |
| City of Sacramento Thresholds[1] | N/A | 85 | N/A | N/A |
| Exceed Thresholds | N/A | NO | N/A | N/A |

[1] The City of Sacramento derived their construction threshold from the SMAQMD CEQA thresholds
Source: URBEMIS 9.2.4, 2008.

## Impact

### 4.5-2 Operation of the proposed project would contribute to emission of NOx and ROG.

***Scenario A and B***

Once the proposed project has been constructed and occupied, operational activities associated with various land uses of the proposed project would generate ROG and NOx. ROG and NOx are pollutants of concern due to their role in the formation of ozone and particulate matter. The majority ROG and NOx emissions would be generated by vehicle trips associated with employees, patrons, and residents at the proposed project. Consumer products (e.g., cleaning products, aerosol sprays, automotive products) used by residents and employees would also contribute ROG and NOx emissions. Lesser sources of precursors would include energy use (fuel combustion for heating and cooling of buildings) and the application of architectural coatings.

**Table 4.5-8** shows that operational emissions of ROG and NOx would be below the City threshold of significance for operational emissions. It should be noted that modeling prohibited the use of fireplaces or stoves. Operational emissions from the proposed project would be less than significant and no mitigation is required. **Less than Significant**.

**TABLE 4.5-8.** UNMITIGATED OPERATIOAL EMISSIONS

| Emission Type | Pollutants of Concern | | | |
|---|---|---|---|---|
| | ROG | NOX | PM10 | PM2.5 |
| | pounds per day | | | |
| **Scenario A** | | | | |
| Area | 5.79 | 3.19 | 0.04 | 0.04 |
| Mobile | 50.93 | 52.24 | 81.63 | 15.73 |
| Total Emission | 56.72 | 55.43 | 81.67 | 15.77 |
| City of Sacramento Thresholds[1] | 65 | 65 | N/A | N/A |
| Exceed Thresholds | NO | NO | N/A | N/A |
| **Scenario B** | | | | |
| Area | 8.64 | 3.81 | 0.04 | 0.04 |
| Mobile | 56.11 | 56.95 | 89.13 | 17.19 |
| Total Emission | 64.75 | 60.76 | 89.17 | 17.23 |
| City of Sacramento Thresholds[1] | 65 | 65 | N/A | N/A |
| Exceed Thresholds | NO | NO | N/A | N/A |

[1] The City of Sacramento derived their construction threshold from the SMAQMD CEQA thresholds.
Source: URBEMIS 9.2.4, 2008.

## Impact

**4.5-3 The proposed project would increase traffic volume that would contribute to localized CO concentrations near roadways and intersections.**

***Scenario A and B***

CO is a byproduct of vehicle fuel combustion and levels are highest near congested intersections where traffic is slow or idling. To accurately quantify CO concentration levels in the project site vicinity, the CO background concentration must be determined and added to CO level caused by project specific emissions.

The highest CO concentration measured at the CARB 3801 Airport Road monitoring station over the past three years was chosen as the background concentration. The background concentration use in to determine CO impacts is 3.5 parts per million (ppm) for 8-hour and 6.0 ppm for 1-hour measurement.

The Bay Area Air Quality Management District (BAAQMD) CO Model, provided in the 1999 BAAQMD CEQA Guidelines (BAAQMD, 1999), was used to determine CO concentrations in the vicinity of the proposed project. The BAAQMD CO Model is based on the CALINE4 model. The model was used to provide the project-specific CO component to add to the background and determine whether total CO concentration near congested local intersections would exceed the

CO ambient standards. CO modeling was completed for intersections identified in the **Section 4.3** (output files are provided in Appendix D). The modeling results of the intersections are summarized in **Table 4.5-9,** which shows that CO concentrations would not exceed 7.55 ppm over an 8-hour period. Since this concentration would be below the NAAQS and CAAQS, CO impacts would be considered less than significant and no mitigation is required. **Less than Significant**.

**TABLE 4.5-9.** LOCALIZED CARBON MONOXIDE CONCENTRATIONS

| Intersections | 25 Feet | | 50 Feet | |
|---|---|---|---|---|
| | 8-Hour | 1-Hour | 8-Hour | 1-Hour |
| U.S. 50 Ramp/65th St. | 7.55 | 4.73 | 7.25 | 4.58 |
| S St./65th St. | 7.37 | 4.57 | 7.13 | 4.44 |
| Q St./65th St. | 7.16 | 4.55 | 6.93 | 4.43 |
| Folsom Blvd./ CSUS Drive | 6.61 | 4.23 | 6.48 | 4.16 |
| Folsom Blvd./Elvas St. | 6.91 | 4.47 | 6.68 | 4.34 |
| Folsom Blvd./67th St. | 7.41 | 4.74 | 7.09 | 4.55 |
| Folsom Blvd./65th St. | 7.09 | 4.43 | 6.90 | 4.33 |
| Q St./67th St | 6.38 | 4.14 | 6.26 | 4.07 |
| Source: BAAQMD, 1999. | | | | |

## Baseline Cumulative Impacts and Mitigation Measures

### Impact

**4.5-4 Construction of the proposed project would increase cumulative levels of ROG and NOx.**

***Scenario A and B***

Construction activities in the SVAB that occur simultaneously with proposed project's development would contribute emissions of NOx and ROG. While those emissions would be temporary, combined they could exceed the SMAQMD thresholds. As specified in **Impact 4.5-1**, only less than significant levels of NOx and ROG would be generated temporarily during project construction. Such low levels of temporary emission would not be cumulatively considerable. **Less than Significant**.

### Impact

**4.5-5 Operation of the proposed project would increase cumulative levels of ROG and NOx.**

***Scenario A and B***

According to the SMAQMD Guide (SMAQMD, 2004) development projects are considered cumulatively significant if the project would require a change in the existing land use designation (e.g., general plan amendment, a rezoning) and if the projected NOx and ROG emissions from the new uses would be greater than the emissions anticipated for the site under the existing land use designation. The proposed project would not require a rezone. **Less than Significant**.

### Impact

**4.5-6 The proposed project would contribute to cumulative CO levels in the vicinity of the project site.**

***Scenario A and B***

The baseline-plus-project CO analysis discussed under **Impact 4.2-5** showed that cumulative CO emissions from the proposed project's vehicle traffic would not violate the ambient CO standards (CO concentrations exceeding the 1-hour State ambient air quality standard of 20 ppm or the 8-hour State ambient standards of 9 ppm). **Less than Significant**.

## Cumulative Year 2030 Impacts and Mitigation Measures

### Impact

**4.5-7 Operation of the proposed project in the cumulative year 2030 would contribute to emission of NOx, ROG.**

***Scenario A and B***

Operation activities of the proposed project in the year 2030 would be associated with various area and mobile source emissions. The proposed project would generate ROG and NOx, which are assumed to be pollutants of concern in the year 2030. The majority of ROG and NOx emissions would be generated by vehicle trips associated with employees, patrons, and residents at the proposed project. Consumer products (e.g., cleaning products, aerosol sprays, automotive products) used by residents and employees would also contribute ROG and NOx emissions. Lesser sources of precursors would include energy use (fuel combustion for heating and cooling of buildings) and the application of architectural coatings.

**Table 4.5-10** shows that 2030 operational emissions of ROG and NOx would be below the City's threshold of significance for operational emissions. It should be noted that modeling prohibited the use of fireplaces or stoves. Operational emissions from the proposed project would result in a less than significant impact to the regions air quality in the year 2030, no mitigation required. **Less than Significant**.

**TABLE 4.5-10.** 2030 UNMITIGATED OPERATIONAL EMISSIONS

| Emission Type | Pollutants of Concern | | | |
|---|---|---|---|---|
| | ROG | NOX | PM10 | PM2.5 |
| | pounds per day | | | |
| **Scenario A** | | | | |
| Area | 5.79 | 3.19 | 0.04 | 0.04 |
| Mobile | 20.54 | 13.20 | 81.32 | 15.46 |
| Total Emission | 26.33 | 16.39 | 81.36 | 15.50 |
| City of Sacramento Thresholds1 | 65 | 65 | N/A | N/A |
| Exceed Thresholds | NO | NO | N/A | N/A |
| **Scenario B** | | | | |
| Area | 8.64 | 3.81 | 0.04 | 0.04 |
| Mobile | 22.65 | 14.39 | 88.79 | 16.88 |
| Total Emission | 31.29 | 18.20 | 88.83 | 16.92 |
| City of Sacramento Thresholds1 | 65 | 65 | N/A | N/A |
| Exceed Thresholds | NO | NO | N/A | N/A |

[1] The City of Sacramento derived their construction threshold from the SMAQMD CEQA thresholds

Source: URBEMIS 9.2.4 , 2008.

# CHAPTER 5

## CEQA CONSIDERATIONS

# 5.0 CEQA CONSIDERATIONS

## 5.1 INTRODUCTION

This chapter provides a discussion of the following topics required to be in an Environmental Impact Report (EIR) pursuant to CEQA *Guidelines* Section 15126.2.

- Growth-inducing impacts of the proposed project
- Cumulative impacts of the proposed project
- Unavoidable significant impacts of the proposed project (*i.e.*, residually significant impacts)
- Significant and irreversible impacts

## 5.2 GROWTH INDUCING IMPACTS

CEQA *Guidelines* Section 15126.2 (d) requires that an EIR evaluate the growth inducing impacts of a proposed project. A growth inducing impact is defined as one that fosters economic or population growth, or the construction of additional housing, either directly or indirectly. Direct growth inducement would result, for example, if a project involved the construction of new housing. Indirect growth inducement would result if a project established substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises) or if it would remove obstacles to population growth (e.g., expansion of a waste water treatment plant that could allow more construction in the service area).

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide development patterns and growth policies that guide orderly urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer services, and solid waste services. A project that would induce “disorderly” growth (i.e., conflict with the local land use plans) could directly or indirectly cause additional adverse environmental impacts and other public services impacts. An example of this would be the redesignation of property planned for agricultural uses to urban uses, possibly resulting in the development of services and facilities that encourage the transition of additional land in the vicinity to more intense urban uses. Another example would be the extension of urban services to a non-urban site, thereby encouraging conversion of non-urban lands to urban lands.

### 5.2.1 PREVIOUS ASSESSMENT OF GROWTH INDUCING IMPACTS

The project site is located within the Station Block planning area of the 65th Street/University Transit Village Plan (Transit Village Plan) and is designated for Mixed Use and Residential Mixed Use development. The Transit Village Plan provides for a mixture of residential and commercial mixed-use. It allowed for of up to 962 residential units and up to 600,000 square feet of office/retail space on the ±9.39-acre Station Block site. The Transit Village Plan EIR (City of Sacramento 2001) concluded that the build-

out of the plan would affect the growth of the area by contributing to population growth through the creation of residential units and employment opportunities. Since both the City of Sacramento General Plan (General Plan) and Zoning Ordinance had already designated the area for this type of development, the proposed project was considered to have a less-than-significant growth-inducing impact.

### 5.2.2 GROWTH INDUCEMENT POTENTIAL OF THE PROPOSED PROJECT

Based on the significance thresholds contained in CEQA *Guidelines* Section 15126.2(d), a project is considered to be directly or indirectly growth-inducing if it:

- Fosters economic or population growth or additional housing
- Removes obstacles to growth (e.g., through development of physical infrastructure, roadways, and utilities)
- Taxes community services or facilities to such an extent that new services or facilities would be necessary

The following discussion examines whether the proposed project would induce growth beyond that envisioned in the General Plan and the Transit Village Plan.

#### Fostering of Economic or Population Growth

The proposed project has the potential to induce growth through economic stimulation and the construction of new residential units. Construction and operation of the proposed project would create temporary and long term employment opportunities that could serve to attract new residents to the area. New housing units have the potential to facilitate growth by reducing a constraint.

The City's population of 453,781 is forecast to grow steadily, reaching 516,060 by 2015, 523,200 by 2020, and 528,880 by 2025. The population of East Sacramento, where the proposed project is located, is estimated to reach 34,682 by 2025, an increase of approximately 2,501 people or 7.7 percent (City of Sacramento, 2008). Due to the relatively small scale of development, the new jobs and new housing units created by the proposed project are more likely to accommodate rather than generate forecasted growth. Most of the jobs and homes resulting from the proposed project will most likely be filled by people already working and living in the area.

#### Removal of Obstacles to Growth

Development of the proposed project would require upgrades to water supply and wastewater collection infrastructure that could expedite the development of the Station Block Area of the Transit Village Plan, thereby further inducing growth. This growth, however, would be consistent with the Transit Village Plan and the City's vision for growth in the project area.

## 5.3 CUMULATIVE IMPACTS

Cumulative impacts refer to the effects of two or more projects that, when combined, are considerable or compound other environmental effects. Cumulative impacts must consider the combined impact of past, present, and reasonably foreseeable future project. When assessing a cumulative impact, an EIR must identify if the project makes a "cumulatively considerable" contribution to the cumulative impact. A project's contribution may be cumulatively considerable even if the project's individual impact is considered less than significant. CEQA *Guidelines* Section 15130(b) requires that discussion of cumulative impacts reflect the severity of the impacts and their likelihood of occurrence. The CEQA *Guidelines* state that the cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project-only impacts and should be guided by the standards of practicality and reasonableness. Pursuant to CEQA *Guidelines* Section 15130(b), this DEIR uses projections contained in the adopted general plan and related planning documents, and in prior environmental documents that have been adopted or certified, which described or evaluated regional or area-wide conditions contributing to cumulative impacts.

### 5.3.1 Cumulative Context

The potential for the Proposed Project to contribute to significant cumulative impacts is limited to the area in which project related impacts are expected to occur. Areas of impact tend to vary depending on the issue area. For example, noise related impacts are usually limited to the immediate vicinity of the project site, traffic impacts are considered for the local transportation grid, and air quality impacts might contribute to the overall air quality present in the air basin. Cumulative contexts are described for each issue area in **Chapter 4.0**.

### 5.3.2 Cumulatively Considerable

CEQA *Guidelines* Section 15130(a) provides the following direction with respect to the cumulative impact analysis and the determination of significant effects:

- A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.
- When the combined cumulative impact associated with the project's incremental effect is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed further.
- An EIR may determine that a project's contribution to a significant cumulative effect will be rendered less than cumulative considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

The following is a list of cumulative impacts related to Scenarios A and B of the proposed project by environmental topic as described in **Chapter 4.0**. Refer to **Section 4.3** through **4.5** for a detailed discussion of the nature and scope of cumulative impacts associated with the proposed project.

## *Traffic and Circulation*

### *Roadway Segments*

**Impacts**

4.3-9-1 Folsom Boulevard between 59th Street and 65th Street. **Significant and Unavoidable.**

4.3-9-2 Folsom Boulevard between 65th Street and Elvas Avenue. **Significant and Unavoidable.**

4.3-9-3 Folsom Boulevard between Elvas Avenue and State University Drive East. **Significant and Unavoidable.**

4.3-9-4 65th Street between Folsom Boulevard and S Street. **Significant and Unavoidable.**

### *Intersections*

**Impacts**

4.3-10-1 Folsom Boulevard/65th Street Intersection. **Less than Significant with Mitigation.**

4.3-10-2 65th Street/S Street/US 50 Westbound Off-ramp Intersection. **Significant and Unavoidable.**

4.3-10-3 Q Street/67th Street Intersection. **Significant and Unavoidable.**

### *Freeway Facilities*

**Impacts**

4.3-11 Westbound and Eastbound Lanes of US 50. **Significant and Unavoidable.**

4.3-12 Freeway Ramp Queuing. **Less than Significant.**

### *Pedestrian and Bike Circulation*

**Impacts**

4.3-13-1 Pedestrian Impacts. **Less than Significant.**

4.3-13-2 Bicycle Impacts. **Less than Significant with Mitigation.**

### *Transit System*

**Impacts**

4.3-14-1 Transit Capacity. **Less than Significant.**

4.3-14-2 Transit Delay. **Less than Significant.**

## *Noise and Vibration*

4.4-4 Operation of the proposed project has the potential to cumulatively increase the ambient noise level due to increased noise from on-site stationary sources. **Less than Significant with Mitigation**.

4.4-5 Operation of the proposed project has the potential to make a cumulatively considerable contribution to the ambient noise levels. **Less than Significant.**

### *Air Quality*

**Impacts**

4.5-4 Construction of the proposed project would increase cumulative levels of ROG and NOx. **Less than Significant**.

4.5-5 Operation of the proposed project would increase cumulative levels of ROG and NOx. **Less than Significant.**

4.5-6 The proposed project would contribute to cumulative CO levels in the vicinity of the project site. **Less than Significant.**

4.5-7 Operation of the proposed project in the cumulative year 2030 would contribute to emission of NOx, ROG. **Less than Significant**.

## 5.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA *Guidelines* Section 15126.2(b) requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The following is a summary of significant unavoidable adverse impacts related to the Proposed Project as described in each issue area contained in **Chapter 4.0**.

## Traffic and Circulation

### *Roadway Segments*

#### *4.3-1-2 Folsom Boulevard between 65th Street and State University Drive East*

Under Scenario A conditions, the project adds traffic to a roadway segment operating at LOS F under baseline without project conditions, increasing the volume to capacity ratio by 0.05, which exceeds the City's 0.02 threshold. The Scenario B project increases the volume to capacity ratio by 0.06. These impacts are considered significant under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this roadway segment from the generally applicable LOS threshold under certain conditions. However, that DEIR acknowledges that the resulting impact will be significant and unavoidable.

The impacts described above could be mitigated to a less than significant level by adding one lane of roadway capacity, which would result in a decrease in volume to capacity ratios when compared to baseline without project conditions. However, the City is currently studying a revised circulation and financing plan for the 65th Street University TVP area to more closely conform to the pedestrian and transit orientation goals and policies of the TVP. The 65th Street Station Area Study and financing plan is anticipated to be presented to the City Council by June 2009 for adoption. Widening Folsom Boulevard may be seen as inconsistent with those goals and policies and, therefore, requiring the widening at this time is determined to be infeasible, as the widening may conflict with what is eventually adopted for the area. The project will be required to participate in whatever financing mechanism is in place at the time of

issuance of building permits to fund, on a fair-share basis, the cost of installation of the improvements. Implementation of Mitigation Measure 4.3-1-1 may not reduce the impact of the project development to a less-than-significant level because the certainty and the effectiveness of the mitigation measure cannot be guaranteed at the time. For this reason, the impact would remain significant and unavoidable. **Significant and Unavoidable.**

#### *4.3-1-3 65th Street between Folsom Boulevard and S Street*

Under both development scenarios, the project causes roadway segment LOS to degrade from LOS E to LOS F, while increasing the volume to capacity ratio by 0.1. This impact is considered *significant* under both the currently adopted General Plan and the Draft General Plan LOS thresholds. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this roadway segment from the generally applicable LOS threshold under certain conditions. However, that DEIR acknowledges that the resulting impact will be significant and unavoidable.

The impacts described above could be mitigated to a less than significant level by adding one lane of roadway capacity, which would result in a decrease in volume to capacity ratios when compared to baseline without project conditions. However, the City is currently studying a revised circulation and financing plan for the 65$^{th}$ Street University TVP area to more closely conform to the pedestrian and transit orientation goals and policies of the TVP. The 65$^{th}$ Street Station Area Study and financing plan is anticipated to be presented to the City Council by June 2009 for adoption. Widening 65$^{th}$ Street may be seen as inconsistent with those goals and policies and, therefore, requiring the widening at this time is determined to be infeasible, as the widening may conflict with what is eventually adopted for the area. The project will be required to participate in whatever financing mechanism is in place at the time of issuance of building permits to fund, on a fair-share basis, the cost of installation of the improvements. Implementation of Mitigation Measure 4.3-1-2 may not reduce the impact of the project development to a less-than-significant level because the certainty and the effectiveness of the mitigation measure cannot be guaranteed at the time. For this reason, the impact would remain significant and unavoidable. **Significant and Unavoidable.**

### *Intersections*

#### *4.3-2-1 Folsom Boulevard/65th Street Intersection*

Under both Station 65 development scenarios, the addition of project traffic exacerbates unacceptable LOS F conditions in the PM peak hour and adds more than five seconds of average delay at the intersection. This is considered a *significant impact* as defined by both the currently adopted General Plan and the Draft 2030 General Plan. However, the DEIR for the 2030 General Plan proposes a mitigation measure to exempt this intersection from the generally applicable LOS threshold under certain conditions. Therefore, the DEIR acknowledges that the resulting impact will be significant and unavoidable.

The impacts described above could be mitigated to a less than significant level by constructing a second westbound left-turn lane at the Folsom Boulevard/65$^{th}$ Street intersection .The construction of the a second westbound left-turn would reduce overall intersection delay such that it is within five seconds of the baseline without project condition. However, as explained above, construction of a second westbound

left turn is infeasible since it may be seen as inconsistent with the pedestrian and transit goals and policies of the 65th Street University village TVP and the subject on going study. The project will be required to participate in whatever financing mechanism is in place at the time of issuance of building permits to fund, on a fair-share basis, the cost of installation of the improvement.

Implementation of Mitigation Measure 4.3-1-2 may not reduce the impact of the project development to a less-than-significant level because the certainty and effectiveness of the mitigation measure cannot be guaranteed to fully mitigate the impact. For this reason, the impact would remain significant and unavoidable. **Significant and Unavoidable.**

### *4.3-2-8 Q Street/67th Street Intersection*

Under both scenarios, the addition of project traffic degrades intersection operations from LOS A to LOS F in the PM peak hour. The degraded operations at this intersection are caused by queue spillback from the 65th Street/Q Street intersection. This is considered a significant impact as defined by both the currently adopted General Plan and the Draft 2030 General Plan.

The implementation of Mitigation Measure 4.3-2-5 would reduce overall intersection delay and improve operations to LOS D conditions for the Scenario A project and LOS E conditions for the Scenario B project.

Therefore, the impact is less than significant with mitigation when considering the Draft 2030 LOS thresholds. However, even with the mitigation measure, the intersection degrades from LOS A conditions without the project to LOS D or worse conditions with the addition of either project scenario. Additional time could be allocated to the westbound movement at the 65th Street/Q Street intersection, which would reduce the significance of the impact at the Q Street/67th Street intersection. However, by allocating more westbound time, northbound and southbound delays would increase and would degrade the operations at the 65th Street/Q Street intersection significantly.

Additionally, intersection operations could be improved by adding lanes to Q Street between 65th Street and 67th Street and by adding a southbound left-turn lane at the Q Street/67th Street intersection. However, these improvements would increase the crossing distance of pedestrians between the light rail platform and the bus stops immediately in front of the project site. This improvement would conflict with the pedestrian-oriented theme of the 65th Street transit station and the Station 65 project.

A traffic signal with eastbound protected-permissive left-turn phasing could be installed at this location. The traffic signal would have to be coordinated with the Q Street/65th Street intersection to minimize conflicts between the signals and it is recommended that a crosswalk be striped on the east leg of the intersection. The installation of a traffic signal would not significantly reduce delays at the intersection, but the LOS would improve since there are different LOS thresholds for signalized and unsignalized intersections. A peak hour signal warrant was evaluated at this location and the results indicate that this location does not meet the peak hour traffic volume warrant. However, given the proximity of the intersection to the light rail station, it is probable that the intersection would meet one of the pedestrian-based signal warrants. Therefore the installation of a traffic signal would have a secondary beneficial impact of improving the pedestrian crossing environment at this location.

The installation of the Q Street/67th traffic signal would provide acceptable LOS C conditions under the Scenario A alternative, which would reduce the significance of this intersection to a less than significant level. However, because the new signal operates at LOS D conditions under the Scenario B alternative, this impact is considered **significant and unavoidable** under the currently adopted General Plan LOS threshold.

### 4.3-3 Freeway Facilities

Both the Scenario A and Scenario B development alternatives would add traffic to freeway facilities that operate at LOS F conditions during either the AM or PM peak hour under baseline without project conditions. The impacted freeway facilities are listed below:

- Eastbound US 50 mainline segment from 59th Street to 65th Street – PM peak hour
- Westbound US 50 mainline segment from 65th Street to 59th Street – AM peak hour
- Eastbound US 50 off-ramp diverge area at 65th Street – AM and PM peak hour
- Westbound US 50 slip on-ramp merge area from 65th Street – AM peak hour
- Westbound US 50 loop on-ramp merge area from 65th Street – AM peak hour
- Eastbound US 50 loop on-ramp merge area from 65th Street – AM and PM peak hour
- Eastbound US 50 weaving area between 65th Street and Howe Avenue – AM and PM peak hour
- Westbound US 50 weaving area between Howe Avenue/Hornet Drive and 65th Street – AM and PM peak hour

While either project scenario increases freeway mainline traffic volumes by less than one percent, freeway facility density and service flow increase measurably. Based on Caltrans' standards, this is considered a significant impact.

Given that the Station 65 project is already a transit-oriented development, freeway impacts could be reduced by encouraging additional residents and workers at the Station 65 project to take transit. This could be achieved by implementing **Mitigation Measure 4.3-3**. This mitigation measure would reduce peak hour freeway volumes through the establishment of a travel demand management (TDM) program. The TDM program could include incentives to take transit, carpool, bike, or walk, or it could include pricing mechanisms (e.g., peak period parking charges) to make it more costly to travel at peak times. While this mitigation measure is feasible to implement and would lead to a reduction in overall peak period auto trips, it cannot be guaranteed that enough trips would shift away from the freeway to reduce the freeway facility impacts to a less than significant level.

Because the mitigation measures identified above are either infeasible or would not reduce the significance of the freeway impact to a less than significant level, this impact remains significant and unavoidable. **Significant and Unavoidable**.

### *4.2-9-1 Folsom Boulevard between 59th Street and 65th Street*

Under Scenario A conditions, the project adds traffic to a roadway operating at LOS E conditions and increases the volume to capacity ratio by 0.02, which equals the City's 0.02 volume to capacity threshold. The Scenario B project increases the volume to capacity ratio by 0.03. These impacts are considered significant under the currently adopted General Plan LOS thresholds.

However, since the addition of project trips from either of the development scenarios does not degrade roadway operations to LOS F conditions, this impact is less than significant as defined by the Draft 2030 General Plan.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impacts described above. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement **Mitigation Measure 4.3-3** and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. **Significant and Unavoidable.**

### *4.2-9-2 Folsom Boulevard between 65th Street and Elvas Avenue*

Under Scenario A and Scenario B conditions, the project adds traffic to a roadway segment operating at LOS F under cumulative without project conditions, increasing the volume to capacity ratio by 0.03, which exceeds the City's 0.02 threshold. These impacts are considered significant under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the DEIR for the 2030 General Plan contains a mitigation measure to exempt this roadway segment from the LOS threshold, which would lead to a less than significant impact.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impacts described above. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement **Mitigation Measure 4.3-3** and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable**.

### *4.2-9-3 Folsom Boulevard between Elvas Avenue and State University Drive East*

Under Scenario A conditions, the project adds traffic to a roadway operating at LOS D conditions and increases the volume to capacity ratio by 0.02, which equals the City's 0.02 threshold. The Scenario B project increases the volume to capacity ratio by 0.03. These impacts are considered significant under the currently adopted General Plan LOS thresholds.

However, since the addition of project trips from either of the development scenarios does not degrade roadway operations to LOS F conditions, this impact is less than significant as defined by the Draft 2030 General Plan.

Widening Folsom Boulevard to six lanes would add capacity to the roadway segment and reduce the significance of the impact. However, Folsom Boulevard is shown as a four-lane road in the General Plan Circulation Element (for both versions of the General Plan), and the City Council would not likely approve a wider corridor. Additionally, right of way constraints make widening Folsom Boulevard infeasible.

The project could implement Mitigation Measure 4.3-3 and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from Folsom Boulevard to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable.**

### *4.2-9-4 65th Street between Folsom Boulevard and S Street*

Under both development scenarios, the project causes roadway segment LOS to degrade from LOS E to LOS F, while increasing the volume to capacity ratio by 0.1. This impact is considered significant under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds. However, the DEIR for the 2030 General Plan contains a mitigation measure to exempt this roadway segment from the LOS threshold, which would lead to a less than significant impact.

Right-of-way is available to widen 65th Street to six lanes, which would add capacity to the roadway segment and reduce the significance of the impact. Additionally, Draft 2030 General Plan Circulation Element designates 65th Street as a six-lane road. However, the approved 65th Street Transit Village Plan has a mitigation measure to add only a third southbound lane in the future. An additional northbound lane would be counter to this plan and the City's desire to improve the pedestrian environment in the area and reduce barriers to walking. Therefore, this mitigation measure is considered infeasible.

The project could implement Mitigation Measure 4.3-3 and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement, and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from 65th Street to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable.**

## *Intersections*

### *4.2-10-2 65th Street/S Street/US 50 Westbound Off-ramp Intersection*

Under both development scenarios, the project adds traffic to an intersection operating at LOS D conditions in the AM and PM peak hour, while adding more than five seconds of overall delay. This is considered a significant impact as defined by the currently adopted General Plan.

Since the addition of project trips from either of the Station 65 development scenarios does not degrade intersection operations to LOS F, this impact is less than significant as defined by the Draft 2030 General Plan.

The 65th Street Transit Village Plan identifies ramp widening as a cumulative mitigation to reduce the significance of queuing on the Westbound US 50 off-ramp, but this widening would not add new lanes to the intersection and therefore would not benefit intersection operations. Based on right-of-way constraints, no additional widening is possible at this intersection. Additionally, the signal timing is already assumed to be optimized.

The project could implement Mitigation Measure 4.3-3 and establish a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would decrease overall auto trips, it cannot be guaranteed that enough trips would shift away from this intersection to reduce the impact to a less than significant level. Therefore, this impact remains significant and unavoidable. **Significant and Unavoidable.**

### *4.2-10-3 Q Street/67th Street Intersection*

Under both Station 65 development scenarios, the addition of project traffic exacerbates LOS F conditions in the PM peak hour. The degraded operations at this intersection are caused by queue spillback from the 65th Street/Q Street intersection. This impact is considered significant under both the currently adopted General Plan and the Draft 2030 General Plan LOS thresholds.

Intersection operations could be improved by adding lanes to Q Street between 65th Street and 67th Street and by adding a southbound left-turn lane at the Q Street/67th Street intersection. However, these improvements would increase the crossing distance of pedestrians between the light rail platform and the bus stops immediately in front of the project site. This improvement would be in conflict with the pedestrian oriented theme of the 65th Street transit station and the Station 65 project. Implementing Mitigation Measure 4.3-3 is feasible and would reduce project-related auto trips. However, given the proximity of this intersection to the two project driveways, the TDM program would not likely substantially reduce the significance of the impact.

A traffic signal with eastbound protected-permissive left-turn phasing could be installed at this location. The traffic signal would have to be coordinated with the Q Street/65th Street intersection to minimize conflicts between the signals and it is recommended that a crosswalk be striped on the east leg of the intersection. Because the delays at this intersection are largely a result of queue spillback from the Q Street/65th Street intersection, the installation of a traffic signal would not significantly reduce delays at the intersection and impacts would be expected to remain under both development alternatives.

A peak hour signal warrant was evaluated at this location and the results indicate that this location does not meet the peak hour traffic volume warrant. However, given the proximity of the intersection to the light rail station, it is probable that the intersection would meet one of the pedestrian-based signal warrants. Therefore the installation of a traffic signal would have a secondary beneficial impact of improving the pedestrian crossing environment at this location.

Since no feasible mitigation measures are available to reduce intersection delays to be within five seconds of "without project" conditions, this impact is considered significant and unavoidable. **Significant and Unavoidable.**

### *4.2-11 Freeway Facilities*

Both the Scenario A and Scenario B project alternatives would add traffic to freeway facilities that operate at LOS F conditions during either the AM or PM peak hour under cumulative without project conditions. The impacted freeway facilities are listed below:

- Westbound US 50 mainline segment from 65th Street to 59th Street – AM peak hour
- Eastbound US 50 off-ramp diverge area at 65th Street – PM peak hour
- Westbound US 50 slip on-ramp merge area from 65th Street – AM peak hour
- Westbound US 50 loop on-ramp merge area from 65th Street – AM peak hour
- Eastbound US 50 loop on-ramp merge area from 65th Street – PM peak hour
- Eastbound US 50 weaving area between 65th Street and Howe Avenue – AM and PM peak hour
- Westbound US 50 weaving area between Howe Avenue/Hornet Drive and 65th Street – AM peak hour

While either project scenario increases freeway mainline traffic volumes by less than one percent, freeway facility density and service flow increase measurably. Based on Caltrans' standards, this is considered a significant impact.

As described above, the 65th Street Transit Village Plan identified Westbound US 50 off-ramp widening as a cumulative mitigation measure. The Station 65 project will make a fair share contribution to this project, which would reduce the queue length on the off-ramp. However, because the freeway operations in this area are constrained by heavy mainline volumes, this mitigation measure would not reduce the significance of the freeway mainline, weaving area, or ramp area impacts to a less than significant level.

Alternatively, Mitigation Measure 4.3-3 could be implemented. This mitigation measure would reduce peak hour freeway volumes through the establishment of a travel demand management (TDM) program. While this mitigation measure is feasible to implement and would lead to a reduction in overall peak period auto trips, it cannot be guaranteed that enough trips would shift away from the freeway to reduce the freeway facility impacts to a less than significant level.

Because the mitigation measures identified are either infeasible or would not reduce the significance of the freeway impact to a less than significant level, this impact remains significant and unavoidable. **Significant and Unavoidable.**

## 5.5 SIGNIFICANT AND IRREVERSIBLE IMPACTS

CEQA *Guidelines* Section 15126.2(c) requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Section 15126.2(c) states: "Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified. Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project
- The project would involve a large commitment of nonrenewable resources
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy)

Development of the proposed project would result in the continued commitment of the project site to more intense urban development, thereby precluding any other uses for the lifespan of the project. Restoration of the site to a less developed condition would not be feasible given the degree of disturbance, the urbanization of the area, and planned growth in the project area.

The CEQA *Guidelines* also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the project. While the project would result in the use, transport, storage, and disposal of hazardous wastes all activities would comply with applicable state and federal laws related to hazardous materials, which significantly reduces the likelihood and severity of accidents that could result in irreversible environmental damage. A less than significant irreversible impact would result.

Implementation of the proposed project would result in the long-term commitment of resources to urban development. Resources that would be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. With respect to operational activities, compliance with all applicable building codes, as well as mitigation measures, planning policies, and standard conservation features, would ensure that natural resources are conserved to the maximum extent possible. It is also possible that new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce the reliance upon nonrenewable natural resources. A less than significant irreversible impact to non-renewable resources would result from the development of the proposed project.

# CHAPTER 6

## PROJECT ALTERNATIVES

# 6.0 PROJECT ALTERNATIVES

## 6.1 INTRODUCTION

This chapter reviews alternatives to the proposed project considered during the preparation of this Environmental Impact Report (EIR). In accordance with the CEQA *Guidelines*, the alternatives considered in this EIR include those that 1) could accomplish most of the basic objectives of the project, and 2) could avoid or substantially lessen one or more of the significant effects of the project. To provide the appropriate context for this alternatives analysis, the project objectives and key significant effects are summarized below in **Section 6.3**. **Section 6.3** provides a description of alternatives initially considered but eliminated from further consideration due to their inability to achieve the project objectives and/or to reduce environmental impacts associated with the proposed project. Alternatives determined to achieve the selection criteria are discussed in **Section 6.5**. This discussion evaluates the capacity of selected project alternatives to accomplish the basic objectives of the project and provides a comparison of the potential environmental impacts expected to occur for each issue area. Each issue category is concluded with a statement regarding whether the issue as a whole for that category is expected to have a *lesser*, *similar*, or *greater* impact than the proposed project. These comparisons are used in **Section 6.4.4** to determine the Environmentally Superior Alternative.

## 6.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

An EIR must evaluate a reasonable range of alternatives to the proposed project, or to the location of the proposed project that could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA *Guidelines* Section 15126.6). An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project. The CEQA *Guidelines* provide the following language for discussing alternatives to a proposed project:

> The specific alternative of the “no project” shall also be evaluated along with its impacts…If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify and environmentally superior alternative among the other alternatives (CEQA *Guidelines* Section 15126.6(e)(2)).
>
> The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the proposed objectives, or would be more costly (CEQA *Guidelines* Section 15126.6 (d)).
>
> If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effect of the alternative shall be discussed but in less detail than the significant effects of the project as proposed (CEQA *Guidelines* Section 15126.6(d)).

> The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice…The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful participation and informed decision making…An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA *Guidelines*, Section 15126.6(f)).

The requirement that an EIR evaluate alternatives to the proposed project or alternatives that address the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts of the proposed project. The EIR need examine in detail only the alternatives that could feasibly attain most of the basic objectives of the project. The Public Resources Code (P.R.C.) and the CEQA *Guidelines* direct that the EIR need "set forth only those alternatives necessary to permit a reasoned choice." The CEQA *Guidelines* provide a definition for a "range of reasonable alternatives" and, thus, limit the number and type of alternatives that need to be evaluated in a given EIR. According to the CEQA *Guidelines* Section 15126.6(b):

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site (CEQA *Guidelines* Section 15126(f)(1)).

Finally, and EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative" (CEQA *Guidelines* Section 15126.6(f)(2)(3)).

## 6.3 PROJECT OBJECTIVES AND IMPACTS

The selection of alternatives takes into account the project objectives listed in **Section 3.0**, Project Description. The project objectives are listed below.

- To construct a high quality mixed use office, retail, hospitality, and residential development on property located in the Station Block area of the Transit Village Plan.
- To promote the development of regional commercial uses adjacent to the intersection of Folsom Boulevard and 65th Street to meet current commercial and residential needs and enhance area property values.
- To foster economic and employment opportunities within the City of Sacramento through the development of underutilized property within the Transit Village Plan area.

- To provide the necessary circulation and infrastructure improvements to accommodate development of the property consistent with City and District transportation objectives and designs.
- To optimize the use of the 65th Street Light Rail/Bus Transfer Station.
- To improve pedestrian connectivity between the 65th Street Light Rail/Bus Transfer Station and adjacent commercial, retail, and residential land uses.
- To encourage increased transit ridership.
- To act as a community center and serve as a pedestrian friendly meeting and gathering hub.
- To provide a venue for enhancing the community's local culture and social atmosphere.
- To improve the neighborhood image and environment.

The importance of meeting the project objectives is equal to the reduction of some or all significant impacts, specifically those that could not be mitigated to less than significant levels. The project-specific and cumulatively significant and unavoidable impacts of the proposed project, after mitigation are identified in **Chapter 4.0**.

## 6.4 ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER CONSIDERATION

Consistent with CEQA, primary consideration was given to alternatives that would reduce significant impacts while still meeting most of the project objectives. Alternatives that clearly would not meet most of the project objectives or would have environmental impacts similar to the proposed project were generally not considered. The following alternatives were considered but eventually dismissed from further analysis as described below.

### 6.4.1 ALTERNATIVE SITES

Many development projects can be relocated to a variety of locations and still meet the stated objectives of the project. In this case, however, the proposed project is explicitly tied to the 65th Street/University Transit Village Plan (Transit Village Plan) Area, which has been identified in planning documents as an area to be re-developed for mixed-use transit-oriented uses. Relocating the proposed project to an undeveloped location would most likely involve far greater impacts to natural resources than the proposed redevelopment of the Transit Village Plan Area. As the area has been previously developed, the development on the project site would result in minimal impacts to the environment (specifically biological and natural resources). Development of the proposed project outside of the urban center would not achieve the beneficial impacts generally associated with mixed-use infill projects. The development of an alternative site outside of the urban core would likely have greater impacts related to air quality, noise, and transportation. As a result, evaluation of an alternative site located outside of the urban center was eliminated from further consideration. An alternative infill site with similar transportation/transit access and planning designations has not been identified.

### 6.4.2 ALTERNATIVE LAND USES

Consideration of alternative land use designations, such as low density residential housing, regionally serving commercial uses, open space, or industrial uses, would be inconsistent with planning documents. Mixed-use, high-density development is generally considered a preferred land use for such an infill site. Such developments offer an alternative to sprawl, providing a self-supporting mixture of land uses that support walkable neighborhoods. In addition, alternative land uses would not meet the stated objectives of the proposed project.

## 6.5 ALTERNATIVES CONSIDERED IN THIS EIR

The following three alternatives to the proposed project are evaluated in this Draft EIR.

- **No Project/No Build Alternative**, which assumes that the proposed project would not be built and there would be no new development of the site. This alternative assumes the existing buildings and uses on the site would continue.
- **No Project/Existing Transit Village Plan Land Use Designation Alternative,** which assumes that the project site would be developed consistent with the land use designations and intensities identified in Transit Village Plan.
- **Reduced Density/Intensity Alternative,** which assumes that the project site would be developed at a lower density than the proposed project through a reduction in the maximum allowable building height.

### 6.5.1 ALTERNATIVE A – NO PROJECT/NO BUILD ALTERNATIVE

#### Description

As required by CEQA *Guidelines* Section 15126.6(e), a No Project Alternative has been evaluated. The evaluation of the No Project Alternative allows decision makers to compare the impacts of the proposed project against no development. According to the CEQA *Guidelines* Section 15126.6(e)(3)(b), the No Project Alternative shall discuss what would reasonably be expected to occur in the foreseeable future if the project were not approved. Thus, the No Project/No Development Alternative consists of the environmental conditions that currently exist with no future development on the project site. The project site would remain as currently described in the existing setting under each issue area discussed in **Chapter 4.0**.

#### Ability to Meet Project Objectives

Alternative A would not meet the overarching goals of the proposed project to provide a high quality mixed use development to promote the development of regional commercial uses adjacent to the intersection of Folsom Boulevard and 65th Street.

## Summary of Environmental Impacts

### *Transportation and Circulation*

The existing setting as described in **Section 4.3** would continue on the project site under Alternative A. As such, this alternative would not contribute additional vehicle trips to area roadways. Alternative A would have No Impact related to traffic as compared to the mitigated Less than Significant and Significant Unavoidable impacts associated with the proposed project. [**Lesser**]

### *Noise*

The existing setting as described in **Section 4.4** would continue on the project site under the No Project Alternative. As such, no additional noise would be generated from either construction activities or operation of high density urban land uses and associated traffic. The existing ambient noise environment will not be impacted under this alternative. No sensitive receptors would be added to the area. Alternative A would have No Impact related to noise as compared to the mitigated Less than Significant impacts associated with the proposed project. [**Lesser**]

### *Air Quality*

The existing setting as described in **Section 4.5** would continue on the project site under Alternative A. As such, no emissions would result from either construction or operation of high density urban land uses on the project site. Unlike the proposed project, local and regional air quality would not be affected under Alternative A. Alternative A would have no impact on air quality as compared to the Less than Significant impacts associated with the proposed project. [**Lesser**]

## 6.5.2 Alternative B - No Project/ Transit Village Plan Land Use Designation Alternative

## Description

The No Project/ Transit Village Plan Land Use Designation Alternative (Alternative B) provides decision makers with an opportunity to consider the environmental implications of the buildout of the project site with the anticipated levels of commercial mixed-use development identified in the Transit Village Plan for the Station Block Area. Land uses under the No Project/ Transit Village Plan Land Use Designation Alternative (Alternative B) would be consistent with the anticipated levels of development for the commercial mixed-use densities for the project site identified within the Transit Village Plan. Alternative B would be consist of 24,000 square feet (sq ft) of office space (approximately 29,000 sq ft less than Scenario A and approximately 48,000 square feet less than Scenario B), and 20,000 square feet of commercial space (approximately 153,000 sq ft less than Scenarios A and B). The Transit Village Plan does not anticipate residential land uses within the portion of the Station Block area comprising the footprint of the proposed project.

## Ability to Meet Project Objectives

Alternative B would generally accomplish the project objective of stimulating commercial growth in the area of the proposed project. The degree of stimulation, however, would be commensurate with the reduced intensity of planned development. As described above, Alternative B would result in the development of considerably less square footage of office and commercial use. In addition, Alternative B would not include the development of the residential uses on the site. Residential uses are an integral component of the pedestrian oriented proposed project.

## Summary of Environmental Impacts

### *Transportation and Circulation*

With a reduced commercial/office density and no residential uses, Alternative B would generate fewer vehicle trips than the proposed project. Thus, impacts to the operating conditions of study intersections, roadway segments, and freeway facilities are expected to be decreased under this alternative, and may potentially eliminate the need for certain mitigation measures. Additionally, some significant and unavoidable impacts to transportation facilities may be avoided under this alternative. [**Lesser**]

### *Noise*

Potentially significant impacts resulting from construction noise as a result of Alternative B are expected to be similar to those estimated for the proposed project, since construction would take place within the same general area and similar construction techniques would be utilized. Changes in traffic noise levels are expected to be slightly decreased relative to the proposed project as fewer project related trips are expected to occur. Under Alternative B noise sensitive residential uses would not be located within the project site. Alternative B would have Less than Significant impacts related to noise similar to the Less than Significant impacts associated with the proposed project. **[Similar]**

### *Air Quality*

Construction emissions that would result under Alternative B are expected to be simlar to those under the proposed project since a similar area of ground would be disturbed. Alternative B would result in fewer mobile source emissions than the proposed project, including $PM_{10}$, ozone precursors, and greenhouse gasses (GHGs) due to the reduce vehicle trip generation associated with the nature and density of the development. Alternative B would have less than significant air quality impacts similar to the less than significant air quality impacts associated with the proposed project. **[Lesser]**

## 6.5.3 Alternative C – Reduced Intensity

## Description

The Reduced Intensity Alternative (Alternative C) provides decision makers with an opportunity to consider the environmental implication of adjusting the land use density/intensity of the Transit Village Plan area. This alternative would reduce land uses under Scenario A of the proposed project by approximately 20 percent. This alternative would provide 55 residential units (approximately 13 units less

than Scenario A and approximately 65 units less than proposed project Scenario B), 42,400 sq ft of office development (approximately 10,600 sq ft less than Scenario A and approximately 29,600 sq ft less than the proposed project Scenario B); and 51,200 sq ft of retail (approximately 12,800 sq ft less than Scenarios A and B); 118 hotel rooms (approximately 29 less than Scenarios A and B); a 24,000 square foot fitness center (approximately 6,000 sq ft less than Scenarios A and B); and would provide approximately 495 parking spaces (approximately 123 less than Scenario A and 628 less than Scenario B). The overall development expected to occur under this alternative consists of 405,600 of sq ft, which is approximately 101,400 sq ft less than Scenario A and 200,400 sq ft less than the proposed project.

## Ability to Meet Project Objectives

Alternative C would generally accomplish the project objective of stimulating commercial growth in the area of the proposed project. The degree of stimulation, however, would be commensurate with the reduced intensity of planned development. As described above, Alternative C would result in the development of 20 percent less commercial/retail square footage and 20 percent fewer residential units than the proposed project.

## Summary of Environmental Impacts

### *Transportation and Circulation*

As described above, using the trip generation rates applied to the proposed project within the traffic study included within **Section 4.3**, the reduction in retail development proposed under Alternative C is expected to generate approximately 4,730 daily vehicle trips, which is approximately 807 less trips than Scenario A and approximately 1182 less trips than Scenario B. This reduction would eliminate approximately 20 percent of the estimated vehicle trips for Scenario A, and approximately 20 percent of the estimated vehicle trips for Scenario B. Thus, impacts to the operating conditions of study intersections, roadway segments, and freeway facilities are expected to be decreased under this alternative, and may potentially eliminate the need for certain mitigation measures. Additionally, some significant and unavoidable impacts to transportation facilities may be avoided under this alternative. **[Lesser]**

### *Noise*

Potentially significant impacts resulting from construction noise as a result of Alternative C are expected to be similar to those estimated for the proposed project, since construction would take place within the same general area and similar construction techniques would be utilized. Changes in traffic noise levels are expected to be slightly decreased relative to the proposed project as fewer project related trips are expected to occur. Alternative B would have Less than Significant impacts related to noise similar to the Less than Significant impacts associated with the proposed project. **[Similar]**

### *Air Quality*

Construction emissions that would result under Alternative C are expected to be similar to those estimated for the proposed project given that the same project area would be affected by grading activities during construction activities. Alternative C would result in reduced mobile source emissions including $PM_{10}$, ozone precursors, and GHGs due to the reduced vehicle trip generation. Alternative C

would result in reduced impacts to air quality compared to the less than significant air quality impacts from the proposed project. **[Lesser]**

### 6.5.4 Environmentally Superior Alternative

The environmentally superior alternative would be the Alternative A - No Project/No Build Alternative because it would eliminate and/or reduce the significant impacts identified for the proposed project. However, the No Project/No Build Alternative does not achieve any of the project's objectives. CEQA *Guidelines* Section 15126.6(e)(2) states that when the No Project/No Build Alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives. Due to a significant reduction in commercial/office land uses and the elimination of residential land uses, Alternative B would result in fewer impacts to air quality, noise, and transportation than the proposed project. Alternative B is therefore considered to be the environmentally superior alternative.

# CHAPTER 7

## REPORT PREPARATION

# 7.0 REPORT PREPARATION

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# CHAPTER 8

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# 8.0 REFERENCES CITED


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