



City of Sacramento

Sacramento Commons

Draft Environmental Impact Report

State Clearinghouse No. 2014042032

Prepared for:



Community Development Department
Environmental Planning Services

Prepared by:

AECOM

March 2015



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ACRONYMS AND OTHER ABBREVIATIONS

°C	degree Celsius
AB	Assembly Bill
ACTM	Airborne Toxic Control Measure
afy	acre-feet per year
ARB	Air Resources Board
ATCM	Airborne Toxic Control Measure
B.P	Before Present
Basin Plan	Water Quality Control Plan for the Sacramento River and San Joaquin River Basins
BMP	best management practice
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CALGreen Code	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBD	Central Business District
CCAA	California Clean Air Act
CCCP	Central City Community Plan
CCUDG	Central City Urban Design Guidelines
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
Central Basin	Central Groundwater Basin
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFMP	Comprehensive Flood Management Plan
cfs	cubic feet per second
CHRIS	California Historical Resource Information System
City	City of Sacramento
CIWMA	California Integrated Waste Management Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon monoxide
CO ₂ e	CO ₂ equivalents
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSH	Center for Sacramento History
CSS	combined sewer system

CVFPP	Central Valley Flood Protection Plan
CWA	Clean Water Act
dbh	diameter at breast height
DDT	dichlorodiphenyltrichloroethane
DOF	Department of Finance
DPM	diesel PM
EIR	environmental impact report
EPA	Environmental Protection Agency
ERM	Environmental Resource management
ESA	Endangered Species Act
ESC	Entertainment and Sports Center
ESD	equivalent single-family dwelling
FAA	Federal Aviation Administration
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FWTP	Fairbairn Water Treatment Plant
GHG	greenhouse gas
GWP	Global warming potential
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HAP	hazardous air pollutant
HARP	Hotspots Analysis and Reporting Program
HCM	Highway Capacity Manual
HFCs	hydrofluorocarbons
HOV	high occupancy vehicle
LEED	Leadership in Energy & Environmental Design
IOUs	investor-owned utilities
IVI	IVI Assessment Services Inc.
JRP	JRP Historical Consulting, LLC
Keeper	Keeper of the National Register
LHMP	<i>Local-Hazard Mitigation Plan</i>
LID	low impact development
LOS	Levels of Service
Master EIR	Sacramento 2030 General Plan Master EIR
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MMT	million metric tons
MOU	memorandum of understanding
MS4 permit	joint Municipal Separate Storm Sewer System NPDES permit
MT	metric tons
MTP	Metropolitan Transportation Plan
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
NAHC	Native American Heritage Commission

NCIC	North Central Information Center
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO ₂	Nitrogen dioxide
NOP	Notice of Preparation
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Services'
NRHP	National Register of Historic Places
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
PCBs	polychlorinated biphenyls
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM	Particulate matter
PM ₁₀	coarse particles
PM _{2.5}	fine PM
ppd	pounds per day
PRMP	<i>Parks and Recreation Master Plan 2005–2010</i>
proposed project	Sacramento Commons project
PUD	Planned Unit Development
PUD	Planned Unit Development
REL	reference exposure level
Reporting Rule	Greenhouse Gas Reporting Rule
ROG	reactive organic gases
RT	Regional Transit District
RWD	Reports of Waste Discharge
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
Sacramento Register	Sacramento Register of Historic & Cultural Resources
SAFCA	Sacramento Area Flood Control Agency
SB	Senate Bill
SCEA	Sustainable Communities Environmental Assessment
SCH	State Clearinghouse
Scoping Plan	<i>Climate Change Scoping Plan</i>
SCS	Sustainable Communities Strategy
SCUSD	Sacramento City Unified School District
SFD	Sacramento Fire Department
SHPO	State Historic Preservation Officer
SHRC	State Historical Resources Commission
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District

SO ₂	Sulfur dioxide
SQIP	<i>Stormwater Quality Improvement Plan</i>
SR 99	State Route 99
SRCSD	Sacramento Regional County Sanitation District-
SRWTP	Sacramento Regional Wastewater Treatment Plant
SRWWTP	Sacramento Regional Wastewater Treatment Plant
SSQP	Sacramento Stormwater Quality Partnership
stratosphere	upper atmosphere
Sump	Pump Station
SWA	Solid Waste Authority
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TDM	transportation demand management
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy for 2035
TMDL	total maximum daily load
TPAs	transit priority areas
tpd) of solid waste	tons per day
TPP	Transit Priority Project
troposphere	pollutant in the lower atmosphere
U.S. 50	U.S. Highway 50
UCMP	University of California Museum of Paleontology
ug/L	micrograms per liter
USACE	U.S. Army Corps of Engineers
USFWS	U. S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOCs	Volatile Organic Compounds
WBE	Wurster, Bernardi, and Emmons
WDR	Waste Discharge Requirement
WSA	Water Supply Assessment

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This environmental impact report (EIR) has been prepared by the City of Sacramento (City) as Lead Agency to evaluate the potential environmental effects of the proposed Sacramento Commons project (proposed project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.).¹

This executive summary briefly summarizes the environmental analysis for the proposed project, as required by Section 15123 of the California Environmental Quality Act Guidelines (CEQA Guidelines). This executive summary includes: (a) an overview of the project description; (b) alternatives to the project that could reduce potentially significant effects; (c) known areas of controversy; and (d) impacts of the project and mitigation measures designed to reduce potentially significant² impacts (Table ES-1). Each of these topics is discussed in detail in this Draft EIR.

As lead agency, the City determined that this Draft EIR will address the following technical issue areas: aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gases and energy, hazards and hazardous materials, hydrology and water quality, noise and vibration, public services and recreation, transportation and traffic, and utilities and service systems. As demonstrated in this EIR, with the exception of significant and unavoidable historical resource impacts, all project impacts are less than significant or may be reduced to a less-than-significant level through implementation of feasible mitigation measures.

ES.2 PROJECT DESCRIPTION

The project site is located in Sacramento's Central Business District – an area with an existing mix of multi-story residential and office uses. The project site encompasses 10.13 acres developed with 409 dwelling units, approximately 4,122 square feet of retail space, recreational amenities (including a swimming pool), laundry facilities, various landscaped areas, and a three-level parking structure containing 200 parking spaces and 190 parking spaces on surface lots.

The proposed project provides for two development options (or scenarios). The first option, Hotel / Condo / Retail Scenario, would remove the 206 existing garden apartment units, retain the existing Capitol Towers (which contains 203 apartments), construct a 300-room hotel and 110 condominium units (in conjunction with and above the hotel floors), and provide a total of up to 1,171 new dwelling units, for a total of 1,374 dwelling units within the project site. This scenario would also include the addition of up to 70,000 new square feet of neighborhood support / retail space, in addition to the existing 4,122 square feet of retail uses that currently exist within Capitol Towers.

¹ The Public Resources Code includes provisions related to streamlining CEQA review for certain projects, such as eligible infill projects. Streamlining provisions relevant to this EIR are discussed in detail in Section 4.0 of this EIR.

² CEQA Guidelines Section 15382 defines a significant effect as a substantial, or potentially substantial, adverse change in any 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.

The second option is similar, but replaces the hotel with additional residential units. This option is referred to as the Condo / Retail Scenario. The Condo / Retail Scenario would remove the 206 existing garden apartment units, retain the existing Capitol Towers (which contains 203 apartments) and construct up to 1,267 new dwelling units, for a total of 1,470 dwelling units within the project site. This scenario would also include the addition of up to 52,000 new square feet of neighborhood support / retail, in addition to the existing 4,122 square feet of retail use that currently exist within Capitol Towers.

ES.3 ALTERNATIVES

The purpose of the alternatives evaluation in an EIR, as stated in Section 15126.6(c) of the CEQA Guidelines, is to ensure that “[t]he range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects” associated with implementation of the proposed project. Chapter 5 of this EIR describes the range of alternatives to the proposed project that are analyzed in this EIR and presents how specific impacts differ in severity from those associated with the proposed project.

Except for historic resources, as with the proposed project, significant impacts of the alternatives can be mitigated to a less-than-significant level through adoption of mitigation measures identified in Chapter 4 of this EIR, which contains the environmental analysis of the proposed project. To varying degrees, the following alternatives would also avoid and/or lessen project impacts, including the significant and unavoidable impact related to the historical resource, but, with the exception of the No Project/No Development Alternative, not to a less-than-significant level.

The alternatives to the proposed project analyzed in this EIR are:

- ▶ Alternative 1: No Project/No Development
- ▶ Alternative 2: 15-Story Core Retention Alternative
- ▶ Alternative 3: 24-Story Core Retention Alternative
- ▶ Alternative 4: Retention of Eastern Half of the Superblock Alternative

CEQA Guidelines require that an EIR identify the environmentally superior alternative (Section 15126.6 [e][2]). If the environmentally superior alternative is the “No Project” Alternative, the EIR must identify an environmentally superior alternative from among the other alternatives. Alternative 1, the No Project/No Development Alternative, would avoid the significant impact of the proposed project related to historic resources, and would reduce or avoid many of the proposed project’s other potential environmental impacts. Of the development alternatives, Alternative 2 would achieve the greatest reduction in the project’s significant and unavoidable impact related to historic resources, by retaining and restoring the core of the historical superblock and developing residential high-rise buildings that are similar in height to the existing high-rise building within the project site. However, Alternative 2, like the proposed project, would still result in a significant and unavoidable historical resource impact. Although Alternatives 3 and 4 would have less severe impacts to historical resources than the proposed project, historical resource impacts would still remain significant and unavoidable under Alternatives 3 and 4. Please see Chapter 5 of this EIR for more detail.

ES.4 KNOWN AREAS OF CONTROVERSY

The CEQA Guidelines (Section 15123) require that the summary of an EIR identify areas of controversy known to the lead agency, including issues raised by agencies and the public. The City has asked for input from federal, state, and local agencies; organizations; and members of the public regarding the issues that should be evaluated in the EIR. In April 2014, the City circulated a Notice of Preparation (NOP) for a Sustainable Communities Environmental Assessment (SCEA) that the City intended to prepare pursuant to CEQA streamlining provisions. The City ultimately concluded that an EIR should be prepared instead and issued a second NOP, for the undertaking of the EIR, on August 6, 2014. A public scoping meeting was held on August 27, 2014. Based on comments and input received during the EIR process to date, the most frequently mentioned environmental topics include changes to aesthetics, including the removal of trees and changes to open space, and impacts to historical resources. Other topics mentioned during public review opportunities are summarized below. Please see Appendix B for a complete listing of topics discussed during the NOP processes.

ES.4.1 LAND USE, POPULATION, AND HOUSING

Commenters expressed concern regarding the availability of public housing relocation assistance and demolition of on-site housing, as well as affordable housing in the area, economic impacts of the project during and following construction, and housing market considerations.

ES.4.2 AESTHETICS

Commenters were interested in visual changes related to the project, including those related to parking and building design, an interest in a complete tree inventory, flaws in the project arborist report, removal of trees and changes to the urban canopy, particularly mature or “heritage” trees. One commenter identified visual issues related to the tower floor plates and relationship of the project with the City’s design guidelines.

ES.4.3 AIR QUALITY

Commenters mentioned a concern about air quality impacts of the project, including air pollutant emissions associated with automobiles and potential construction-related (dust, in particular).

ES.4.4 BIOLOGICAL RESOURCES

Commenters mentioned a concern related to impacts to wildlife associated with the project.

ES.4.5 CULTURAL RESOURCES

Commenters mentioned concerns related to changes in aesthetics as they relate to cultural resources; the need to ensure historic reports for the project are thoroughly researched; Capitol Towers’ historical, architectural, and planning relevance to the community; a change from the traditional or planned use of the area; impacts to an existing historic neighborhood; changes to the original design of Capitol Towers; archaeological impacts; and impacts to the historical landscape and architecture.

ES.4.6 GEOLOGY AND SOILS

Commenters mentioned concerns related to soil conditions and building design and compliance with codes related to seismic safety.

ES.4.7 GREENHOUSE GAS EMISSIONS AND ENERGY

Commenters mentioned concerns related to greenhouse gas emissions from demolition and construction, as well as greenhouse gas sequestration from trees, and increases in energy consumption associated with the project.

ES.4.8 HAZARDS AND HAZARDOUS MATERIALS

Commenters mentioned concerns regarding fire hazards associated with the project, including any wood on-site during construction that might be vulnerable to arson or accidental fire, as well as ongoing access for fire trucks, fire safety issues in project design, the presence of contaminated groundwater, and hazardous materials in the vicinity of the project site.

ES.4.9 HYDROLOGY AND WATER QUALITY

Commenters mentioned the need for appropriate stormwater permits, a Clean Water Act Section 404 permit, Section 401 permit, waste discharge requirements, and a low or limited threat general NPDES permit. Commenters also mentioned the “landscape services” associated with existing vegetation, including stormwater management benefits. Commenters also mentioned impacts to water quality.

ES.4.10 NOISE AND VIBRATION

Commenters mentioned concerns regarding construction-related impacts (noise and vibration), as well as noise during operation of the project and vibration impacts.

ES.4.11 PUBLIC SERVICES AND RECREATION

Commenters mentioned concerns regarding impacts on service levels for police and fire protection, impacts on parks from residential density increase, fire risk and emergency service adequacy, public safety and the need for security patrol, and the lack of public services in the vicinity of the project site.

ES.4.12 TRANSPORTATION AND TRAFFIC

Commenters mentioned concerns regarding the need for a traffic impact study, both an undersupply and an oversupply of parking and impacts of the latter related to induced travel, impacts on existing state facilities from increased resident pedestrian traffic, construction-related traffic, traffic from the residential density increase, ongoing bicycle parking and access, a desire to rebuild O Street and 6th Street through the project site, disruptions to transit service/pedestrian access during construction, the need for a bus stop shelter and upgrades to meet future demand, along with the need for transit information displays. Commenters also mentioned pedestrian safety, access concerns related to citizens with disabilities, emergency service access, and the presence of existing pedestrian easements.

ES.4.13 UTILITIES AND SERVICE SYSTEMS

Commenters mentioned concerns regarding the adequacy of sewer and stormwater infrastructure in relation to the additional population attributable to the proposed project, stormwater backing up and pooling during rainstorms, on-site and off-site impacts related to sanitary sewer facilities, regional sanitary sewer service and fees, wastewater operating agreement and applicable flow limitations associated with this agreement, impacts on utility lines (both overhead and underground), and water management issues.

ES.5 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table ES-1 displays a summary of potential impacts and proposed mitigation measures that would avoid, eliminate, minimize, or reduce potential impacts. The level of significance of the potential impact following implementation of each mitigation measure is identified. Each potential impact and its significance conclusion are followed by the mitigation requirement. For detailed descriptions of project impacts and mitigation measures, please see Sections 4.1 through 4.12.

Table E0-1 Sacramento Commons: Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.1 Aesthetics			
4.1-1 The proposed project could have a substantial adverse effect on a scenic vista.	NI	None required.	N/A
4.1-2 The proposed project could substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	NI	None required.	N/A
4.1-3 The proposed project could substantially degrade the existing visual character or quality of the site and its surroundings.	LTS	None required.	N/A
4.1-4 The proposed project could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LTS	None required.	N/A
4.1-5 Cumulative impact related to scenic vistas.	NCC	None required.	N/A
4.1-6 Cumulative impact related to existing visual character or quality of the site and its surroundings.	LCC	None required.	N/A
4.1-7 Cumulative impact related to a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LCC	None required.	N/A
4.1-8 Cumulative impact related to a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LCC	None required.	N/A
4.2 Air Quality			
4.2-1 The proposed project could result in short-term (construction) emissions of NO _x above 85 pounds per day	PS	Mitigation Measure 4.2-1: Implement SMAQMD Basic Construction Emission Control Practices. If project phasing changes substantially relative to that assumed in the EIR, the applicant shall provide evidence that maximum daily emissions remain below applicable SMAQMD significance thresholds, adjusting phasing, as necessary to achieve relevant thresholds.	LTS

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**Table E0-1
Sacramento Commons: Summary of Project Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>City approval of any grading or improvement plans shall require the following Basic Construction Emission Control Practices:</p> <ul style="list-style-type: none"> • Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. • Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Cover any haul trucks that will be traveling along freeways or major roadways. • Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. • Limit vehicle speed on unpaved roads to 15 mph. • Complete pavement of all driveways and sidewalks to be paved as soon as possible. In addition, lay building pads as soon as possible after grading unless seeding or soil binders are used. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. • Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment shall be checked by a certified mechanic and determined to be running in proper condition before it is operated. 	

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Table E0-1 Sacramento Commons: Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.2-2 The proposed project could result in long-term (operational) emissions of NOx or ROG above 65 pounds per day.	LTS	None required.	N/A
4.2-3 The proposed project could violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in PM ₁₀ concentrations equal to or greater than 5% of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) during project construction.	PS	Mitigation Measure 4.2-3: Implement Mitigation Measure 4.2-1 (Implement SMAQMD Basic Construction Emission Control Practices).	LTS
4.2-4 The proposed project could result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm).	LTS	None required.	N/A
4.2-5 The project could result in exposure of sensitive receptors to substantial pollutant concentrations.	LTS	None required.	N/A
4.2-6 The proposed project could create objectionable odors affecting a substantial number of people.	LTS	None required.	N/A
4.2-7 Cumulative impact related to ozone precursors.	LCC	None required.	N/A
4.2-8 Cumulative impact related to particulate matter concentrations.	LCC	Mitigation Measure 4.2-8: Implement Mitigation Measure 4.2-1 (Implement SMAQMD Basic Construction Emission Control Practices).	LCC
4.2-9 Cumulative impact related to carbon monoxide (CO) concentrations.	LCC	None required.	N/A
4.2-10 Cumulative impact related to exposure of sensitive receptors to substantial pollutant concentrations.	LCC	None required.	N/A
4.2-11 Cumulative impact related to odors.	LCC	None required.	N/A

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**Table E0-1
Sacramento Commons: Summary of Project Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.3 Biological Resources			
4.3-1 The proposed project could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of threatened or endangered species of plant or animal, substantially reduce the number or restrict the range of a special-status species, substantially reduce the habitat of a fish or wildlife species, or cause a fish or wildlife population to drop below self-sustaining levels.	PS	<p>Mitigation Measure 4.3-1a: Avoid Direct Loss of Swainson’s Hawk. <u>Swainson’s hawk</u></p> <ul style="list-style-type: none"> If construction, tree removal, trimming, or pruning for any project phase on the project site is to begin during the nesting season for Swainson’s hawk (March 1–August 31), a preconstruction survey for Swainson’s hawk shall be conducted. Surveys for Swainson’s hawk nests shall be conducted no more than 30 days before the beginning of construction for all project phases. Surveys for Swainson’s hawk nests shall be conducted in all suitable nesting habitat within line of sight of construction activities within a 0.25-mile radius of the project site. If active Swainson’s hawk nests are found within the nest survey area, the construction contractor shall avoid impacts on such nests by establishing a no-disturbance buffer around the nest. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. Based on guidance for determining a project’s potential for impacting Swainson’s hawks (Swainson’s hawk Technical Advisory Committee 2000), projects in urban areas have a low risk of adversely affecting nests greater than 600 feet from project activities. Therefore, 600 feet is the minimum adequate buffer size for protecting nesting Swainson’s hawks from disturbances associated with the proposed project. However, the qualified biologist shall consult with the California Department of Fish and Wildlife to confirm the adequacy of the no-disturbance buffer size prior to commencement of construction. 	LTS

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**Table E0-1
Sacramento Commons: Summary of Project Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> No construction activity shall occur within the buffer area of a particular nest until a qualified biologist in consultation with California Department of Fish and Wildlife, confirms that the chicks have fledged or the nesting cycle has otherwise completed. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases, according to CDFW guidance (Calderaro pers. comm. 2014). The no-disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. <p>Mitigation Measure 4.3-1b: Avoid Direct Loss of Swainson’s Hawk, White-Tailed Kite, Peregrine Falcon, and Nesting Birds Protected by the Migratory Bird Treaty Act and California Fish and Game Code.</p> <p><u>White-tailed Kite, Peregrine Falcon, and Protected Bird Species</u></p> <ul style="list-style-type: none"> If construction activity, tree removal, trimming, or pruning for any project phase on the project site is to begin during the nesting season for white-tailed kite, peregrine falcon, other raptors (except Swainson’s hawk), or other protected bird species in this region (generally late February through early September), a qualified biologist shall conduct preconstruction surveys in areas of suitable nesting habitat for white-tailed kite, peregrine falcon, common raptors, and bird species protected by the Migratory Bird Treaty Act or California Fish and Game Code. Surveys shall be conducted no more than 30 days before any ground disturbance is expected to occur for all project phases and shall extend at least 300 	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>feet from the edge of the disturbance activity for non-raptor bird species and at least 500 feet for all raptor species potentially nesting in the area.</p> <ul style="list-style-type: none"> If no active nests are found, no further mitigation is required. If active nests are found, the construction contractor shall avoid impacts on such nests by establishing a no-disturbance buffer around the nest. The appropriate buffer size for all nesting birds shall be determined by a qualified biologist but shall extend a minimum of 300 feet from the nest for non-raptor bird species and 500 feet for raptor species. The buffer size may be adjusted, as determined by a qualified biologist, depending on the species of nesting bird, nature of the project activity, the extent of existing disturbance in the area, visibility of the disturbance from the nest site, and other relevant circumstances. No construction activity shall occur within the established buffer area of an active nest until a qualified biologist confirms that the chicks have fledged and are no longer dependent upon the nest or the nesting cycle has otherwise completed. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases, according to CDFW guidance (Calderaro pers. comm. 2014). The no-disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. 	

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<p align="center">Table E0-1 Sacramento Commons: Summary of Project Impacts and Mitigation Measures</p>			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>4.3-2 The proposed project could conflict with any local policies or ordinances protecting biological resources.</p>	<p>PS</p>	<p>Mitigation Measure 4.3-2: Avoid and Minimize Impacts on Trees.</p> <p>The project applicant shall submit a Tree Permit application to the City Department of Public Works (Maintenance Services Division), as required by the City Code, for removal and pruning affecting a Heritage Tree or City Street Tree and such activity shall not be performed until a permit has been issued. When allowed, according to the conditions of the permit, construction activity that requires pruning or encroachment into the canopy dripline of a Heritage Tree or City Street Tree would be monitored by the project arborist, who will make recommendations for minimizing impacts to retained trees. In addition, the following tree replacement, protection, and monitoring actions shall be implemented:</p> <ul style="list-style-type: none"> Any Heritage Trees to be removed for construction purposes shall each be replaced with one 24-inch box size tree. The replacement trees shall be planted on site and incorporated into the project's landscape plan. Any City Street Trees to be removed for construction purposes shall be replaced with either 24-inch box size trees or 15-gallon size tree (as required under City Code Section 12.56.090 based on the sizes of the City Street Trees to be removed). Replacement trees for City Street Trees shall be replanted within the City right-of-way in coordination with the City's Urban Forester. If replacement trees for City Street Trees cannot be accommodated in the City's right-of-way, they shall be planted on site and incorporated into the project landscape plan. If City Street Tree replacement trees cannot be incorporated into the project landscape plan, they shall be planted at another off-site location at the City's direction. 	<p>LTS</p>

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Replacement trees shall consist of shade tree species appropriate to the site and which consider the post-construction environment (e.g., shading from buildings). Selection of replacement tree species shall be conducted in consultation with the City's Director of Urban Forestry. • Tree planting shall comply with the City's landscaping requirements (City Code Sections 17.612.010 and 17.612.040). • Canopy or root pruning of any retained Heritage or City Street Trees to accommodate construction and/or fire lane access shall be conducted according to applicable ANSI A300 tree pruning standards and International Society of Arboriculture best management practices. • All retained trees on-site (Heritage or City Street Trees) shall be protected from construction-related impacts pursuant to Sacramento City Code Section 12.64.040 (Heritage Trees) and Section 12.56.060 (City Street Trees). Full details of tree protection measures are available in the Arborist Report (see Appendix M), but a summary is provided here. <ul style="list-style-type: none"> ○ Under the tree protection measures, an International Society of Arboriculture-(ISA) Certified Arborist shall be assigned to monitor tree health and construction activity near all trees retained on-site (including trees that do not meet the Heritage Tree or City Street Tree definition). Protection measures prior to construction include: health inspection of large trees; a pre-construction meeting with all contractors and the arborist to discuss protocols; pre-construction training for all construction crews; tree removal, pruning and inspection during site preparation; and erection of a protective fencing and signage around all trees or groups of trees. Tree protection measures during construction shall 	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>include: preserved trees shall not have signs, ropes, cables or other items attached to them; all heavy equipment shall avoid the fenced protection zones; no storage or discard of any supply or material within the fenced protection zones; grade changes of more than two feet are not permitted within 30 feet of a tree's drip line; care shall be taken when moving equipment or supplies near trees (especially overhead); all trenching shall be outside the fenced protection zones unless a Tree Permit, when required by City Code, has been obtained; an irrigation schedule shall be implemented for any substantially pruned tree within 48 hours; canopy pruning can only be done under an approved Tree Permit, when required by City Code; and periodic washing of tree foliage may be necessary (but not more than once every two weeks).</p> <ul style="list-style-type: none"> On-site trees in the post-construction landscape (including Heritage Trees, City Street Trees, and Non-Heritage Trees proposed for retention plus newly-planted landscape trees) shall be monitored by an ISA Certified Arborist for a period of up to 5 years. Post-construction monitoring shall be conducted at least monthly for Year 1, quarterly for Year 2, and twice annually for Years 3-5. Post-construction monitoring shall begin at the completion of landscape installation. Monitoring periods may be staggered for the project site to account for construction phasing, but shall be no less than 5 years for each tree. Should any retained or newly-planted trees die within the 5-year monitoring period, the tree shall be removed and replaced at a 1:1 ratio with a 24-inch box size tree of the same or comparable species (unless it is determined that a different species is better suited to the location, as recommended by the monitoring arborist). Post-construction monitoring reports shall be prepared and submitted to the entity 	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		responsible for landscape management and to the City's Urban Forester. Monitoring reports shall address tree mortality and summarize tree replacement efforts (if any) and shall provide management recommendations for promoting on-site tree health. Upon completion of the 5-year monitoring period, a final post-construction monitoring report shall be prepared and submitted to the City's Urban Forester documenting all monitoring efforts and summarizing tree survival and replacement totals.	
4.3-3 The proposed project could create a potential health hazard, or use, production, or disposal of materials that would pose a hazard to plant or animal populations in the area affected.	LTS	None required.	N/A
4.3-4 Cumulative impact related to habitat and special-status species.	NCC	Mitigation Measure 4.3-4: Implement Mitigation Measure 4.3-1a: (Avoid Direct Loss of Swainson's Hawk) and Mitigation Measure 4.3-1b: (Avoid Direct Loss of Swainson's Hawk, White-Tailed Kite, Peregrine Falcon, and Nesting Birds Protected by the Migratory Bird Treaty Act and California Fish and Game Code).	LTS
4.3-5 Cumulative impact related to the impact of hazards on plant or animal populations.	NCI	None required.	N/A
4.3-6 Cumulative impact to tree canopy.	NCC	Mitigation Measure 4.3-6: Implement Mitigation Measure 4.3-2 (Avoid and Minimize Impacts on Trees).	NCC
4.4 Cultural Resources			
4.4-1 The proposed project could result in a substantial adverse change in the significance of the Heilbron House.	LTS	None required.	N/A
4.4-2 The proposed project could result in a substantial adverse change in the significance of Capitol Towers.	S	Mitigation Measure 4.4-2: Documentation, Interpretation, Reuse, and the Retention/Rehabilitation of the Residential Tower a) <u>Documentation / Recordation</u> Prior to any structural demolition, site clearing, and	SU

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>removal activities, the project applicant shall retain a professional who meets the Secretary of the of the Interior’s Standards for Architectural History, and also with professional experience involving historic landscapes, to prepare written and photograph documentation of the Capitol Towers and garden apartments complex, features, and landscape areas identified as historic.</p> <p>The documentation for the property shall be prepared based on the National Park Services’ (NPS) Historic American Building Survey (HABS) and Historic American Landscape Survey (HALS) Historical Report Guidelines. This type of documentation is based on a combination of HABS/HALS standards (Levels II and III) and HABS/HALS Photography Guidelines (November 2011).</p> <p>The written historical data for this documentation shall follow HABS / HALS Level II standards and shall be derived from the following documents, as well as other documents as appropriate: “National Register of Historic Places Registration Form for Capitol Towers”, prepared by Flora Chou (Page & Turnbull) in 2014 and “Historical Resource Inventory and Evaluation Report, Capitol Towers Apartments, 1500 7th Street, Sacramento, California 95814,” prepared by JRP in 2014.</p> <p>The written data shall be accompanied by select existing drawings available in the City’s files or provided to the City from another organization’s historic resource files or databases. Existing drawing may include drawings of the buildings, sites, structures, objects, or landscapes, whether original construction or later alterations, that portray or depict the historic value of significance of the site. The existing drawings will be photographed with large-format negatives or photographically reproduced on Mylar. Efforts shall be made to locate original construction drawings or plans of the property during the period of significance. If located, these drawings shall be</p>	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>photographed, reproduced, and included in the dataset. HABS/HALS standard large format or another method providing equivalent or greater archival quality shall be used. If digital photography is used, the ink and paper combinations for printing photographs must be in compliance with NPS photo policy and have a permanency rating 150 years or greater. Photographs shall be labeled with text reading "Capitol Towers Apartments, 1500 7th Street, Sacramento" and photograph number on the back of the photograph.</p> <p>Photograph views for the dataset shall include images of the entire Capitol Towers property, including the garden apartments, high-rise tower building, landscape and site features. The dataset shall include: (a) contextual views capturing the spatial relations of buildings, structures, the landscape features, and of the site; (b) views of each side of each building and interior views, where possible; (c) oblique views of buildings; (d) detail views of character-defining features, including features on the interiors of some buildings; (e) detail views of each portion of the site and its landscape features, including views from within the site and from the exterior of the site, from the north, east, south, and west. The size of this property shall require up to 20 contextual views, 20 views of the garden apartments (including both the two- and three-story types,) 5 views of the high-rise; 10 views of the landscape (hardscape and softscape), 5 views of the Overhoff sculptural wall, and 15 detail views of the site. All views shall be referenced on a photographic key. This photograph key shall be on a map of the property and shall show the photograph number with an arrow indicating the direction of the view. Historic photographs shall also be collected, reproduced, and included in the dataset. The project applicant shall provide funding to acquire the appropriate use and copyrights to reproduce historic images in the dataset for public dissemination.</p>	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>All written and photograph documentation of the Capitol Towers and garden apartments complex shall be approved by the City's Preservation Director prior to any site clearing, demolition and removal activities.</p> <p>Two copies of the HABS/HALS documentation of the Capitol Towers complex shall be disseminated on archival quality paper to appropriate repositories and interested parties, per below. If digital prints are produced, the ink and paper combinations for printing photographs must be in compliance with NPS photo policy and have a permanency rating of 150 years or greater. Additional copies shall be in PDF files/ format copies produced on archival DVDs or otherwise distributed electronically. The distribution of the documentation shall include the California Historical Resources Information System (CHRIS) North Central Information Center (NCIC) at California State University Sacramento; the California State Library in Sacramento; University of California, Berkeley, Bancroft Library; The Cultural Landscape Foundation; the Center for Sacramento History (CSH); the Sacramento County Historical Society; the Sacramento Public Library's Sacramento Room; and other local repositories determined by the City's Preservation Director.</p> <p><u>b) Interpretation</u></p> <p>Under the direction of the City's Preservation Director and the City's History Manager, measures shall be implemented to interpret the property's historic significance for the public and for future residents that will inhabit the Sacramento Commons property. All costs associated with interpretation of the property shall be borne by the project applicant. Interpretive and/or educational exhibits shall include, but are not necessarily limited to the following items:</p>	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p><i>Permanent Interpretive Displays/Signage/Plaques</i></p> <p>The project applicant shall install a minimum of four interpretive displays within the project that provides information to visitors and residents regarding the history of the Capitol Towers and garden apartments complex within the context of Sacramento urban renewal and redevelopment. These displays shall be integrated into the design of the public areas of the new housing and retail, and they shall be installed in highly visible public areas, such as the property's plazas or in public areas on the interiors of buildings. The displays shall include historical data taken from the HABS/HALS documentation or other cited archival sources and shall also include photographs. Displayed photographs shall include information about the subject, the date of the photograph, and photo credit / photo collection credit.</p> <p>The project applicant shall install at least one sign or plaque in each quadrant of the superblock to indicate that the Capitol Towers and garden apartment complex once stood on the property. Additional signage / plaques may be installed to provide interpretive information about any historical photographs installed on the property.</p> <p>Interpretive displays and the signage/plaques installed on the property shall be sufficiently durable to withstand typical Sacramento weather conditions for at least 10 years, like fiber-glass embedment panels, that meet National Park Service signage standards. Displays and signage/plaques shall be lighted, installed at pedestrian-friendly locations, and be of adequate size to attract the interested pedestrian. Maintenance of displays and signage/plaques shall be included in the management of the common area maintenance program on the property.</p> <p><i>Exhibits and Written Documentation for Publication on a Website</i></p> <p>The project applicant shall publish exhibits and written</p>	

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Sacramento Commons: Summary of Project Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>documentation on a website regarding the history of the urban renewal and redevelopment, with a focus on the Capitol Towers property. This information shall be derived from the HABS/HALS documentation, the “NRHP Registration Form for Capitol Towers”, prepared by Flora Chou (Page & Turnbull) in 2014, and the “Historical Resource Inventory and Evaluation Report, Capitol Towers Apartments, 1500 7th Street, Sacramento, California 95814,” prepared by JRP in 2014, and other sources as appropriate. The publication shall include text and photographs. The text shall be written for popular consumption, but shall also be properly cited following historical documentation standards. The City’s Preservation Director and History Manager shall review and comment on the text prior to its publication to ensure that it is accurate and sufficiently detailed.</p> <p>Publication of these materials shall be either on an independent website maintained by the project applicant (or its successor property management company) or be donated for posting on a local history website, such as www.sacramentohistory.org (owned by CSH). The materials shall be available on the website for at least two years following each phase of demolition of the garden apartments at Capitol Towers.</p> <p><i>Traveling Exhibit</i></p> <p>The project applicant shall have a traveling exhibit prepared to be offered for display, for the most part at appropriate California and Sacramento venues including, but not limited to, museums, archives with exhibit space, public libraries, and public buildings, and potentially also to university or national agency exhibition spaces. The exhibit shall include panels or boards that provide information and photographs regarding Capitol Towers and garden apartments within the context of Sacramento’s urban renewal and redevelopment history.</p>	

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		<p>The exhibit shall include three panels that can be, self-standing, wall mounted or displayed on easels.</p> <p><u>c) Salvage and Reuse</u></p> <p>The project applicant shall consult with the City's Preservation Director and the Director of the Sacramento Metropolitan Arts Council regarding the salvage and reuse of one of the character-defining landscape features: the Overhoff sculptural wall. The wall shall be retained on the property either in situ, or moved and reused within the property at an appropriate location. Although the wall is modular, if moved, the panels shall stay together in the same placement order and configuration as they exist today.</p> <p><u>d) Retention & Rehabilitation of Residential Tower</u></p> <p>Prior to commencement of any alterations or renovations to the existing Capitol Towers residential tower, not proposed for demolition as a part of the proposed project, the City Preservation Director shall review and confirm the renovations comply with the Secretary of the Interior's (SOI) Standards for the <i>Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings</i> or the <i>SOI Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings</i> unless this contributing resource is removed from the California Register of Historic Places. Additional guidance for this work may include the <i>Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings</i>.</p>	
4.4-3 The proposed project could result in a substantial adverse change in the significance of an archaeological resource.	PS	<p>Mitigation Measure 4.4-3: Protect or Mitigate Impacts on Prehistoric and Historic-Era Archaeological Resources and Human Remains.</p> <p>To minimize potential adverse effects on prehistoric and historic-era archaeological resources and human remains, the project applicant shall implement the following measures:</p>	LTS

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		<ul style="list-style-type: none"> • The project applicant shall retain a qualified archaeologist (i.e., defined as an archaeologist meeting the Secretary of the Interior’s Standards for professional archaeology) to carry out all actions related to archaeological resources and human remains. <ul style="list-style-type: none"> ○ Before the start of any ground-disturbing activities, the qualified archaeologist shall conduct a cultural resources sensitivity training session for all construction personnel working on the project. The training shall include an overview of potential cultural resources that could be encountered during ground-disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified archaeologist for further evaluation and action; and shall describe penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources. ○ If items of historic or archaeological interest are discovered, the construction contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery and immediately notify the qualified archaeologist for further evaluation and action. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, baked clay fragments, or faunal food remains (bone and shell); stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and/or battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include the remains of stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. After cessation of excavation, the contractor shall 	

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		<p>immediately contact the City of Sacramento Community Development Department. The contractor shall not resume work until authorization is received from the City after the following steps are taken:</p> <ul style="list-style-type: none"> ▪ Any inadvertent discovery of cultural resources during construction shall be evaluated by a qualified archaeologist. ▪ If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the State CEQA Guidelines), mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the State CEQA Guidelines, with a preference for preservation in place. Consistent with State CEQA Guidelines Section 15126.4(b)(3), this may be accomplished by planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, the archaeologist shall develop a treatment plan in consultation with the City and appropriate Native American representatives (if the find is of Native American origin). The treatment plan shall include, but shall not be limited to, data recovery procedures based on location and type of archaeological resources discovered, procedures for disposition or curation of recovered materials, and a preparation and submittal of report of findings to the City's Preservation Director and the North Central Information Center of the California Historical Resources Information System. 	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> If a human bone or bone of unknown origin is found during construction, pursuant to Public Resources Code Section 5024.1, all work shall stop in the vicinity of the find, and the county coroner and the City of Sacramento Community Development Department shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-interment of the human remains and any associated artifacts. No additional work is to take place within 100 feet of the find until the identified appropriate actions have taken place. 	
<p>4.4-4 The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	PS	<p>Mitigation Measure 4.4-4: Protect or Mitigate Impacts on Paleontological Resources.</p> <p>To minimize potential adverse effects on previously unknown potentially unique, scientifically important paleontological resources, the project applicant shall implement the following measures:</p> <ul style="list-style-type: none"> Before the start of any earthmoving activities, the project applicant shall retain a qualified paleontologist to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work in the vicinity of the find and notify the City of Sacramento Community Development Department. The project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate 	LTS

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		Paleontology guidelines (1996). The recovery plan shall include, but shall not be limited to, (a) a field survey surrounding the site where the paleontological resources were discovered, (b) development of sampling and data recovery procedures based on location and type of paleontological resources discovered, (c) museum storage coordination for any specimen recovered, and (d) prepare a report documenting the findings. Recommendations in the recovery plan shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.	
4.4-5 The proposed project could disturb human remains, including those interred outside of formal cemeteries.	PS	Mitigation Measure 4.4-5: Implement Mitigation Measure 4.4-3 (Protect or Mitigate Impacts on Prehistoric and Historic-Era Archaeological Resources and Human Remains).	LTS
4.4-6 Cumulative historical resources impacts.	CC	Mitigation Measure 4.4-6: Implement Mitigation Measure 4.4-2 (Documentation, Interpretation, Reuse, and the Retention/Rehabilitation of the Residential Tower).	SU
4.4-7 Cumulative archaeological resources impacts.	CC	Mitigation Measure 4.4-7: Implement Mitigation Measure 4.4-3 (Protect or Mitigate Impacts on Prehistoric and Historic-Era Archaeological Resources and Human Remains).	LCC
4.4-8 The proposed project, in combination with other development in the Sacramento region, could adversely affect human remains.	CC	Mitigation Measure 4.4-8: Implement Mitigation Measure 4.4-3 (Protect or Mitigate Impacts on Prehistoric and Historic-Era Archaeological Resources and Human Remains).	LCC
4.4-9 Cumulative paleontological resources impacts.	LCC	Mitigation Measure 4.4-9: Implement Mitigation Measure 4.4-4 (Protect or Mitigate Impacts on Paleontological Resources).	LCC

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.5 Geology, Soils and Paleontology			
4.5-1 The proposed project could expose people and property to seismic ground shaking and surface fault rupture.	LTS	None required.	N/A
4.5-2 The proposed project could expose people and property to subsidence, compression, expansion, and liquefaction of unstable soils.	PS	<p>Mitigation Measure 4.5-2: Prepare a Final, Design-Level Geotechnical Report and Implement Recommendations Contained in the Report.</p> <p>Before building permits are issued and construction activities begin on any project development phase, the project applicant shall retain a licensed geotechnical engineer to prepare a final, design-level geotechnical report for the proposed facilities. The final geotechnical report shall be prepared in accordance with generally accepted geotechnical engineering practices and shall address all California Building Code requirements. The final geotechnical report shall be submitted for review and approval to the City of Sacramento Department of Utilities. The final geotechnical report shall address and make recommendations on:</p> <ul style="list-style-type: none"> • seismic design parameters; • building specific design coefficients; • seismic ground shaking; • liquefaction; • dewatering; • expansive/unstable soils; • soil bearing capacity; • appropriate sources, depth, and types of fill; • structural foundations; • soil corrosion of concrete and steel; and • pavement and parking areas. <p>Based on the information above, the geotechnical investigation shall set forth the required type and sizing of structural materials required for each newly constructed building and any necessary engineering practices to address</p>	LTS

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		<p>site-specific soil conditions. In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include site-specific subsurface testing of soil and groundwater conditions. Final designs shall be consistent with the version of the California Building Code that is applicable at the time building and grading permits are applied for as well as standard, accepted, and proven engineering practices used throughout the Sacramento area to address potential site-specific soil conditions. Such engineering practices may include, but are not limited to the following:</p> <ul style="list-style-type: none"> • removal of any deleterious materials within the fill and potential recompaction of the soil; • shoring of trenches during construction dewatering as required by the federal Occupational Safety and Health Administration, waterproofing of underground structures, and installation of subdrains; • construction of high-rise buildings on deep foundations; and • construction of low- to mid-rise buildings on mat foundations with ground improvements. <p>All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicant. Special recommendations contained in the geotechnical engineering report shall be noted on the grading plans and implemented, as appropriate, before construction begins. The project applicant shall be required to perform an engineering inspection to certify that earthwork has been completed in conformity with recommendations contained in the geotechnical report and requirements determined by the City.</p>	
4.5-3 The proposed project could create soil erosion or loss of topsoil.	LTS	None required.	N/A

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4.5-4 Cumulative impacts related to exposure to seismic ground shaking and surface fault rupture and potential for subsidence, compression, expansion, and liquefaction of unstable soils.	NCI	None required.	N/A
4.5-5 Cumulative impacts related to soil erosion or loss of topsoil.	NCI	None required.	N/A
4.6 Greenhouse Gas Emissions & Energy			
4.6-1 The project could conflict with the City's Climate Action Plan.	NCC	None required.	N/A
4.6-2 The project could involve wasteful, inefficient and unnecessary consumption of energy during construction or operation of the project.	LTS	None required	N/A
4.7 Hazards and Hazardous Materials			
4.7-1 The proposed project could expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities.	PS	<p>Mitigation Measure 4.7-1a: Identify and Remediate for Discovery of Unknown Hazardous Materials.</p> <p>Prior to commencing any construction activities, a Health and Safety Plan shall be prepared and provided to the Director of the City's Community Development Department by a qualified professional to identify specific measures to take to protect worker and public health and safety and specify measures to identify, manage, and remediate wastes. In the event that excavation or construction of the proposed project reveals evidence of soil or groundwater contamination, underground storage tanks (USTs), or other environmental concerns, site preparation or construction activities shall not recommence within the contaminated areas until remediation is completed. This is the procedure established in the Health and Safety Plan and a "no further action" letter would be obtained from the appropriate regulatory agency. The Health and Safety Plan shall include the following:</p> <ul style="list-style-type: none"> • Pre-construction training of workers to identify potentially hazardous materials. 	LTS

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		<ul style="list-style-type: none"> • Identification of air monitoring procedures and parameters and/or physical observations (soil staining, odors, or buried material) to be used to identify potential contamination. • Procedures for temporary cessation of construction activity in the area of potential contamination and evaluation of the level of environmental concern if potential contamination is encountered. The evaluation shall include identification of the type and extent of contamination prepared by a qualified professional. • Procedures for limiting access to the contaminated area to properly trained personnel. • Procedures for notification and reporting, including internal management and local agencies (fire department, SCEMD, etc.), as needed. • A worker health and safety plan for excavation of contaminated soil, including soils management, dust control, air monitoring, and other relevant measures. • Procedures for characterizing and managing excavated soils in accordance with CCR Title 14 and Title 22. • Procedures for certification of completion of remediation. <p>Mitigation Measure 4.7-1b: Implement Mitigation Measure 4.8-1 (File a Notice of Intent with the Central Valley Regional Water Quality Control Board to Obtain Coverage Under Order R5-2013-074 or an Individual NPDES Permit or Waste Discharge Requirement and a Memorandum of Understanding with the City of Sacramento, and Prepare a Construction Dewatering Plan (Implements General Plan Policies ER 1.1.3, ER 1.1.4, and ER 1.1.7))</p>	

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4.7-2 The proposed project could expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials or situations during construction or operation of the proposed project.	LTS	None required.	N/A
4.7-3 The proposed project could expose people (e.g., construction workers and residents) to soil vapor during construction or operation of the proposed project.	LTS	None required.	N/A
4.7-4 The proposed project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	LTS	None required.	N/A
4.7-5 The proposed project could substantially increase the risk of exposure of site occupants to inadvertent or accidental releases of hazardous substances transported on adjacent roadways or rail lines near the site.	LTS	None required.	N/A
4.7-6 The proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	PS	Mitigation Measure 4.7-6: Implement 4.11-5 (Prepare and Implement Construction Traffic Management Plan).	LTS
4.7-7 The proposed project could increase winds that would pose a hazard to pedestrians.	LTS	None required.	N/A
4.7-8 Cumulative impacts related to the emission, handling, or release of, or exposure to hazardous materials.	NCC	None required.	N/A
4.7-9 Cumulative impacts related to interference with emergency response or conflict with an emergency response plan or emergency evacuation plan.	NCC	None required.	N/A

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4.8 Hydrology and Water Quality			
4.8-1 The project could have short-term, construction-related effects on water quality.	PS	<p>Mitigation Measure 4.8-1: File a Notice of Intent with the Central Valley Regional Water Quality Control Board to Obtain Coverage under Order R5-2013-074 or an Individual NPDES Permit or Waste Discharge Requirement and a Memorandum of Understanding with the City of Sacramento, and Prepare a Construction Dewatering Plan.</p> <p>Before the start of earth-moving activities, the project applicant shall file a notice of intent with the Central Valley RWQCB to obtain coverage under Order R5-2013-074 or an Individual NPDES Permit or waste discharge requirements, and enter into an MOU with the City for construction dewatering activities. Along with the notice of intent and the MOU, the project applicant shall prepare a site-specific construction dewatering plan, which demonstrates that discharges meet the Sacramento Regional County Sanitation District- (SRCSD) and RWQCB-approved levels and shall contain the following components:</p> <ul style="list-style-type: none"> • information about the discharge location; • a map showing the location of the site, treatment system, discharge point(s), and receiving water; • an evaluation of reclamation options; • narrative and schematic descriptions of the existing or proposed treatment system, including blueprints signed by a registered engineer or geologist (if applicable); and • results of laboratory analysis for the types and amounts of pollutants listed in Attachment B to Order R5-2013-0074, additional water quality screening required by Attachment C to Order R5-2013-0074 (if applicable), and any applicable pollutants listed under Section 303(d) of the CWA for the receiving water if discharging or proposing to discharge to an impaired water body. • identify landfills to be used for disposal, if necessary, 	LTS

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>based on results of laboratory analysis.</p> <p>To be authorized by Order R5-2013-074, the project applicant must demonstrate that the discharge or proposed discharge meets the following criteria:</p> <ul style="list-style-type: none"> • Pollutant concentrations in the discharge do not cause, have a reasonable potential to cause, or contribute to an excursion above any applicable federal water quality criterion established by USEPA pursuant to CWA section 303; • Pollutant concentrations in the discharge do not cause, have a reasonable potential to cause, or contribute to an excursion above any water quality objective adopted by the Central Valley Water Board or State Water Resources Control Board (State Water Board), including prohibitions of discharge for the receiving waters; and • The discharge does not cause acute or chronic toxicity in the receiving water. <p>Additionally, discharges of more than 0.25 million gallons per day average dry-weather flow are prohibited unless the discharge is 4 months or less in duration.</p>	
4.8-2 The project could have long-term, operational effects on water quality.	PS	<p>Mitigation Measure 4.8-2: Prepare and Submit Final Drainage Plans and an Operational Pollutant Source Control Program.</p> <p>Before the start of earthmoving activities, the project applicant shall submit a final drainage plan and pollutant source control program to the City demonstrating to the satisfaction of the Community Development Department that the project is in compliance with the SSQP's NPDES permit, the SQIP (SSQP 2009), and the latest edition of the Stormwater Quality Design Manual (SSQP 2014), including the requirement to cause no net increase in runoff as compared to existing conditions. Components of the final drainage plan shall include:</p> <ul style="list-style-type: none"> • calculations for the final design scenario, obtained using 	LTS

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		<p>appropriate engineering methods, that evaluates potential changes to runoff, including increased surface runoff;</p> <ul style="list-style-type: none"> • runoff calculations for the 10-year and 100-year (0.01 AEP) storm events (and other, smaller storm events as required) based on the final design scenario and confirmation of required trunk drainage pipeline sizes based on alignments and finalized detention-facility locations; • City flood control design requirements and measures designed to comply with them, including a demonstration to the satisfaction of the City that 100-year (0.01 AEP) flood flows would be appropriately channeled and contained, such that the risk to people or damage to structures within or down gradient of the project site would not occur; • a list of stormwater management BMPs to be implemented at the project site that ensure no net increase in runoff. BMPs may include but are not limited to the use of LID techniques to limit increases in stormwater runoff at the point of origination. Some examples of such techniques are the use of surface swales; replacement of conventional impervious surfaces with pervious surfaces (e.g., porous pavement); disconnection of impervious surfaces; and planting of trees to intercept stormwater. These BMPs shall be designed and constructed in accordance with the latest edition of the Stormwater Quality Design Manual (SSQP 2014)); and • a description of the proposed maintenance program for the on-site drainage system. <p>The project applicant shall also prepare and implement a pollutant source control program for the project's operational phase to control water quality pollutants on the project site. This program shall include components such as recycling,</p>	

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		street sweeping, storm drain cleaning, household hazardous waste collection, waste minimization, prevention of spills, and effective management of public trash collection areas.	
4.8-3 The project would deplete groundwater supplies or interfere substantially with groundwater recharge.	LTS	None required.	N/A
4.8-4 The project could contribute to the potential increased risk of flooding or pollutant sources from stormwater runoff.	PS	Mitigation Measure 4.8-4: Implement Mitigation Measure 4.8-2 (Prepare and Submit Final Drainage Plans and an Operational Pollutant Source Control Program).	LTS
4.8-5 The project could expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	LTS	None required.	N/A
4.8-6 Cumulative impacts related to runoff that could violate water quality standards or waste discharge requirements for receiving waters.	LCC	Mitigation Measure 4.8-6: Implement Mitigation Measure 4.8-1 (File a Notice of Intent with the Central Valley Regional Water Quality Control Board to Obtain Coverage under Order R5-2013-074 or an Individual NPDES Permit or Waste Discharge Requirement and a Memorandum of Understanding with the City of Sacramento, and Prepare a Construction Dewatering Plan) and Mitigation Measure 4.8-2 (Prepare and Submit Final Drainage Plans and an Operational Pollutant Source Control Program).	LCC
4.8-7 Cumulative impact related to flooding.	LCC	Mitigation Measure 4.8-7: Implement Mitigation Measure 4.8-2 (Prepare and Submit Final Drainage Plans and an Operational Pollutant Source Control Program).	
4.8-8 Cumulative impact related to groundwater recharge.	NCC	None required.	LCC
4.9 Noise and Vibration			
4.9-1 The proposed project could result in a substantial permanent increase in ambient exterior noise levels in the project vicinity that exceed standards in the City's General Plan.	LTS	None required.	N/A

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.9-2 The proposed project could result in residential interior noise levels of 45 dBA L _{dn} or greater caused by noise level increases due to project operation.	LTS	None required.	N/A
4.9-3 The proposed project could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance or result in construction noise levels that exceed 75 dBA L _{eq} at the interior of a residential building during the daytime hours (7 a.m. to 10 p.m.).	PS	<p>Mitigation Measure 4.9-3a: Minimize Construction Noise throughout Entire Construction Phase.</p> <p>The project applicant and contractor/s shall implement the following measures throughout all construction phases.</p> <ul style="list-style-type: none"> • Machines or equipment shall not start up prior to 7:00 a.m., Monday through Saturday, and prior to 9 a.m. on Sunday; • Delivery of materials and equipment shall not occur prior to 7:00 a.m. nor past 6:00 p.m., Monday through Saturday, and prior to 9:30 a.m. nor past 6 p.m. on Sunday; • Stationary construction equipment, such as compressors, shall be placed away from nearby residential areas and shall provide acoustical shielding. • Idling times of equipment shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes. • The project applicant or its designee shall designate a disturbance coordinator and conspicuously post this person's number around the project site, in adjacent public spaces, and in construction notifications. The disturbance coordinator, in coordination with the City, shall be responsible for responding to any complaints about construction activities. The disturbance coordinator shall receive all public complaints about construction disturbances and, in coordination with the City, is responsible for determining the cause of the complaint and implementation of feasible measures to alleviate the problem. • The project applicant or its designee shall provide written 	LTS

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**Table E0-1
Sacramento Commons: Summary of Project Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>notice to all known occupied noise-sensitive uses (i.e., residential, educational, religious, lodging) within 400 feet of the edge of the project site boundary at least 2 weeks prior to the start of each construction phase of the construction schedule, as well as the name and contact information of the project disturbance coordinator.</p> <p>Mitigation Measure 4.9-3b: Prepare and Implement a Noise and Vibration Control Plan for Pile Installation.</p> <p>Prior to the issuance of any building permit for any phase of project development that proposes the use of piles for foundations, the project applicant shall develop a Noise and Vibration Control Plan, in coordination with an acoustical consultant, geotechnical engineer, and construction contractor, and submit the Plan to the City’s Chief Building Official for review and approval. The Plan shall include measures demonstrated to ensure construction noise exposure for the interior of nearby residential dwellings is less than 75 dB L_{eq} and that vibration exposure for all buildings and vibration-sensitive receptors in the vicinity of the project site is less than 0.5 PPV and 80 VdB and less than 0.2 PPV for historic buildings. These performance standards shall take into account the reduction in vibration exposure that would occur through coupling loss provided by each affected building structure. Measures and controls shall be identified based on project-specific final design plans, and may include, but are not limited to, some or all of the following:</p> <ul style="list-style-type: none"> • Buffer distances, the type of equipment, and use of attenuation devices shall be designed to minimize construction noise and vibration for adjacent existing buildings and noise- and vibration-sensitive uses. • Use of “quiet” pile driving technology (such as auger displacement installation). 	

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Table E0-1 Sacramento Commons: Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.9-4 The proposed project could permit existing and/or planned residential and commercial areas to be exposed to vibration peak-particle velocities greater than 0.5 inch per second or vibration levels greater than 80 VdB due to project construction.		Mitigation Measure 4.9-4: Implement Mitigation Measure 4.9-3a (Minimize Construction Noise throughout Entire Construction Phase) and Mitigation Measure 4.9-3b (Prepare and Implement a Noise and Vibration Control Plan for Pile Installation).	LTS
4.9-5 The proposed project could permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inch per second or vibration levels greater than 80 VdB due to operations.	LTS	None required.	N/A
4.9-6 The proposed project could permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inch per second due to project construction or operations.	PS	Mitigation Measure 4.9-6: Implement Mitigation Measure 4.9-3b: Prepare and Implement a Noise and Vibration Control Plan for Pile Installation	LTS
4.9-7 Cumulative impacts related to a permanent increase in ambient exterior noise levels.	NCC	None required.	N/A
4.9-8 Cumulative impacts related to a residential interior noise levels during project operation.	NCC	None required.	N/A
4.9-9 Cumulative impacts related to construction noise.	NCC	None required.	N/A
4.9-10 Cumulative impacts related to construction vibration.	NCC	None required.	N/A
4.9-11 Cumulative impacts related to operational vibration.	NCC	None required.	N/A
4.10 Public Services			
4.10-1 The proposed project could increase demand for fire protection services requiring the need to construct new facilities or expand existing facilities.	PS	Mitigation Measure 4.10-1: Ensure Adequate Emergency Access. The improvement plans for the proposed project shall incorporate emergency access measures consistent with the 2013 California Fire Code, as modified by the Sacramento City Code, and the Fire Chief. The improvement plans shall implement emergency access measures outlined below or	LTS

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**Table E0-1
Sacramento Commons: Summary of Project Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>those determined by the Sacramento Fire Department to be equally effective in ensuring adequate on-site access to accommodate emergency vehicles. The project applicant shall provide the improvement plans to the Fire Chief for review and approval prior to implementation:</p> <ul style="list-style-type: none"> • All turning radii for fire access should be designed as 35' inside and 55' outside. • Roads used for Fire Department access should have an unobstructed width of not less than 20' and unobstructed vertical clearance of 13'6" or more. • "No Parking Fire Lane" markings should be applied on the emergency access roads. However, due to the pedestrian nature of the open spaces between the proposed project's buildings, that striping and signage would be limited. • Clearly define on-site pedestrian routes. • Landscaping and shrubbery should be placed and maintained in a way that it would not grow to obstruct pathways. 	
4.10-2 The proposed project could increase demand for police protection services requiring the need to construct new facilities or expand existing facilities.	PS	<p>Mitigation Measure 4.10-2: Implement Construction Security Measures.</p> <ul style="list-style-type: none"> • The project applicant shall surround areas of active construction and where equipment is stored with a secure chain link fence and shall hire a security service to monitor the site after hours to deter vandalism and theft. 	LTS
4.10-3 The proposed project could increase demand for school services, requiring the need to construct new facilities or expand existing facilities.	LTS	None required.	N/A

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Table E0-1 Sacramento Commons: Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.10-4 The proposed project could increase demand for parks and recreation services, requiring the need to construct new facilities or expand existing facilities, or causing or accelerating physical deterioration of existing facilities.	LTS	None required.	N/A
4.10-5 Cumulative impacts related to fire protection services and facilities.	NCC	None required.	N/A
4.10-6 Cumulative impacts related to police services and facilities.	NCC	None required.	N/A
4.10-7 Cumulative impacts related to school services and facilities.	NCC	None required.	N/A
4.10-8 Cumulative impacts related to parks and recreation services and facilities.	NCC	None required.	N/A
4.11 Transportation			
4.11-1 Under Existing Conditions, project buildout could cause potentially significant impacts to study intersections.	LTS	None required.	N/A
4.11-2 Under Existing Conditions, project buildout could cause potentially significant impacts to transit service and facilities.	LTS	None required.	N/A
4.11-3 Under Existing Conditions, project buildout could cause potentially significant impacts to bicycle access and facilities.	LTS	None required.	N/A
4.11-4 Under Existing Conditions, project buildout could cause potentially significant impacts to pedestrian access and facilities.	LTS	None required.	N/A
4.11-5 Under Existing Conditions, project buildout could cause potentially significant impacts due to construction-related activities.	PS	Mitigation Measure 4.11-5: Prepare and Implement Construction Traffic Management Plan Before issuance of demolition permit and beginning of construction for the project site, the project applicant shall prepare a Traffic Management Plan consistent with the	LTS

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**Table E0-1
Sacramento Commons: Summary of Project Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>requirements of sections 12.20.020 and 12.20.030 of the Sacramento Municipal Code that will be subject to review and approval by the City Department of Public Works, in consultation with Caltrans, affected transit providers, 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. In consideration of the number and type of trucks proposed to be used during construction, the proposed location of staging areas, and potential need for street closures as identified in the Traffic Management Plan, at a minimum, the plan shall:</p> <ul style="list-style-type: none"> • Require the installation of temporary traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. • Require construction truck trips to occur outside of peak morning and evening commute hours. • Limit the number of lane closures associated with project construction during peak hours. • Establish construction truck routes that limit truck traffic on local roadways as defined and identified on Figure M 2B in the City's 2030 General Plan. • Establish pedestrian, bicycle, and vehicular (including transit and emergency vehicle) detour routes where necessary to avoid conflicts with construction zone operations and traffic. • Provide safe driveway access during construction for pedestrian, bicycle, and vehicles (including transit and emergency vehicle) through the use of steel plates, signage, and similar measures. • Require temporary directional signage along all construction zone detour routes. <p>A copy of the Traffic Management Plan as approved by City</p>	

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Table E0-1 Sacramento Commons: Summary of Project Impacts and Mitigation Measures			
Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		Department of Public Works shall be submitted to local emergency response agencies and these agencies shall be notified at least 30 days before the commencement of construction that would partially or fully obstruct roadways. In addition, construction activities are not to interfere with transit service and pedestrian access to transit stops and light rail.	
4.11-6 Under Existing Conditions, project buildout could result in inadequate emergency access.	PS	Mitigation Measure 4.11-6: Implement Mitigation Measure 4.10-1 (Ensure Adequate Emergency Access).	LTS
4.11-7 Under Cumulative 2035 scenarios, the proposed project could cause potentially significant impacts to study intersections.	LCC	None required.	N/A
4.11-8 Under Cumulative 2035 scenarios, project buildout could cause potentially significant impacts to transit service and facilities.	NCC	None required.	N/A
4.11-9 Under Cumulative 2035 scenarios, project buildout could cause potentially significant impacts to bicycle access and facilities.	NCC	None required.	N/A
4.11-10 Under Cumulative 2035 scenarios, project buildout could cause potentially significant impacts to pedestrian access and facilities.	NCC	None required.	N/A
4.11-11 Cumulative impacts related to emergency access.	NCC	None required.	N/A
4.11-12 Cumulative impacts related to construction.	LCC	Mitigation Measure 4.11-12: Implement Mitigation Measure 4.11-5 (Prepare and Implement Construction Traffic Management Plan).	LCC
4.12 Utilities			
4.12-1 The proposed project could increase demand for potable water in excess of existing supplies.	LTS	None required.	N/A

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Sacramento Commons: Summary of Project Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.12-2 The proposed project could result in inadequate capacity in the City's water supply facilities to meet the water supply demand, so as to require the construction of new water supply facilities.	LTS	None required.	N/A
4.12-3 The proposed project could result in the determination that adequate water or wastewater capacity is not available to serve the project's demand in addition to existing commitments.	LTS	None required.	N/A
4.12-4 The proposed project could require or result in either the construction of new wastewater treatment facilities or stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental impacts.	LTS	None required.	N/A
4.12-5 The proposed project could require or result in either the construction of new solid waste facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.	LTS	None required.	N/A
4.12-6 Cumulative impacts related to water supply, treatment, and conveyance.	NCC	None required.	N/A
4.12-7 Cumulative impacts related to wastewater conveyance and treatment.	NCC	None required.	N/A
4.12-8 Cumulative impacts related to stormwater drainage infrastructure.	NCC	None required.	N/A
4.12-9 Cumulative impacts related to solid waste demand.	NCC	None required.	N/A

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1 INTRODUCTION

This environmental impact report (EIR) has been prepared by the City of Sacramento (City) as Lead Agency to evaluate the potential environmental effects of the proposed Sacramento Commons project (proposed project or Sacramento Commons). This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.).

1.1 PROJECT BACKGROUND

The City has asked for input from federal, state, and local agencies; organizations; and members of the public regarding the issues that should be evaluated in the EIR. In April 2014, the City circulated a Notice of Preparation (NOP) for a Sustainable Communities Environmental Assessment (SCEA) that the City intended to prepare, pursuant to CEQA streamlining provisions. The City ultimately concluded that an EIR should be prepared, and issued a NOP for the EIR in August 6, 2014. A scoping meeting was held on August 27, 2014. The NOP for the EIR and written comments received, including comments responding to the NOP circulated for the proposed SCEA, are included with this EIR as Appendix B.

The Notice of Preparation for the EIR included an initial study. An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines Section 15063[a]). As provided in CEQA Guidelines Section 15063, the City has determined that an environmental impact report (EIR) would be prepared for the project, and the initial study attached to the NOP has identified key issues that would be evaluated in the EIR.

The EIR process includes (a) a discussion of the existing conditions, or baseline, as they exist when environmental review begins, typically when the lead agency issues a NOP; (b) identification of changes in the existing conditions that would result from project implementation, including construction and operation, and an evaluation as to whether any of those changes would be significant; (c) identification of any mitigation measures that could reduce the severity of any identified impacts, with the goal of reducing impacts to a less-than-significant level, and identification of alternatives that would result in a reduction of severity of any significant effects; and (d) a conclusion as to the level of significance of any impacts after mitigation.

As discussed further in Chapter 4.0 (Subsection 4.0.3), the proposed project qualifies for several recent CEQA streamlining benefits enacted to promote infill projects and increased densities within close proximity to light rail and other transit resources. Additionally, the City of Sacramento certified the Sacramento 2030 General Plan Master EIR (Master EIR) (State Clearinghouse No. 2007072024), on March 3, 2009. The Master EIR is located online at <http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports>. The CEQA Guidelines provide that projects that are within the scope of the Master EIR are subject to only limited environmental review. The proposed project is consistent with the City's General Plan, and is within the scope of the Master EIR. As part of the review process, the City is required to incorporate all feasible mitigation measures included in the Master EIR and evaluate any additional significant effects of the project (usually project-specific effects) which were not previously examined in the Master EIR (Public Resources Code Section 15177). The

Master EIR is relied on to provide an analysis of cumulative effects, growth inducing impacts, and irreversible significant effects analysis that could occur as a result of development and actions that are consistent with the General Plan. The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has proposed an update to the 2030 General Plan. On March 3, 2015, the City Council passed a Resolution adopting and implementing the Sacramento 2035 General Plan and repealing the 2030 General Plan. As a result, the 2035 General Plan will take effect 30 days from March 3, 2015. As the 2030 General Plan remains in effect as of publication of this EIR, the EIR discusses both the 2030 General Plan and changes included in the draft 2035 General Plan.

1.2 PURPOSE OF THE EIR

This document is an EIR prepared for the proposed project for purposes of compliance with CEQA. This EIR has been prepared by the City of Sacramento (City), as the lead agency under CEQA. A detailed description of the proposed project is included in Chapter 2, "Project Description."

In its initial form, an EIR is composed primarily of a draft document known as a draft EIR, and the lead agency's written responses to public and public agency comments on the draft document. This Draft EIR evaluates the potential physical adverse impacts on the environment resulting from implementation of the proposed project. The Draft EIR proposes mitigation measures and alternatives that may reduce or avoid the significance of such adverse impacts. Following public review of the Draft EIR, a Final EIR is prepared, in which the City will provide responses to comments relating to the analysis provided in the Draft EIR.

The City has prepared this EIR to provide responsible and trustee agencies and the public with information about the potential environmental effects associated with implementation of the proposed project. This Draft EIR was prepared in compliance with CEQA (as amended through California Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.).

The purpose of an EIR is not to recommend either approval or denial of a project, but to disclose the potentially significant environmental impacts of a project and potential methods to mitigate those impacts. According to the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15064[f][1]), preparation of an EIR is required whenever a project may result in a significant environmental impact. An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe alternatives to the project that could feasibly attain most of the basic objectives of the project, while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

CEQA requires that state, regional, and local government agencies consider the environmental effects of projects over which they have discretionary authority before taking action on those projects (Public Resources Code Section 21000 et seq.). CEQA also requires that each public agency avoid or reduce to less-than-significant levels, wherever feasible, the significant environmental effects of projects it approves or implements. If a project would result in significant and unavoidable environmental impacts

that cannot be feasibly reduced to less-than-significant levels, the project can still be approved, but the lead agency must issue a “statement of overriding considerations,” explaining in writing the specific economic, social, or other considerations that it believes would make those significant effects acceptable.

1.3 SCOPE OF ANALYSIS

NOPs for both the SCEA and this EIR were circulated for comments related to the scope of analysis. Documentation is included in Appendix B to this EIR and summarized, as appropriate and relevant in each of the environmental topic sections included in Chapter 4 of this EIR.

The NOP for this EIR, along with an Initial Study checklist, were circulated to agencies and the public starting on August 6, 2014, and comments were accepted until September 5, 2014. In addition, the City invited additional comments on the scope of the EIR at a public meeting held on August 27, 2014, at 5:30 p.m. at Sacramento City Hall, 915 I Street, Room 1119. Responses to the NOP originally circulated for the SCEA were considered in the EIR. The Initial Study is included in Appendix B of this EIR.

Chapter 4 of this EIR discusses the environmental and regulatory setting, impacts, and, where necessary, mitigation measures in 12 technical issue areas (i.e. Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions and Energy, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise and Vibration, Public Services and Recreation, Transportation/Traffic, and Utilities and Service Systems). Consistent with the approach taken in the City’s General Plan Master EIR and other City CEQA documents, land use planning, population, and housing are addressed in Chapter 3, prior to the impact analysis sections that follow.

Mitigation measures recommended in the Initial Study/NOP to reduce the environmental impacts of the proposed project are included in the mitigation monitoring and reporting program that the City of Sacramento will prepare (pursuant to CEQA Guidelines Section 15097).

1.4 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

1.4.1 LEAD AGENCY

The City of Sacramento is the lead agency for this project. As defined in CEQA Guidelines Section 15367, the “lead agency” is the public agency that has the principal responsibility for carrying out or approving the project. Additional responsible and trustee agencies (listed below) with potential permit or approval authority over the project, or elements thereof, will have the opportunity to review this document during the public review period, and will be able to use this information in consideration and issuance of any permits required for the project.

1.4.2 RESPONSIBLE AND TRUSTEE AGENCIES

Other state or local public agencies that use the EIR to carry out their discretionary approval power over the project are “responsible agencies,” as defined by Public Resources Code Section 21069 and CEQA Guidelines Section 15381. “Trustee agencies,” as defined by Public Resources Code Section

21070, are state agencies that have jurisdiction by law over resources affected by a project that are held in trust for the people of the State of California. Agencies that may have discretionary approval or may have jurisdiction over resources affected by the project may include, but are not limited to those listed below.

- ▶ **Sacramento Metropolitan Air Quality Management District (SMAQMD):** Exercises permit authority over proposed construction activities related to stationary equipment, particulate matter generation, architectural coatings, and paving materials.
- ▶ **State Water Resources Control Board/Central Valley Regional Water Quality Control Board:** Issues Construction Storm Water Discharge Permits.
- ▶ **Federal Aviation Administration:** Reviews plans for buildings exceeding 200 feet in height.

CITY APPROVALS

The following approvals by the City of Sacramento are anticipated to be required as part of the project:

- ▶ Certification of the EIR and adoption of the Mitigation Monitoring Program
- ▶ Approval of a Development Agreement
- ▶ Planned Unit Development (PUD) establishment to establish PUD Guidelines and a schematic plan for the Sacramento Commons PUD
- ▶ Rezoning of the property from High-Rise Residential Zone (R-5) to High-Rise Zone within the Sacramento Commons PUD (R-5-PUD)
- ▶ Tentative map to subdivide three parcels (total of 11.17 acres) into six parcels
- ▶ Demolition permit for the 206 two- and three-story garden apartments
- ▶ Site plan and design review for the proposed tentative map
- ▶ Approval of a water supply assessment
- ▶ City of Sacramento Tree Permit(s)

1.5 PUBLIC REVIEW

As noted previously, the City of Sacramento circulated an NOP with a public response period from August 6, 2014, through September 5, 2014. In addition, the City invited additional comments on the scope of the EIR at a public meeting held on August 27, 2014. Comments submitted at the hearing and those received during the NOP comment period are included in Appendix B. These include responses to the original NOP for a SCEA.

The Draft EIR is circulated for public comment via a Notice of Availability, which includes the dates of circulation and comment. This Draft EIR is circulated to local, state, and federal agencies, and to interested organizations and individuals who may wish to review and comment on the document.

Written comments regarding the EIR should be submitted to:

Scott Johnson
Associate Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811
Phone (916) 808-5842
E-mail: srjohnson@cityofsacramento.org

A copy of the Draft EIR is available for public review at the City of Sacramento Community Development Department at the address listed above and is available on the Community Development Department's Web site: <http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports>

The City will respond in writing to each comment on the Draft EIR that relates to an environmental issue relevant to the project. The Final EIR will include comments, responses to comments, and any changes to the Draft EIR that are made either in response to comments or as a result of staff review.

The City of Sacramento is responsible for certifying that the EIR has been adequately prepared in compliance with CEQA. After certification, responsible agencies may use the EIR in making their determination whether to approve any discretionary actions for which they have jurisdiction.

1.6 EIR ORGANIZATION

This EIR is organized into chapters, as identified and briefly described below. Chapters are further divided into sections (e.g., Section 4.2, "Air Quality").

- ▶ **Executive Summary** presents an overview of the project and project alternatives; a listing of environmental impacts and mitigation measures; and known areas of controversy.
- ▶ **Chapter 1, "Introduction,"** (this chapter), explains the CEQA process; provides a brief summary of the project that is being evaluated; lists the lead, responsible, and trustee agencies that may have discretionary authority over the project; provides information on public participation; and outlines the organization of the document.
- ▶ **Chapter 2, "Project Description"** describes the project location, background, proposed actions by the City of Sacramento and project applicant; project characteristics; project objectives, and requested project approvals. Project construction and operations are also described.
- ▶ **Chapter 3, "Land Use Planning, Population, and Housing"** provides a discussion related to land use change, additional population, and housing in relation to the proposed project.

- ▶ **Chapter 4, “Environmental Setting, Impacts, and Mitigation Measures”** is divided into topic-specific sections that describe the environmental baseline (i.e., existing conditions), and the regulatory setting, then provide an analysis of impacts and mitigation measures that would avoid or eliminate significant impacts or reduce them to a less-than-significant level, where feasible and available.
- ▶ **Chapter 5, “Alternatives”** describes a range of reasonable alternatives to the project (consistent with CEQA Guidelines Section 15126.6[a]) that are feasible (i.e., that may be accomplished in a successful manner within a reasonable period of time) and that take economic, environmental, social, and technological factors into account.
- ▶ **Chapter 6, “Other CEQA-Required Considerations”** discusses significant and unavoidable adverse impacts that would result from project implementation, and discusses any irreversible or irretrievable commitment of resources that could be caused by the project.
- ▶ **Chapter 7, “References”** provides a bibliography of sources cited in the EIR and identifies the names and affiliations of persons who provided information used in preparing the document.
- ▶ **Chapter 8, “List of Preparers”** lists individuals who were involved in preparing this EIR.
- ▶ **Appendices** contain the appendix materials cited in the text of the EIR.

2 PROJECT DESCRIPTION

Project Title:	Sacramento Commons (P14-012) (State Clearinghouse No. 2014042032)
Lead Agency:	City of Sacramento, Community Development Department 300 Richards Boulevard, Third Floor Sacramento, CA 95811
Lead Agency Contact:	Evan Compton, Project Manager ECompton@cityofsacramento.org (916) 808-5260
Environmental Contact:	Scott Johnson, Associate Planner SRJohnson@cityofsacramento.org (916) 808-5842
Project Location:	Approximately 10 acres generally bounded by N Street on the north 7 th Street on the east, P Street on the south, and 5 th Street on the west in the City of Sacramento’s Central Business District (see Figure 2-1, “Regional Location”)
Project Applicant:	Kennedy Wilson 18401 Von Karman Avenue, Suite 350 Irvine, CA 92612
Property Owner:	KW CapTowers, LLC a Delaware limited liability company

2.1 GENERAL PLAN AND ZONING

2.1.1 GENERAL PLAN AND GENERAL PLAN UPDATE

The *Sacramento 2030 General Plan* (2030 General Plan) land use designation for the project site, as adopted in 2008, is Central Business District (CBD).¹ This designation provides for mixed-use high-rise development and single-use or mixed-use development within easy access to transit (e.g., ground-floor office/retail beneath residential apartments and condominiums). Allowable uses include office, retail, and service uses; condominiums and apartments; gathering places (such as a plaza, courtyard, or park); and compatible public, quasi-public, and special uses. The minimum allowable density is 61 units per net acre, and the maximum allowable density is 450 units per net acre. The minimum floor area ratio (FAR) for mixed-use and non-residential uses is 3, and the maximum FAR is 15.²

The City is in the process of preparing its 2035 General Plan Update. The 2035 General Plan is a technical update of the 2030 General Plan and “proposed changes constitute minor revisions,” as described in the Draft Environmental Impact Report for the 2035 General Plan Update (pp. ES-1). The proposed 2035 General Plan retains the overall land use and policy direction established in the 2030 General Plan and includes a refinement and updating of the goals and policies, including updates to housing, employment, and population projections, consistent with the 2035 planning horizon for the Metropolitan Transportation Plan; incorporation of greenhouse gas reduction measures, as addressed

¹ Sacramento’s Central Business District is generally synonymous with the term, downtown Sacramento, which is the area of Sacramento bounded by Interstate 5 on the west, Q Street on the south, 17th Street on the east, and to the north a combination of the Railyards, F Street (between 7th Street and 12th Street), and G Street (between 12th Street and 17th Street).

² This indicates that the total building floor area allowed for commercial and mixed-use buildings is 3–15 times the gross area of the lot on which the building is constructed.

in the City's Climate Action Plan; and updates to traffic modeling to implement a flexible, context-sensitive level of service standard. Applicable sections of the environmental analysis have been updated to address proposed changes in the Draft 2035 General Plan Update. On March 3, 2015, the City Council passed a Resolution adopting and implementing the Sacramento 2035 General Plan and repealing the 2030 General Plan. As a result, the 2035 General Plan will take effect 30 days from March 3, 2015. As the 2030 General Plan remains in effect as of publication of this EIR, the EIR discusses both the 2030 General Plan and changes included in the draft 2035 General Plan.

The proposed 2035 General Plan retains policies from the 2030 General Plan relative to the identification and protection of historic and cultural resources, provided in "Part 2, Historic and Cultural Resources" of the 2035 General Plan. Please refer to Section 4.4 of this EIR, "Cultural Resources" for more detail, as well as Chapter 5 of this EIR, "Alternatives," which examines alternatives to the proposed project that could reduce the impact of the project to historic resources.

2.1.2 ZONING

The City of Sacramento (City) Planning and Development Code (adopted April 9, 2013) designates the project site as a High-Rise Residential Zone (R-5 Zone). The purpose of the R-5 Zone is "to permit dwellings, institutions, and limited commercial goods and service uses, serving the surrounding neighborhood." The maximum residential density in the R-5 Zone is 175 du/ac. Most nonresidential uses that are permitted or conditionally permitted in the R-5 Zone are limited to a combined 25% of the gross floor area or 6,400 square feet of a building (whichever is greater), and the FAR from the 2030 General Plan CBD designation (3-15) is applicable to commercial and mixed-use buildings. The maximum height in the R-5 Zone is 240 feet. The proposed project is consistent with the height limits as well as the maximum residential density for residential buildings and the FAR for commercial and mixed-use buildings set forth in the Planning and Development Code relative to this site.

2.2 PROJECT SITE AND SURROUNDING LAND USES

The project site is located in Sacramento's Central Business District (see Figure 2-1, "Regional Location"), with an existing mix of multi-story residential and office complex land uses located in the immediate vicinity. The project site encompasses 10.13 acres on portions of a four block area from 5th Street to 7th Street and N Street to P Street. The project site is currently developed with residential rental property, containing 409 units, approximately 4,122 square feet of neighborhood-serving retail space, recreational amenities (including a swimming pool), laundry facilities, various landscaped areas and pedestrian walkways, a three-level parking structure containing 200 parking spaces, and 190 spaces on six separate surface parking lots. The 409 dwelling units consist of 206 two- and three-story garden apartments (garden apartments) (known as Capitol Villas and built in 1962 and renovated between 2002 and 2004) and 203 units in the 15-story Capitol Towers building (built in 1966 and renovated between 2005 and 2006). Sharing the four-block project area, but not part of the project site, are the separately-owned 15-story 500 N Street condominium tower (built in 1980 as Bridgeway Towers) that includes 134 units, and the 12-story Pioneer Towers senior apartments (built in 1978) that includes 198 units.

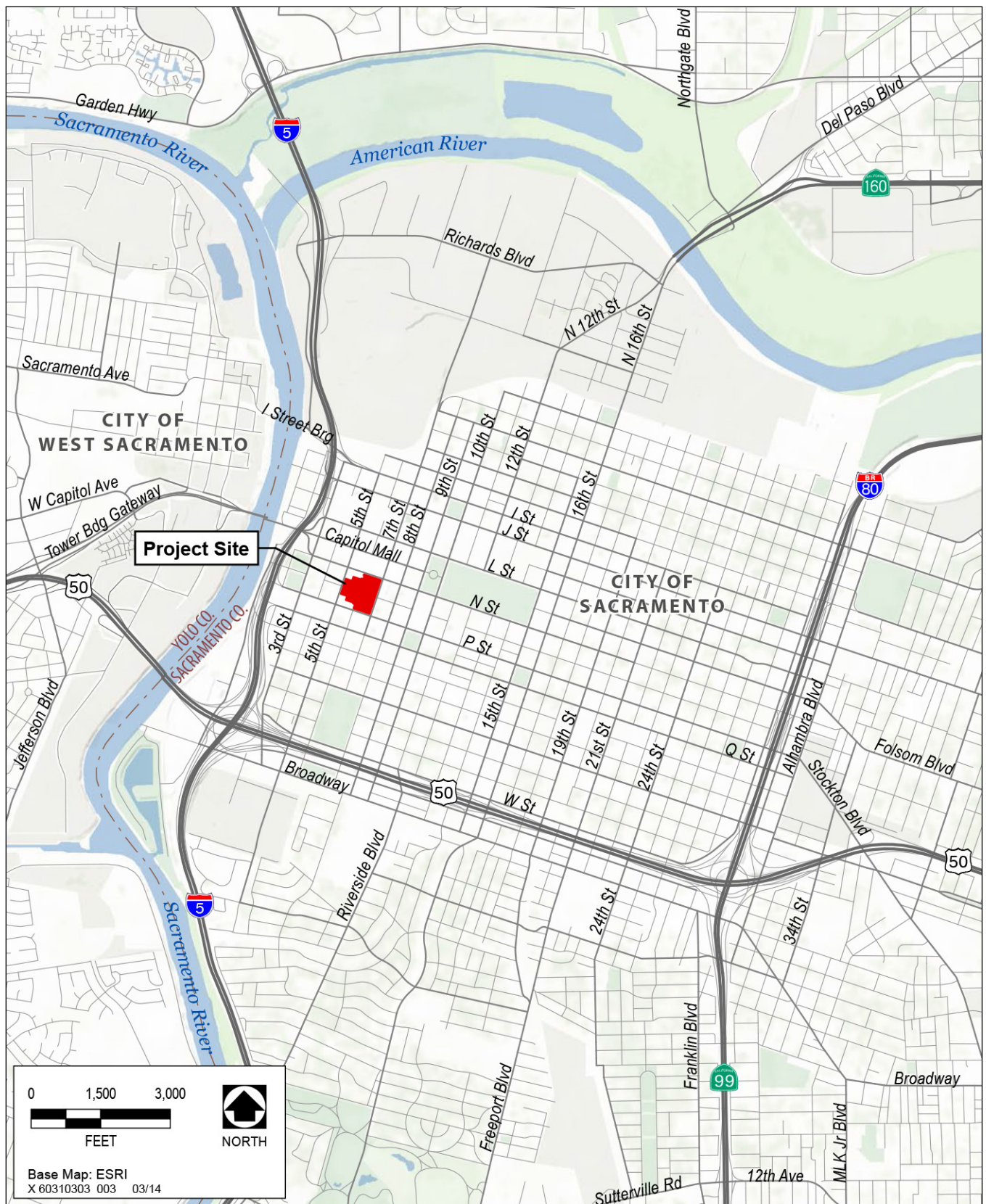


Figure 2-1

Regional Location

Uses immediately surrounding the four block area include federal and state offices to the north, west, and east. Two multi-family properties (Governor's Square and Pioneer House) are located at the southeast and northwest corners, respectively, of 5th and P Streets (see Figure 2-2, "Project Location"). In addition, the State of California Central Plant (which heats and cools state buildings) is located on the south side of P Street, across the street from the project site. Figure 2-2, "Project Location," illustrates the project location and on-site land uses.

The existing Capitol Towers building, the Capitol Villas (garden apartments), and the overall site and landscape design were designed by the San Francisco architectural firm of Wurster, Bernardi, and Emmons, working in collaboration with New York architect, Edward Larrabee Barnes, fellow Bay Area architectural firm DeMars & Reay, assisting New York architectural firm Mayer, Whittlesey and Glass, assisting Sacramento architectural firm Dreyfuss + Blackford Architects, and the San Francisco landscape architecture firm Lawrence Halprin & Associates.

The project site also includes an eight-panel set of concrete relief art pieces, which are installed on the wall by the swimming pool facing west toward the property's central plaza. The wall was created by French-born San Francisco Bay Area sculptor, Jacques Overhoff, and was installed on the property in 1961 (JRP 2014).

The development of the project site in the 1960s included creation of a "superblock" with the closure of 6th Street, between N and P Streets, and O Street between 5th and 7th Streets. Certain portions of the project site are subject to private access and recreation easements shared with the Pioneer Towers and 500 N Street parcels, as shown in Figure 2-4. The streets defining the proposed project site's boundaries are all one-way streets: 5th Street is northbound, 7th Street is southbound, N Street is eastbound, and P Street is westbound. These streets define the site's western, eastern, northern, and southern boundaries, respectively.

Based on the results of an arborist survey (Appendix M) conducted on the site, there are a total of 291 trees present on or adjacent to the project site that provide a total tree canopy area of approximately 247,402 square feet (5.7 acres). Trees adjacent to the project site consist of trees that are just outside of the project parcel boundaries along the periphery of the project site. Of these 291 trees, 50 trees (including 16 different species) meet the City's definition of either a City Street Tree or a Heritage Tree. The remaining 241 trees on or adjacent to the project site do not meet the criteria for classification as either a Heritage Tree or City Street Trees. There are 39 trees located along the perimeter of the project site that meet the definition of a City Street Tree (City Code Section 12.56.020), which includes any tree growing on a public street right-of-way. Of the 39 City Street Trees, 6 meet the criteria for classification as Heritage Trees. There are 11 trees on the project site that are not in the public street right-of-way that meet the criteria for classification as a Heritage Tree, as defined by the City of Sacramento (City Code Section 12.64.020).

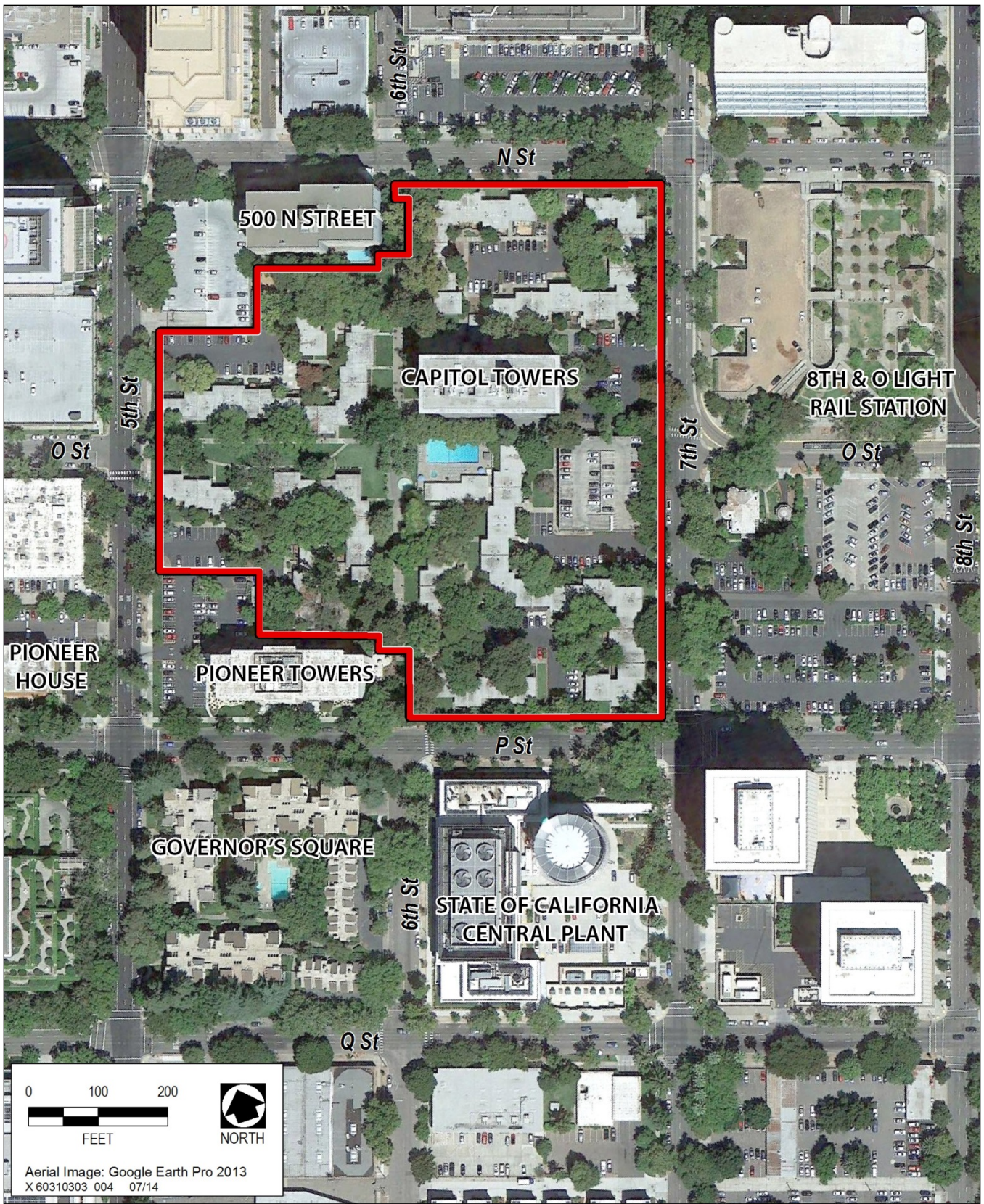


Figure 2-2

Project Location

2.3 PROJECT OBJECTIVES

The project objectives for the Sacramento Commons project are to:

- ▶ intensify an existing urban downtown residential community close to urban amenities (e.g., shopping, services, transit, entertainment, and cultural attractions);
- ▶ support investment and reinvestment in downtown Sacramento, particularly with provision of more residential uses;
- ▶ intensify an existing infill development project with a new project that includes additional residential uses near the major employment centers of downtown Sacramento;
- ▶ provide high-density residential uses that utilize surrounding transit services and provide access to a variety of transportation modes;
- ▶ enhance pedestrian movement through the central portions of the project site;
- ▶ provide additional housing choices for Sacramento's diverse population, and supporting retail and other commercial services for the residents and guests of the proposed development;
- ▶ provide open space areas that support uses on-site and provide places for community gathering, activity, privacy, and connectivity;
- ▶ provide development that is consistent with the City of Sacramento's General Plan and the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS); and
- ▶ incorporate sustainability features that help the City and region achieve its sustainability targets, while enhancing the livability of the community.

2.4 DESCRIPTION OF PROJECT CHARACTERISTICS

2.4.1 HOTEL / CONDO / RETAIL SCENARIO

The proposed project provides for two development options (or scenarios). The first option, Hotel / Condo / Retail Scenario, would remove all of the 206 existing garden apartments, retain the existing Capitol Towers (which contains 203 apartments) and construct a 300-room hotel and 110 condominium units (in conjunction with and above the hotel floors), providing up to 1,171 new dwelling units (increasing the total number dwelling units within project site to 1,374). The net additional dwelling units (excluding the 206 garden apartments and the 203 apartments in Capitol Towers) would be 965 (which includes 49 live/work units which are residences that provide for offices, artist studios, or incubator businesses), resulting in an average net density across the project site of up to 135 du/ac. This scenario would also include the addition of up to 70,000 net new square feet of neighborhood support/retail space in addition to the existing 4,122 square feet of retail uses within Capitol Towers. Neighborhood support space would consist of amenities for residents and their guests and may include uses such as, a gym, spa, meeting spaces, active room, and other similar uses. Neighborhood support

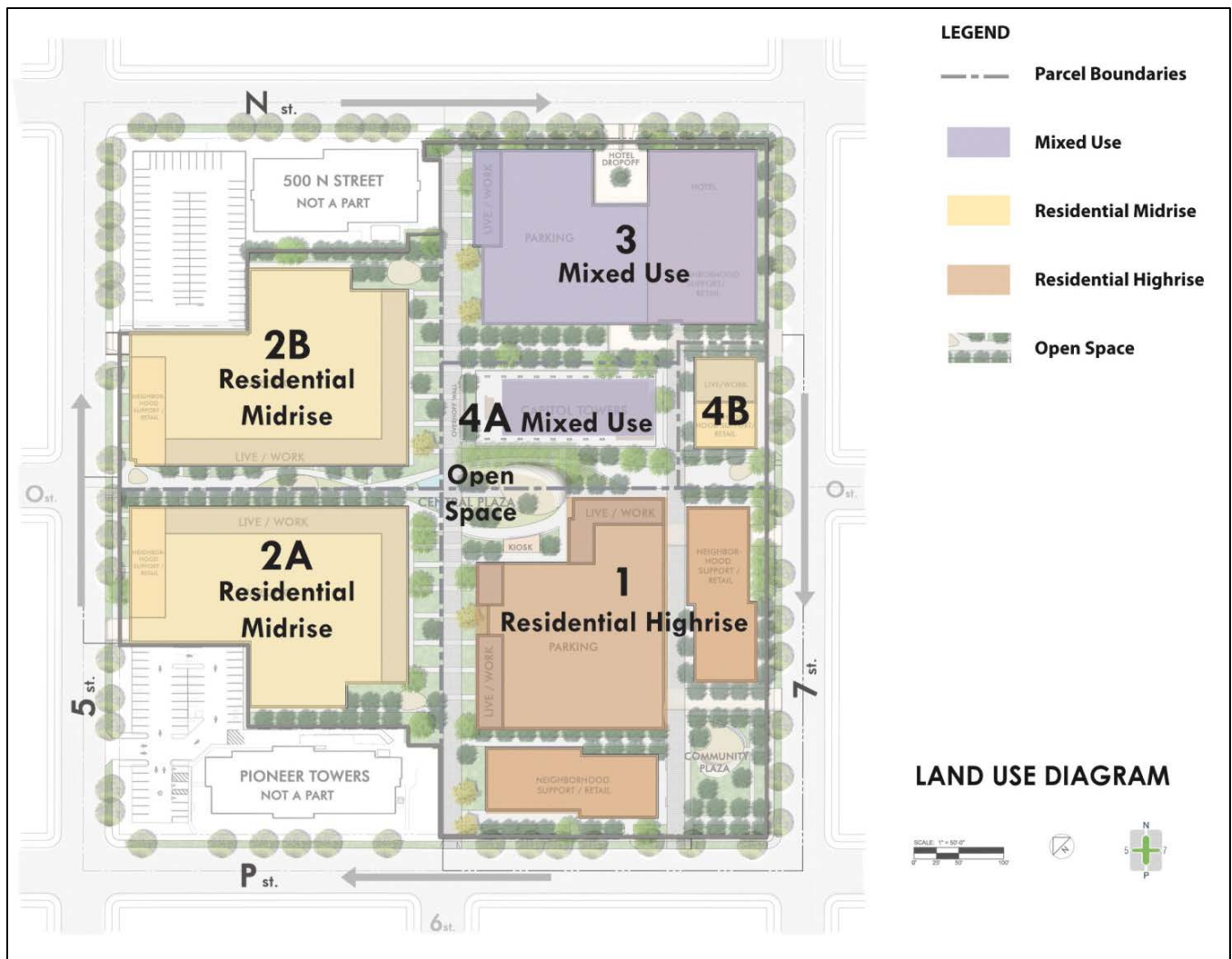
uses would account for a minimum of 30% of the total proposed neighborhood support / retail area. The new retail square footage includes the potential for an approximately 15,000-square-foot specialty market. Retail uses would only be located at street level in all buildings other than the hotel, with retail uses potentially located at street level and on the second floor of the hotel. The proposed project would increase the residential population on the project site by approximately 1,700. Additional details about the projected increase in residential population are discussed in Section 3.0, “Land Use Planning, Population, and Housing,” under Subsection 3.4.3. The proposed project would also eliminate the 390 existing surface and garage parking spaces and build up to 1,701 new parking spaces within four parking garages, for a net increase of 1,311 parking spaces on the site.

2.4.2 CONDO / RETAIL SCENARIO

The second option is similar, but replaces the hotel with additional residential units. This option is referred to as the Condo / Retail Scenario. The Condo / Retail Scenario would remove the 206 existing garden apartments, retain the existing Capitol Towers (which contains 203 apartments) and construct up to 1,267 new dwelling units (increasing the total number of dwelling units within the project site to 1,470). The net additional dwelling units (excluding the 206 garden apartments and the 203 apartments in Capitol Towers) would be 1,061 (which includes 49 live/work units), resulting in an average net density across the project site of up to 145 du/ac. This scenario would also include up to 52,000 net new square feet of neighborhood support / retail in addition to the existing 4,122 square feet of retail uses within Capitol Towers. Neighborhood support space would consist of amenities for residents and their guests and may include uses such as, a gym, spa, meeting spaces, active room, and other similar uses. Neighborhood support uses would account for a minimum 30% of the total proposed neighborhood support / retail area. The new retail square footage includes the potential for an approximately 15,000-square-foot specialty market. As with the Hotel / Condo / Retail Scenario, uses would only be located at street level in all buildings other than the high-rise on Parcel 3, with retail uses potentially located at street level and on the second floor. The proposed project would increase the population on the project site by approximately 1,900 new residents. This scenario would also eliminate the 390 surface and garage parking spaces and build up to 1,635 new parking spaces within four parking garages, for a net increase of 1,245 parking spaces on the site. Additional details about the projected increase in residential population are discussed in Section 3.0, “Land Use Planning, Population, and Housing,” under Subsection 3.4.3.

2.4.3 LAND USES

The proposed project would include four basic land uses: open space, mixed-use, mid-rise residential, and high-rise residential on a project site organized into six parcels (Parcels 1, 2A, 2B, 3, 4A, and 4B). The sequence of the parcel numbers, identified in the Conceptual Land Use Diagram in Figure 2-3 does not reflect a particular phasing sequence. Refer to Section 2.7 for more information on the proposed construction and project phasing sequence. Refer to Section 2.5 for a description of the project components, including more information on project development land uses and facilities. Figures 2-4a and 2-4b, “Conceptual Landscape Plans” illustrates the proposed project site layout and ground level and podium level landscape plans.



Source: Data provided by Van Tilburg, Banvard & Soderbergh, AIA, Melendrez, and adapted by AECOM in 2014

Figure 2-3

Conceptual Land Use Diagram

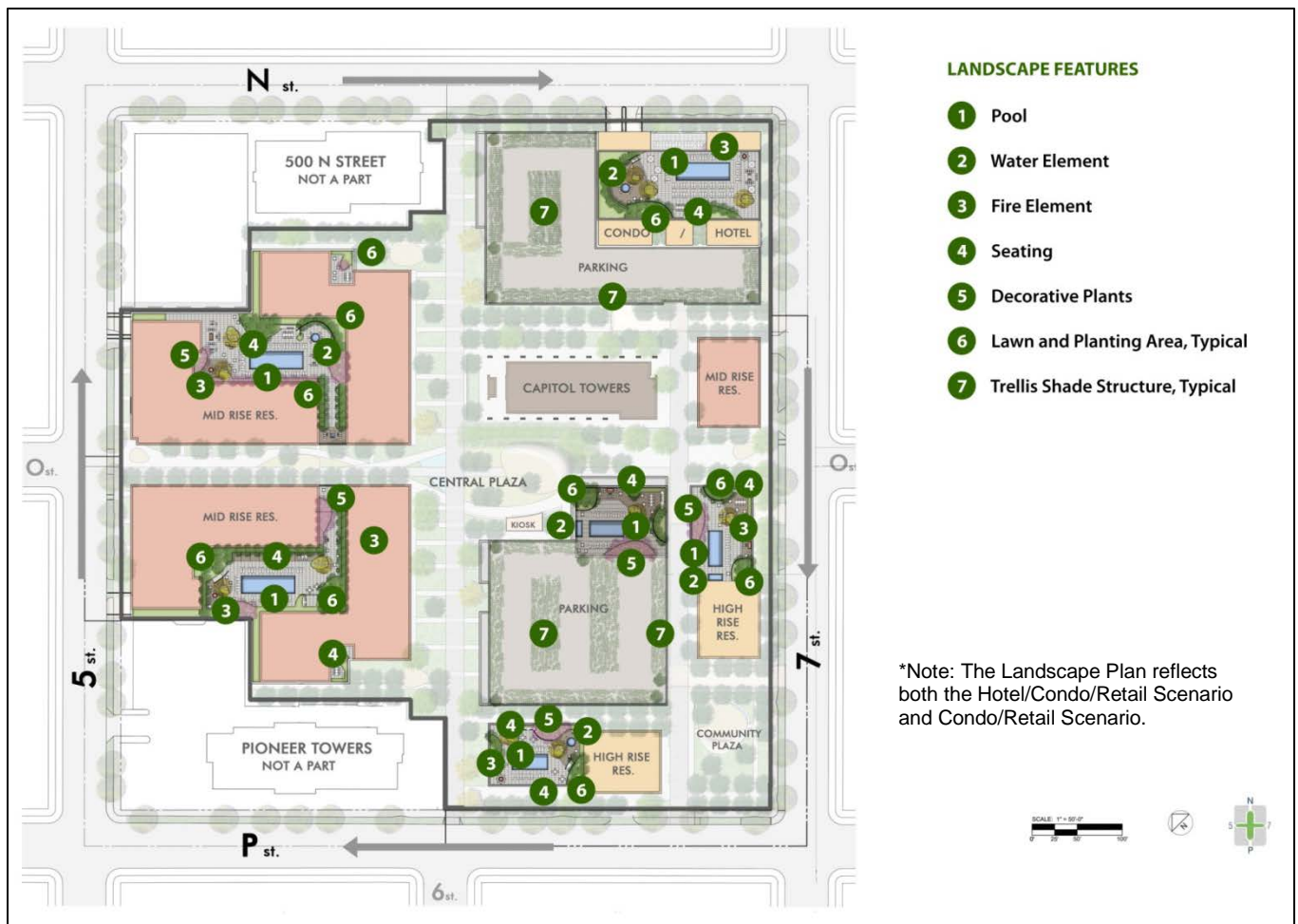


Source: Data provided by Van Tilburg, Banvard & Soderbergh, AIA, Melendrez, and adapted by AECOM in 2014

Figure 2-4a

Conceptual Ground Level Landscape Plan*

*Note: The Landscape Plan reflects both the Hotel/Condo/Retail Scenario and Condo/Retail Scenario.



Source: Data provided by Van Tilburg, Banvard & Soderbergh, AIA, Melendrez, and adapted by AECOM in 2014

Figure 2-4b

Conceptual Podium Level Landscape Plan*

Parcel 1 is proposed to be high-rise residential. Parcels 2A, 2B, and 4B are proposed to be mid-rise residential, with associated parking structures. Parcel 4A includes the existing Capitol Towers high-rise.

The Capitol Towers high-rise consists of ground floor retail and support services uses and 203 residential units above the ground floor, with associated parking structures. Parcel 3, under The Hotel / Condo / Retail Scenario, would include a 24-story hotel with condominiums on the upper floors of the building, as well as live-work and neighborhood support / retail uses on the ground floor and second floor, with associated parking structures. Under the Condo / Retail Scenario, Parcel 3 would include a 24-story condominium development with retail and support services on the ground floor, with associated parking structures. Both scenarios for Parcel 3 include the potential for a specialty market along 7th Street.

2.5 PROJECT COMPONENTS

2.5.1 RESIDENTIAL USES

The proposed project would result in up to a total of 1,374 residential dwelling units (not counting hotel rooms) under the Hotel / Condo / Retail Scenario, or up to a total of 1,470 residential dwelling units under the Condo / Retail Scenario. A summary of maximum units or rooms and square feet by parcel is listed in Table 2-1, "Land Use Summary by Parcel at Buildout."

Residential units would consist of new rental and for-sale units, 203 existing units within the Capitol Towers building (that would remain under the project), and up to 49 new live/work units, as shown in the Table 2-2, "Land Use Totals Summary." Details of the residential development mix within each parcel, shown in Figure 2-3, and listed in Table 2-1, would consist of the following housing types and unit counts:

- ▶ **Parcel 1:** Two 24-story high-rise towers, with ground floor neighborhood support and/or retail uses, totaling 550 apartment units; plus an additional 12 live/work units and neighborhood support and/or retail, wrapped around the parking structure, including 604 parking spaces.
- ▶ **Parcels 2A and 2B:** Mid-rise buildings, consisting of five levels of residential uses over three stories of podium parking (for an appearance of seven stories and 458 parking spaces, with one level of parking located halfway below grade) with 412 apartment units and wrapped by neighborhood support and/or retail uses, plus 30 live/work units.
- ▶ **Parcel 3:** One of the following scenarios:
 - *Hotel / Condo / Retail*—a high-rise development with 110 condominium units and 300 hotel rooms over two stories of neighborhood support and/or retail (street level and second level) for a total of 24 stories, including a 366 parking space garage.
 - *Condo / Retail*—a total of 206 condominium units over neighborhood support and/or retail services, for a total of 24 stories, including a 300 parking space garage.

Both options include four live/work units and the potential for an approximately 15,000 square-foot specialty market fronting 7th Street.

Table 2-1 Land Use Summary by Parcel at Buildout		
Land Use	Max. Units or Rooms	Square Feet
Parcel 1—High-Rise Residential (3.30 net acres)		
Residential (24-story high-rises)	550	496,680
Neighborhood Support / Retail ¹	NA	21,000
Live/Work Units	12	10,800
Parking (604 spaces, 6 levels) ⁵		
Parcel 2A—Mid-Rise Residential (1.83 net acres)		
Residential (seven-story mid-rises)	206	163,530
Neighborhood Support / Retail ¹	NA	4,000
Live/Work Units	15	13,500
Parking (229 spaces, 3 levels) ⁵		
Parcel 2B—Mid-Rise Residential (1.90 net acres)		
Residential (seven-story mid-rises)	206	163,530
Neighborhood Support / Retail ¹	NA	4,000
Live/Work Units	15	13,500
Parking (229 spaces, 3 levels) ⁵		
Parcel 3, Hotel / Condo / Retail Scenario—Mixed-Use (2.02 net acres)		
Hotel Rooms	300	131,250
Residential (24-story high-rise)	110	158,400
Neighborhood Support / Retail ^{2,3}	NA	37,000
Live/Work Units	4	3,600
Parking (639 spaces, 6 levels; includes 212 spaces for Parcel 4A and 61 spaces for Parcel 4B) ⁵		
Parcel 3, Condo / Retail Scenario—High-Rise Mixed-Use (2.02 net acres)		
Residential (24-story high-rise)	206	296,640
Neighborhood Support / Retail ^{1,2,3}	NA	19,000
Live/Work Units	4	3,600
Parking (573 spaces, 6 levels; includes 212 spaces for Parcel 4A and 61 spaces for Parcel 4B) ⁵		
Parcel 4A—Mixed-Use (0.68 net acres), Existing Capitol Towers		
Residential (15-story high-rise)	203	171,000
Neighborhood Support / Retail	NA	4,122
Parcel 4B—Mid-Rise Residential (0.40 net acres)		
Residential (five-story mid-rise over two levels of live/work units)	50	33,350
Neighborhood Support / Retail ¹	NA	4,000
Live/Work Units	3	2,700
Source: Data provided by Van Tilburg, Banvard & Soderbergh, AIA, Thomas Law Group, and compiled by AECOM in 2014		
Notes: The project would include approximately 1,424,852-1,435,862 square feet of total floor area on the 10.13 net acre project site, for an overall floor area ratio (FAR) of 3.2-3.3 (excluding the separately owned 500 N Street and Pioneer Towers properties located on the same superblock).		
¹ Neighborhood support uses in Parcels 1, 2A, 2B, and 4B consist of amenities exclusively available for building residents (e.g., gym, spa).		
² In Parcel 3, neighborhood support/retail includes first- and second-floor space.		
³ Neighborhood support/retail square footage includes up to a 15,000 square foot specialty market. The total neighborhood support/retail square footage, including the specialty market, would not exceed 37,000 square feet under the Hotel / Condo / Retail Scenario and 19,000 square feet under the Condo / Retail Scenario.		
⁴ A minimum of 30% of the neighborhood support/retail square footage under both the Hotel / Condo / Retail Scenario and the Condo / Retail Scenario will consist of amenities exclusively available for building residents (e.g., gym, spa, etc.).		
⁵ Parking spaces are based on ratios identified in Table 2.3 in Section 2.5.4.		

Table 2-2 Land Use Summary (Totals and Net Change)			
Project Totals Based on the Hotel / Condo / Retail Scenario (10.13 net acres)			Net change
Total Residential	1,374 (including 49 live/work units)	1,230,490	965 dwelling units
Hotel Rooms	300	131,250	300 rooms
Neighborhood Support/Retail ⁴	N/A	74,122	70,000 square feet
Project Totals Based on the Condo / Retail Scenario (10.13 net acres)			Net change
Total Residential	1,470 (including 49 live/work units)	1,368,730	1,061 dwelling units
Neighborhood Support/Retail ⁴	N/A	56,122	52,000 square feet
Source: Data provided by Van Tilburg, Banvard & Soderbergh, AIA, Thomas Law Group, and compiled by AECOM in 2014			

- ▶ **Parcel 4A:** Interior modifications to the 203 units and retail space that currently exist in the Capitol Towers building, with 212 parking spaces accommodated in the parking garage on Parcel 3 and the future potential for exterior modifications to ensure overall architectural compatibility with Sacramento Commons.
- ▶ **Parcel 4B:** 50 units in a seven-story mid-rise building, with neighborhood support and/or retail and three live/work units provided on the first two stories of the building, and 61 parking spaces accommodated in the parking garage on Parcel 3.

2.5.2 NEIGHBORHOOD SUPPORT/RETAIL USES

The existing retail uses at the Capitol Towers building include a neighborhood convenience store, a coffee shop, a barber shop, and a restaurant, among other uses. These uses serve both existing Capitol Towers' residents and the surrounding neighborhoods. Existing support uses at Capitol Towers include a leasing and management office.

Additional retail uses would be included as part of the proposed project to serve residents and guests, as well as the surrounding area. Additional support uses would provide amenities for residents and their guests and may include uses such as a gym, spa, meeting spaces, activity rooms, and other similar uses.

2.5.3 HOTEL

A hotel containing up to 300 rooms would be constructed as part of the proposed project on Parcel 3 under the Hotel / Condo / Retail Scenario. The hotel would include street-level and second-level neighborhood retail / support space that may include a restaurant. Hotel amenities would include conference and meeting spaces and a fitness center. The hotel would have a guest drop-off zone, accessed from N Street. As discussed above, Parcel 3 would also include up to 110 condominium units under the Hotel / Condo / Retail Scenario, compared to up to 206 condominium units under the Condo / Retail Scenario.

2.5.4 PARKING FACILITIES

The Planned Unit Development (PUD) Guidelines included in the project application to the City identify parking ratios for the proposed land uses. Table 2-3 presents the parking standards and the number of parking spaces to be included in the project. The proposed project would provide either 1,635 parking spaces (Condo / Retail Scenario) or 1,701 parking spaces (Hotel / Condo / Retail Scenario).

Table 2-3 Vehicular Parking		
Land Use	Parking Ratio Used	Parking Spaces Provided
Residential Apartments and Live/Work Units	1 space per unit	1,264 spaces
Condominium Units	1.25 spaces per unit	138 or 258 spaces ¹
Hotel (Parcel 3, Hotel / Condo / Retail Scenario)	1 space per 2 guest rooms	150 spaces
Neighborhood Retail or Hotel Services	1 space per 500 gross square feet of retail or support space, including hotel services (e.g., conference center, restaurant) or events	149 or 113 spaces ²
Total Vehicular Spaces	–	1,701 or 1,635 spaces³
Notes:		
¹ 138 spaces provided for condominium units based on Parcel 3–Hotel / Condo / Retail Scenario; 258 spaces provided for condominium units based on Parcel 3–Condo / Retail Scenario.		
² An additional 149 spaces are planned for retail / hotel services on Parcel 3–Hotel / Condo / Retail Scenario and 113 spaces provided for retail on Parcel 3–Condo / Retail Scenario.		
³ 1,701 total spaces required based on Parcel 3–Hotel / Condo / Retail Scenario; 1,635 total spaces required based on Parcel 3–Condo / Retail Scenario.		
Source: Data compiled by AECOM in 2014		

For Parcel 1, 604 parking spaces would be included in a six-level garage (one level of the garage may be located below grade). The garage would include live/work units and neighborhood retail and/or support uses on the ground floor along the North-South and East-West Promenades.

For both Parcels 2A and 2B, 229 parking spaces would be included in a three-level garage (one level may be sunken half way below grade), for a total of approximately 458 spaces across the two parcels. The garages are proposed to be built entirely above grade, but may extend both above and below grade, if necessary. The garages would serve as the base of the apartment buildings, and neighborhood retail and/or support services and live/work units would wrap along the ground floor of the building, screening the garage from public view.

For Parcels 3, 4A, and 4B, parking would be provided in a parking garage that is attached to the west side of the hotel/condo building on Parcel 3. The garage is wrapped by live/work units and retail and support services on the ground floor of the hotel/condo building, along the North-South Promenade. Under the Hotel / Condo / Retail scenario, the garage on Parcel 3 would include approximately 639 parking spaces, within six levels of parking (one level of the garage may be located below grade). Under the Condo / Retail scenario, the garage on Parcel 3 would include approximately 573 parking spaces, within six levels of parking above grade (one level of the garage may be located below grade).

In addition to vehicle parking, the project would include both long-term and short-term bicycle parking spaces, consistent with the parking ratios and bicycle parking standards identified for the Central Business District in City Code Chapter 17.608. The project would also comply with California Green Building Standards Code (CalGreen Building Code) standards for non-residential uses that require short-term bicycle parking for non-residential visitor uses (including the hotel and neighborhood support / retail) to be permanently anchored bicycle racks, placed within 100 feet of a visitor entrance, and visible to passersby for 5% of the visitor vehicle parking capacity.

2.5.5 PROMENADES, WALKWAYS, AND COMMUNITY AMENITIES

The East-West Promenade would be located approximately along the extension of O Street. The East-West Promenade is proposed to be 44-64 feet wide at its narrowest sections (measured from building edge to building edge) and lined with live/work units and/or neighborhood support / retail uses at grade. It would be constructed of a paved surface and include open turf lawn areas, lined with trees for shade.

The North-South Promenade would be located along the extension of 6th Street. The North-South Promenade varies from approximately 60-85 feet wide (measured from building edge to building edge) and would also be lined with live/work units and/or neighborhood support / retail uses at grade, with residences and parking provided above grade. Like the East-West Promenade, it would be a balance of hardscape paving and lawn areas, lined with both existing Heritage Trees and new trees, with spaces for gathering, seating, and other outdoor activities.

A secondary network of smaller scale pedestrian walkways would connect both the existing and proposed buildings between the North-South Promenade and 7th Street. These passageways would be tree-lined to provide adequate shade, and would include smaller seating areas and additional landscape areas (see Figure 2-2).

The northwest corner of P and 7th Streets would be occupied by a community plaza organized around a shade structure and tree canopy. A central community plaza, with retail kiosk, community lawn area, water features, and shade structure is planned at the intersection of the North-South and East-West Promenades. Additionally, the proposed project will retain the Overhoff relief art wall and proposes to relocate it slightly to the north, set in the landscaped area between Capitol Towers and the North-South Promenade, as shown in Figure 2-4a.

2.5.6 LANDSCAPE ELEMENTS

The landscape setting for Sacramento Commons is organized around the North-South and East-West Promenades and a central plaza, with a community lawn, shade structure(s), retail kiosk, and water feature. The landscape theme for the proposed project is derived from the concept of balancing the natural and manmade landscapes that have made up Sacramento over time. The landscape concepts for Sacramento Commons draw from the site's connection to the river, as an extension of the City street grid, originally laid out in relation to providing access to the Sacramento River. The landscape concept includes the North-South and East-West Promenades that filter out and connect with the broader city; small gathering nodes like mineral deposits washed along the promenades, with opportunities for seating, gathering, or other outdoor activities; the central plaza at the confluence of the two promenades; and open lawn areas fronting onto residential and live-work units. The community

plaza at the corner of P and 7th Streets serves as a gateway feature to Sacramento Commons and may include a shade structure, water feature, park space, and project identity monument sign. A balance of permeable and impermeable landscape surfaces is considered in the landscape design to integrate opportunities for on-site stormwater infiltration and reduce stormwater run-off. Extended living space and community amenities such as, pools, decks, shaded seating areas, heated outdoor spaces, green space, and play areas are also planned above podium parking structures and residential rooftops areas.

Efforts were made during the site planning process to retain non-Heritage Trees meeting minimum health and structural condition criteria, where feasible. Some of the tree attribute data collected during site evaluations included species, trunk diameter, tree height, canopy spread, general health condition, structural condition and presences of observable pests or other tree maladies. To analyze and evaluate the ecosystem values of trees existing on the site, the i-Tree software program (developed by the United State Forest Service) was used to collect data on the environmental benefits provided by urban trees (“eco analysis”), as measured through the following ecosystem service characteristics: canopy cover, leaf surface area, carbon storage, carbon sequestration, and avoided run-off. Construction of the proposed project is expected to result in the removal of a total of approximately 199 trees, including approximately four Heritage Trees, approximately four City Street Trees, and approximately 191 Non-Heritage Trees (trees that do not meet the City’s definition of either a Heritage Tree or City Street Tree) (Dudek 2014). Conceptual proposed project landscape plans identify a total of approximately 339 trees to be retained or planted once build-out is complete. Based on the proposed Landscape Plan, the proposed project includes retention of 7 of 11 Heritage Trees and 35 of 39 City Street Trees, as well as 50 of 241 Non-Heritage Trees on site and planting of approximately an additional 247 new trees. As noted in the Arborist Report (Dudek 2014), the trees proposed for removal would result in the loss of approximately 142,410 square feet of existing tree canopy cover on and adjacent to the project site. Approximately 104,993 square feet of existing tree canopy cover on and adjacent to the project site would be retained as part of the proposed project. Full details of tree protection measures are available in the arborist report for the proposed project, provided as Appendix M.

The proposed project’s final landscape plan and selection of new species of trees to be included in the plan will be made in coordination with the City arborist. Construction-related tree protection would be implemented for Heritage Trees, City Street Trees, and Non-Heritage Trees to be retained during construction activities, as identified in the *Arborist Report for the Sacramento Commons Project Site*. Street and Heritage trees proposed to be removed for project shall be replaced as mitigation, consistent with City Code standards for tree removal and replacement. The eco analysis of trees on-site forecasted when the proposed future tree population would return similar ecosystem characteristics to the existing tree population, based on the metrics of total trunk diameter, canopy cover, leaf surface area, carbon storage, gross carbon sequestration, and avoided runoff. The results of this analysis are further summarized in the Arborist Report and in Section 4.3 of this EIR, “Biological Resources.” In general, the time spans ranged from 20 to 25 years, depending on different characteristics.

2.5.7 EVOLUTION OF SITE PLAN

In response to three workshops held for the community by the applicant, numerous meetings with residents and owners in the project vicinity, the scoping meeting, and an initial review of the project by

the Planning and Design Commission, various changes were made to the proposed site plan since the project application was initially submitted to the City. These proposed changes, and which are depicted in Figures 2.3 and 2.4, include: increasing the spacing between high-rise and low-rise buildings (above podium level) to a minimum of 40 feet; including landscaping and trees as a buffer between buildings; providing a setback on 5th Street to preserve existing Street Trees; reorganizing building footprints to recognize existing easements; increasing building separation between Pioneer and 500 N Street condominium tower to 74 feet from 40 feet (this increase is for 37% of the building face fronting the towers); reorienting the unit plans to minimize the number of units (a reduction from 30 to 20) directly facing 500 N Street condominium tower and Pioneer Towers; increasing the width of the O Street walkway between the mid-rise buildings to 44 feet; providing for the possibility of a specialty market; providing ground floor bicycle parking in parking garages; revising the landscape plan to retain additional healthy trees on site, in addition to Street and Heritage Trees; and revising and refining the landscape plan to provide additional community open space areas and native trees at 7th and P streets. The above revisions to the project also resulted in a decrease of 38 residential units (in the mid-rise buildings), a decrease of 20 hotel rooms and a decrease of 10 condominiums.

2.5.8 INFRASTRUCTURE

ACCESS AND CIRCULATION

The project site is located in Sacramento's downtown and is generally bounded by 5th, 7th, N, and P Streets, which provide access to the site. Interstate 5 is located three blocks west of the project site, providing access to points north and south of the site. U.S. Highway 50 is located 12 blocks to the south, providing access to points east and west of the project site. See Chapter 4.11 Transportation/Traffic, for additional discussion regarding circulation.

WATER SUPPLY DISTRIBUTION

The project site is served by a system of looped water mains surrounding the site. An 18-inch water transmission main crosses the project site in a north-south direction (along the old 6th Street alignment), paralleling the existing sewer main. There are 10-inch water mains in 5th and P Streets, an 8-inch water main in 7th Street (north of the O/P Alley), and a 12-inch water main in N Street, west of the North-South Promenade.

The existing water infrastructure is considered adequate for water supplied for both domestic and fire flows. The City has indicated that no connections to the existing 18-inch transmission main would be allowed with this project. As a result, the project would make all necessary connections for domestic and fire department uses from the existing mains in 5th Street, 7th Street, and P Street. See Section 4.8 Hydrology and Water Quality and Chapter 4.12 Utilities and Service Systems, for additional discussion regarding water systems.

WASTEWATER COLLECTION

The City of Sacramento Department of Utilities provides wastewater collection services for the City. The City historically used a combined sewer system (CSS) that provided sewage and drainage services to more than 24,000 parcels in downtown Sacramento, Midtown, Land Park, and East Sacramento. The

system, originally established in the 1800s and still in place as improvements are being made over time, collects sewage and stormwater in the same pipe. The combined wastewater is pumped to the Sacramento Regional County Sanitation District's Sacramento Regional Wastewater Treatment Plant in Elk Grove, where it is treated and released back to local rivers. During heavy-rain events, excess stormwater is also treated at several City facilities before being released back to the Sacramento River.

This project site is within the City's CS352 basin. This basin uses the existing combined system for sewer flows only. The sewer mains that front the project site go into Sump 1, which is then pumped into Pioneer Reservoir and sent to the Sacramento Regional Wastewater Treatment Plant for treatment.

An existing 12-inch sanitary sewer main passes through the site from N Street to P Street (along the old 6th Street alignment). This line serves the existing buildings north of the project site and central portions of the project site. The line flows westward in P Street and connects to an existing 18-inch line in 5th Street. This 5th Street line serves the westerly portion of the project site. The two lines connect to a 24-inch sanitary sewer main that flows southward in 5th Street. The easterly portion of the project site connects to an existing 24-inch sewer main located in 7th Street.

Because the existing sewer infrastructure serving the project area was originally designed to convey the combined sewer and stormwater flows and now conveys only sewer flows, the system is generally oversized for managing sewer flows generated in this area. The City requires new projects serviced by the Combined Sewer System to comply with the Combined Sewer Development Fee Program before new CSS sewer service will be provided (refer to Section 4.12, "Utilities and Service Systems").

STORMWATER COLLECTION

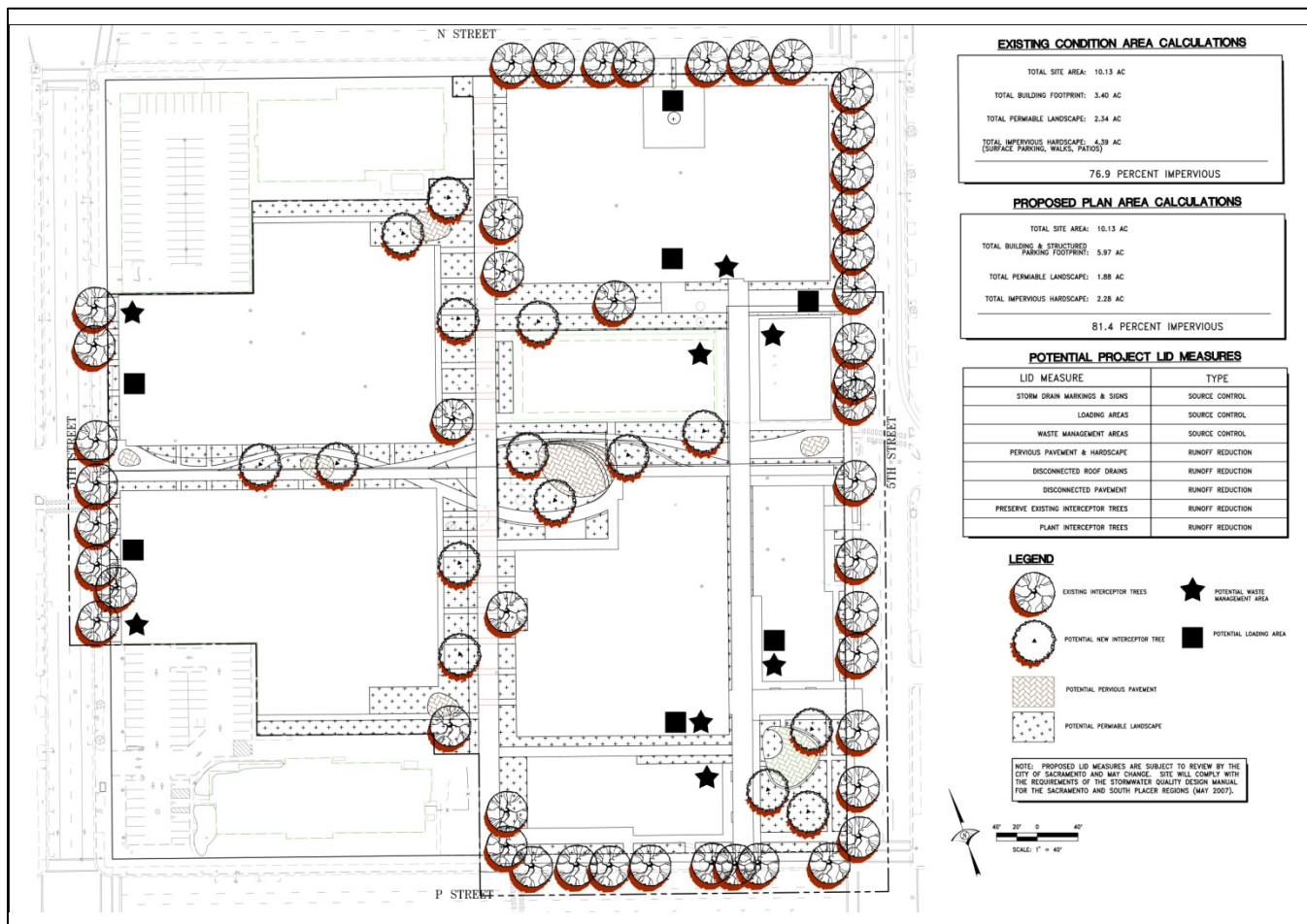
The City of Sacramento Department of Utilities maintains the City's storm drainage facilities. The project site is within the City's Basin 52 drainage shed. Unlike the majority of the downtown area, this drainage shed area separates storm runoff from the existing CSS and conveys storm drainage flows in dedicated drainage pipes. The system flows to Sump 52, located near the south side of the Crocker Art Museum at 2nd and P Streets. From this location it pumps storm drainage to the Sacramento River. The storm drainage for the project site is collected and directed to various connection points in N, P, and 7th Streets.

The proposed project is required to comply with the City's "Do No Harm" policy, which requires infill areas to fully mitigate any potential increase in flows leaving the project site. The project would construct sufficient on-site detention, as required by City Code, to ensure that there would be no increase in storm runoff leaving the project site. Please refer to Section 4.12 of this EIR, "Utilities and Service Systems," for more detail.

There are existing site features that would be utilized to preserve (to the maximum extent practicable) and be integrated into the overall stormwater management plan for the proposed project. These existing features include a large number of mature trees that surround the project site. These trees intercept the rain and their roots take in the water that soaks into the ground.

The project will be required to comply with existing regulations designed to control pollutants during construction and the project's operational phase. This program would be anticipated to include

components such as recycling, street sweeping, storm drain cleaning, household hazardous waste collection, waste minimization, prevention of spills, and effective management of public trash collection areas that shall be implemented throughout the life of the project. The project would incorporate source control and runoff reduction measures or low impact development (LID) measures for the treatment of stormwater quality on-site. The project would comply with the site planning source control principles found in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* for loading, outdoor storage, and waste management areas. These areas would be isolated and/or covered to minimize the potential of any pollutants to leave the project site. In addition to these measures, appropriate runoff reduction measures would be integrated into the project. Within the East–West and North–South Promenades, the project would employ LID measures such as pervious pavers, disconnected pavement, disconnected roof drains, and interceptor trees, as identified in the Figure 2-5, below.



Source: Data provided by Wood Rodgers in 2014

Figure 2-5 Conceptual Site Integrated Low Impact Development Strategies

ELECTRIC AND GAS UTILITIES

Electric—Sacramento Municipal Utility District

The Sacramento Municipal Utility District (SMUD) supplies electrical service to the project site and the surrounding area. The existing development is served by SMUD's underground electric transmission lines. This existing system consists of multiple circuits and interconnects with several substations located nearby. Substation A is located at 6th and H Streets, Substation B is located at O and 19th Streets, and Substation D is located at R and 8th Streets. These substations supply 21- and 12-kilovolt circuits to the project site.

This redundant network is adequate to serve the additional demand generated by the proposed project. SMUD would use these existing facilities to supply the necessary service to the project site. On-site, the project would include relocation of some existing electrical infrastructure and installation of new pad-mounted transformers and electrical vaults to serve the new buildings.

Natural Gas—Pacific Gas and Electric Company

Pacific Gas and Electric Company (PG&E) supplies natural gas service to the project site and surrounding area. The existing development is served by a grid system of high-pressure natural gas pipelines that range in size from 4 inches to 12 inches in diameter. There is also a secondary low-pressure system that consists of primarily 2-inch and 4-inch lines.

According to PG&E, this grid network of gas lines is sufficient to serve the increased demand for natural gas generated by the proposed project. The existing on-site gas lines would be removed and realigned to serve the new buildings. In addition, PG&E would install new distribution gas lines onsite to serve the new buildings. A 4-inch-diameter high-pressure gas line would run through the project site beneath the North-South Promenade.

See Section 4.12, "Utilities and Service Systems," for additional discussion related to electric and gas.

2.5.9 ENERGY CONSERVATION FEATURES AND SUSTAINABILITY

Sustainability features of the proposed Sacramento Commons project would include several inherent greenhouse gas reduction and other sustainability features that would contribute to lower vehicle use, vehicle miles traveled, energy use, and water consumption, including:

- ▶ its location in downtown Sacramento, within one-quarter mile of bus and light rail transit; proximity to freeways and Amtrak rail service; and walkable and bikeable street grid near jobs, services, parks/open space, and other downtown destinations;
- ▶ the addition of a significant number of multi-family housing units (proposed net gain of approximately 965–1,061 units) in an area of the City with a deficit of such housing relative to jobs, which enables residents to walk or take transit to work;
- ▶ on-site neighborhood support services for the convenience of the project residents and guests; and on-site retail uses for use by the overall Sacramento Commons neighborhood;

- ▶ protection and incorporation of a majority of the existing Heritage Trees and City Street Trees in place and planting of additional trees to maintain Sacramento’s robust urban forest;
- ▶ enhancement of the North–South and East–West Promenades, with accompanying landscaping and open space to meet the City’s vision for high-quality public urban spaces that provide stormwater management benefits;
- ▶ lower per-unit energy and water use than a similar number of dwelling units in a lower-density suburban setting; and
- ▶ a variety of housing types meeting the needs of a broad segment of the population.

New buildings constructed as part of the proposed Sacramento Commons project would comply with current City standards for building energy efficiency and target CalGreen Building Code Tier 1 Water Efficiency Standards, at a minimum.

The proposed project would include water-efficient fixtures and appliances; energy-efficient building materials and resources; low–volatile organic compound paints, flooring, and adhesives; and other industry-standard best practices for building design, construction, and operation. Inclusion of these elements may qualify the project to meet at least the minimum criteria of green rating systems, such as Leadership in Energy & Environmental Design (i.e., LEED), GreenPoint, Enterprise Green, or equivalent, as required by the *Sacramento Central City Urban Design Guidelines*.

As detailed in Section 4.6, the proposed project would meet applicable requirements of the City of Sacramento Climate Action Plan and, therefore, is considered consistent with the City’s Climate Action Plan.

2.6 PLANNED UNIT DEVELOPMENT GUIDELINES AND ZONING

The proposed project includes PUD Guidelines that establish the development framework and design guidance for the land use, circulation, infrastructure, community design, architecture, landscaping, open space, and other components of the project. The PUD Guidelines include as objectives the promotion of high-quality design and development of Sacramento Commons, while permitting flexibility for innovative design solutions, site-specific standards to ensure preservation of existing site resources to the extent practicable, compatibility with the surrounding area context, and a cohesive development vision. The PUD Guidelines support a sustainable development vision for Sacramento Commons (see Appendix N for the PUD Guidelines).

The PUD Guidelines provide information on the size, timing, and sequence of project development; establish the framework for future development; and identify the process to evaluate, review, and approve future applications within the proposed project. The PUD Guidelines supplement and, where noted, replace zoning and development standards set forth for the project site in the City’s Planning and Development Code and the *Sacramento Central City Urban Design Guidelines*. Refer to the PUD Guidelines in Appendix N for more detail on revised zoning and development standards.

The mid-rise and high-rise residential buildings would be subject to and consistent with the maximum density limits and height limits in the R-5 Zone. Mixed-use buildings (building proposed on Parcel 3 [both scenarios] and Capitol Towers) would be subject to and consistent with the FAR requirements for the CBD's 2030 and 2035 General Plan land use designation. There is no minimum parking required in the Central Business District, however the project plans to accommodate vehicular parking on-site and shall comply with all other parking requirements in the City's Planning and Development Code.

The PUD standards and guidelines, once approved, apply to all future development applications within Sacramento Commons and will be reviewed to determine consistency with the vision and regulations of this document and other regulatory documents. The approval process for future development applications is intended to facilitate streamlined application processing for proposals, consistent with the Sacramento Commons PUD and all applicable General Plan and Code regulations.

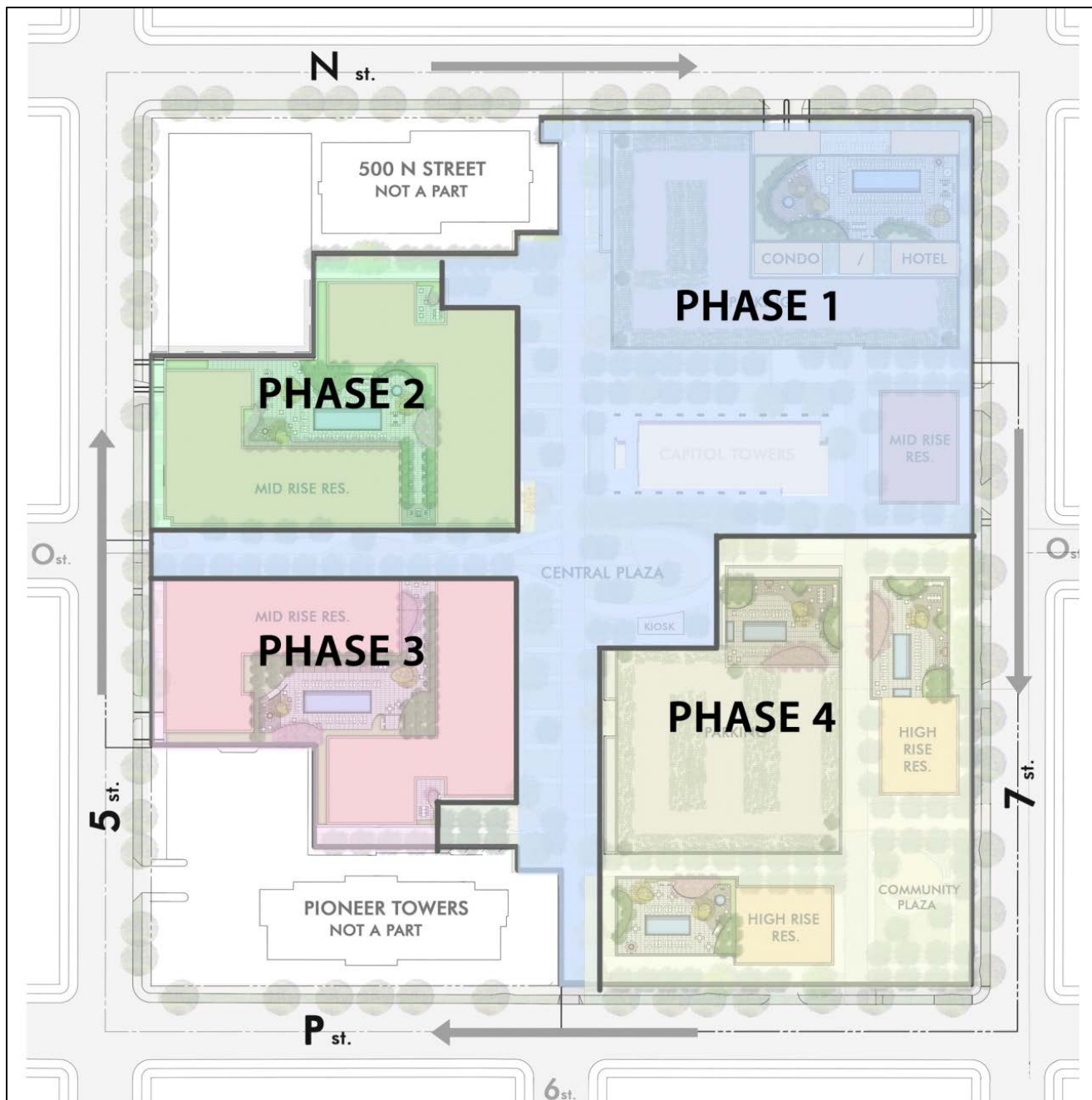
2.7 CONSTRUCTION AND PROJECT PHASING

The existing 206-unit garden apartments would be demolished in phases to accommodate the proposed project, along with the existing associated parking structure, all existing parking lots, and landscaped areas. The existing Capitol Towers building would remain.

All construction staging areas would be located on the project site within areas that have been demolished or graded. Demolition materials would be collected on-site and routed to the appropriate recycling facility in the City of Sacramento, as practicable. The project site would be secured with fencing and security patrols would be employed throughout the various phases of demolition and construction (see Mitigation Measure 4.10-2). A traffic management plan to address construction circulation and activities would be reviewed and approved by the City's Department of Public Works prior to beginning any construction (see Mitigation Measure 4.11-5). The traffic management plan would address vehicular, pedestrian, and bicycle traffic during the various demolition and construction phases. Coordination would take place with existing and adjacent residents, businesses, and property owners within the vicinity of the proposed project to minimize disturbance, to the extent possible. Pedestrian access will be permitted around the site during construction and several actions will take place to allow for safe passage, such as wayfinding signs advising residents and pedestrians of construction-related detours, and installation of public sidewalk detour/protection features, as required by the City of Sacramento.

The project applicant anticipates that construction of the proposed project would occur in four phases. Figure 2-6 illustrates the phasing sequence for the project. Construction is anticipated to occur from late 2015 through fall 2021.

- ▶ *Phase 1* construction would include construction of backbone infrastructure and demolition of the existing garden apartments on Parcel 3 and within the North-South and East-West Promenade areas. This phase would include construction of the high-rise building and parking garage on Parcel 3, renovation of the existing Capitol Towers building on Parcel 4A, and construction of the mid-rise residential building on Parcel 4B. Phase 1 construction would extend from late 2015 through August 2017.



Note: ¹ The order of demolition and construction phasing may be subject to change due to market conditions and the dates of construction under some phases will overlap.

Source: Data provided by Van Tilburg, Banvard & Soderbergh, AIA, and adapted by AECOM in 2014

Figure 2-6 Conceptual Phasing Sequence Diagram¹

- ▶ *Phase 2* construction would include demolition of the existing garden apartments on Parcel 2B, followed by construction of the mid-rise residential structure and podium parking garage on Parcel 2B. Phase 2 construction would extend from March 2016 through October 2018.
- ▶ *Phase 3* construction would include demolition of the existing garden apartments on Parcel 2A, followed by construction of the mid-rise structure and podium parking garage on Parcel 2A. Phase 3 construction would extend from February 2017 through October 2019.

- ▶ *Phase 4* construction would include demolition of the existing garden apartments on Parcel 1, followed by construction of the first high-rise tower and parking structure and depending on the leasing activity in the first tower, construction of the second high-rise tower would follow. Phase 4 construction would extend from February 2017 through October 2021.

The proposed order of demolition and construction phasing may be subject to change due to market conditions and the dates of construction under some phases will overlap. However, construction is proposed to occur in four distinct areas on the project site that would not physically overlap, as depicted in Figure 2-6.

2.8 PREVIOUS RELEVANT ENVIRONMENTAL ANALYSES

Development on the project site is governed by the *Sacramento 2030 General Plan* and *2035 General Plan Update*. The 2030 General Plan designates the project site as Central Business District (CBD); the 2030 General Plan Master EIR (State Clearinghouse [SCH] No. 2007072024), certified on March 3, 2009, evaluated potential environmental impacts of general plan development within the CBD. For purposes of planning and environmental analysis, the 2030 General Plan Master EIR assumed that buildout of the CBD would include 12,695 attached residential units, 822,800 square feet of retail space, and 2,614,512 square feet of office space (see 2030 General Plan Master EIR Appendix C, “Air Quality Model Outputs,” Table 2-1).

Development within the project area was also assumed as part of the SACOG MTP/SCS and analyzed as part of the cumulative conditions assumed in the MTP/SCS EIR (SCH No. 2011012081), certified April 19, 2012.

In April 2014, the City circulated a Notice of Preparation (NOP) for a Sustainable Communities Environmental Assessment (SCEA) for the proposed project. The City ultimately concluded that an EIR should be prepared, and issued a NOP for the EIR on August 6, 2014.

2.9 PREVIOUS DEVELOPMENT PROPOSAL FOR PROJECT SITE

A development application was filed and a draft EIR was being prepared in 2008 for a previous development proposal on the project site. This was known as the “Capitol Villas Redevelopment Project.” The entitlement process was curtailed in 2008, during the recent recession. The previous project involved four different development subareas, one in each quadrant of the project site, each with a multi-level parking structure with different uses at ground level and above. As part of that project, the tallest tower would have been 33 stories (350 feet). There were four options considered, including a residential option, an office option, and a hotel option. Residential yields would have been between 170 and 1,440 net new dwelling units. Office square footage would have ranged between 500,000 and 750,000 square feet. Retail square footage would have ranged between 22,350 and 67,350 square feet.

3 LAND USE PLANNING, POPULATION, AND HOUSING

This Chapter of the EIR describes existing and planned land uses within and surrounding the project site and consistency and compatibility of the proposed project with adopted land use plans, policies, and development regulations. This Chapter also describes existing and projected population change associated with implementation of the proposed project in relation to City and regional assumptions regarding population growth.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to land use, planning, housing and population that include: timing of when residents will need to relocate; consistency with City policies for a mix of housing types and the need for mixed-income communities with housing for low- and moderate-income workers and families; market demand for downtown housing and the potential to displace existing residents. Copies of the NOPs and comments received in response are included in Appendix B of this EIR. Each of these topics is addressed in this section.

3.1 APPROACH TO DISCUSSION OF LAND USE AND PLANNING

CEQA Guidelines Section 15125(d) requires an EIR to discuss:

...inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans. Such regional plans include, but are not limited to, the applicable air quality attainment or maintenance plan or State Implementation Plan, area-wide waste treatment and water quality control plans, regional transportation plans, regional housing allocation plans, regional blueprint plans, plans for the reduction of greenhouse gas emissions, habitat conservation plans, [and] natural community conservation plans...

Throughout the technical sections contained in Chapter 4, as relevant to the environmental topic at hand, this EIR discusses the relationship between the project and local and regional plans. This EIR includes a focus on the policy framework created by the 2030 General Plan, particularly as it relates to adverse physical environmental effects. A summary of relevant goals and policies is included in the Regulatory Setting in each section; a summary of the impact analysis included in the City's 2030 General Plan Master EIR is incorporated in the impact assessment, if necessary. In addition, since the draft Sacramento 2035 General Plan was in process at the time of the writing of this EIR, additional context is provided, where relevant, to highlight proposed policy changes relevant to the project.

The project site is located within the City's Central City Community Plan Area. The Central City Community Plan is incorporated within the General Plan to supplement citywide policy based on conditions or issues unique to the Community Plan Area. Therefore, where relevant, information contained in the Central City Community Plan is also discussed throughout Chapter 4 of this EIR. In addition, information from the City's Planning and Development Code, Municipal Code, or other City planning documentation is also referenced. For example, Section 4.2, "Air Quality" evaluates project impacts within the context of applicable air quality attainment planning efforts. Section 4.12, "Utilities and Service Systems" incorporates information from relevant water supply, wastewater conveyance and treatment, and other infrastructure plans. Sacramento Area Council of Governments' (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the EIR for this

Plan are referenced, as appropriate, throughout Chapter 4 of the EIR. The MTP/SCS EIR is located online at <http://sacog.org/mtpscs/final-environmental-impact-report/>.

This approach – addressing the actual physical environmental effects related to land use and planning in the relevant technical sections of the EIR – is consistent with the approach taken in the “Land Use Consistency and Compatibility” Chapter of the City’s 2030 General Plan Master EIR where:

... the reader is referred to the respective technical sections for a discussion of any potential physical/environmental effects and potential incompatibilities that may be considered in the determination of physical environmental impacts. For example, land uses that produce excessive noise, light, dust, odors, traffic, or hazardous emissions may be undesirable when they intrude on places where people sleep and recreate (residences and parks). Therefore, some industrial or agricultural uses (which can produce noise and odors) would not be considered compatible with residential uses, unless buffers, landscaping, or screening can be used to protect residents from health hazards or nuisances. These potential concerns or land use incompatibilities are addressed in the applicable technical sections (p. 4-1).

This EIR Chapter highlights the relationship of the proposed project with relevant land use plans and planning documents that include information on population and housing.

3.2 APPROACH TO DISCUSSION OF POPULATION AND HOUSING

Population growth by itself is not a significant environmental impact. However, development, infrastructure, and facilities and services related to population, housing, and employment growth can have significant environmental impacts through land conversions, commitment of resources, and other mechanisms. As the 2030 General Plan Master EIR observes:

Changes in population, housing, and employment in and of themselves are generally characterized as social and economic effects, not physical effects on the environment. CEQA provides that economic or social effects are not considered significant effects on the environment unless the social and/or economic effects are connected to physical environmental effects (p. 5-1).

Section 15131(a) of the CEQA Guidelines provides direction for assessing economic and social effects related to population and housing:

Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on physical changes.

Consistency of the proposed project with City and regional policies and plans related to land use, planning, population, and associated housing issues are based on the 2030 General Plan (2009), 2013-2021 Housing Element (2013), Sacramento Area Council of Governments (SACOG) Regional Housing Needs Plan (2012), and 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (2012).

The proposed project was initiated when the 2030 General Plan was in effect. Since that time, the City has prepared an update to the 2030 General Plan (excluding the Housing Element) and anticipates adopting the new 2035 General Plan in early 2015. The 2035 General Plan is in draft form as of the writing of this document. Proposed changes in policy in the draft 2035 General Plan that are relevant to the proposed project are discussed throughout Chapter 4.

3.2.1 SACOG REGIONAL BLUEPRINT AND MTP/SCS

As detailed in Section 3.3, below, Sacramento Commons, as proposed, furthers regional and citywide goals and policies within the Central City for mixed-use urban infill development close to transit. The approximately 10-acre project site is currently developed with 409 residential units, parking, and retail uses for a residential density of 40 units/acre. The project includes up to 1,374 residential dwelling units (not counting hotel rooms, but including the 203 existing Capitol Towers units that would remain) under the Hotel / Condo / Retail Scenario and up to 1,470 residential dwelling units under the Condo / Retail Scenario (which includes the 203 existing Capitol Towers units), as well as retail uses and parking. The residential density would increase to 145 units/acre under the Hotel / Condo / Retail scenario and 165 units/acre under the Condo / Retail Scenario compared to the existing baseline of 40 units/acre.

In 2004, SACOG adopted the “Blueprint”, a regional vision for growth through 2050 that promotes compact, mixed-use development and more transit choices as an alternative to low-density development.

Blueprint principles – transportation choices, mixed-use development, compact development, housing choice and diversity, use of existing assets, quality design, and natural resource conservation – are reflected in the proposed project’s location, design, and objectives:

- ▶ intensify an existing urban Downtown residential community close to urban amenities (e.g. shopping, services, transit, entertainment, and cultural attractions);
- ▶ support investment and reinvestment in Downtown Sacramento, particularly with more residential uses;
- ▶ intensify an existing infill development project to provide additional residential uses, near the major employment centers of Downtown Sacramento;
- ▶ provide high-density residential uses that utilize surrounding transit services and provide access to a variety of transportation modes;
- ▶ enhance pedestrian movement through the central portions of the project site;
- ▶ provide additional housing choices for Sacramento's diverse population, and supporting retail and other commercial services for the residents and guests of the proposed development;
- ▶ provide open space areas that support uses on-site and provide places for community gathering, activity, privacy, and connectivity;

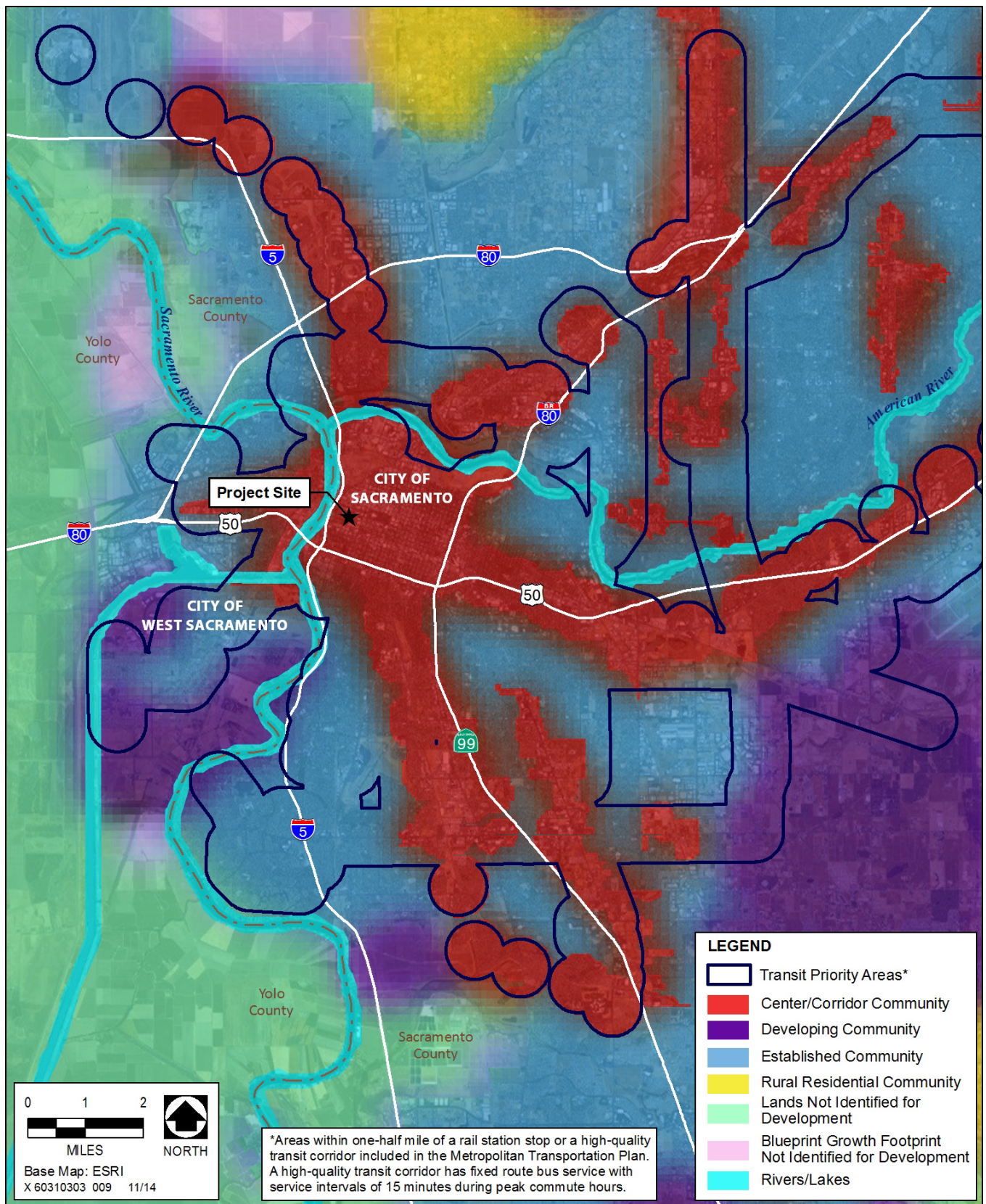
- ▶ provide development that is consistent with the Sacramento General Plan and the SACOG Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS); and
- ▶ incorporate sustainability features that help the City and region achieve its sustainability targets, while enhancing the livability of the community.

The Preferred Blueprint Scenario was incorporated into SACOG's MTP/SCS for 2035, the long-range transportation plan for the region. It also serves as a framework to guide local government in growth and transportation planning through 2050. The MTP/SCS designates the Sacramento Central City (within which the project site is located) as a Center and Corridor Community and Transit Priority Area (TPA) (see Figure 3-1). These terms are defined below:

- ▶ **Center and Corridor Community:** Higher concentrations of employment, usually commercial and office, that add new development on vacant or underutilized land, or through redevelopment of existing developed land; and
- ▶ **Transit Priority Area:** Areas of the region within one-half mile of a major transit stop (existing or planned light rail, street car, or train station) or an existing or planned high-quality transit corridor (with fixed route bus service at intervals of no longer than 15 minutes during peak commute hours).
- ▶ **Transit Priority Project:** A project that is consistent with SACOG's sustainable communities strategy, and meets the following:
 - contains at least 50 percent residential use based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75;
 - provides a minimum net density of at least 20 dwelling units per acre; and
 - be within one-half mile of a major transit stop or high-quality transit corridor (fixed route bus service with service intervals no longer than 15 minutes during peak commute hours included in a regional transportation plan).

Between 2008 and 2035, SACOG forecasts 303,049 additional housing units and 361,085 additional jobs region-wide. Approximately 30% of these housing units (92,046) and 29% of these jobs (104,185) are projected to locate in Center and Corridor Communities. The numbers and percentages of additional housing units and jobs to be located in TPAs are similar to Center and Corridor Communities, and there is significant geographic overlap between these two designations (SACOG 2012, p. 34).

As discussed further in Chapter 4.0 (Subsection 4.0.3), Sacramento Commons' location in the Central City adjacent to numerous transit resources qualifies the project site as a TPA, and the proposed project's mix and intensity of development qualifies it as a Transit Priority Project (TPP) under the MTP/SCS. The MTP/SCS encourages development of TPPs like the proposed project (see Chapter 6, Strategy 4.4) to further stated goals and objectives for sustainable communities under Senate Bill 375 (2008) and to achieve the jobs and housing goals for Center and Corridor Communities/TPAs.



Source: SACOG 2014

Figure 3-1

Project Site, Community Types, and Transit Priority Areas

3.2.2 SACRAMENTO GENERAL PLAN

The land use designation for the proposed project, according to the Sacramento 2030 General Plan and draft 2035 General Plan, is “Central Business District” (CBD). This designation provides for mixed-use, high-rise development and single-use or mixed-use development within easy access to transit (e.g., ground-floor office/retail with residential apartments and condominiums above). Allowable uses within this designation include office, retail, and service uses; condominiums and apartments; gathering places (such as a plaza, courtyard, or park); and compatible public, quasi-public, and special uses.

The proposed project is consistent with the CBD designation, given the proposed land uses, its status as a TPP, and the proposed public gathering spaces on-site, including creation of the North-South and East-West Promenades (which enhance existing walkways), a central plaza, and a community plaza and water feature in the southeastern portion of the project site.

3.3 LAND USE AND PLANNING

This section addresses land use and planning in the project vicinity as relevant to the proposed project. The analysis describes the existing environmental conditions, the methods used for assessment, and consistency with existing land use plans and regulations. This section also provides a brief overview of federal, state, and local laws and regulations pertaining to land use and planning.

3.3.1 ENVIRONMENTAL SETTING

The project site is located in the City’s Central Business District (CBD) in an urban setting with mid- to high-density residential, office, and municipal uses adjacent to the project site. The site encompasses approximately 10 acres on portions of four blocks in downtown Sacramento. The site is developed with a residential rental property containing 409 units, approximately 4,122 square feet of retail and commercial space, recreational amenities (including a swimming pool), laundry facilities, various landscaped areas, and parking areas composed of a three-level parking structure (containing 200 parking spaces) and surface parking lots (providing a total of 190 parking spaces). The 409 units consist of 206 two- and three-story garden apartments and 203 units in the 15-story Capitol Towers building. Sharing the four-block project area, but not part of the project site, are the separately owned 15-story 500 N Street condominium tower and the 12-story Pioneer Towers senior apartments (see Figure 2-2, “Project Location,” in Chapter 2).

A mix of high-density residential and office complexes are located in the immediate vicinity of the project site. Surrounding land uses include federal and state offices to the north, west, and east. Two multi-family properties (Governor’s Square and Pioneer House) are located at the southeast and northwest corners, respectively, of 5th and P Streets. In addition, the State of California Central Plant, which heats and cools state buildings, is located on the south side of P Street, across the street from the project site (see Figure 3-2).

The CBD is Sacramento’s most intensely developed area. The CBD includes a mixture of retail, residential, office, governmental, entertainment, and visitor-serving uses built on a framework of streets and park spaces associated with the original Sutter Land Grant in the 1840s.

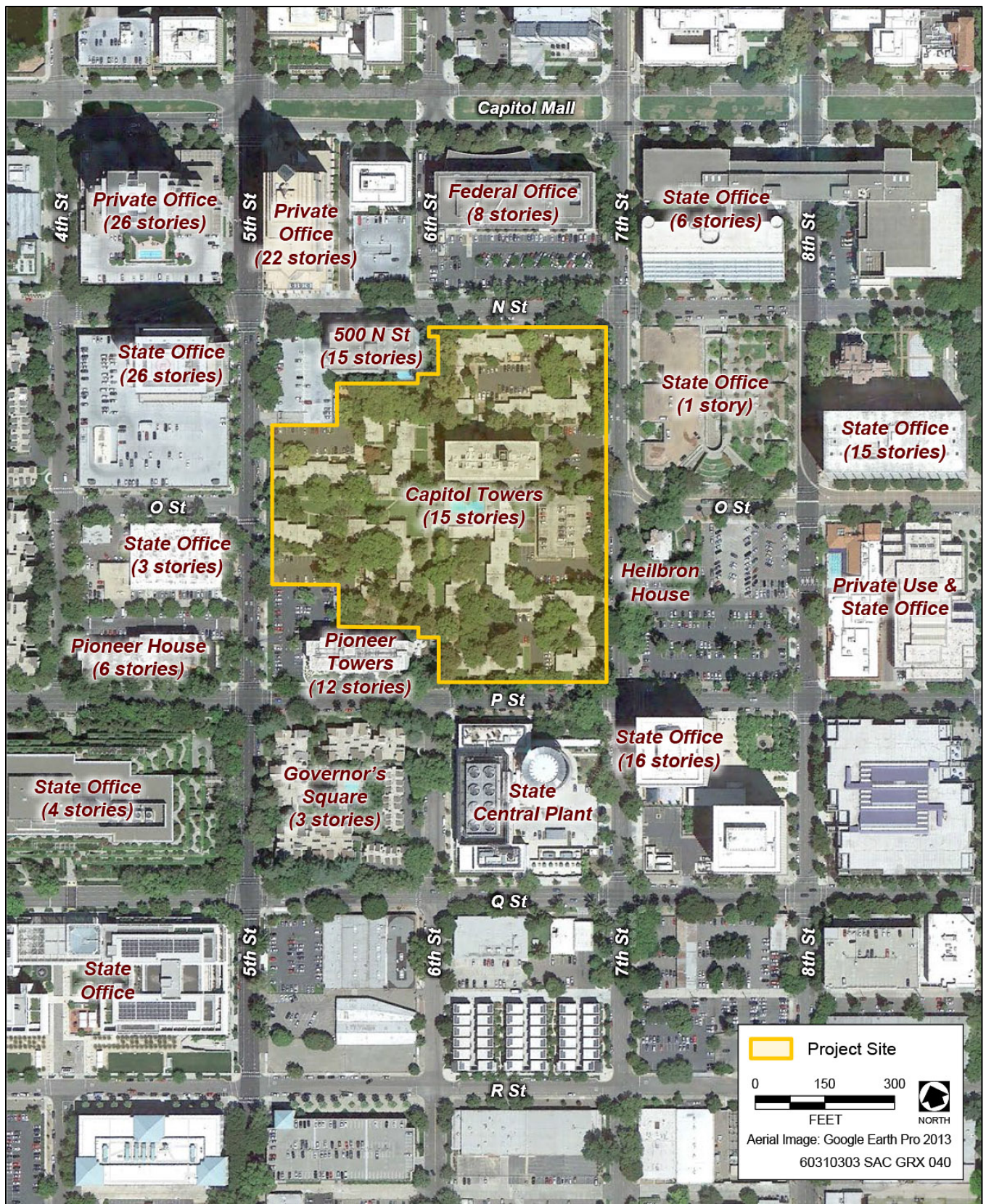


Figure 3-2

Surrounding Land Uses

3.3.2 REGULATORY SETTING

FEDERAL

No federal regulations that specifically control local land use or land use compatibility on nonfederal lands would be applicable to the proposed project. However, the Federal Aviation Administration (FAA) requires coordination for any projects exceeding 200 feet in height. The FAA is tasked, among other things, with regulating civil and commercial aviation. The FAA is required to review projects that entail construction or alteration of buildings more than 200 feet above the ground level at the site.¹

STATE

The State of California reserves for local jurisdictions the authority to plan and regulate land use.

Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act of 2008 (Chapter 728, Statutes of 2008), directs the California Air Resources Board to set regional targets for reducing greenhouse gas (GHG) emissions. The law establishes a “bottom up” approach to ensure that cities and counties are involved in the development of regional plans to achieve those targets.

SB 375 relates to land use planning by building on the existing framework of regional planning to tie together the regional allocation of housing needs and regional transportation planning in an effort to reduce GHG emissions from motor vehicle trips. Further, SB 375 established CEQA streamlining and relevant exemptions for projects that are determined to be consistent with the land use assumptions and other relevant policies of an adopted SCS, described further below.

LOCAL

Sacramento Area Council of Governments

Sacramento Area Council of Governments Blueprint

SACOG is an association of local governments in the six-county Sacramento region (El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties, as well as 22 cities, including the City of Sacramento).

The Blueprint, adopted by SACOG Board of Directors in December 2004, is a voluntary framework for guiding future growth in the region. The Blueprint is intended by SACOG to guide the region’s transportation planning and funding decisions.

The approved Blueprint is based on seven interlocking principles:

- ▶ *Compact Development* that requires less conversion of rural land, shortens travel distances, and reduces the per-unit cost of infrastructure and services.
- ▶ *Housing Choices* that provide a variety of housing types and costs to meet the need of all segments of the community.

¹ The project applicant for any project that would exceed 200 feet above grade within the project site must submit FAA Form 7460-1 at least 30 days before filing an application for a construction permit.

- ▶ *Mixed-Use Developments* that allow people to work and shop near their homes.
- ▶ *Use of Existing Assets*, in particular the development of sites that are already within the urban footprint and urban services coverage.
- ▶ *Transportation Choices*, in particular the ability to use non-auto modes (transit, bike, walk) for at least some trips. Non-auto modes are most practical in compact, mixed-use communities.
- ▶ *Quality Design* in terms of aesthetic buildings but also in terms of providing attractive, walkable public spaces which create a sense of community.
- ▶ *Conservation of Natural Resources* through less conversion of land to urban use, slower growth of demand for water, and reduction in the amount of per-capita auto travel.

Metropolitan Transportation Plan/Sustainable Communities Strategy

The MTP/SCS is a long-range plan for transportation in the region based on the Blueprint. SACOG is required by federal law to update the MTP at least every four years, and the MTP/SCS is the guiding document for the distribution of federal transportation funding to cities and counties in the region. Since the last MTP, California adopted SB 375, which requires the inclusion of an SCS in the MTP.

SACOG is a metropolitan planning organization with no regulatory authority related to land use. In recognition of the connection between efficient land use and the MTP goals to reduce trip lengths and mobile-source GHG emissions, the MTP/SCS contains a range of policies that support land use decisions that are consistent with the Blueprint, including the following policies:

- ▶ SACOG will provide information, tools, incentives, and encouragement to local governments that have chosen to grow consistent with Blueprint principles.
- ▶ SACOG intends to educate and provide information to policymakers, local staff, and the public about the mutually supportive relationship between smart growth development, transportation, and resource conservation.
- ▶ SACOG will encourage local jurisdictions in developing community activity centers well-suited for high-quality transit service and complete streets.

The MTP/SCS policies are further reinforced by a range of strategies that direct SACOG to undertake actions that fall within its area of expertise, such as “[s]upport development proposals that are well-suited and located to support high-quality transit use in Transit Priority Areas, through Blueprint analysis” (SACOG 2012, Chapter 6, p. 139).

Sacramento 2030 General Plan

State law requires each city and county to prepare and adopt a comprehensive and long-range general plan for its physical development—typically, a 10- to 30-year horizon into the future (California Government Code, Section 65300). A comprehensive general plan provides a jurisdiction with a consistent framework for land use decision making. Under California law, no specific plan, area plan,

community plan, zoning, subdivision map, or public works project may be approved unless the city or county finds that it is consistent with the adopted general plan.

The *Sacramento 2030 General Plan* was adopted March 3, 2009. The 2030 General Plan is a 20-year policy guide for physical, economic, and environmental growth within the Sacramento City limits. The goals, policies, and implementation programs in the 2030 General Plan define a road map to achieving Sacramento's vision to be the most livable city in America.

As mentioned previously in Section 3.3.1, "Environmental Setting," the project site is designated CBD on the 2030 General Plan's land use and urban form diagram. The 2030 General Plan envisions the CBD as the most intensely developed part of Sacramento. The CBD designation includes a mixture of retail, residential, office, governmental, entertainment, and visitor-serving uses built on a formal framework of streets and park spaces laid out for the original Sutter Land Grant in the 1840s. The 2030 General Plan calls for the CBD to be a vibrant downtown core with a mixture of retail, office, government, entertainment, and visitor-serving uses that serves "as the business, governmental, retail, and entertainment center for the city and the region" (City of Sacramento 2009, p. 2-76). The 2030 General Plan also calls for new residential uses to be built in the CBD with the expressed intent that expanding the CBD's residential population will extend the hours of activity and augment the market for retail, services, and entertainment in downtown Sacramento.

The 2030 General Plan's vision for the CBD is a vibrant downtown core serving as the office, business, governmental, retail, visitor-serving, and entertainment center for the City and the region. The allowable density and mix of land uses for the CBD under the 2030 General Plan includes new high-density and transit-oriented residential uses. Increasing the residential population is intended to add vitality to the CBD by extending the hours of activity and providing a residential market for retail, services, and entertainment. Development in the CBD is also planned to have easy access to various modes of transit.

The project site is zoned High Rise Residential (R-5). The R-5 zone provides for multi-family residential, with limited commercial and service uses for the surrounding neighborhood. The R-5 zone allows for institutional, office, and commercial land uses limited to 25% of the gross floor area or 6,400 square feet of a building, whichever is greater, unless otherwise permitted through the City's site plan and design review process. The maximum density for residential projects in the R-5 zone is 175 du/acre, with a maximum of 80% lot coverage. For nonresidential and mixed-use projects in the R-5 zone, the FAR included in the 2030 General Plan (3.0 to 15.0) is applicable. Maximum height for residential or mixed-use buildings in the R-5 zone is 240 feet, unless otherwise permitted (City of Sacramento Planning and Development Code, Section 17.208.72). As noted previously, the project site is designated CBD in the 2030 General Plan which requires a minimum density of 61.0 units/net acre and a maximum density of 450.0 units/net acre; and a minimum FAR of 3.0 for mixed-use and non-residential uses and a maximum FAR of 15.0 for mixed-use and non-residential uses.

The proposed project includes an average net density for all residential uses (not including hotel rooms) of between 145 to 165 units/acre and an overall FAR of between 3.2 to 3.3, consistent with the 2030 General Plan.

The 2030 General Plan establishes key elements of urban form, allowed uses, and development standards for each land use designation, including the CBD.

New development in the CBD designation must conform to the following standards:

- ▶ Minimum density: 61.0 units/net acre
- ▶ Maximum density: 450.0 units/net acre
- ▶ Minimum FAR: 3.0 FAR (for mixed-use and nonresidential uses)
- ▶ Maximum FAR: 15.0 FAR (for mixed-use and nonresidential uses)

Under the 2030 General Plan, development in the CBD must be designed to reflect an urban form that is characterized by:

- ▶ a mixture of mid- and high-rise buildings creating a varied and dramatic skyline with unlimited heights;
- ▶ lot coverage generally not exceeding 90%;²
- ▶ buildings sited to positively define the public streetscape and public spaces;
- ▶ building façades and entrances directly addressing the street and having a high degree of transparency;
- ▶ an interconnected street system providing for traffic and route flexibility;
- ▶ vertical and horizontal integration of residential uses;
- ▶ public parks and open space areas within walking distance of local residents;
- ▶ parking integrated into buildings or placed in separate structures;
- ▶ minimal or no curb cuts along primary streets;
- ▶ side or rear access to parking and service functions;
- ▶ broad sidewalks appointed with appropriate pedestrian amenities, including sidewalk restaurant/café seating;
- ▶ street design integrating pedestrian, bicycle, transit, and vehicular use and incorporating traffic-calming features and on-street parking; and
- ▶ consistent planting of street trees providing shade and enhancing character and identity.

The 2030 General Plan includes several goals and policies intended to promote urban infill development and redevelopment, including:

² However, as noted above, R-5 zoning permits up to 175 du/acre and up to 80% lot coverage.

Goal LU 1.1. 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.

- ▶ **Policy 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.

Goal LU 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.

- ▶ **Policy 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.
- ▶ **Policy LU 2.1.6 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 2.4. City of Distinctive and Memorable Places. Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento's unique historic, environmental, and architectural context, and create memorable places that enrich community life.

- ▶ **Policy 2.4.1 Unique Sense of Place.** The City shall promote quality site, architectural and landscape design that incorporates those qualities and characteristics that make Sacramento desirable and memorable including: walkable blocks, distinctive parks and open spaces, tree-lined streets, and varied architectural styles.
- ▶ **Policy 2.4.2 Responsiveness to Context.** The City shall require building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.

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 2.6.1 Sustainable Development Patterns.** The City shall promote compact development patterns, mixed use, 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.
- ▶ **Policy LU 2.6.2 Redevelopment and Revitalization Strategies.** The City shall employ a range of strategies to promote revitalization of distressed, under-utilized, and/or transitioning areas, including:
 - Targeted public investments
 - Development incentives
 - Redevelopment assistance
 - Public-private partnerships
 - Revised development regulations and entitlement procedures
 - Implementation of City- or SHRA-sponsored studies and master plans
- ▶ **Policy LU 2.6.3 Sustainable Building Practices.** The City shall promote and, where appropriate, require sustainable building practices that incorporate a “whole system” approach to designing and constructing buildings that consume less energy, water and other resources, facilitate natural ventilation, use daylight effectively, and are healthy, safe, comfortable, and durable.

GOAL LU 2.7. City Form and Structure. Require excellence in the design of the city’s form and structure through development standards and clear design direction.

- ▶ **Policy LU 2.7.2 Design Review.** The City shall require design review that focuses on achieving appropriate form and function for new and redevelopment projects to promote creativity, innovation, and design quality.

GOAL 2.8. City Fair and Equitable. Ensure fair and equitable access for all citizens to employment, housing, education, recreation, transportation, retail, and public services, including participation in public planning for the future.

- ▶ **Policy LU 2.8.5 Jobs Housing Balance.** The City shall encourage a balance between job type, the workforce, and housing development to reduce the negative impacts of long commutes and provide a range of employment opportunities for all city residents

GOAL LU 5.6. Central Business District. Promote the Central Business District (CBD) as the regional center of the greater Sacramento area for commerce, culture, and government.

- ▶ **Policy LU 5.6.3 Mixed-Use Downtown Development.** The City shall support a mixed use, vibrant Central Business District by encouraging innovative mixed-use development resulting in development consistent with Sacramento’s commitment to environmental sustainability.
- ▶ **Policy LU 5.6.6 Central City Redevelopment Projects.** The City shall work with the Sacramento Housing and Redevelopment Agency (SHRA), the Capitol Area Development Authority (CADA), and private developers to ensure that redevelopment plans adopted for redevelopment areas

surrounding the CBD (e.g., Railyards, River District, Docks Area, R Street) respect and respond to the urban patterns—streets, blocks, building heights, massing—and character established in the CBD, and do not undermine the physical centrality, visual primacy, or land use composition of the CBD.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in effect. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan in early 2015. The 2035 General Plan is in draft form as of the writing of this document. The land use policies in the draft 2035 General Plan are substantially similar to those in the 2030 General Plan. Two new policies included in the draft 2035 General Plan with relevance to the proposed project include:

- ▶ **Policy LU 2.1.7 Good Neighbors:** The City shall encourage businesses located within and adjacent to residential developments to conduct their business in a courteous manner by limiting disturbances and nuisances from operations and patrons, and to act as members of the community by making themselves available to respond to complaints and by participating in neighborhood/community meetings.
- ▶ **Policy LU 2.6.6 Efficiency through Density:** The City shall support an overall increase in average residential densities throughout the city consistent with the adopted General Plan Land Use & Urban Form Diagram, as new housing types shift from lower-density, large lot developments to higher-density, small lot and multifamily developments as a means to increase energy efficiency, conserve water, and reduce was.

The proposed project would include neighborhood serving retail and service uses, including the potential for a specialty market, located and designed in manner (according the Central City Urban Design Guidelines and Planned Unit Development (PUD) guidelines and standards) to implement Policy LU 2.1.7.³ The proposed project would also increase the supply of Central City housing in a higher-density environment with water conserving and energy efficient buildings and landscaping, consistent with Policy LU 2.6.6.

City of Sacramento Infill Strategy

In 2002, the City adopted the City of Sacramento Infill Strategy (Resolution 2002-277). The City's Infill Strategy is designed to promote quality infill development in the City and to establish priorities and programs to promote targeted infill development. This strategy was updated as part of the City's 2030 General Plan. Infill development is defined in the 2030 General Plan as:

- ▶ Development and redevelopment of underused buildings and vacant lots in areas served by existing infrastructure.
- ▶ Development that channels economic growth into existing urban and suburban areas and conserves open space and agriculture at the periphery of the city (City of Sacramento 2009).

³ Please see Section 4.1, "Aesthetics" for a discussion of the project's relationship to the Central City Urban Design Guidelines.

The project site meets the City's definition of land targeted for infill development under the City's Infill Strategy since it includes redevelopment of residential buildings that are underutilized with respect to the City's objectives for increasing residential density in the CBD land use designation and would channel investment that could lead to economic growth into an existing urban area.

Central City Community Plan

The 2030 General Plan incorporates 10 community plans, including the Central City Community Plan, to supplement citywide policy based on conditions or issues unique to each community plan area. The Central City Community Plan Area is bounded by the Sacramento River on the west, the American River on the north, Business 80 and Alhambra Boulevard on the east, and Broadway on the south. The properties fronting on the eastern side of Alhambra Boulevard and the southern side of Broadway are included within the Central City Community Plan Area (Figure 3-3).

The Central City Community Plan includes general policies, the following of which are relevant to the proposed project:

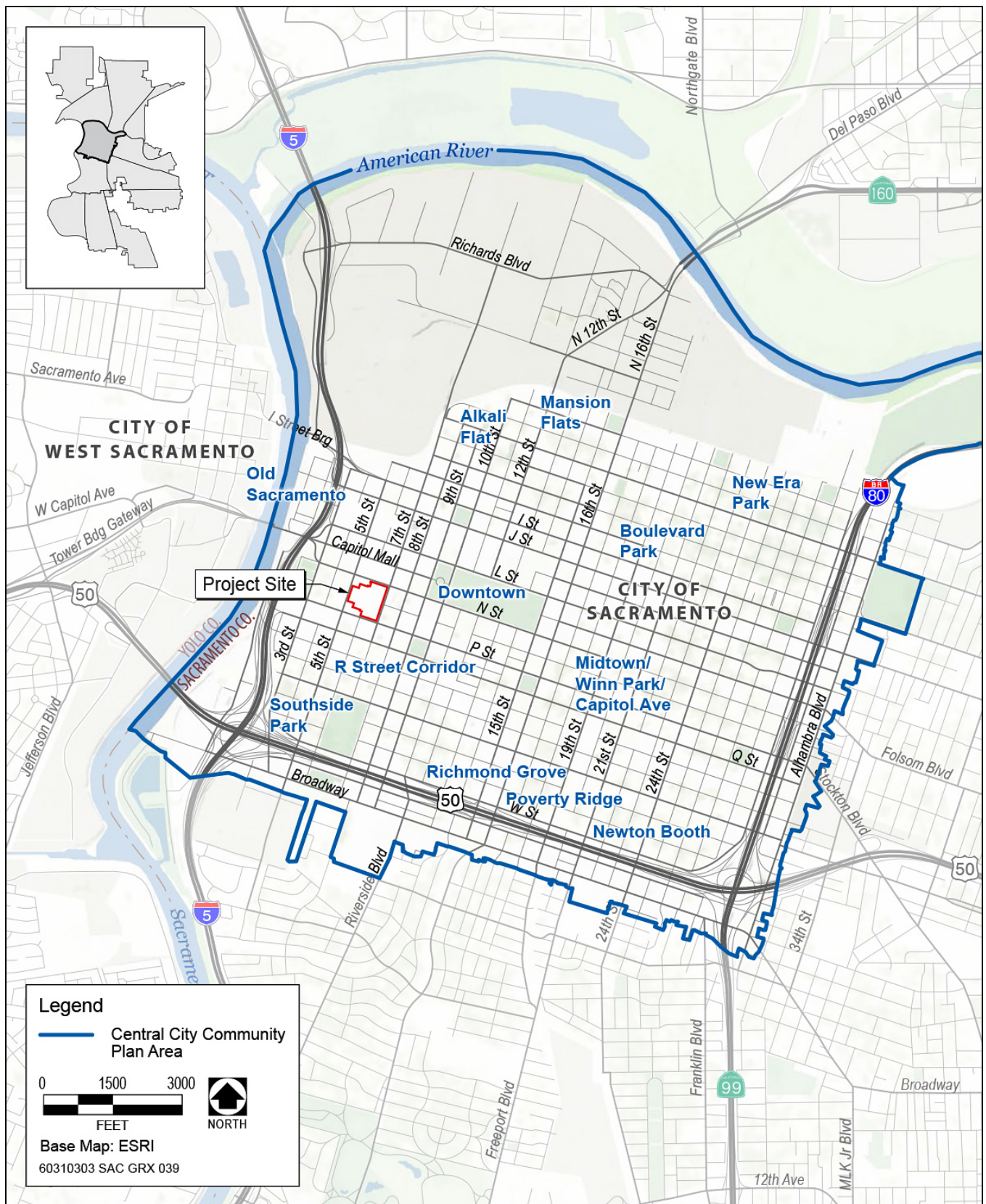
- ▶ **Policy CC.LU 1.3 Interrelated Land Uses:** The City shall provide for organized development of the Central City whereby the many interrelated land use components of the area support and reinforce each other and the vitality of the community.
- ▶ **Policy CC.HCR 1.1 Preservation:** The City shall support programs for the preservation of historically and architecturally significant structures which are important to the unique character of the Central City.⁴
- ▶ **Policy CC.H 1.1 Mixed-Use Buildings:** The City shall provide the opportunity for mixture of housing with other uses in the same building or on the same site at selected locations to capitalize on the advantages of close-in living.

3.3.3 LAND USE AND PLANNING EVALUATION

This section evaluates whether the proposed project has the potential to physically divide an established community; is compatible with adjacent land uses; is consistent with applicable goals and policies contained in the City's 2030 General Plan and other plans, policies, or land use regulations with jurisdiction over the project; or has the potential to lead to urban decay. Because the proposed project is located in the CBD, neither the Natomas Basin Habitat Conservation Plan nor the draft South Sacramento Habitat Conservation Plan (should it be adopted) is relevant to this evaluation. Figure 3-2 shows surrounding land uses.

The 2030 General Plan is a long-term strategic planning document with guiding principles, goals, policies, objectives, and implementation programs for physical, social, economic, and environmental development and conservation. Development proposals must be generally consistent with the overall land use guidance provided in a general plan. Specific development standards, land use controls, and other regulation are applied through the City's zoning, subdivision, and grading ordinances, as well as through other City regulations and ordinances.

⁴ Please see Section 4.4 of this EIR, which addresses historic preservation in detail.



Source: Source: City of Sacramento 2009

Figure 3-3

Central City Community Plan Area

The project's consistency with applicable ordinances, as well as specific land use implications associated with development of the project, are discussed in this section and in other technical sections of this EIR. The discussion in this chapter differs from the impact discussions in Chapter 4 of this EIR in that this Chapter provides a general discussion and evaluation of land use compatibility, in contrast to a detailed and specific analysis of potential physical impacts on the environment from implementation of the proposed project.

The proposed project proposes residential and non-residential development. Proposed land uses are depicted in terms of maximum units or rooms and square feet by parcel and summarized in Table 2-1 (in the Project Description). The mix and intensity of units, as shown in Table 2-1 are consistent with the 2030 General Plan CBD land use designation and R-5 zoning.

Section 15125(d) of the CEQA Guidelines requires EIRs to discuss potential conflicts with local or regional plans as part of the environmental setting, and this section includes that discussion, including an evaluation of compatibility of proposed land uses with adjacent land uses and uses proposed internal to the project; analyzes consistency with the City's 2030 General Plan, Housing Element, Zoning Ordinance (now called the Planning and Development Code) (Title 17 of the City Code), and SACOG's Blueprint and MTP/SCS plan.

Please refer to other technical sections of this EIR in Chapter 4 that evaluate consistency of the project with assumptions regarding air quality, water supply, infrastructure plans, and other applicable planning documents.

OVERVIEW OF 2030 GENERAL PLAN CONSISTENCY

This section provides a general overview of whether the proposed project is consistent with the overall intent of the 2030 General Plan goals and policies (listed above under Section 3.3.3). As the lead agency under CEQA, it is within the City's purview to decide if the proposed project is consistent or inconsistent with any applicable City goals or policies. Therefore, this section informs the City Council and the public as to whether the proposed project meets the intent of the City's General Plan and identifies whether the project would be consistent with identified goals and policies related to land use and planning. Based on the evaluation contained in this section of the EIR, the proposed project is consistent with the City's 2030 General Plan, as described below and discussed in detail in Appendix O.

Goal LU 1.1. 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.

The project is located in downtown Sacramento within the CBD in an area designated for a mixture of mid- and high-rise buildings creating a varied and dramatic skyline with unlimited heights; a new residential population that will extend the hours of activity and augment the market for retail, services, and entertainment in downtown Sacramento; and contains a residential density of between 61 units/acre and 450 units/acre. The project has been designed to make efficient use of the project site and to connect to existing water, sewer, storm drain, transportation and transit infrastructure. The project is an infill project that meets the goals of the

2004 SACOG Blueprint and, as discussed further in Chapter 4.0 (Subsection 4.0.3) and Appendix O, is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in SACOG's MTP/SCS. As a mixed-use residential infill project in the CBD, the proposed project helps to address the existing housing to jobs imbalance in the CBD. The proposed project makes efficient use of the land and infrastructure by increasing the density of the project site from approximately 40 units/acre to at least 145 units/acre, which is within the density range identified for the project site within the 2030 General Plan (i.e. 61-450 units/acre). The project is consistent with Goal LU 1.1.

Goal LU 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.

The project creates new housing and retail uses in the CBD that provides amenities for existing and future on-site residents and meets the City's desire for infill development that contributes positively to existing surrounding areas. The project includes pedestrian amenities throughout the project site, connections to nearby parks and open spaces and on-site recreational amenities, and includes varied architectural styles. The project is consistent with Goal LU 2.1.

Goal LU 2.4. City of Distinctive and Memorable Places. Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento's unique historic, environmental, and architectural context, and create memorable places that enrich community life.

The architectural design for Sacramento Commons is described in further detail within the PUD Guideline for the project (see Appendix N). The architectural design would introduce modern, efficient residential buildings to an area within the CBD. The goal of the building architecture is to relate to the scale of the existing buildings both on-site, as well as surrounding the site and incorporate architectural elements that would relate to one another allowing the site composition to tie together in a cohesive manner in keeping with the intent of this goal and other City design policies. The project is consistent with Goal LU 2.4.

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.

The project is located in the CBD close to jobs, services, and amenities and provides a high-density, mixed-use residential project that would reduce vehicle miles traveled and associated air pollutant emissions and would facilitate walking, bicycling and transit use, given the close proximity to jobs, stores and entertainment. In addition, the project has been designed to meet or exceed the state's Title 24 standards to maximize conservation and efficiency. The project meets the intent of Goal LU 2.6.

Goal LU 2.7. City Form and Structure. Require excellence in the design of the city's form and structure through development standards and clear design direction.

The project includes PUD Guidelines that set forth design elements and details for all aspects of the project. The PUD Guidelines have been prepared in coordination with the City to ensure the project meets the goals and intent of the City's development standards. The project meets the intent of Goal 2.7.

Goal 2.8. City Fair and Equitable. Ensure fair and equitable access for all citizens to employment, housing, education, recreation, transportation, retail, and public services, including participation in public planning for the future.

The CBD provides the greatest number and variety of types of employment from public to private enterprise. The project is located in close walking proximity, as well as transit to the highest concentration of jobs in the region. The project will provide a variety of housing options for people to live and work in downtown and improves the jobs housing balance in the CBD to reduce vehicle miles traveled in the region. The project is consistent with the intent of Goal 2.8.

Goal LU 5.6. Central Business District. Promote the Central Business District (CBD) as the regional center of the greater Sacramento area for commerce, culture, and government.

The project furthers this goal by adding a substantial increase in the downtown residential population to extend the hours of activity and augment the market for retail, services, and entertainment in downtown Sacramento. The project has been designed consistent with the urban pattern and character of the CBD. The project is consistent with the intent of Goal 5.6.

The City designates the project site as a High-Rise Residential Zone (R-5 Zone). The proposed project is consistent with the height limits, as well as the maximum residential density for residential buildings and the FAR for commercial and mixed-use buildings set forth in the Planning and Development Code. The project proposes to rezone the property from High-Rise Residential Zone (R-5) to High-Rise Zone within the Sacramento Commons PUD (R-5-PUD). The project's PUD Guidelines (see Appendix N) establish the development framework and design guidance for project, consistent with the City's objectives for high-quality design and development, while permitting flexibility for innovative design solutions, site-specific standards to ensure preservation of existing site resources to the extent practicable, compatibility with the surrounding area context, and a cohesive development vision. Both mid-rise and high-rise residential uses would be subject to and consistent with the maximum density limits and height limits permitted in the R-5 Zone. Mixed-use parcels would be subject to, and consistent with the FAR requirements for the CBD's 2030 General Plan land use designation.

The proposed project would be consistent with the 2030 General Plan's CBD designation, which allows for mixed-use, high-rise development with easy access to transit, including a mixture of office, retail, and service uses, multi-family dwellings, gathering places, and compatible public, quasi-public, and special uses.

The proposed project adds housing in an a jobs-rich area, which supports Central City Community Plan policies CC.LU 1.3 and CC.H 1.1, and addresses mixing complementary uses together. Please see Section 4.4 of this EIR, which discusses historic resources, including the considerations contemplated in Policy CC.HCR 1.1.

COMPATIBILITY WITH SURROUNDING LAND USES

The project site is located in Sacramento's CBD and is surrounded by multi-story residential, office, and other buildings within 1/8th mile (two city blocks or less) of the project site. Surrounding land uses include mid- and high-rise residential buildings and federal, state, and private office buildings to the north, east, south, and west. These buildings range in height from 3 to 32 stories. Two multi-family properties (Governor's Square, three stories and Pioneer House, six stories) are located at the southeast and northwest corners of 5th and P Streets (see Figure 2-2, "Project Location" and Figure 3-2, "Surrounding Land Uses"). In addition, the State of California Central Plant (which heats and cools state buildings) is located on the south side of P Street, across the street from the project site and includes a 126-foot cooling tower (equivalent in height to an 8- to 10-story office building). The Heilbron House, a historic building owned by the State is located at 704 O Street, across 7th Street from the Capitol Towers parking garage.

The proposed project would add three new mid-rise residential buildings (five levels of residential uses over two stories of podium parking) and three new high-rise residential buildings (24 stories), parking structures (two to six stories), and additional neighborhood support / retail, with an option that would include a high-rise hotel with condominium units above (24 stories). Sharing the four-block project area, but not part of the project site, are the separately owned 15-story 500 N Street condominium tower (built in 1980 as Bridgeway Towers) that includes 134 units, and the 12-story Pioneer Towers senior apartments (built in 1978) that includes 198 units.

The proposed project is compatible with the surrounding residential and office land uses and range of building heights found in an urban area. Actual physical aspects of compatibility (aesthetics, cultural resources, noise, vibration, light, glare, etc.) are addressed in the relevant technical sections within Chapter 4 of this EIR.

DIVISION OF AN EXISTING COMMUNITY

The project site is located in an existing, developed area of downtown Sacramento, and the new residences, businesses, and improvements proposed as part of the project would accommodate a portion of the regional growth forecasted and planned for in the 2030 General Plan and the MTP/SCS. Higher-density residential development and resident-serving commercial development were analyzed in the 2030 General Plan Master EIR and in the MTP/SCS Program EIR for the project site and were found to have no impacts or less-than-significant impacts relating to land use and planning. No mitigation measures were required.

The proposed project would accommodate a share of the projected population growth for the City and the region in the existing, developed "Center and Corridor Communities" designation under the SACOG MTP/SCS within the CBD land use designation under the 2030 General Plan. The 2030 General Plan Master EIR (Chapter 4, "Land Use and Consistency Evaluation") found that the City of Sacramento consists of neighborhoods and districts that the City wants to protect and maintain. Land use policies provide for strategic growth and change that preserves existing viable neighborhoods and targets new development primarily to infill areas that are vacant or underutilized. Proposed changes to established areas focus on enhancing the quality of life through improved connectivity with other parts of the City, greater access to amenities, enhanced safety, and greater housing and employment choices. The

City's growth policies strengthen and expand the framework of neighborhoods, centers, and corridors throughout Sacramento, ensuring compatible transitions between established neighborhoods and future development. Therefore, the Master EIR concluded that the 2030 General Plan is designed as a cohesive Plan that builds upon existing neighborhoods and developed areas, and that it would not physically divide an existing established community, and thus, that no impact would occur with regard to this issue (p. 4-9).

The proposed project includes the features anticipated for Center and Corridor Communities designation under the SACOG MTP/SCS and CBD designation under the 2030 General Plan. The project site is located in a TPA and would be consistent with and implement key elements of the SACOG MTP/SCS related to TPAs. According to the "Determination of MTP/SCS Consistency Worksheet for Qualifying Transit Priority Projects and Residential/Mixed-Use" appended to a letter sent by SACOG to the City of Sacramento on December 8, 2014, SACOG found that Sacramento Commons is consistent with the MTP/SCS, based on the following findings (McKeever, pers. comm., 2014, Appendix A of this EIR):

- ▶ The project site is located in a Center and Corridor Community and the project uses are consistent with the allowed uses of the applicable adopted local land use plan as it existed in 2012.
- ▶ The project site is located in a Center and Corridor Community and the project uses have been reviewed in the context of, and are found to be consistent with, the general land use, density, and intensity information provided for this community type in Appendix E-3 (the Land Use Forecast Background Documentation) of the MTP/SCS.

The proposed project would place mid- and high-rise residential and mixed-use development in an area with existing mid- and high-rise residential and mixed-use development. The proposed project is consistent with the policies and programs summarized above and in Section 3.3.3, "Regulatory Setting," for the SACOG Blueprint, MTP/SCS, and 2030 General Plan land use policies, specifically those relevant to the CBD. Implementation of the proposed project would not physically divide an existing community.

POTENTIAL CONFLICT WITH AN APPLICABLE LAND USE PLAN, POLICY, OR REGULATION

Please see discussion above for an overview of the project's consistency with relevant 2030 General Plan goals and policies. Appendix O of this EIR contains a more detailed policy-by-policy evaluation. In addition, Chapter 4 also discusses relevant 2030 General Plan goals and policies in the context of each environmental technical section of this EIR.

As discussed above, the proposed project site is located in an existing, developed area of downtown Sacramento, and the new residences, businesses, and improvements proposed as part of the project would accommodate a portion of the regional growth forecast in the 2030 General Plan and the MTP/SCS. The proposed project would accommodate a share of the projected population growth for the city and the region in the existing, developed Center and Corridor Communities within the CBD land use designation under the 2030 General Plan. Allowed uses in the CBD designation are discussed above.

The 2030 General Plan Master EIR found that the 2030 General Plan has been designed to incorporate the SACOG Blueprint principles that mitigate potential traffic congestion in the region. Thus, projects consistent with the 2030 General Plan would not conflict with the Blueprint, and by extension, the MTP/SCS, which is based on the Blueprint. The 2030 General Plan includes the Blueprint's assumptions for development allocations for the City of Sacramento, in terms of population, housing units, and employment, including development within the CBD designation; thus, the 2030 General Plan is consistent with the SACOG Blueprint and MTP/SCS.

As described in detail in Chapter 2, "Project Description," of the MTP/SCS Program EIR, the MTP/SCS identifies the general location of uses, residential densities, and building intensities in the region in the MTP/SCS land use forecast. The land use forecast identifies housing by density and housing type, employment uses by industry, building intensity, and number of employees, as well as agriculture, open space, recreation areas, and other uses, by the following geographic area types: county, jurisdiction, community type, and TPA. Based on the available evidence, SACOG has concluded that there will be higher demand for attached and small-lot, single-family housing products over the MTP/SCS planning period, and relatively lower demand for large-lot, single-family housing products, which currently make up the majority of housing in the region. In addition, these housing types have also been shown to be beneficial for increasing densities and mixed uses under the Center and Corridor Communities designation and near high-quality transit, thus helping to encourage walkable communities.

The MTP/SCS forecasts that just over 30% of new housing construction would occur within the Center and Corridor Communities designation areas, such as within the City's CBD (in which the proposed project would be located). Table 12.9 from the MTP/SCS Program EIR is reproduced below as Table 3-1, detailing the projected distribution of future housing development in the SACOG region.

Land uses within the Center and Corridor Communities designation are typically higher in density and more mixed than surrounding land uses. Such Center and Corridor Communities are identified in local plans as historic downtowns, main streets, commercial corridors, rail station areas, central business districts, town centers, or other high-density destinations. They typically have more compact development patterns, a greater mix of uses, and a wider variety of transportation infrastructure than the rest of the region. Some have frequent transit service, either bus or rail, and all have pedestrian and bicycling infrastructure that is more supportive of walking and bicycling than other community types. These characteristics are embodied in the vicinity of the project site and in the proposed project.

Another key element of the MTP/SCS is the focus on TPAs, defined as areas within one-half mile of a rail station stop or a high-quality transit corridor. Based on Blueprint principles, TPAs are anticipated to contain diverse housing options, in the form of housing products not currently widely available, in places where transit service can be provided efficiently. A primary goal of the MTP/SCS is to increase the number of people—both residents and employees—who have access to high-quality transit. The MTP/SCS forecasts that 38% of new dwelling units and 39% of new employees will be located within TPAs by 2035. Further, the MTP/SCS projects that high-quality transit service will be located near 157,216 existing/proposed dwelling units and 240,013 existing/proposed employees by 2035.

Table 3-1 Summary of Potential Housing Growth by Community Type (Dwelling Units)						
Community Type Designation per the MTP/SCS	2008		2008-2035		2035 (Total Units)	
	2008 Dwelling Units ^{1,3}	Percent of Total	New Dwelling Units ^{1,3}	Percent of Total	2035 Dwelling Units ^{1,3}	Percent of Total
Center and Corridor Communities	103,479	11.7%	91,748	30.3%	195,227	16.4%
Established Communities	684,161	77.3%	79,445	26.2%	763,606	64.3%
Developing Communities	25,719	2.9%	126,629	41.8%	152,348	12.8%
Rural Residential Communities	71,733	8.1%	5,300	1.7%	77,033	6.5%
Lands not Identified for Development in the Proposed MTP/SCS ²	n/a ²	n/a ²	n/a ²	n/a ²	n/a ²	n/a ²
Region Total	885,092	100.0%	303,122	100.0%	1,188,213	100.0%

Notes: MTP/SCS = Metropolitan Transportation Plan/Sustainable Communities Strategy

¹ Totals may not match due to rounding.

² The proposed MTP/SCS does not forecast or model growth in the Lands Not Identified for Development in proposed MTP/SCS Community Type during the planning period, though there is existing development in these areas (primarily farm homes, agricultural-related uses, public lands such as waste water treatment facilities, etc.). As a result, existing developed acres in the Lands Not Identified for Development in the Proposed MTP/SCS Community Type was included in Established and Rural Residential Community Type totals.

³ Due to different protocols among GIS models for tallying spatial data, housing unit numbers in this DEIR differ marginally (less than 0.3 percent) from those reported in the proposed MTP/SCS.

Source: SACOG MTP/SCS Land Use Forecast, June 2011, cited in Table 12.9 of MTP/SCS Program EIR (SACOG, 2011)

As discussed above, the proposed project includes the features anticipated for the Center and Corridor Communities designation under the SACOG MTP/SCS and CBD designation under the 2030 General Plan. The project site is located in a TPA by virtue of its location in the Central City area of Sacramento (which includes the CBD) and its close proximity to a major transit stop, specifically the project site is within one-quarter mile of 26 bus stops and four light rail stops. The proposed project would also be consistent with, and implement key elements of the SACOG MTP/SCS related to TPAs. SACOG provided a letter indicating that the proposed project is consistent with the MTP/SCS (McKeever, pers. comm., 2014).

Implementation of the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.

POTENTIAL FOR URBAN DECAY

According to Section 15131 of the State CEQA Guidelines, economic or social information may be included in an EIR but shall not be treated as significant effects on the environment. However, economic or social effects of a project may be used to determine the significance of physical changes caused by the project. Where an EIR uses economic or social effects to determine that a physical change is significant, the EIR shall explain the reason for determining that the effect is significant. The potential for urban decay may be a socioeconomic impact that could lead to physical deterioration of the urban environment. However, urban decay is not required to be evaluated under CEQA as a

socioeconomic impact, except to the extent that there could be the potential for a significant adverse impact on the environment. For purposes of public disclosure, and because concerns associated with urban decay were expressed in NOP comments, a discussion of urban decay is included in this chapter.

For the purpose of this analysis, “urban decay” is characterized as extended long-term business or residential vacancies that directly or indirectly result in physical deterioration to properties or structures that is so prevalent, substantial, and/or lasting a significant period of time that it impairs the intended use of the properties and structures, and the health, safety, and welfare of the surrounding community. Physical deterioration could include: abandoned buildings, boarded doors and windows, parked trucks, and long-term unauthorized use of the properties and parking lots, extensive or offensive graffiti painted on buildings, dumping of refuse or overturned dumpsters on properties, dead trees and shrubbery, and uncontrolled weed growth. The proposed project would not contribute to urban decay because it would not displace existing businesses and would not result in actual *physical* deterioration of anything on the project site.

The City anticipates the Central City area’s population will increase 48% from 2008 to 2020 (City of Sacramento, 2013a p. H 3-5). SACOG’s MTP/SCS anticipates that TPAs, such as the Central City area, are anticipated to accommodate 92,124 additional housing units and 107,250 additional employees in Sacramento County by 2035 (SACOG 2012, Chapter 3, Table 3.13). To meet the anticipated Central City area’s population demand, available housing in the Central City will need to more than double from 2008 to 2035 (SACOG 2012, p. 53).

Recent apartment vacancy reports for Sacramento County and the Central City area show growing demand for housing, particularly rental housing, and falling vacancy rates. The *Apartment Market Report Sacramento: First Quarter 2014*, released by the real estate firm of Cassidy Turley, shows for Sacramento County a steady trend of increasing rents (from \$899 to \$941) and declining vacancy rates (from 6.5% to 5.0%) between the first quarters of 2012 and 2014 (Cassidy Turley, 2014). The Colliers International *Sacramento Multifamily Report Sacramento | First Quarter 2014* reported a 95.9% occupancy rate in the Central City (with a corresponding 4.1% vacancy rate) in the first quarter of 2014, with market absorption of 450 units during the prior 12 months but delivery of only 159 units (Colliers International 2014).

This trend suggests that occupancy of existing rental housing in the Central City area has increased faster than construction of new rental housing. If this trend continues, the approximately 1,000 rental housing units currently under construction in the Central City and West Sacramento, as described in Table 3-2 (below) could be absorbed in 2-3 years (assuming the above-mentioned trend of absorption of approximately 450 units per year), when taking existing vacant units in the Central City area into account.

Table 3-2	
Projects Completed or Under Construction in the Central City or in West Sacramento near Raley Field	
Project	Number of Units
Sacramento Central City	
Legado de Ravel (16th and O Streets)	84
The Warehouse Artist Lofts (11th and R Streets)	116
The Warren (16th and N Streets)	100
16 Powerhouse (16th and P Streets)	118
R25 (R and 25th Streets)	34
River District (Township 9–Cannery Place)	<u>180</u>
Total—Sacramento Central City	632
West Sacramento	
Bridge District (Rivermark)	70
Bridge District (Park Modern)	36
Tower Bridge Commons	<u>272</u>
Total—West Sacramento	378
<p>Note: The projects listed do not include all of the City’s approved, but not yet constructed projects, which would add to the available housing stock.</p> <p>Sources: van der Meer 2013; Bridge Housing 2014; Capitol Area Development Authority 2014; The Bridge District 2014; Township Nine at the River District 2014</p>	

The City’s 2030 General Plan envisions and plans for the development of additional housing within the Central City area to keep up with anticipated population growth, including the proposed project, projects developed since 2008 (the draft General Plan was adopted March 2009), and other currently foreseeable projects. According to the City’s 2013 to 2021 Housing Element, in the near term, the Central City area will account for 11% of identified citywide additional housing capacity of 11,475 between 2013 and 2021. In particular, the *Central City Community Plan*, envisions substantial residential and commercial infill development within special planning districts, such as the CBD, *Railyards Specific Plan* area (12,100 units), *River District Specific Plan* area (8,144 units), *R Street Corridor Master Plan* area (total units unknown), *Docks Area Specific Plan* area (1,155 units), and *Broadway Corridor* (total units unknown). The 2030 General Plan includes several policies intended to promote urban infill development and redevelopment, as described above.

In consideration of current and anticipated supply relative to projected demand for new residential units in the Central City area, the proposed project would not result in increased long-term residential vacancies within the Central City area.

With respect to the proposed project’s commercial component, up to 74,122 square feet of retail and support service uses (including 4,122 square feet of existing retail uses) and a potential hotel are proposed. Support service uses consist of amenities provided to project residents and their guests, such as gym facilities, spas, and other amenities not available to the general public. It is anticipated that a minimum of 30% of the 74,122 square feet of the neighborhood support/retail space included as part of the proposed project would consist of support service uses not available to the general public. However, for the purposes of this analysis, it is conservatively assumed that all 74,122 square feet of space would be used for retail, rather than support service uses.

The retail uses included in the proposed project would be spread over the mid-rise and high-rise components of the project (including the existing Capitol Towers building) and would consist of smaller retail uses catering to project residents, guests and the surrounding community. Based on the small size and type of retail uses anticipated to be included as part of the proposed project and the limited availability of parking immediately surrounding the project site, the proposed project is not anticipated to attract a substantial number of customers from outside of the immediate project area. Moreover, by adding more than 1,000 new residential units to the downtown area, the proposed project is anticipated to result in a net benefit to retail and commercial businesses in the Central City as a whole.⁵

With respect to the potential hotel component of the proposed project, the 300-room hotel may draw customers who otherwise would use other hotels in the Central City. Because this effect would be spread across several hotels within the Central City area, it is not anticipated that any single hotel would be substantially affected by increased vacancies. Therefore, although some existing hotels may experience some financial impacts from increased competition as a result of the potential inclusion of a hotel, no evidence suggests that existing hotels would experience signs of deterioration associated with urban decay as a result of the proposed project. According to *The Sacramento Business Journal* (June 10, 2014) (Anderson 2014), the Sacramento-area hotel business experienced a 4-year improvement trend, with average occupancy at 74%.

Moreover, the City anticipates a substantial increase in demand for hotel rooms in downtown Sacramento after completion of the Entertainment and Sports Complex (ESC) project. Therefore, the increased supply of hotel rooms created by the proposed project within the Central City area is anticipated to be offset by future increases in demand for hotel rooms within the Central City area. As a result, the proposed project would not result in hotel closures or contribute to other physical deterioration or urban decay effects within the Central City area.

3.4 POPULATION AND HOUSING

This section addresses population and housing in the project vicinity as relevant to the proposed project. The information presented in this section is used as a basis for analysis of project-level and cumulative impacts in other sections of this EIR. However, changes in population and housing, in and of themselves, are considered social and economic effects, not physical effects on the environment. CEQA provides that economic or social effects are not considered significant effects on the environment unless the social and/or economic effects are connected to physical environmental effects. A social or economic change related to a physical change may be considered in determining whether the physical change is significant (CEQA Guidelines Section 15382). The direction for treatment of economic and social effects is stated in Section 15131(a) of the CEQA Guidelines as follows:

Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project

⁵ See also Appendix H, "Urban Decay Analysis," of the Sacramento Entertainment and Sports Center & Related Development Draft Environmental Impact Report (City of Sacramento 2013b). The discussion in that document determined that development of 682,500 square feet of retail uses proposed as part of the Sacramento Entertainment and Sports Center (ESC) project along with other identified cumulative projects within the Sacramento City limits does not have the potential to result in urban-decay impacts. Due to the proximity of the ESC to the project site (within three blocks) the findings provided in the Urban Decay Analysis prepared for the ESC project would also be relevant to the proposed project. The project's retail uses would primarily support project residents and are not anticipated to directly compete with other existing or proposed retail uses in the project vicinity

through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on physical changes.

While an increase in population resulting from new development does not necessarily cause direct adverse physical environmental effects, indirect physical environmental effects, such as increased vehicle trips and associated increase in air pollutant emissions and noise, could occur. The information in this Chapter is used as a basis for the analysis of project impacts in the technical sections contained in Chapter 4 of this EIR (i.e., Section 4.2, “Air Quality,” Section 4.6, “Greenhouse Gas and Energy,” and Section 4.11, “Transportation/Traffic”). In addition, the U.S. Environmental Protection Agency (EPA) prepared a report titled “Measuring the Air Quality and Transportation Impact of Infill Development” and documented that infill development reduces overall travel and total vehicle miles traveled on a daily basis, traffic congestion, and emissions from cars. The report notes that prior studies suggest that shifting development to more accessible locations reduces vehicle travel per person by 30 to 60%. The regional vehicle miles traveled (VMT) per capita in the Sacramento region in 2008 was estimated to be 26 miles per day. The average per-capita VMT in 2008 for the CBD, including the project site, is approximately 9 miles per day. In 2035, forecast regional average per-capita VMT is 24 miles per day, whereas the project site and vicinity would have an average of approximately 5 miles per day (SACOG 2011, Chapter 5B, p. 84).

3.4.1 ENVIRONMENTAL SETTING

POPULATION

According to the California Department of Finance (DOF), Sacramento’s population was 473,509 on January 1, 2013 (DOF 2013). The 2013–2021 Housing Element estimated the Central City’s population to be 32,367 in 2010 (City of Sacramento 2013, Table H 3-2). The 2030 General Plan Master EIR forecasts that 51,894 people will live in the Central City Community Plan Area in 2025. This represents an increase of 19,527 new residents between 2010 and 2025.

HOUSING

According to the 2000 Census, about 64% of the City’s housing units were single-family homes. Since the 1990s, more single-family homes have been constructed than multi-family units, and the mix of housing has shifted towards more single-family homes. According to the California Department of Finance (DOF), in 2010 approximately 70% of existing housing units were single-family homes, 27% were multi-family homes, and approximately 2% were mobile homes (DOF 2012).

Current Housing

As of January 2014, the City of Sacramento had an estimated 191,558 housing units, of which 113,802 are single-family units, 74,562 are multi-family units, and 3,194 are mobile home units. Table 3-3 summarizes the number of housing units per housing type within the City.

Table 3-3 Sacramento Housing Units (as of January 1, 2014)	
Unit Type	Number of Units
Single Family	113,802
Multi Family	74,562
Mobile Homes	3,194
Total	191,558
Source: California DOF 2014b.	

As noted, according to the City’s 2013–2021 Housing Element, there were 32,367 residents in the Central City in 2010 (City of Sacramento 2013, p. Table H 3-2). The 2010 Census (SF-1) counted 18,101 households in the Central City’s census tracts, resulting in an average household size of approximately 1.8 persons (U.S. Census Bureau, 2014b). For the Census Tracts that represent the Central City area, in all but two of the tracts (20 and 21), the 2010 average household size was less than 1.8. For Census Tract 8, where the project is proposed, the average household size was 1.38 in 2010 and the average rental household size was 1.36.

For the purposes of this EIR, an estimate of 1.8 persons per dwelling unit is used. This could be considered a conservative estimate, since no vacancy rate is assumed and the estimates from the Census are for occupied housing units only (“conservative” in this context meaning this may overestimate slightly the additional residential population associated with the project). As discussed in detail in Chapter 2, “Project Description” and elsewhere in this EIR, the project proposes between 1,171 and 1,267 new dwelling units (which does not include the existing 203 dwelling units in the Capitol Towers building) and to remove 206 dwelling units. The net addition of housing units would be either 965 or 1,061, depending on whether the Hotel / Condo / Retail or Condo / Retail Scenario is developed. The net additional population, then, would be approximately 1,700 to 1,900 at buildout (estimated at this time to be 2021).

The U.S. Census Bureau’s *2012 American Community Survey* identified a vacancy rate of 5.7% in the City of Sacramento (U.S. Census Bureau, 2014a). The Colliers International *Sacramento Multifamily Report, Sacramento | First Quarter 2014* (Colliers International 2014) reported a 95.9% occupancy rate in the Central City (4.1% vacancy rate) in the first quarter of 2014, with market absorption (new occupancy) of 450 units during the prior 12 months but delivery (new construction) of only 159 units.

The project site encompasses approximately 10 acres on portions of four city blocks. The project site currently contains 409 dwelling units, consisting of 206 two- and three-story garden apartments (proposed to be demolished) and 203 dwelling units in the 15-story Capitol Towers building (to remain on-site).

3.4.2 REGULATORY SETTING

This section summarizes plans, policies, and regulations related to housing.

FEDERAL

No federal regulations related population and housing growth are applicable to the proposed project.

STATE

California law (Government Code Section 65580 et seq.) requires cities and counties to prepare a housing element as part of their general plans to address housing conservation, rehabilitation, new construction, and special needs for all income groups. Housing elements must be updated every 4 or 8 years, depending on whether they are in compliance with Senate Bill 375. The housing element must identify and analyze existing and projected housing needs and “make adequate provision for the existing and projected needs of all economic segments of the community,” among other requirements.

LOCAL

Sacramento Area Council of Governments

Please see the Local regulatory setting section in Subsection 3.3.3, Land Use and Planning, above.

Sacramento 2030 General Plan – Housing Element

The City’s 2013–2021 Housing Element, adopted in December 2013, has policies related to the preservation of affordable, income-restricted, publicly subsidized rental housing. Although income-restricted housing is provided in the vicinity of the project, including Pioneer Towers, the existing Capitol Towers residential project (including both the Capitol Towers high-rise [proposed to remain on-site] and garden apartments [proposed for demolition]) does not contain any affordable, income-restricted or publicly subsidized rental housing and no such housing is proposed for the project. The Capitol Towers building will remain on-site following implementation of the proposed project, but the garden apartments would be removed. The Housing Element was certified by the California Department of Housing and Community Development on March 19, 2014, as being in compliance with state law and SB 375. Policies in the 2013–2021 Housing Element related to City actions to ensure an adequate supply of housing for all income groups are listed below. Relevant land use policies related to housing were cited above, in Subsection 3.3.3.

Goal H-1.2 Provide a variety of quality housing types to encourage neighborhood stability.⁶

- ▶ **Policy H-1.2.1** The City shall encourage the development and redevelopment of neighborhoods that include a variety of housing tenure, size and types, such as second units, carriage homes, lofts, live-work spaces, cottages, and manufactured/modular housing.
- ▶ **Policy H-1.2.2** The City shall encourage a greater variety of housing types and sizes to diversify, yet maintain compatibility with, single family neighborhoods.

⁶ These policies are directed to the City and are not applicable to any particular project. Therefore, there is not a point-by-point evaluation for these policies as there is in other portions of this EIR.

- ▶ **Policy H-1.2.3** The City shall encourage proper siting, landscaping, house design, and property management and maintenance through the development review process to foster public safety and reduce crime.
- ▶ **Policy H-1.2.5** The City shall continue to work with neighborhood associations and residents through the planning and delivery of residential development to ensure that neighborhoods are safe, decent and pleasant places to live & work.
- ▶ **Policy H-1.2.7** The City shall continue to include the Police Department in the review of development projects to adequately address crime and safety, and to promote the implementation of Crime Prevention through Environmental Design (CPTED) strategies.

Goal H-2.1 Adequate Sites. Provide adequate housing sites and opportunities for all households.

- ▶ **Policy H-2.1.1 Adequate Supply of Land.** The City shall maintain an adequate supply of appropriately zoned land with public services to accommodate the projected housing needs in accordance with the General Plan.

Goal H-2.2 Development. Assist in creating housing to meet current and future needs.

- ▶ **Policy H-2.2.1 Quality Infill Development.** The City shall promote quality residential infill development by maintaining and implementing flexible development standards.
- ▶ **Policy H-2.2.2 Financial Tools to Diversify Residential Infill Development.** To the extent resources are available, the City shall use financial tools to diversify market developments with affordable units, especially in infill areas.

City of Sacramento Mixed-Income Housing Ordinance

Section 17.190 of the City of Sacramento Zoning Code (“Mixed Income Housing”) is intended to ensure that residential projects in new growth areas contain a defined percentage of housing affordable to low-income and very low-income households, to provide for a program of incentives and local public subsidy to assist in this effort, and to implement the mixed income policies of the Housing Element of the City General Plan. The proposed project site is not identified as a “new growth area” in the Mixed Income Housing Code and is, therefore, not required to include affordable housing.

Sacramento 2035 General Plan

In October 2012, the City of Sacramento initiated a 5-year update of the 2030 General Plan. The 2030 General Plan and Master EIR evaluated projected growth through the year 2030. However, the significant slowdown in development activity since 2008 warranted a “dial down” of the housing, employment, and population projections to be consistent with SACOG’s MTP and an extension of the planning horizon to 2035. According to the draft 2035 General Plan, buildout of the 2035 General Plan would result in a population of 640,400, an increase of approximately 165,000 residents compared to the estimated 2012 figure, along with 86,483 new jobs and up to approximately 68,000 new housing units by 2035 (City of Sacramento 2014 pp.3-8, 3-9).

3.4.3 POPULATION AND HOUSING EVALUATION

This section provides a discussion and evaluation of potential population and housing changes associated with the proposed project and whether the project has the potential to induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere; or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

As noted previously in this Chapter, issues of public concern in response to the NOPs (SCEA and EIR) related to population and housing included:

- ▶ Timing of when residents will need to relocate
- ▶ Consistency with City policies for a mix of housing types and the need for mixed-income communities with housing for low- and moderate-income workers and families⁷
- ▶ Market demand for downtown housing and the elimination of more moderate cost housing

POTENTIAL FOR INDUCEMENT OF POPULATION GROWTH

The project site currently includes 409 dwelling units (203 in Capitol Towers and 206 garden apartments), the proposed project represents an increase of 965 to 1,061 dwelling units, compared to existing conditions (Table 3-4). The project site would either have a total (including housing units that remain) of either 1,374 multi-family dwelling units under the Hotel / Condo / Retail Scenario or 1,470 multi-family dwelling units under the Condo / Retail Scenario. These units would include up to 49 live/work units (residences that provide for offices, artist studios, or incubator businesses). The 206 existing garden apartment units would be removed, but the existing 203-unit Capitol Towers building would remain in place. The project would also include a total of up to 56,122 or 74,122 square feet (under the Condo / Retail Scenario or the Hotel / Condo / Retail Scenario, respectively) of neighborhood support / retail or support space, including the existing 4,122 square feet of existing retail uses. Under the Hotel / Condo / Retail Scenario, the project could include a hotel with up to 300 rooms. In combination, the components of the proposed project have the potential to directly induce population growth, even though the construction of housing is often a response to existing population growth-based demand, not a primary cause of population growth.

The additional population projected at buildout of Sacramento Commons represents less than 2% of the projected population of 109,312 for the Central City by 2035, based on an assumed average house size of 1.8 persons (as noted above) (City of Sacramento 2013, Table H 3-3).

⁷ Table H 5-2 of the 2013 Housing Element includes information on recently built, planned, and approved housing units on sites in the Central City. A total of 7,924 units were identified, of which 3,190 were estimated (or planned) to be market rate units affordable to households earning over 120% of Sacramento County median income, 3,838 units affordable to households earning 80%-120% of median income, and 895 units affordable to households earning less than 80% of median income.

**Table 3-4
Existing and Proposed Housing**

Housing Summary	Proposed Project Scenario	
	Hotel / Condo / Retail	Condo / Retail ¹
Existing Dwelling Units ²	409	409
Dwelling Units to be Demolished	206	206
New Dwelling Units	1,171	1,267
Total Dwelling Units On-Site after Project	1,374	1,470
Net Change in Dwelling Units On-Site after Project	965	1,061
Notes:		
¹ Does not include the 300 room hotel.		
² The 409 units = 206 two- and three-story garden apartments and 203 units in the 15-story Capitol Towers building.		

SACOG’s MTP/SCS identifies areas in the region sufficient to house all of the region’s population. The MTP/SCS accomplishes this by conducting a regional economic forecast of employees and population to determine how much housing and employment is required to accommodate this growth. The MTP/SCS then allocates the housing needed to accommodate the growth throughout the region. This method, in conjunction with vacancy factors applied in the regional travel model to simulate market conditions, provides sufficient housing supply in the MTP/SCS for the population expected to reside in the Sacramento region through 2035.

The housing identified in the MTP/SCS accommodates the forecasted population for the region, taking into account market vacancy factors. The MTP/SCS estimates that available housing in the Central City will need to more than double from 2008 to 2035 (SACOG 2012, p. 53). Therefore, the MTP/SCS EIR found growth inducement impacts associated with implementation of the MTP/SCS to be less than significant. Therefore, there are no mitigation measures or explicit performance standards, or criteria from the MTP/SCS Program EIR related to this issue.

However, as noted in the MTP/SCS EIR, the MTP/SCS includes a discussion of how the MTP/SCS can accommodate population and employment growth through land use plans adopted by cities and counties in the SACOG region, while ensuring adequate housing and infrastructure to serve this growth, which could represent a type of performance standard. The MTP/SCS includes a discussion of whether the land use assumptions embodied in the MTP/SCS are realistic and achievable in accommodating projected population growth that would be induced by implementation of the MTP/SCS (SACOG 2011, p. 14-16):

The proposed MTP/SCS utilizes the adopted and proposed land use plans of the cities and counties of the SACOG region to help determine where the housing and employment growth is likely to occur...This land use pattern is a realistic forecast of the expected growth in the region which also supports fundamental objectives of the proposed MTP/SCS.

The proposed project would involve construction of new residences and businesses and would include on-site infrastructure improvements. However, the project site is in an existing developed area of downtown Sacramento and the new residences, businesses, and improvements proposed as part of the project would accommodate a portion of the regional growth forecast in the 2030 General Plan and the MTP/SCS. The projected population increase at buildout of the proposed project is well within the

population projections for the Central City included within the 2030 General Plan and 2013–2021 Housing Element. Because the land uses proposed are also consistent with the 2030 General Plan, the project would not induce population growth beyond that anticipated in the 2030 General Plan or the draft 2035 General Plan.⁸ This residential and population growth was analyzed in the 2030 General Plan Master EIR and in the MTP/SCS Program EIR. Accommodating a share of the projected population growth for Sacramento and the region in the existing, developed footprint, rather than in currently undeveloped areas, would reduce environmental effects associated with the extension of infrastructure and “greenfield” development of currently undeveloped areas.

Moreover, for projects developed since 2008, including the proposed project and other currently foreseeable residential projects, the City still requires the development of substantial additional housing as indicated in the 2013–2021 Housing Element.

Therefore, the additional housing provided in the proposed project is consistent with SACOG’s regional growth forecasts for Center and Corridor Communities/TPAs (which includes the proposed project site due to its location in the Central City) and the City’s planned housing increase in the 2030 General Plan, draft 2035 General Plan, and 2013 - 2021 Housing Element.

POTENTIAL FOR DISPLACEMENT OF EXISTING HOUSING

Project construction would result in the temporary loss of 206 market-rate rental housing units. Given the size of the housing market and availability of housing in the Central City, Sacramento, and the region, the temporary loss of 206 units during project construction would not necessitate the construction of new housing units elsewhere in the City. In addition, the proposed project would result in a net increase of up to 1,061 residential units on the project site, once completed.

The first phase of development is currently anticipated to involve demolishing the existing garden apartments (approximately 52 units) on Parcel 3 and constructing high-rise residential development, among other project elements. Three subsequent phases would, in total, include the demolition of the remaining garden apartment units (approximately 154 units) and construction of the remaining elements of the proposed project. See Chapter 2, “Project Description,” for further information concerning construction phasing.

The proposed project would result in a net increase in the number of residential units on the project site. The combination of vacancies and new housing units projected to be constructed elsewhere in and near the Central City would offset the temporary reduction in housing during demolition phases of the project.

Since 2010, several residential and mixed-use developments with housing have been completed or are under construction in the Central City. Additional residential development is under way in West Sacramento near Raley Field, across the Sacramento River from downtown Sacramento. Among these are nine projects have been completed or will add 1,000 housing units (Table 3-3).

The proposed project would remove 206 existing units, temporarily decreasing the available housing stock in the Central City. Demolition of the garden apartment units would require some existing

⁸ The 2030 General Plan assumed a buildout population of 650,000, whereas the draft 2035 General Plan assumes a buildout of 640,000 (Policy LU 1.1.2).

residents to relocate once existing residential leases expire in preparation for construction. As discussed more fully in Section 3.3, “Land Use and Planning,” and as demonstrated in Table 3-2, it is anticipated that residents temporarily displaced from the housing units proposed for demolition would be able to find other suitable housing in and surrounding the Central City and other parts of Sacramento. Once the early phases of the proposed project are completed, there would be housing units available at the project site.

Existing rental vacancies in and around the Central City, combined with approximately 1,000 new housing units to be provided in projects currently under construction or in the planning entitlement process, could provide a source of available replacement housing for existing residents who would need to vacate their units during the early phases of the proposed project. As each phase of the proposed project is constructed, additional units would be available within the rental housing stock in the Central City.

Rents of available apartments in buildings comparable to Capitol Towers (including the garden apartments) in the Central City ranged from \$815 to \$1,950, for studio apartments, \$925 to \$3,950 for one-bedroom apartments, and \$1,175 to \$3,267 for 2-bedroom apartments.⁹ These rents are within the range of rents paid for the garden apartments at the project site (\$1,000 - \$1,079 for studios, \$1,204 to \$1,402 for one-bedroom units, and \$1,408 to \$1,428 for 2-bedroom units) (ForRent.com 2014).

SACOG’s MTP/SCS does not identify specific parcels that may be redeveloped by 2035. Therefore, the MTP/SCS does not forecast the amount of housing and population that may be displaced by future land use changes. The amount of growth expected to occur during the MTP/SCS planning period could temporarily displace some existing homes and residents, especially in TPAs, as the land uses forecasted by the proposed MTP/SCS are implemented. However, the MTP/SCS EIR concluded that the forecast, and subsequent allocation of regional housing and provision of transit-oriented housing, would meet the demand, and any displacement that occurs would not result in the need for construction of new housing.

SB 375 requires that the SCS identify areas in the region sufficient to house all of the population of the region. The proposed MTP/SCS accomplishes this through the land use forecast and transportation system, which analyzes a regional economic forecast of employees and population to determine how much housing and employment is required to accommodate this growth. The proposed MTP/SCS then allocates the housing needed to accommodate the growth throughout the region. This method, in conjunction with vacancy factors applied in the regional travel model to simulate market conditions, provides sufficient housing supply in the proposed MTP/SCS for the population expected to reside in the plan area through 2035.

Given the size of the housing market in the Central City and the region, the temporary loss of 206 units during construction of the proposed project would not lead to a significant loss of housing or displacement for the residents of the 206 units. The availability of existing vacant housing units in and near the Central City, and additional housing units now under construction (to be completed within the timeframe that leases would be terminated on the 206 units), would not necessitate the construction of new housing units elsewhere to accommodate these residents.

⁹ For comparison purposes, the search did not include the L Street Lofts, a luxury condominium building with rental units.

4 ENVIRONMENTAL IMPACT ANALYSIS

4.0.1 SCOPE OF THE EIR ANALYSIS

This chapter of the EIR discusses the environmental and regulatory setting, impacts, and mitigation measures for each of the following technical issue areas (Sections 4.1 through 4.12):

- ▶ 4.1 Aesthetics
- ▶ 4.2 Air Quality
- ▶ 4.3 Biological Resources
- ▶ 4.4 Cultural Resources
- ▶ 4.5 Geology and Soils
- ▶ 4.6 Greenhouse Gas Emissions and Energy
- ▶ 4.7 Hazards and Hazardous Materials
- ▶ 4.8 Hydrology and Water Quality
- ▶ 4.9 Noise and Vibration
- ▶ 4.10 Public Services and Recreation
- ▶ 4.11 Transportation/Traffic
- ▶ 4.12 Utilities and Service Systems

4.0.2 INTRODUCTION TO THE ANALYSIS

The technical sections within Chapter 4 of this EIR that include the environmental analysis of the proposed project are presented in this chapter, and each section includes the following four primary subsections:

- ▶ Environmental Setting
- ▶ Regulatory Setting
- ▶ Impacts and Mitigation
- ▶ Cumulative Impact Discussion

Each subsection is described in more detail below.

ENVIRONMENTAL SETTING

This subsection of each technical section includes a description of the relevant existing physical environmental conditions to provide the “baseline condition” against which project-related impacts are compared. In general, the baseline conditions are the physical conditions that existed when the Notice of Preparation (NOP) of an EIR was published. An NOP for this EIR was published on August 6, 2014. For analytical purposes, impacts of the proposed project are generally compared against this baseline environmental setting. Cumulative impacts associated with implementation of the proposed project are assessed against future, or “cumulative,” conditions, generally defined as buildout of the City’s 2030 General Plan.

REGULATORY SETTING

This subsection of each technical section provides the federal, state, and local regulations that are applicable to the proposed project. This section also informs the reader of relevant goals and policies included in the *Sacramento 2030 General Plan (2030 General Plan)*.

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. Pertinent changes considered in the 2035 General Plan are described in each technical section of this EIR. As described in the Draft EIR for the 2035 General Plan Update, "...the proposed 2035 General Plan is a technical update of the 2030 General Plan, and the proposed changes constitute minor revisions" (2035 General Plan Update Draft Environmental Impact Report, pg. ES-1). The proposed 2035 General Plan retains the overall land use and policy direction established in the 2030 General Plan, and includes a refinement and updating of the goals and policies, including updates to housing, employment and population projections consistent with the 2035 planning horizon for the Metropolitan Transportation Plan; incorporation of greenhouse gas reduction measures, as addressed in the City's Climate Action Plan; and updates to traffic modeling to implement a flexible, context-sensitive level of service standard.

IMPACTS AND MITIGATION

This subsection of each technical section provides the methodology used during the proposed project's impact analysis. The discussion of impact assessment methodology is followed by the thresholds of significance used to evaluate the potential environmental impacts of the proposed project. The CEQA Guidelines define a significant effect on the environment 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 and aesthetic significance" (CEQA Guidelines Section 15382). The thresholds of significance set forth in this EIR were developed based on the standards of significance included in the CEQA Guidelines, as well as the City of Sacramento Environmental Checklist, the City's 2030 General Plan Master EIR, and the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) Program EIR. Both of the latter two documents contain program level analyses, focusing on cumulative impacts of development in the City and region.

The discussion of the proposed project's impacts and mitigation measures that would lessen some, but not all impacts to a less-than-significant level follows. For each environmental topic area, the analysis first summarizes the project-specific impact and reaches an impact conclusion prior to incorporation of any mitigation. In many instances, the project's compliance with applicable laws, policies, or regulations would reduce the significance of an impact.

For reference, potential project-specific impact conclusions prior to incorporation of any mitigation include:

- ▶ **No Impact:** This impact conclusion would indicate that the project would not have any direct or indirect effect on the environment, or on a specific element of the environment being analyzed. It

means no change from existing conditions would occur. This impact level does not require mitigation under CEQA.

- ▶ **Less-than-Significant Impact:** This impact conclusion would indicate that the project would not cause a substantial or potentially substantial adverse change in the physical environment, or to a specific element of the environment being analyzed, and that the impact would not be considered significant under CEQA in consideration of the applicable threshold of significance. This impact level does not require mitigation under CEQA.
- ▶ **Potentially Significant Impact:** This impact conclusion would indicate that the project would cause a significant impact, defined as a substantial or adverse change in the environment, or a specific element of the environment being analyzed.¹ Levels of significance can vary by element of the environment being analyzed, based on the change in the existing physical condition and the applicable threshold of significance. Under CEQA, feasible mitigation measures must be identified, where feasible, to reduce the magnitude of significant impacts.

If mitigation is required, the EIR would also reach an impact conclusion assuming implementation of identified mitigation. 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.

Project-specific impact conclusions assuming incorporation of identified mitigation include:

- ▶ **Less-than-Significant Impact with Mitigation:** This conclusion would indicate that a substantial or potentially substantial adverse change in the physical environment would not occur after implementation of the proposed mitigation measures and the impact, as mitigated, would not be considered significant under CEQA in consideration of the applicable threshold of significance.
- ▶ **Significant and Unavoidable Impact:** This conclusion would indicate that the project would cause a substantial adverse effect on the physical environment, or a specific element of the environment being analyzed, that could not be reduced to a less-than-significant level, even with implementation of feasible mitigation. Under CEQA, a project with significant and unavoidable impacts may be approved, but the lead agency is required to prepare a “Statement of Overriding Considerations,” in accordance with CEQA Guidelines Section 15093, explaining why the lead agency would proceed with the project despite the potential for significant and unavoidable impacts to occur.

¹ Defined by CEQA Section 21068 as “a substantial, or potentially substantial, adverse change in the environment.”

CUMULATIVE IMPACT DISCUSSION

This subsection of each technical section provides a cumulative impact discussion specific to the respective environmental resource area. Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects (CEQA Guidelines Section 15130). The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered.

Public Resources Code Section 21155.2 (c)(1) provides that, “where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]” (Public Resources Code, Section 21155.2 [c][1]). This provision of state law applies to the cumulative discussion included in this EIR.

Public Resources Code Section 21155.2(c)(1) provides that the initial study for a qualifying transit priority project should “identify any cumulative effects that have been adequately addressed and mitigated pursuant to the requirements of [CEQA] in prior applicable certified environmental impact reports.” The Sacramento 2030 General Plan Master EIR and MTP/SCS Program EIR are applicable certified EIRs for the purposes of analyzing potential impacts of the proposed project. The cumulative impact subsection summarizes relevant findings from these documents, as they relate to the proposed project, and considers whether these impacts have been adequately addressed by these plan-level documents.

4.0.3 CEQA STREAMLINING

In 2005, then Governor Arnold Schwarzenegger issued the Executive Order establishing greenhouse gas (GHG) emissions reduction targets for California. Specifically, the Executive Order required reduction of greenhouse gas emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The Legislature subsequently enacted the California Global Warming Solutions Act of 2006 (Health and Safety Code Section 38500 et seq.), referred to as Assembly Bill No. 32 (AB 32). Among its provisions, AB 32 tasked the California Air Resources Board (ARB) with determining the state's 1990 GHG emissions level and approving an equivalent emissions level to be achieved by 2020 (Health and Safety Code Section 38550). Thereafter, the Legislature also enacted the Sustainable Communities and Climate Protection Act of 2008 (Stats. 2008, ch. 728; Stats. 2009, ch. 354, § 5), referred to as Senate Bill No. 375 (SB 375). In enacting SB 375, the Legislature found automobiles and light trucks are responsible for 30 percent of the state's GHG emissions (Stats. 2008, ch. 728, § 1, subd. [a]). Accordingly, SB 375 directed ARB to develop regional GHG emission reduction targets for automobiles and light trucks for 2020 and 2035 (Government Code Section 65080, subd. [b][2][A]).

In enacting SB 375, the Legislature found the state's emissions reductions goals cannot be met without improved land use and transportation policy. Consequently, SB 375 (Government Code Section 65080, subd. [b][2][B]) mandates that regional transportation plan prepared by Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs) include a sustainable communities strategy to guide regions towards “a more sustainable future by integrating land use, housing, and transportation planning to create more sustainable, walkable, transit-oriented, compact

development patterns and communities that meet [ARB's greenhouse gas] emissions targets for passenger cars and light-duty trucks.' Once the sustainable communities strategy is approved, some ... projects consistent with the strategy are exempt from CEQA requirements.... [Other projects] consistent with the strategy are subject to streamlined CEQA requirements (Section 21155–21155.4, 21159.28; Guidelines Section 15183.3)” (*Cleveland National Forest Foundation v. San Diego Assoc. of Gov.* (2014) 231 Cal.App.4th 1056, 1070-1071).

In 2011, citing to the goal of SB 375 to “encourage development patterns that would help implement the sustainable communities strategy,” the Legislature enacted Senate Bill No. 226 (Stats 2011 ch. 469 § 6), referred to as SB 226, to provide “more expeditious review under the California Environmental Quality Act for residential and mixed-use residential projects that have a proximity to transit” in order to “promote the construction of projects that will foster the use of transit” (SB 226, § 1 [uncodified], subds. [a], [c], [d]).

Finally, in 2013, the Legislature adopted another CEQA streamlining bill, Senate Bill No. 743 (Stats 2013 ch. 386 § 5), referred to as SB 743, in an effort to further the commitment made by SB 375 “to encourage[e] land use and transportation planning decisions and investments that reduce vehicle miles traveled and contribute to the reductions in greenhouse gas emissions required in the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code)” (SB 743, § 1 [uncodified], subd. [a][1]).

As discussed further below, SB 375, SB 226, and SB 743 each include CEQA streamlining provisions that apply to the proposed project, based on its proposed density and proximity to light rail.

SB 375

SB 375 Eligibility

SB 375 provides various CEQA streamlining benefits to transit priority projects (TPPs). As relevant to the proposed project, a TPP is a project that meets the following four criteria (see Public Resources Code, §§ 21155, subds. [a]-[b]):

1. Contains at least 50 percent residential use, based on total building square footage (and has a floor area ratio of 0.75 and at least 25 percent of total building square footage is dedicated to non-residential uses);
2. Includes a minimum density of at least 20 units per acre;
3. Is located within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan; and
4. Is consistent with the use designation, density, building intensity, and applicable policies specified for the project area in a sustainable communities strategy for which the ARB has accepted the metropolitan planning organization's determination that the sustainable communities strategy would, if implemented, achieve the greenhouse gas emission reduction targets established by ARB.

As explained further below, the proposed project qualifies as a TPP under each of the above-listed four criteria.

Criterion One

The proposed project contains at least 50 percent residential use, based on total building square footage (Public Resources Code Section 21155, subd. [b][1]).

The Hotel / Condo / Retail Scenario includes up to 1,171 new residential units (approximately 1,059,490 square feet of residential uses) and up to 201,250 square feet of new non-residential square footage (including both the hotel and neighborhood support/retail), for a combined total new building square footage of approximately 1,260,740 (not including the residential and neighborhood support/retail square footage included in the existing Capitol Towers high-rise). Therefore, as a ratio of residential uses to total building square footage, the Hotel / Condo / Retail Scenario includes approximately 84 percent residential uses (1,059,490 square feet [residential] ÷ 1,260,740 square feet [total]).

The Condo / Retail Scenario includes up to 1,267 new residential units (approximately 1,197,730 square feet of residential uses) and up to 52,000 square feet of new non-residential square footage (including neighborhood support/retail), for a combined total new building square footage of approximately 1,249,730 (not including the residential and neighborhood support/retail square footage included in the existing Capitol Towers high-rise). Therefore, as a ratio of residential uses to total building square footage, the Condo / Retail Scenario includes approximately 96 percent residential uses (1,197,730 square feet [residential] ÷ 1,249,730 square feet [total]).

Therefore, the Hotel / Condo / Retail Scenario and Condo / Retail Scenario both include over 50% residential uses thereby satisfying Criterion One.

Criterion Two

The proposed project includes a minimum density of at least 20 units per acre (Public Resources Code Section 21155, subd. [b][2]).

The Hotel / Condo / Retail Scenario includes 1,171 new residential units and 203 existing residential units (in the Capitol Towers high-rise) spread over the 10.13 acre project site. Therefore, the total residential density of the project site under the Hotel / Condo / Retail Scenario is 135.6 units per acre.

The Condo / Retail Scenario includes 1,267 new residential units and 203 existing residential units (in the Capitol Towers high-rise) spread over the 10.13 acre project site. Therefore, the total residential density of the project site under the Condo / Retail Scenario is 145.1 units per acre.

Therefore, the Hotel / Condo / Retail Scenario and Condo / Retail Scenario both include a minimum density of at least 20 units per acre thereby satisfying Criterion Two.

Criterion Three

The proposed project is located within one-half mile of a major transit stop or high-quality transit corridor (Public Resources Code Section 21155, subd. [b][3]).

For the purposes of SB 375, a “major transit stop” is defined, in part, to include “a site containing an existing rail transit station...” (Public Resources Code Section 21064.3). A “high-quality transit corridor” is defined to include “a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours” (Public Resources Code, § 21155, subd. [b][3]).

The project site is located within ½ mile of both a major transit stop and a high-quality transit corridor. Specifically, the proposed project is located within one-half mile of a major transit stop because the project site is located approximately 1 block from the 8th & O Light Rail Station, a split light rail station on the Sacramento Regional Transit District’s Blue, Gold, and Green Lines. The proposed project is also located within ½ mile of a high-quality transit corridor because several Sacramento Regional Transit bus routes with service intervals no longer than 15 minutes during peak commute hours stop within ½ mile of the project site including routes 3, 30, 51, 86, and 88.

Therefore, the proposed project satisfies Criterion Three both due to its proximity to a “major transit stop” and a “high-quality transit corridor.”

Criterion Four

The proposed project is consistent with the use designation, density, building intensity, and applicable policies specified for the project area in SACOG’s Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) (Public Resources Code Section 21155, subd. [a]).

The MTP/SCS was adopted April 19, 2012, by Resolution No. 14-2012 of the SACOG Board of Directors, and SACOG certified the Program EIR for the MTP/SCS (SCH No. 2011012081) that same day. On June 12, 2012, ARB, by Executive Order No. G-12-044, accepted SACOG’s determination that implementation of the MTP/SCS would achieve the GHG emission reduction targets for the region. Neither decision was judicially challenged.

The MTP/SCS categorizes the land within the region into five “community types” (i.e. Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development in the MTP/SCS Planning Period). The Center and Corridor Communities consist of areas that are typically higher density and more mixed than surrounding land uses. Centers and Corridors are identified in local plans as historic downtowns, main streets, commercial corridors, rail station areas, central business districts, town centers, or other high density destinations. They typically have more compact development patterns, a greater mix of uses, and a wider variety of transportation infrastructure compared to the rest of the region. The MTP/SCS recommends and forecasts over half of the land to be developed (or redeveloped) within the region to be located within the Center and Corridor Communities (MTP/SCS, p. viii).

The MTP/SCS also identifies certain areas within the region as “transit priority areas” (TPAs). TPAs are areas of the region within ½ mile of an existing or planned major transit stop or high-quality transit corridor included in the MTP/SCS. While substantial overlap exists between TPAs and Center and

Corridor Communities, the MTP/SCS states that “TPAs provide additional opportunities to realize the benefits of smart land use during the MTP/SCS planning period” (MTP/SCS, p. xii). The MTP/SCS discusses benefits of development within TPAs including, but not limited to (1) increasing housing options located near high quality transit, (2) increasing ridership to support existing and new rail and bus services, (3) reducing vehicle miles traveled and associated GHG emissions, and (4) increasing farebox recovery rates for transit services (*ibid*). The MTP/SCS allocates 30% of projected regional housing and employment demand to the Sacramento TPAs. New housing in the Sacramento TPAs averages 31 dwelling units per net acre; of these new dwelling units, 75% are in attached housing product types.

The proposed project, which as discussed above is within ½ mile of both a “major transit stop” and a “high-quality transit corridor,” is located within both the Center and Corridor Communities and a Sacramento TPA as identified in SACOG’s MTP/SCS (see MTP/SCS Program EIR, p. 2-21 [Figure 2.2]). On December 8, 2014, the City of Sacramento received a letter from SACOG confirming that SACOG concurs with the City’s conclusion that the project is consistent with SACOG’s MTP/SCS including all applicable use designations, densities, building intensities, and policies applicable to the project site. The letter from SACOG is included as Appendix A.

Therefore, the proposed project satisfies Criterion Four.

SB 375 Streamlining Benefits

As a TPP, SB 375 provides that, if the proposed project incorporates all feasible mitigation measures, performance standards, or criteria set forth in the prior applicable environmental impact reports and adopted in findings made pursuant to Section 21081, the proposed project qualifies for the following streamlining benefits:

1. Cumulative effects that have been adequately addressed and mitigated in prior applicable certified environmental impact reports shall not be treated as cumulatively considerable for the proposed project (Public Resources Code Section 21155.2, subd. [c][1]);
2. Growth inducing impacts are not required to be referenced, described, or discussed (Public Resources Code Section 21159.28, subd. [a][1]);
3. Project-specific or cumulative impacts from cars and light-duty truck trips generated by the proposed project on global warming are not required to be referenced, described, or discussed (Public Resources Code Section 21159.28, subd. [a][2]);
4. Project-specific or cumulative impacts from cars and light-duty truck trips generated by the proposed project on the regional transportation network are not required to be referenced, described, or discussed (Public Resources Code Section 21159.28, subd. [a][2]);
5. Off-site alternatives are not required to be analyzed (Public Resources Code Section 21155.2, subd. [c][2]); and

6. Reduced density alternatives are not required to be referenced, described, or discussed to address the effects of car and light-duty truck trips generated by the proposed project (Public Resources Code Section 21159.28, subd. [b]).

As required to use the above streamlining benefits of SB 375, the proposed project incorporates all feasible mitigation measures, performance standards, or criteria set forth in the prior applicable environmental impact reports. See Appendix O of this EIR for a complete cataloguing of relevant mitigation measures, performance standards, and criteria, as relevant to the proposed project. The 2030 General Plan Master EIR and MTP/SCS Program EIR are prior applicable environmental impact reports relevant to the proposed project.

2030 GENERAL PLAN MASTER EIR

As explained in the 2030 General Plan Master EIR, the EIR examined environmental effects associated with implementing the 2030 General Plan (adopted in 2009). As noted in the 2030 General Plan Master EIR (starting on page 1-1):

“With respect to the processing of subsequent site-specific projects, the City intends to avail itself of two separate, but complementary processes authorized by CEQA that are intended to streamline the review of projects consistent with approved general plans and to allow the City to make optimal use of this EIR once it is certified. These two processes are described below to put the public on notice of how, specifically, the City intends to use this EIR in the future.

Tiering refers to the concept of a multi-level approach to preparing environmental documents set forth in State CEQA Guidelines Section 15152. Section 15152 provides that where a first-tier EIR has “adequately addressed” the subject of cumulative impacts, such impacts need not be revisited in second- and/or third-tier documents. According to Section 15152(f)(3), significant effects identified in a first-tier EIR are adequately addressed, for purposes of later approvals, if the lead agency determines that such effects have been either: “mitigated or avoided as a result of the prior [EIR] and findings adopted in connection with that prior [EIR]”; or “examined at a sufficient level of detail in the prior [EIR] to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.”

....

“A program EIR can be incorporated by reference into subsequently prepared environmental documents to address issues such as cumulative impacts and growth-inducing impacts, allowing the subsequent documents to focus on new or site-specific impacts (State CEQA Guidelines Section 15168[d]).

[F]uture environmental review can also be streamlined pursuant to Public Resources Code Section 21083.3 and State CEQA Guidelines Section 15183. These provisions generally limit the scope of necessary environmental review for projects consistent with a general plan following the preparation of an EIR for the general plan. For such site-specific approvals, CEQA generally applies only to impacts that are “peculiar to the parcel or to the project” and that have not been disclosed in the general plan EIR, except where “substantial new information” shows that previously identified impacts will be more significant than previously assumed. Impacts are

considered not to be “peculiar to the parcel or to the project” if they can be substantially mitigated pursuant to previously adopted “uniformly applied development policies or standards.”

MTP/SCS PROGRAM EIR

The MTP/SCS Program EIR is a first-tier environmental impact report that evaluates the potential environmental impacts of SACOG’s long-range comprehensive plan for the region’s multi-modal transportation system and the development forecasts necessary to accommodate a projected increase of approximately 871,000 people, 303,000 new housing units and 361,000 new employees in the region through the year 2035. As noted in the MTP/SCS Program EIR (page 2-57):

This program EIR serves as a first-tier environmental document under CEQA and will support second-tier environmental documents for:

- transportation projects developed during the engineering design process; and
- residential or mixed-use projects and transit priority projects consistent with the SCS.

Subsequent environmental documents would focus on site-specific issues that have not been considered in this program EIR. If an activity were later found to have effects that were not examined in this program EIR, additional CEQA review would be required. If the lead agency finds that implementation of a later activity would have no new effects and that no new mitigation measures would be required, that activity would require no additional CEQA review.

Applicable mitigation measures from the 2030 General Plan Master EIR and MTP/SCS Program EIR are identified and discussed throughout Chapter 4 of this EIR. Additionally, applicable performance standards and criteria, including policies and thresholds of significance used in the 2030 General Plan Master EIR and MTP/SCS Program EIR, as well as applicable City of Sacramento development standards and regulations, have been incorporated into Chapter 4 of this EIR.

Where applicable, mitigation measures and mitigating policies from the MTP/SCS Program EIR and General Plan Master EIR have been incorporated into the proposed project to reduce potentially significant project-level impacts. Since the MTP/SCS Program EIR and General Plan Master EIR were developed to address impacts associated with projects throughout the region, where appropriate, this EIR proposes project-specific mitigation measures to implement the regional mitigation strategies set forth in the 2030 General Plan Master EIR and MTP/SCS Program EIR. In addition to the analysis throughout Chapter 4 of this EIR, Appendix O provides a detailed summary of mitigation measures and mitigating policies from the MTP/SCS Program EIR and General Plan Master EIR and discusses the proposed project’s consistency with those regional mitigation strategies.

SB 226

SB 226 Eligibility

As relevant to the proposed project, SB 226 provides various CEQA streamlining benefits to projects that are (1) infill projects, (2) included within a region in which an environmental impact report was certified for a planning level decision, (3) consistent with the use designation, density, building intensity, and applicable policies specified for the project area in a qualifying sustainable communities strategy,

and (4) satisfies all applicable statewide performance standards set forth in Appendix M of the CEQA Guidelines (Public Resources Code Section 21094.5, subd. [c]).

As explained further below, the proposed Sacramento Commons Project qualifies for CEQA streamlining benefits provided by SB 226 under each of the four criteria.

Criterion One

The proposed project is an “infill project” as defined by SB 226 (Public Resources Code Section 21094.5, subd. [c]).

SB 226 defines an “infill project” to include one or a combination of residential, retail or commercial (if less than half the project area is used for parking), transit stations, schools, or public office buildings proposed on a previously developed site within an urban area or on a vacant site where at least 75% of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses (Public Resources Code Section 21094.5, subd. [e][1][A]-[B]).

The proposed project consists of a mix of residential and neighborhood support/retail uses, including a potential hotel. Parking on the project site will be accommodated in four parking structures located within four of the six parcels to be created as part of the proposed project. The total square footage of the combined parking structure footprints (including parking below the mid-rise towers on Parcels 2A and 2B and parking below the high-rise tower on Parcel 3) is 147,817 square feet. Therefore, less than 34 percent of the project site is proposed to be used for parking (147,817 square feet [parking] ÷ 441,263 square feet [project site total]). Thus, the uses included in the proposed project qualify as infill uses pursuant to SB 226. Additionally, the project site is currently developed with low-rise and high-rise residential units and all adjacent parcels surrounding the project site are developed with urban uses including residential, office, and commercial uses.

Therefore, the proposed project qualifies as an “infill project” and satisfies Criterion One.

Criterion Two

A planning level decision has been certified that covers the project site.

SB 226 defines a planning level decision as the enactment or amendment of a general plan, community plan, specific plan, or zoning code (Public Resources Code Section 21094.5, subd. [e][2]). The 2030 General Plan Master EIR, which evaluates potential environmental impacts associated with buildout of the City’s 2030 General Plan, constitutes a planning level decision that covers the project site.

Therefore, the proposed project satisfies Criterion Two.

Criterion Three

The proposed project is consistent with the use designation, density, building intensity, and applicable policies specified for the project area in SACOG’s MTP/SCS (Public Resources Code Section 21094.5, subd. [c][1][A]).

As discussed above (SB 375 Eligibility – Criterion Four), the proposed project is consistent with the use designation, density, building intensity, and applicable policies specified for the project area in SACOG’s MTP/SCS. And, as discussed, on December 8, 2014, the City of Sacramento received a letter from SACOG confirming that SACOG concurs with the City’s conclusion that the project is consistent with SACOG’s MTP/SCS including all applicable use designations, densities, building intensities, and policies applicable to the project site. The letter from SACOG is included as Appendix A.

Therefore, the proposed project satisfies Criterion Three.

Criterion Four

The proposed project satisfies all applicable statewide performance standards set forth in CEQA Guidelines Appendix M (Public Resources Code Section 21094.5, subd. [c][2]).

Appendix M establishes two categories of statewide performance standards applicable to qualifying infill projects: standards that apply to all infill projects (hereafter “universal performance standards”) and standards that apply to particular project types (i.e. residential, commercial/retail, office building, transit stations, and schools) (CEQA Guidelines, Appendix M.III-IV). “Where a project includes some combination of residential, commercial and retail, office building, transit station, and/or schools, the performance standards... that apply to the predominant use shall govern the entire project” (CEQA Guidelines, Appendix M.IV.G). The predominant uses contemplated by the proposed project under both the Hotel / Condo / Retail Scenario and Condo / Retail Scenario are residential uses. Therefore, the proposed project must comply with the universal performance standards (CEQA Guidelines, Appendix M.III) and the residential standards (CEQA Guidelines, Appendix M.IV.A). As discussed further below, the proposed project satisfies both the universal performance standards (CEQA Guidelines, Appendix M.III) and the residential performance standards (CEQA Guidelines, Appendix M.IV.A).

Universal Performance Standards

The universal performance standards included in Appendix M require the lead agency to consider whether the infill project is located on a site included on the Cortese List (Government Code Section 65962.5) or is located within 500 feet of a high volume roadway or other significant source of air pollution (CEQA Guidelines, Appendix M.III). For the purposes of Appendix M of the CEQA Guidelines a high volume roadway is defined as a freeway, highway, or urban roadway with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. (CEQA Guidelines, Appendix M.II.) And, a significant source of air pollution is defined as “airports, marine ports, rail yards and distribution centers that receive more than 100 heavy-duty truck visits per day, as well as stationary sources that are designated major by the Clean Air Act.” (Ibid.) The proposed project does not trigger any additional requirements as a result of these universal performance standards. The proposed project site is not included on the Cortese list (see Section 4.7 of this EIR, “Hazards and Hazardous Materials”), no freeway, highway, or urban roadway with 100,000 vehicles per day or rural roadway with 50,000 vehicles per day is located 500 feet from the site (see Section 4.11 of this EIR, “Transportation/Traffic”), and no significant source of air pollution is located 500 feet from the site (see Section 4.2 of this EIR, “Air Quality”). Therefore, the proposed project is consistent with all mandatory universal performance standards set forth in Appendix M of the CEQA Guidelines (CEQA Guidelines, Appendix M.III).

Residential Performance Standards

A residential infill project satisfies the residential performance standards if it is located within ½ mile of an existing major transit stop or stop along a high quality transit corridor (CEQA Guidelines, Appendix M.IV.A). As discussed above (SB 375 Eligibility – Criterion Three), the proposed project is located within ½ mile of both an existing major transit stop and an existing stop along a high-quality transit corridor. Specifically, the nearest light rail station is located 1 block east of the project site at 8th Street and O Street and is served by all three light rail lines (Blue, Gold, and Green) operating within the City. Additionally, several Sacramento Regional Transit bus routes with service intervals no longer than 15 minutes during peak commute hours stop within ½ mile of the project site including routes 3, 30, 51, 86 and 88. As described in more detail in Section 4.11 of this EIR, approximately 11 bus lines with stops within ¼ mile of the project have headways of 15 minutes during commute periods. Approximately 14 bus stops are within ¼ mile of the project site, including stops with 15 minute service intervals that serve two or more major bus routes.

Therefore, the proposed project meets all applicable universal and residential performance standards established by CEQA Guidelines Appendix M and satisfies Criterion Four.

SB 226 Streamlining Benefits

As a qualifying infill project, SB 226 establishes several CEQA streamlining benefits applicable to the proposed project. Specifically, this EIR:

1. Is only required to analyze those significant effects that uniformly applicable development policies or standards do not substantially mitigate, and that are either new specific effects or are more significant than a prior EIR analyzed. (CEQA Guidelines Section 15183.3, subd. [e]; Public Resources Code Section 21094.5, subd. [a][2]);
2. Is not required to consider alternative locations, densities, and building intensities to the project (Public Resources Code Section 21094.5, subd. [b][1]); and
3. Is not required to consider growth inducing impacts of the proposed project. (Public Resources Code Section 21094.5, subd. [b][2]).

SB 743

SB 743 Eligibility

As relevant to the proposed project, SB 743 provides CEQA streamlining for (1) residential, mixed-use residential, or employment center projects on (2) an infill site (3) within a transit priority area (Public Resources Code Section 21099, subd. [d]).

As explained further below, the proposed project qualifies for CEQA streamlining benefits provided by SB 743 under each of the three criteria.

Criterion One

The proposed project is a residential, mixed-use residential, or employment center project (Public Resources Code Section 21099, subd. [d]).

SB 743 does not define the terms “residential” or “mixed-use residential” projects. However, SB 375 defines a residential or mixed-use residential project to include both a TPP and a “project where at least 75 percent of the total building square footage of the project consists of residential use” (Public Resources Code Section 21159.28, subd. [d]).

As discussed above (SB 375 Eligibility), the proposed project qualifies as a TPP. Moreover, as discussed above (SB 375 Eligibility – Criterion One) the Hotel / Condo / Retail Scenario and Condo / Retail Scenario both include over 75% residential uses.

Therefore, the proposed project qualifies as a “residential” or “mixed-use residential” project and satisfies Criterion One.

Criterion Two

The proposed project is located on an “infill site” as defined by SB 743 (Public Resources Code Section 21099, subd. [d]).

SB 743 defines “infill site” to mean “a lot located within an urban area that has been previously developed, or on a vacant site where at least 75% of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses” (Public Resources Code Section 21099, subd. [a][4]). As discussed above (SB 226 Eligibility – Criterion One) the project site is currently developed with low-rise and high-rise residential units and all adjacent parcels surrounding the project site are developed with urban uses including residential, office, and commercial uses.

Therefore, the proposed project is located on an “infill site” and satisfies Criterion Two.

Criterion Three

The proposed project is located within a transit priority area as defined by SB 743 (Public Resources Code Section 21099, subd. [d]).

SB 743 defines a “transit priority area” to mean an area within one-half mile of an existing or planned major transit stop that, if the planned, is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations (Public Resources Code Section 21099, subd. [a][7]). As discussed above (SB 375 Eligibility – Criterion Three), the proposed site is located within ½ mile of an existing major transit stop. Specifically, the proposed project is located approximately one block from the 8th & O Light Rail Station, a split light rail station on the Sacramento Regional Transit District’s Blue, Gold, and Green Lines.

Therefore, the proposed project is located within a transportation priority area and satisfies Criterion Three.

SB 743 Streamlining Benefits

As a qualifying residential or mixed-use residential project located in a transit priority area, SB 743 provides that the proposed project's:

1. Aesthetic impacts shall not be considered significant impacts on the environment (Public Resources Code Section 21099, subd. [d][1]); and
2. Parking impacts shall not be considered significant impacts on the environment (Ibid).

SUMMARY OF APPLICABLE STREAMLINING BENEFITS

As discussed in detail above, the following CEQA streamlining benefits are applicable to this EIR:

1. Cumulative effects that have been adequately addressed and mitigated in prior applicable certified environmental impact reports shall not be treated as cumulatively considerable for the proposed project (Public Resources Code Section 21155.2, subd. [c][1] [SB 375]);
2. Growth inducing impacts are not required to be referenced, described, or discussed (Public Resources Code Sections 21159.28, subd. [a][1] [SB 375], 21094.5, subd. [b](2) [SB 226]);
3. Project-specific or cumulative impacts from cars and light-duty truck trips generated by the proposed project on global warming are not required to be referenced, described, or discussed (Public Resources Code Section 21159.28, subd. [a][2] [SB 375]);
4. Project-specific or cumulative impacts from cars and light-duty truck trips generated by the proposed project on the regional transportation network are not required to be referenced, described, or discussed (Public Resources Code Section 21159.28, subd. [a][2] [SB 375]);
5. The EIR is only required to analyze those significant effects that uniformly applicable development policies or standards do not substantially mitigate, and that are either new specific effects or are more significant than a prior EIR analyzed (CEQA Guidelines Section 15183.3, subd. (e); Public Resources Code Section 21094.5, subd. [a][2] [SB 226]);
6. Off-site alternatives are not required to be analyzed (Public Resources Code Section 21155.2, subd. [c][2] [SB 375]);
7. Alternative locations, densities, and building intensities to the project are not required to be analyzed (Public Resources Code Section 21094.5, subd. [b][1] [SB 226]; see also Public Resources Code Section 21159.28, subd. [b] [stating "reduced density alternatives are not required to be referenced, described, or discussed to address the effects of car and light-duty truck trips generated by the proposed project"] [SB 375]);

8. Aesthetic impacts shall not be considered significant impacts on the environment (Public Resources Code Section 21099, subd. [d][1] [SB 743]); and
9. Parking impacts shall not be considered significant impacts on the environment (*Ibid* [SB 743]).

4.1 AESTHETICS

This section addresses aesthetics and visual resources in the project vicinity. As discussed further in Chapter 4.0 (subsection 4.0.3) of this EIR, the proposed project qualifies as a residential infill project located in a Transit Priority Area (TPA) (Public Resources Code Sections 21099[a] and 21099[d]). In consideration of urban character of infill areas and to promote development within TPAs, the Legislature has declared that aesthetic impacts of infill projects located within TPAs shall not be considered significant effects on the environment (California Public Resources Code Section 21099[d]). For the purposes of public information, the City has elected to evaluate the aesthetic impacts of the proposed project even though the discussion is not required by CEQA.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to the loss of trees and open space, building design, and visual impacts. Copies of the NOPs and comments received in response are included in Appendix B. The project's PUD Guidelines (which contain guidelines related to project design and aesthetics) are included in Appendix N.

4.1.1 ENVIRONMENTAL SETTING

The project site encompasses approximately 10 acres on portions of four blocks in downtown Sacramento. The site contains 409 residential rental units, 4,122 square feet of neighborhood convenience retail space, and recreational amenities (including a swimming pool). The rental units consist of 206 two- and three-story garden apartments and Capitol Towers, which includes 203 units in a 15-story high-rise building. Sharing the four-block project area, but not a part of the project site, are the separately owned, 15-story 500 N Street condominiums (formerly Bridgeway Towers), and the 12-story Pioneer Towers senior apartments. Surrounding land uses include federal and state offices to the north, west, and east. Two multi-family properties (Governor's Square and Pioneer House) are located at the southeast and northwest corners of 5th and P Streets, respectively.

The site is generally flat with trees and landscaping distributed throughout. A three-story multi-family residential development is located south of the project site across P Street. A six-story residential tower is located to the west across 5th Street. Office buildings occupy the remaining adjacent sites located across 5th Street, 7th Street, and N Street. In addition, the State of California Central Plant (which heats and cools state buildings) is located to the south across P Street. East of the project site across 7th Street is the historic Heilbron House, which is surrounded by surface parking (JRP 2014).

The property includes main walkways along the original alignments of 6th and O Streets through the property and landscaped grounds with mature trees in an otherwise urban environment with mid-rise and high-rise buildings on, adjacent to, and in proximity to the project site. There is also an area in the center of the property with a small grove of trees, a concrete fountain, and a concrete relief panel on the adjacent wall.

The landscape is mostly organized by rectilinear forms for walkways and for planter beds. There is a mixture of trees that predate the Capitol Towers project, trees that appear to have been planted when the project was first built, and newer shrubs and trees. Most of the walkways are straight and provide access along the major axes, through the breezeways, to on-site amenities, and to the parking areas.

There are several small courtyards with rows of small trees, some of which have been removed over time, and now include other small plantings. Figure 4.1-1 is an aerial site plan view, which identifies some of the surrounding buildings.

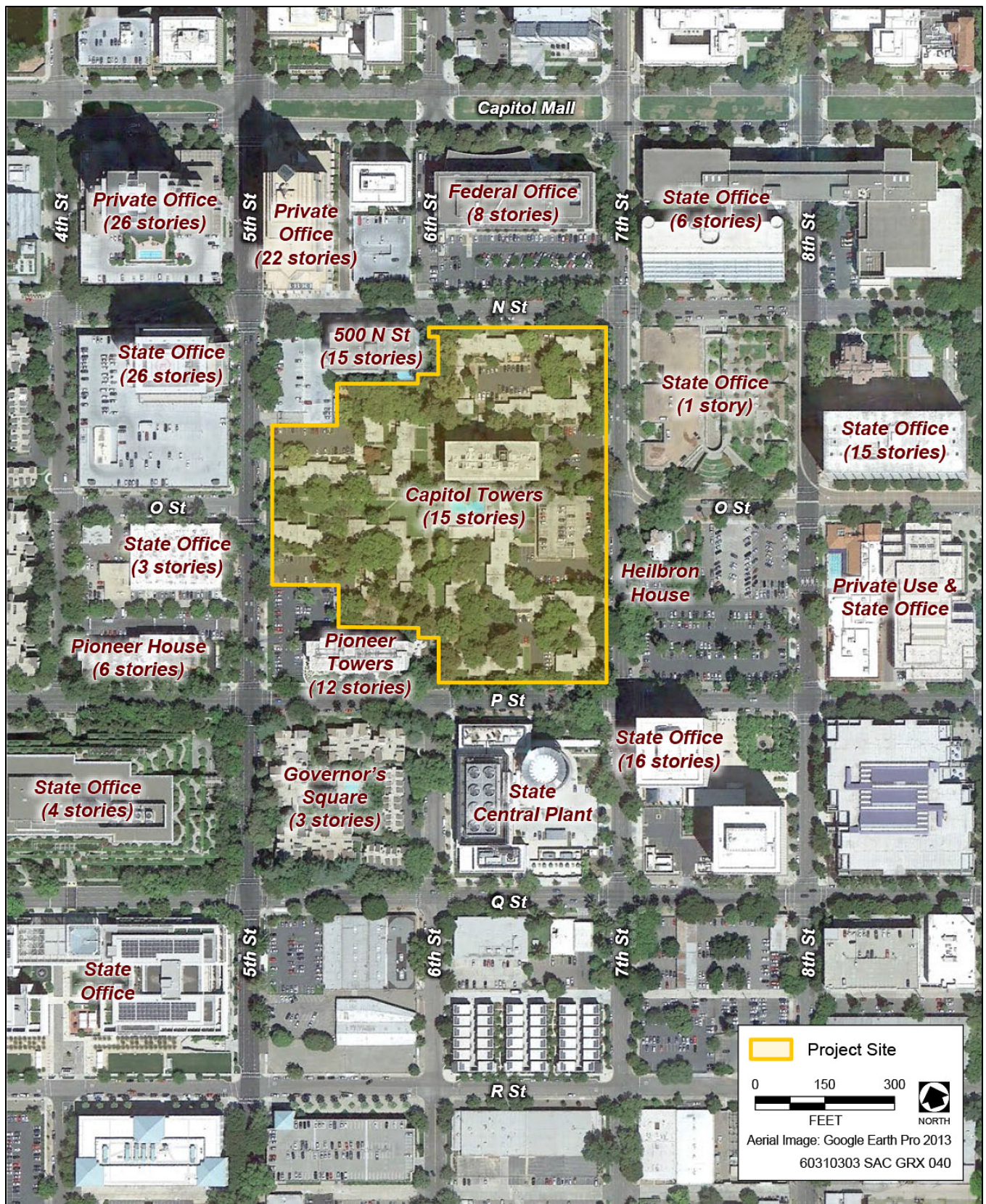
The project site includes City-designated Heritage Trees and a variety of other medium and large trees. Adjacent to the sidewalks that surround the project site are City Street Trees.¹ Grass and shrubs characterize the landscaping features at ground level. The Capitol Towers high-rise building dominates the central portion of the project site because of its vertical height (15 stories) and overall mass. A four-level parking garage (three levels above ground) dominates views at the eastern edge of the project site, and a swimming pool with adjacent single-story clubhouse dominates views in the central portion of the site. Adjacent to the swimming pool, an eight-panel set of concrete relief art pieces, produced by Jacques Overhoff, is installed on the wall facing west and located adjacent to the existing Capitol Tower's pool area (JRP 2014).

Figure 4.1-2 is an oblique aerial of the visual environment on, and surrounding, the project site that depicts the massing and height relationships of the buildings and landscape features.

There are landscaped areas in various courtyards throughout the project site, including a sunken garden at the north end of the 6th Street axis and along the O Street axis. Some newer landscape features are located on the edge of the property, including at the corner of 7th and N Streets. Views of the remainder of the project site are dominated by two- and three-story garden apartment buildings. Eight buildings are arranged in pairs in the four quadrants of the project site (southeast, west-southwest, west-northwest, and northeast) around a central open space or parking area (JRP 2014). Views of the project site are primarily available to people in the immediate vicinity of the project site, including motorists and pedestrians along adjacent roads (N Street, P Street, 5th Street, and 7th Street) and some residents of the 500 N Street condominium tower and Pioneer Towers. Long range and mid-range views of the project site are limited because of the relatively flat topography of downtown Sacramento, the multi-story buildings, and mature trees that block views of the site. However, short-term views of the site from vehicles traveling east and west along U.S. Highway 50 (U.S. 50), located south of the project site, are available because the highway is elevated. Longer-range views from other major highways, Interstate 5 and State Route 99, are not available because State Route 99 is too distant and Interstate 5 is located at an elevation below the project site (JRP 2014).

During the summer months, tree foliage blocks many horizontal and vertical views of the project site from street level. Although prominent view locations are limited during the summer months, additional prominent views would be available from street level during the winter months, when less foliage is on the trees. Viewpoints are located along walkways across the project site at the north, east, south, and west sides of the project site looking toward the center point of the site. Foreground views are dominated by landscape elements (i.e., trees, shrubbery, and grass) and hardscape (walkways).

¹ See section 4.3, Biological Resources, for the definition of, and more information about Heritage Trees, City Street Trees, and other on-site trees.



Source: AECOM 2014, Sacramento County 2013

Figure 4.1-1

Aerial Site Plan View and Surrounding Context

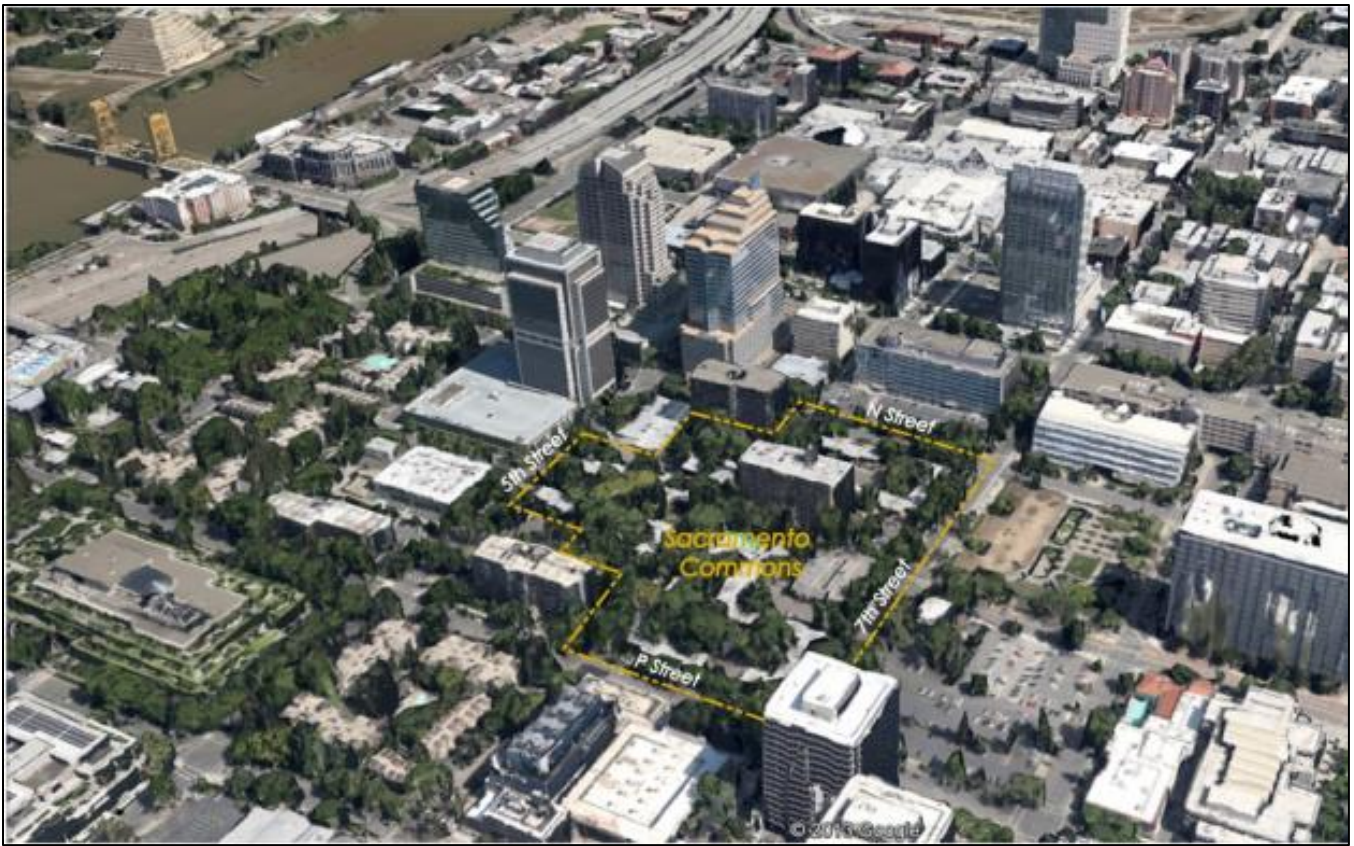


Figure 4.1-2

Aerial View of Project Site and Surrounding Context

Walkways that extend across the center of the project site provide straight, direct access from north to south and from east to west. Views along the eastern walkway are dominated by the Capitol Towers building on the north and the swimming pool and clubhouse on the south (JRP 2014). See Figure 4.1-3 and Figure 4.1-4 for photos depicting some of the views.

Although views of the project site are obscured by nearby development, there are views within, and into, the project site from 500 N Street condominiums and Pioneer Towers. In addition, views within the project site by residents of the Capitol Towers high-rise include the landscaped grounds and garden apartments when looking toward the ground. Depending on their location, occupants of the upper floors (above the tree canopy) of Capitol Towers and the other high-rises on the superblock have long- and mid- range views of the Central City, surrounding neighborhoods to the south and east, the Sacramento River and West Sacramento to the west, and the Sierra Nevada Mountains to the east. Figures 4.1-3 and 4.1-4 show typical views within, into, and from the project site.²

² Views are shown from the ground level because no public accessible viewpoints are included in the existing towers on the superblock.



② 6th Street Walkway, Viewed from N Street



④ View of O Street Walkway



① View to Site from P Street



③ View of Capitol Towers from N Street

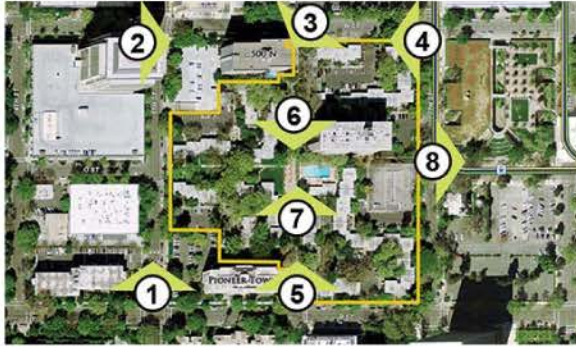


⑤ Capitol Towers Entry from Walks

Source: AECOM 2014

Figure 4.1-3

Project Site Views (Internal)



① Bus Stop on 5th Street



② Typical City Street Tree and Planter Strip



③ Adjacent 500 N Street Condominiums



④ View of Capitol Villas Apartments at 7th & N



⑤ On-site Heritage-sized City Street Tree



⑥ Jacques Overhoff's Concrete Relief Wall



⑦ 6th Street Walkway



⑧ View of Light Rail Line at O & 7th Streets

Source: AECOM 2014

Figure 4.1-4

Project Site Views (Internal and External)

Light and Glare

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments. Light that falls beyond the intended area of illumination is referred to as “light trespass.” The most common cause of light trespass is spillover light, which occurs when a lighting source illuminates surfaces beyond the intended area, such as when building security lighting or parking lot lights shine light onto neighboring property. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Light intensity can affect the amount of light spillover that might occur, as well as the type of light fixture used. Modern, energy-efficient fixtures that face downward, such as shielded light fixtures, are typically less obtrusive than older light fixtures. Light trespass can also result from automobile headlights shining onto property adjacent to roadways.

Glare is caused by light reflections from pavement, vehicles, and building materials, such as reflective glass, polished surfaces, or metallic architectural features. During daylight hours, the amount of glare depends on the intensity and direction of sunlight.

The most notable lighting in the vicinity of the project site is from the existing buildings (Bridgeway Towers, Pioneer Towers, and Capitol Towers) on-site that rise above the tree level. Lighting is also present from buildings immediately adjacent to the project site, as well as from vehicle headlights from cars traveling on N, 5th, 7th, and P Streets, parking lot lights, and lights along the internal walkways. Street lights are also located around the perimeter of the site. During the day, the primary sources of glare are from sunlight reflecting off the windows at 500 N Street condominiums, Capitol Towers, and Pioneer Towers.

4.1.2 REGULATORY SETTING

FEDERAL

There are no federal policies, plans, laws, or regulations pertinent to the project.

STATE

California Scenic Highway Program

California’s Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. According to the California Department of Transportation (Caltrans) list of designated scenic highways under the California Scenic Highway Program, there are no highway segments within the City of Sacramento that are designated scenic. State Route 160 from the Contra Costa County line to the southern City limit of Sacramento is the only officially designated state scenic highway near the City of Sacramento. The project site is not visible from State Route 160.

Senate Bill 743

The Legislature adopted a CEQA streamlining bill, Senate Bill No. 743 (SB 743), for residential, mixed-use residential, or employment center projects on infill sites within transit priority areas (Public

Resources Code Section 21099[d]). As explained in detail in Chapter 4.0 of this EIR, the proposed project qualifies for CEQA streamlining benefits provided by SB 743. As a qualifying project, SB 743 provides that the proposed project's aesthetic impacts shall not be considered significant impacts on the environment and parking impacts shall not be considered significant impacts on the environment (Public Resources Code Section 21099[d][1]).

LOCAL

Sacramento 2030 General Plan

The following goal and policies from the 2030 General Plan (City of Sacramento 2009) are related to aesthetics.

Goal LU 2.4 City of Distinctive and Memorable Places. Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento's unique historic, environmental, and architectural context, and create memorable places that enrich community life.

- ▶ **Policy LU 2.4.1 Unique Sense of Place.** The City shall promote quality site, architectural and landscape design that incorporates those qualities and characteristics that make Sacramento desirable and memorable including: walkable blocks, distinctive parks and open spaces, tree-lined streets, and varied architectural styles.
- ▶ **Policy LU 2.4.2 Responsiveness to Context.** The City shall require building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.
- ▶ **Policy LU 2.4.3 Enhanced City Gateways.** The City shall ensure that public improvements and private development work together to enhance the sense of entry at key gateways to the city.
- ▶ **Policy LU 2.4.4 Iconic Buildings.** The City shall encourage the development of iconic public and private buildings in key locations to create new landmarks and focal features that contribute to the city's structure and identity.
- ▶ **Policy LU 2.4.5 Distinctive Urban Skyline.** The City shall encourage the development of a distinctive urban skyline that reflects the vision of Sacramento with a prominent central core that contains the city's tallest buildings, complemented by smaller urban centers with lower-scale mid- and high-rise development.

Goal LU 2.7 City Form and Structure. Require excellence in the design of the city's form and structure through development standards and clear design direction.

- ▶ **Policy 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.

- ▶ **Policy 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.
- ▶ **Policy 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 and alley pedestrian routes where appropriate, and sidewalks appropriately scaled for the anticipated pedestrian use.
- ▶ **Policy 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.
- ▶ **Policy 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.
- ▶ **Policy LU 6.1.12 Visual and Physical Character.** The City shall promote development patterns and streetscape improvements that transform the visual and physical character of typical automobile-oriented corridors by:
 - Enhancing the definition of the corridor by locating buildings at the back of the sidewalk, and establishing a consistent street wall;
 - Introducing taller buildings that are in scale with the wide, multi-lane street corridors;
 - Locating off-street parking behind or between buildings (rather than between building and street);
 - Reducing visual clutter by regulating the number, size and design quality of signs;
 - Removing utility poles and under-grounding overhead wires;
 - Adding street trees.

Goal ER 7.1. Visual Resource Preservation. Maintain and protect significant visual resources and aesthetics that define Sacramento.

- ▶ **Policy ER 7.1.1 Protect Scenic Views.** The City shall seek to protect views from public places to the Sacramento and American rivers and adjacent greenways, landmarks, and urban views of the downtown skyline and the State Capitol along Capitol Mall.
- ▶ **Policy ER 7.1.2 Visually Complementary Development.** The City shall require new development be located and designed to visually complement the natural environment/setting when near the Sacramento and American rivers, and along streams.

- ▶ **Policy ER 7.1.4 Standards for New Development.** The City shall seek to ensure that new development does not significantly impact Sacramento’s natural and urban landscapes.
- ▶ **Policy ER 7.1.5 Lighting.** The City shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary.
- ▶ **Policy ER 7.1.6 Glare.** The City shall require that new development avoid the creation of incompatible glare through development design features.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. The 2035 General Plan is in draft form as of the writing of this document. The 2035 General Plan proposes to delete Policy ER 7.1.4 (Standards for New Development) and replace with the new Policy ER 7.1.4:

- ▶ **Policy ER 7.1.4 Reflective Glass.** The City shall prohibit new development from (1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors, (2) using mirrored glass, (3) using black glass that exceeds 25 percent of any surface of a building, (4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building, and (5) using exposed concrete that exceeds 50 percent of any building.

Central City Community Plan (CCCP)

The City of Sacramento currently has seven adopted community plans that include policies and land use diagrams that pertain to the respective community plan areas. The project site is located within the Central City Community Plan Area bounded by the Sacramento River on the west, the American River on the north, Business 80 and Alhambra Boulevard on the east, and parcels fronting southern edge of Broadway on the south. Community plans are intended to supplement city-wide policies based on conditions or issues unique to the community plan area. The following policies from the CCCP are related to aesthetics.

- ▶ **Policy CC.LU 1.2 Visual Qualities.** The City shall improve the visual qualities of improvements, especially signing, building and yard maintenance, commercial developments and overhead utilities.
- ▶ **Policy CC.LU 1.7 Central Business District.** The City shall improve the physical and social conditions, urban aesthetics, and general safety of the Central Business District.

Sacramento Central City Urban Design Guidelines – Central Core

The Central City Urban Design Guidelines (CCUDG) direct future growth in the Central City Community Plan area. The CCUDG generally provide guidance in three areas: the urban design framework, the public realm, and the private realm. They establish a framework of urban design concepts intended to inform all decisions relating to the physical form and character of public and private development

throughout the Central City. The CCUDG include guidelines specifically developed for the Central Core, including the project site.

The CCUDG Core Area Private Realm Guidelines provide design guidance related to height, building mass, architectural style, building materials, and other design characteristics of buildings in the downtown area. From a visual perspective, the guidelines related to building façades provide the most direct guidance to the look and visual character of buildings. Facade designs are encouraged to achieve the following principles:

- ▶ **Ground Level:** The ground floor, especially the area facing onto public sidewalks, shall incorporate the most public and active spaces within the building, to activate the street. Parking shall not be an appropriate use along a building's public frontage.
- ▶ **Transparency:** The facade of a building shall be appropriately transparent to allow active ground floor uses, such as retail, commercial or community uses, to be visible from the street.
- ▶ **Streetwall Articulation:** The street walls defining urban blocks shall be articulated to create rhythm and variety, achieving a fine-grained pattern to the urban fabric.
- ▶ **Building Corners:** Building corners are a placemaking element that should be designed to accentuate the unique location of the urban corner.
- ▶ **Windows:** To provide human scale to buildings, windows shall be well-proportioned, varied across a project, articulate the wall system, and be operable where appropriate.
- ▶ **Entrances:** Entrances shall be well-designed, appropriately scaled, and easy to find. They shall be a special feature in the design of the building.
- ▶ **Shade and Cover:** Canopies, awnings and sunshade shall be used to provide shade and cover for people and buildings, contributing to comfort and sustainability.
- ▶ **Elevations:** Elements that project from a building façade shall serve to animate the building's elevations, by adding visual variety & interest while enhancing the connection between public & private realms.
- ▶ **Façade Materials:** Buildings shall be constructed with exterior materials of the highest quality. Exterior materials, textures and colors shall be selected to further articulate the building design.
- ▶ **Lighting:** Building facades shall have illumination appropriate to their use and location, with light fixture design selected to best complement the architectural design of the project.
- ▶ **Exterior Signage:** All signage on the exterior, or visible from the exterior, of a structure shall be designed to carefully integrate with the structure's architecture, and should enhance the appearance of the structure as well as contribute to the overall character of the streetscape.

- ▶ Construction Screening: Temporary construction screening should have a strong graphic appearance in addition to providing for safe pedestrian routes along exposed sides of a construction site.

City of Sacramento Planning and Development Code (Title 17)

The City of Sacramento's Planning and Development Code (Sacramento City Code Title 17) is intended "[t]o implement the city's general plan through the adoption and administration of zoning laws, ordinances, rules, and regulations" (§17.100.010(B)). To achieve this outcome the Planning and Development Code:

- ▶ regulates the use of land, buildings, or other structures;
- ▶ 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; and
- ▶ regulates the physical characteristics of buildings, structures, and site development, including the location, height, and size of buildings and structures; yards, courts, and other open spaces ; lot coverage; land use intensity through regulation of residential density and floor area ratios; and architectural and site design.

The City of Sacramento Planning and Development Code (adopted April 9, 2013) designates the project site as a High-Rise Residential Zone (R-5 Zone). The purpose of the R-5 Zone is "to permit dwellings, institutions, and limited commercial goods and service uses, serving the surrounding neighborhood." The maximum residential density in the R-5 Zone is 175 dwelling units per acre, and the proposed buildings would be within that density. The maximum height in the R-5 Zone is 240 feet, and proposed building heights would be within that limit.

4.1.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

A description of the project site and the surrounding area was obtained from a site visit and photographs, some of which are depicted in Figure 4.1-3 and Figure 4.1-4, above. The City's 2030 General Plan and Master EIR were also reviewed with respect to visual resources.

The City's policies related to scenic views focus on publicly accessible views. The project site does not contain any scenic vistas and development of the project would have no effect on any scenic vistas. In addition, there are no scenic highways in the vicinity of the project site. Development of the project would have no effect related to damage to scenic resources visible from a state scenic highway.

California Public Resources Code Section 21099(d) provides that aesthetic impacts of a qualifying transit project shall not be considered significant effects on the environment. The proposed project qualifies as a residential project in an infill area that is located in a transit priority area (Public Resources Code Sections 21099[a] and 21099[d]). Therefore, the discussion of aesthetics issues is included in this EIR for informational purposes only. Please see Chapter 4.0 of this EIR, which discusses the project relative to these criteria.

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, the analysis below evaluates the potential aesthetic impacts of the proposed project in consideration of the following thresholds:

- ▶ Have a substantial adverse effect on a scenic vista;
- ▶ Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- ▶ Substantially degrade the existing visual character or quality of the site and its surroundings; or
- ▶ Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An initial study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An initial study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment, and, therefore, would not require additional analysis in the EIR. This process is often referred to as “scoping out” issues.

The Initial Study identified that Public Resources Code Section 21099(d) provides that aesthetic impacts of a qualifying project shall not be considered significant effects on the environment and that the project qualifies for this streamlining provision. However, as discussed above, for the purposes of public disclosure, the City has elected to evaluate the aesthetic impacts of the proposed project even though the discussion is not required by CEQA.

AESTHETICS DISCUSSION

IMPACT The proposed project could have a substantial adverse effect on a scenic vista. *Based on the*
4.1-1 *analysis below, there is **no impact**.*

A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. There are no scenic vistas present in the project vicinity. The project site is located in a developed urban setting within the City of Sacramento. The proposed project would have **no impact** on a scenic vista.

Mitigation Measures

None required.

IMPACT 4.1-2 The proposed project could substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. *Based on the analysis below, there is **no Impact**.*

None of the state or interstate highway segments within the City have been designated as scenic. There are no rock outcroppings on-site. Impacts related to historic structures are discussed in Section 4.4, “Cultural Resources,” and there are no historic buildings that could be viewed from a state scenic highway or other officially designated scenic route that would be affected by the project. Impacts related to tree removal are addressed in Impact 4.1-3 below, and there are no trees that could be viewed from a state scenic highway or other officially designated scenic route that would be affected by the proposed project. Thus, the proposed project would have **no impact** on scenic resources within the vicinity of a scenic highway.

Mitigation Measures

None required.

IMPACT 4.1-3 The proposed project could substantially degrade the existing visual character or quality of the site and its surroundings. *Based on the analysis below, the impact is considered **less than significant**.*

The proposed project would change the existing visual character of the project site and would alter the building composition, landscape, and certain views of and through the project site compared to existing conditions. The architectural design style has not been determined, but is anticipated to introduce modern efficient buildings to the site with potential materials consisting of steel, metal, glass and precast concrete panels. The massing would be broken down in size through the use of vertical and horizontal banding that would relate to scale of the existing high-rise buildings within the superblock (500 N Street, Pioneer Tower, and Capitol Towers). The new buildings would have architectural elements that would relate to one another, allowing the site composition to tie together in a cohesive manner. At the street-level, transparency would be achieved, in accordance with City policies. At the street level, transparency (e.g., use of windows and glass, not including opaque and translucent glass) would be provided, in accordance with the Central Core Design Guidelines. See Section 2.3.1 of the PUD Guidelines, which calls for a minimum of 60% transparency for ground floors. Since the proposed project’s North-South and East-West Promenades expand the width of existing walkways, this would open up the site visually, as viewed from public rights-of-way along the perimeter of the project site (see Appendix N for details).

The project site is developed and is surrounded by existing urban development, including high-rise development in downtown Sacramento. The project site would be redeveloped with higher-density urban uses, including multi-family residential uses, commercial/retail space, parking garages, and 24-story multi-family residential towers (with a hotel included, under one scenario). Development of the project site would change the site’s appearance as seen from nearby areas. As demonstrated by Figure 4.1-2, the existing high-rise buildings located in the superblock range from 12 stories (Pioneer Towers) to 15 stories (500 N Street and Capitol Towers) and buildings surrounding the superblock range from 1 story to 26 stories. Therefore, the proposed project, including the proposed high-rise towers (24 stories) and mid-rise buildings (seven stories, including podium parking) are within the range

of existing building heights surrounding the project site. However, the visual character of the site would change relative to existing conditions, affecting both public and private views of, and through the site compared to what currently exists. The project would change the perspective of the site, as viewed by people waiting at the light rail stop and transit stops, motorists on adjacent streets, pedestrians and cyclists using the public rights-of-way adjacent to the site, and pedestrians using the existing walkways that traverse the site. The new buildings would be viewed from nearby and distant locations. The visual changes would be most noticeable to existing residents of Capitol Towers, 500 N Street, and Pioneer Towers, particularly for some residents living on lower floors. Please refer to Chapter 2, "Project Description," for more details on the proposed project.

The proposed project requires site plan and design review by the City's Planning and Design Commission (Section 17.808 of the Planning and Development Code) and compliance with applicable design policies included in the *Sacramento Central City Urban Design Guidelines*. The *Guidelines* address potential aesthetic effects of the project related to building architecture, scale, and materials by requiring transitions in scale, design, and placement of buildings in a manner that engages the street; inclusion of landscaping and small public open spaces; integration of parking and buildings; interconnected internal circulation for vehicles, pedestrians, and bicycles; and planting of street trees that provide shade and enhance character and identity, among other requirements.

As discussed in more detail in the Project Description (Chapter 2 of this EIR), the proposed project includes PUD Guidelines that establish the development framework and design guidance for the land use, circulation, infrastructure, community design, architecture, landscaping, open space, and other components of the project (see Appendix N). The PUD Guidelines include as objectives the promotion of high-quality design of Sacramento Commons, while permitting flexibility for innovative design solutions, site-specific standards to ensure compatibility with the surrounding area context, and a cohesive development vision. The PUD Guidelines establish the framework for future development and identify the process to evaluate, review, and approve future applications within the proposed Sacramento Commons project.

Vegetation on the project site is comprised entirely of shade and ornamental trees and other plants that make up the landscape. The on-site urban vegetation consists of street tree strips (i.e., linear rows of trees adjacent to city streets that surround the site) and shade tree/lawn areas internal to the project site (i.e., grassy lawn areas with trees shading portions of the lawn). Trees are most commonly distributed in planting strips around the perimeter of the project site along City streets and sidewalks and around on-site buildings, parking lots, and adjacent to internal walkways that traverse the site.

Tree cover is distributed fairly evenly across the site overall. Most of the on-site trees were planted in conjunction with development of the project site in the 1960s, and, therefore, are mature. Of the 291 trees identified on-site, 50 are classified as a City Street Tree or a Heritage Tree, 39 meet the definition of a City Street Tree, and 11 meet the criteria for classification as a Heritage Tree. Of the 39 City Street Trees, six also meet the criteria for classification as a Heritage Tree. Construction of the proposed project is expected to result in the removal of up to four Heritage Trees in good or fair condition and the potential removal of up to four City Street Trees (Dudek 2014).

The project site contains approximately 291 trees with existing tree canopy coverage of approximately 247,402 square feet (5.7 acres). The proposed East- West and North-South Promenades through the central portion of the project site will allow for retention of some trees. Additionally, many of the trees adjacent to Capitol Towers and non-City Street Trees along 7th Street, N Street, and P Street will be retained.

Construction of the proposed project is expected to result in the removal of approximately four Heritage Trees, approximately four City Street Trees, and approximately 191 Non-Heritage Trees (trees that do not meet the City's definition of either a Heritage Tree or City Street Tree and are not regulated by City Code) (see Appendix M, Dudek 2014). As noted in the Arborist Report, the removal of approximately 199 trees would result in the loss of approximately 142,410 square feet of tree canopy cover. A total of approximately 92 existing trees are proposed to be retained on site, leaving a remaining tree canopy cover of approximately 104,993 square feet (see Appendix M).

The proposed project's Conceptual Landscape Plan is intended to restore and, over time, enhance the tree canopy on-site (see Figure 4.1-5) and includes a total of approximately 247 new trees to be planted, as discussed in Chapter 2, "Project Description," and as shown on the Conceptual Landscape Plan presented in Appendix N. The Conceptual Landscape Plan identifies approximately 147 new trees planted throughout the site at ground level, while the remaining approximately 100 new trees would be planted on balconies and roof tops, referred to as "podium" trees. Including newly-planted ground level trees (147), podium-level trees (100) trees, and 92 existing healthy trees proposed to be retained on-site, a total of approximately 339 trees are included in the proposed project's Conceptual Landscape Plan.

Project construction, including installation of project landscape, would occur in phases (please refer to Chapter 2 of this EIR, "Project Description" for information on phasing). Trees would be planted as the project builds out, allowing those trees to mature and contribute to the tree canopy prior to overall project completion. If proposed podium trees are also included (100), as shown in Table 4.3-6, at 10 years after installation of project landscaping, the tree canopy cover on the project site would be approximately 167,201 square feet (roughly 68 percent of the existing coverage) and at 25 years would increase to 275,979 square feet (roughly a 12 percent increase compared to existing canopy coverage). Therefore, as trees included in the proposed project mature, it is anticipated that the tree canopy coverage on the project site would be similar to the existing coverage.

Figures 4.1-6 through 4.1-9 depict retained and planted trees, including podium trees, as well as conceptual views of the project site with implementation of the proposed project.

Except for the City Street Trees and Heritage Trees that are planned to be preserved, most of the existing landscape would be replaced with new landscaping as a part of the proposed project. The new landscaping would include wide North-South and East-West Promenades, a plaza at the southeast corner of the project site, replacement of existing surface parking with landscaped areas, and other landscape improvements.



Source: Van Tilburg, Banvard & Soderbergh, Melendrez, 2014

Figure 4.1-5

Conceptual Landscape Plan at Ground Level



P



VIEW LOOKING NORTH

Figure 4.1-6

Conceptual View from P Street to North-South Promenade



VIEW LOOKING NORTHWEST

Source: Van Tilburg, Banvard & Soderbergh, 2014

Figure 4.1-7

Conceptual View of High-rises from P and 7th Streets



VIEW LOOKING SOUTH

Figure 4.1-8

Conceptual View from N Street



VIEW LOOKING EAST

Source: Van Tilburg, Banvard & Soderbergh, 2014

Figure 4.1-9

Conceptual View of Mid-rise Development from 5th Street

The proposed project would change the existing visual character of the project site and would alter the building composition, landscape, and certain views of, and through the project site compared to existing conditions. The project site is developed and is surrounded by existing urban development, including high-rise development in downtown Sacramento. Development of the project site would change the site's appearance, as seen from nearby areas. Proposed buildings on-site would be taller than some of the existing surrounding buildings and shorter than others. The proposed project requires site plan and design review by the City's Planning and Design Commission (Section 17.808 of the Planning and Development Code) and compliance with applicable design policies included in the Sacramento Central City Urban Design Guidelines, which are designed to avoid degradation in visual character of the Central City area. The PUD Guidelines include as objectives the promotion of high-quality design of the project. The changes in visual character or quality of the site are considered **less than significant**.

Mitigation Measures

None required.

IMPACT The proposed project could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. *Based on the analysis below, the impact is considered less than significant.*
4.1-4

Nighttime lighting and daytime glare currently exists from the Capitol Towers building, as well as surrounding off-site buildings, such as the 500 N Street condominiums and the Pioneer Towers, as well as other existing development in the vicinity of the projects site. The garden apartments and clubhouse also have building lights, as well as overhead parking lot lights and lighting along the existing walkways.

The proposed project would replace the existing garden apartments with new mid-rise and high-rise buildings and, under one option, a hotel, each with the potential to increase the amount of nighttime light generated and potential glare from building windows and exterior building materials. New lighting fixtures (interior and exterior) would be installed that could increase the amount of nighttime lighting on the project site. Most of the increase in nighttime lighting would originate from within and around new buildings, from outdoor lighting along the exterior of buildings, as part of landscaping features, and along interior walkways.

The use of glass and other reflective materials on buildings could cause daytime glare. Specifically, increased daytime glare could originate from exterior glass, both windows and architectural glass, which could be used to construct new mid-rise and high-rise buildings.

The project's PUD Guidelines (Appendix N) demonstrate how the project will avoid adverse effects in the area. The PUD Guidelines related to aesthetics regarding light and glare include text:

"Lighting within the community is designed to create a comfortable and safe pedestrian environment into the evening, with emphasis on low level or ambient pedestrian lighting that prevents unnecessary light spillage or glare on adjacent or adjoining residential units. Pedestrian-scaled lighting is planned along the streets, North-South and East-West Promenades within Sacramento Commons (p. 27)...

“Lighting provided in parking structures or garages should not be visible from the public right-of-way or cast glare on adjacent walkways (p. 53)...

“Pedestrian lighting should provide adequate lighting for safety and navigation and shielded and directed downward to avoid casting glare into adjoining residential units or properties (p. 56)...

“Building materials selected should be selected to minimize the impacts of glare on surrounding development (p. 58)...

“Materials and glass textures that clad tower façades should be carefully chosen to reduce glare and reflectivity (p. 59).”

The project is designed, as detailed in the PUD Guidelines (Appendix N), to use low level or ambient pedestrian lighting, to select and design lighting in parking structures or garages that is not visible from the public right-of-way and does not cast glare on adjacent walkways, to shield and direct lighting downward to avoid casting glare into adjoining residential units or adjacent properties, and to use building materials that minimize glare. The impact is considered **less than significant**.

Mitigation Measures

None required.

4.1.4 CUMULATIVE IMPACT DISCUSSION

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG’s MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

Public Resources Code, Section 21155.2 [c] [1] provides that, “where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]” (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the cumulative discussion below.

As noted previously, Public Resources Code Section 21099(d) provides that aesthetic impacts of a qualifying transit area project shall not be considered significant effects on the environment, including cumulative impacts. The proposed project qualifies as a residential project in an infill area that is located in a transit priority area (Public Resources Code Sections 21099[a] and 21099[d]). The discussion below is for informational purposes only.

IMPACT Cumulative impact related to scenic vistas. *Based on the analysis below, the project would have no*
4.1-5 *cumulative contribution to any cumulative impact.*

The City did not study impacts on scenic vistas as an adverse environmental effect in the 2030 General Plan Master EIR – either as an impact of development within the General Plan Policy Area or as a cumulative impact.

Impact AES-2 in the MTP/SCS EIR discusses impacts related to blocking panoramic views and views of significant landscape features or landforms from public viewing areas (starting on p. 3-38). The MTP/SCS EIR found that impacts related to buildout of Center and Corridor Communities (such as in the vicinity of the project site) are considered potentially significant (p. 3-41) because some development within the Center and Corridors Communities has the potential to interfere with public viewing areas that provide panoramic views or views of specific resources, such as the American River (p. 3-50). Mitigation measure AES-4 is identified in the MTP/SCS EIR to address this impact, but the MTP/SCS EIR concludes the impact remains significant and unavoidable. However, development of the proposed project does not have the potential to impact publicly accessible panoramic views or views of significant landscape features or landforms. Therefore, development of the proposed project will not contribute to the cumulative impact identified in the MTP/SCS EIR.

Construction-related impacts related to blockage of panoramic views or views of significant landscape features or landforms are discussed under Impact AES-4b of the MTP/SCS EIR (starting on p. 3-62). The MTP/SCS EIR concludes that construction related impacts can be reduced to a less-than-significant level through implementation of Mitigation Measure AES-9 (p. 3-64). However, construction of the proposed does not have the potential to impact publicly accessible panoramic views or views of significant landscape features or landforms. Therefore, construction of the proposed project will not contribute to the cumulative construction-related impact identified in the MTP/SCS EIR.

The project has no impact to scenic vistas and therefore would have **no cumulative contribution** to any cumulative impact.

Mitigation Measures

None required.

IMPACT Cumulative impact related to existing visual character or quality of the site and its surroundings.
4.1-6 *Based on the analysis below, the impact is considered less than cumulatively considerable.*

The City did not study impacts to existing visual character as an adverse environmental effect in the 2030 General Plan Master EIR – either as an impact of development within the General Plan Policy Area or as a cumulative impact.

Impact AES-3 in the MTP/SCS EIR discusses impacts related to a change in visual character (starting on p. 3-50). The MTP/SCS EIR found that impacts related to buildout of Center and Corridor Communities (such as in the vicinity of the project site) would increase the density in these areas, but since they are already more dense than other portions of the region, the typical views in these areas

would not be altered substantially. The MTP/SCS EIR concludes that such impacts would be less than significant.

The proposed project would change the existing visual character of the project site and would alter the building composition, landscape and certain views of, and through the project site compared to existing conditions. However, the project site is already developed and is surrounded by existing urban development. Neither the 2030 General Plan Master EIR nor the MTP/SCS EIR identified a significant cumulative impact to which the project would contribute. Changes in visual character or quality of the site are **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.1-8	Cumulative impact related to a new source of substantial light or glare which would adversely affect day or nighttime views in the area. <i>The impact is considered less than cumulatively considerable.</i>
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Glare impacts associated with buildout of the 2030 General Plan are disclosed in the City's 2030 General Plan Master EIR under Impact 6.13-1 (p. 6.13-26). Impact 6.13-2 discusses impacts related to light spillage (pp. 6.13-26 through 6.13-28). Both impact discussions are framed as changes in the visual environment that would create a public hazard (or annoyance). Impact 6.13-1 identifies that buildings could include materials that could result in glare if the surfaces are highly reflective, but that since the City is mostly built out, the change would be minimal. The 2030 General Plan Master EIR indicates that an exception could be "high-rise skyscrapers in the downtown area that could produce substantial amounts of glare if significant amounts of glass and other reflective materials are used on the exterior of the building" (p. 6.13-26). The 2030 General Plan Master EIR concludes that such projects would be required to go through the City's Design Review process, which is used to review and enforce City design policy, including issues related to light and glare. The 2030 General Plan Master EIR recommends Mitigation Measure 6.13-1, which commits the City to amending the Planning and Development Code to prohibit the use of material that would create glare. The same language used in Mitigation Measure 6.13-1 is in the draft 2035 General Plan as Policy ER 7.1.4. According to the 2030 General Plan Master EIR, since the City is mostly built out, "the amount of additional lighting that could be created as a result of the 2030 General Plan would be a small fraction in relation to the existing ambient light already present..." and the impact is considered less than significant (p. 6.13-28). Under Impact 6.13-3, the City found that compliance with Mitigation Measure 6.13-1 (now 2035 General Plan Policy ER 7.1.4) would ensure that buildout of the 2030 General Plan would have a less-than-cumulatively considerable contribution to the potentially significant cumulative impact associated with glare (p. 6.13-29). Under Impact 6.13-4, the City concluded in the 2030 General Plan Master EIR that existing development has created a significant cumulative impact related to nighttime lighting, but that the 2030 General Plan would have a less-than-cumulatively considerable contribution (p. 6.13-30).

The MTP/SCS EIR addressed light and glare impacts under Impact AES-1a, finding that impacts in Center and Corridor Communities (of which the project site is a part) would have only a marginal and less-than-significant impact (p. 3-20).

Neither the 2030 General Plan Master EIR nor the MTP/SCS EIR identified a significant cumulative light or glare impact to which the project would contribute. The project is designed to use low level or ambient pedestrian lighting, to select and design lighting in parking structures or garages that is not visible from the public right-of-way and does not cast glare on adjacent walkways, to shield and direct lighting downward to avoid casting glare into adjoining residential units or adjacent properties, and to use building materials that minimize glare. The impact is considered **less than cumulatively considerable**.

Mitigation Measures

None required.

4.2 AIR QUALITY

This section addresses air quality in the project vicinity, as relevant to the proposed project. The analysis describes the existing environmental conditions, the methods used for assessment, and the potential environmental impacts associated with implementing the proposed project. All analyses included in this section were performed based on the Sacramento Metropolitan Air Quality Management District's (SMAQMD) CEQA Guide to Air Quality Assessment (SMAQMD 2014a). Mitigation measures are included to address potentially significant impacts of the proposed project. This section also provides a brief overview of federal, state, and local laws and regulations pertaining to air quality.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to air quality impacts, including impacts associated with increased vehicular demand generated by the proposed project and increased demand for energy, which would be anticipated to have off-site indirect air quality effects. Each of these topics is addressed in this section. Copies of the both NOPs and comments received in response to both NOPs are included in Appendix B to this EIR.

Project emissions information is included in Appendix C to this EIR.

Greenhouse gas emissions and energy-related impacts are addressed in Section 4.6 of this EIR.

4.2.1 ENVIRONMENTAL SETTING

Air quality is defined by the concentration of pollutants in relation to human health. Concentrations of air pollutants are determined by the rate and location of emissions released by pollution sources and by the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, and sunlight. Ambient air quality conditions are influenced by such natural factors as topography, meteorology, and climate, in addition to the amount of air pollutant emissions present.

The project site is located in Sacramento County, which is part of the Sacramento Valley Air Basin (SVAB). The SVAB encompasses Butte, Colusa, Glenn, Tehama, Shasta, Yolo, Sacramento, Yuba, and Sutter counties and parts of Placer, El Dorado, and Solano counties. The SVAB is bounded on the north and west by the Coast Ranges, on the east by the southern portion of the Cascade Range and the northern portion of the Sierra Nevada, and on the south by the San Joaquin Valley Air Basin. Summer conditions are typically characterized by high temperatures and low humidity. Rainstorms occur occasionally during winter, and are interspersed by stagnant and sometimes foggy conditions. Rain falls mainly from late October to early May, in amounts that vary substantially each year.

CRITERIA AIR POLLUTANTS

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) have identified six air pollutants as being of nationwide and statewide concern: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter (EPA 2012). Because the ambient air quality standards for these air pollutants are regulated using human health and environmentally based

criteria, they are commonly referred to as “criteria air pollutants” (ARB 2014a). In general, the State of California standards are more stringent – particularly for ozone and particulate matter (PM₁₀ and PM_{2.5}) – than the federal standards.

The ARB regional air quality monitoring network provides information on ambient concentrations of nonattainment criteria air pollutants. The closest monitoring stations to the project site are located at (California Air Resources Board 2014c):

- ▶ T Street (monitors ozone as well as PM₁₀ and PM_{2.5} [defined as respirable and fine particulate matter with aerodynamic resistance diameters of 10 micrometers and 2.5 micrometers or less, respectively]); and
- ▶ El Camino and Watt Avenues (monitors carbon monoxide).

Table 4.2-1, below, contains a five-year summary of air pollutant (concentration) data collected at these monitoring stations for ozone, PM₁₀, PM_{2.5}, and carbon monoxide.

Table 4.2-1 Criteria Air Pollutant Measurement (2008–2012) Number of Days Standards Were Exceeded and Maximum Concentrations Measured^a						
Pollutant	Applicable Standard	2008	2009	2010	2011	2012
Ozone – T Street Station						
Days 1-hour State Std. Exceeded	>0.09 ppm	7	3	0	1	1
Max. 1-hour Conc. (ppm)		0.107	0.102	0.092	0.100	0.104
Days 8-hour National Std. Exceeded	>0.075 ppm	9	4	0	1	4
Days 8-hour State Std. Exceeded	>0.07 ppm	18	13	1	5	9
Max. 8-hour Conc. (ppm)		0.092	0.089	0.074	0.087	0.093
Suspended Particulates (PM₁₀) – T Street Station						
Estimated Days Over 24-hour National Std.	>150 µg/m ³	0	0	0	0	0
Estimated Days Over 24-hour State Std.	>50 µg/m ³	17.8	6.0	6.1	0	0
Max. 24-hour Conc. National/State (µg/m ³)		73.7/70.9	47.8/50.7	53.5/53.9	38.8/42.2	36.2/36.7
State Annual Average (µg/m ³)	>20 µg/m ³	25.1	19.9	17.6	19.2	17.8
Suspended Particulates (PM_{2.5}) – T Street Station						
Estimated Days Over 24-hour National Std.	>35 µg/m ³	15.4	3.0	0	18.4	0
Max. 24-hour Conc. National (µg/m ³)		66.1	37.7	30.6	50.5	27.1
Annual Average (µg/m ³)	>12 µg/m ³	10.9	9.5	8.0	10.1	8.3
Carbon Monoxide – El Camino & Watt Station						
Days 8-hour Std. Exceeded	>9 ppm	0	0	0	0	0
Max. 8-hour Conc. (ppm)		2.8	2.8	1.9	2.8	2.1
Days 1-hour Std. Exceeded	>20 ppm	0	0	0	0	0
Max. 1-hour Conc. (ppm)		3.3	3.3	2.3	3.0	2.7
Notes: conc. = concentration; ppm = parts per million; ppb=parts per billion; µg/m ³ = micrograms per cubic meter.						
"Exceeded" means number of days exceeded for all days in a given year, except for particulate matter. PM ₁₀ and PM _{2.5} are monitored every six days.						
Source: California Air Resources Board 2014c.						

Ozone

Ozone is a colorless, odorless gas that exists primarily as a beneficial component of the ozone layer in the upper atmosphere (stratosphere) and as a pollutant in the lower atmosphere (troposphere). Tropospheric ozone is a principal cause of lung and eye irritation in the urban environment. Ozone is formed in the troposphere through a series of reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x) in the presence of sunlight. Both ROG emissions and NO_x emissions are considered critical in ozone formation. Control strategies for ozone have focused on reducing ROG and NO_x emissions from vehicles, industrial processes using solvents and coatings, and consumer products. Ozone concentrations are generally greatest in the summer, when atmospheric inversions¹ are greatest and the presence of sunlight and heat is high.

Carbon Monoxide

Carbon monoxide (CO) is a colorless and odorless gas that, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. Overall, CO emissions are decreasing, because the Federal Motor Vehicle Control Program has mandated increasingly lower emission levels for vehicles manufactured since 1973. CO concentrations are typically higher in the winter, because of the higher rates of combustion inefficiency in colder engines. California has required the use of oxygenated gasoline² in the winter months to reduce CO emissions.

Relatively high concentrations of CO are typically found near crowded intersections and along heavily used roadways carrying slow-moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (300–600 feet) of heavily traveled roadways. Vehicle traffic emissions can cause localized CO impacts, and severe vehicle congestion at major signalized intersections can generate elevated CO levels (“hotspots”) that can be hazardous to humans present adjacent to the intersections.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is a gas that is a product of the combustion of fossil fuels generated from vehicles and stationary sources, such as power plants and boilers. NO_2 is a type of NO_x that can cause lung damage and is a principal contributor to ozone and smog production.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a gas that is a product of the combustion of fossil fuels, with the primary source being power plants and heavy industry that use coal or oil as fuel. Sulfur dioxide is also a product of diesel engine emissions. The human health effects of sulfur dioxide include lung disease and breathing problems for asthmatics. Sulfur dioxide in the atmosphere contributes to the formation of acid rain. Relatively little combustion of coal and oil occurs in the SVAB and as a result, sulfur dioxide is less of a concern than in other parts of the country.

¹ An inversion is a deviation from the usual decrease or increase with altitude of the value of an atmospheric property. Most of the time, an inversion refers to an increase in temperature with height. Temperature inversions occur when the air above a certain level is warmer than the air below.

² Oxygenates are used as gasoline additives to reduce carbon monoxide and soot that is created during the combustion (i.e., burning) of the fuel.

Lead

Lead is a highly toxic metal that may cause a range of human health effects. Lead anti-knock additives in gasoline represent a major source of lead emissions to the atmosphere. However, lead emissions have decreased substantially as a result of the near-elimination of leaded-gasoline use. Lead-based paint, banned or limited by EPA in the 1980s, is a health hazard when it deteriorates by peeling, chipping, or cracking, or when it generates lead dust when scraped, sanded, or heated. Lead emissions have decreased substantially as a result of the near-elimination of leaded-gasoline use.

Particulate Matter

Particulate matter (PM) is a complex mixture of extremely small particles and liquid droplets. PM is made up of acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. Natural sources of particulates include windblown dust and ocean spray. Some particles are emitted directly into the atmosphere. Others, referred to as secondary particles, result from gases that are transformed into particles through physical and chemical processes in the atmosphere.

The size of PM is directly linked to the potential for causing health problems. The EPA is concerned about particles that are 10 micrometers in diameter or smaller, because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects, such as aggravation of respiratory and cardiovascular disease, lung disease, and decreased lung function. Individuals particularly sensitive to fine particle exposure include older adults, people with heart or lung disease, and children. EPA groups PM into two categories, coarse PM (PM₁₀), and fine PM (PM_{2.5}), as described below.

Inhalable coarse particles (PM₁₀), such as those found near roadways and dusty industries, are larger than 2.5 micrometers and smaller than 10 micrometers in diameter. Sources of coarse particles include crushing or grinding operations and dust from paved or unpaved roads. Control of PM₁₀ is achieved primarily by controlling dust at construction and industrial sites, cleaning paved roads, and wetting or paving frequently used unpaved roads.

PM₁₀ includes the subgroup of finer particles (PM_{2.5}), such as those found in smoke and haze, that have an aerodynamic diameter of 2.5 micrometers or smaller. These finer particles pose an increased health risk, because they can deposit deep in the lungs and contain substances that are particularly harmful to human health. Sources of fine particles include all types of combustion activities, such as motor vehicles, power plants, wood burning, and certain industrial processes. PM_{2.5} is the major cause of reduced visibility (haze) in California.

TOXIC AIR CONTAMINANTS

There are no significant stationary sources of toxic air contaminants (TACs) on or in the vicinity of the project site. The only TACs that would be present on a regular basis in significant quantities on or near the project site would be PM associated with diesel exhaust from motor vehicles and equipment on nearby freeways. The largest source of diesel exhaust from motor vehicles would be Interstate 5, which is approximately 1,300 feet from the western edge of the project site.

ODORS

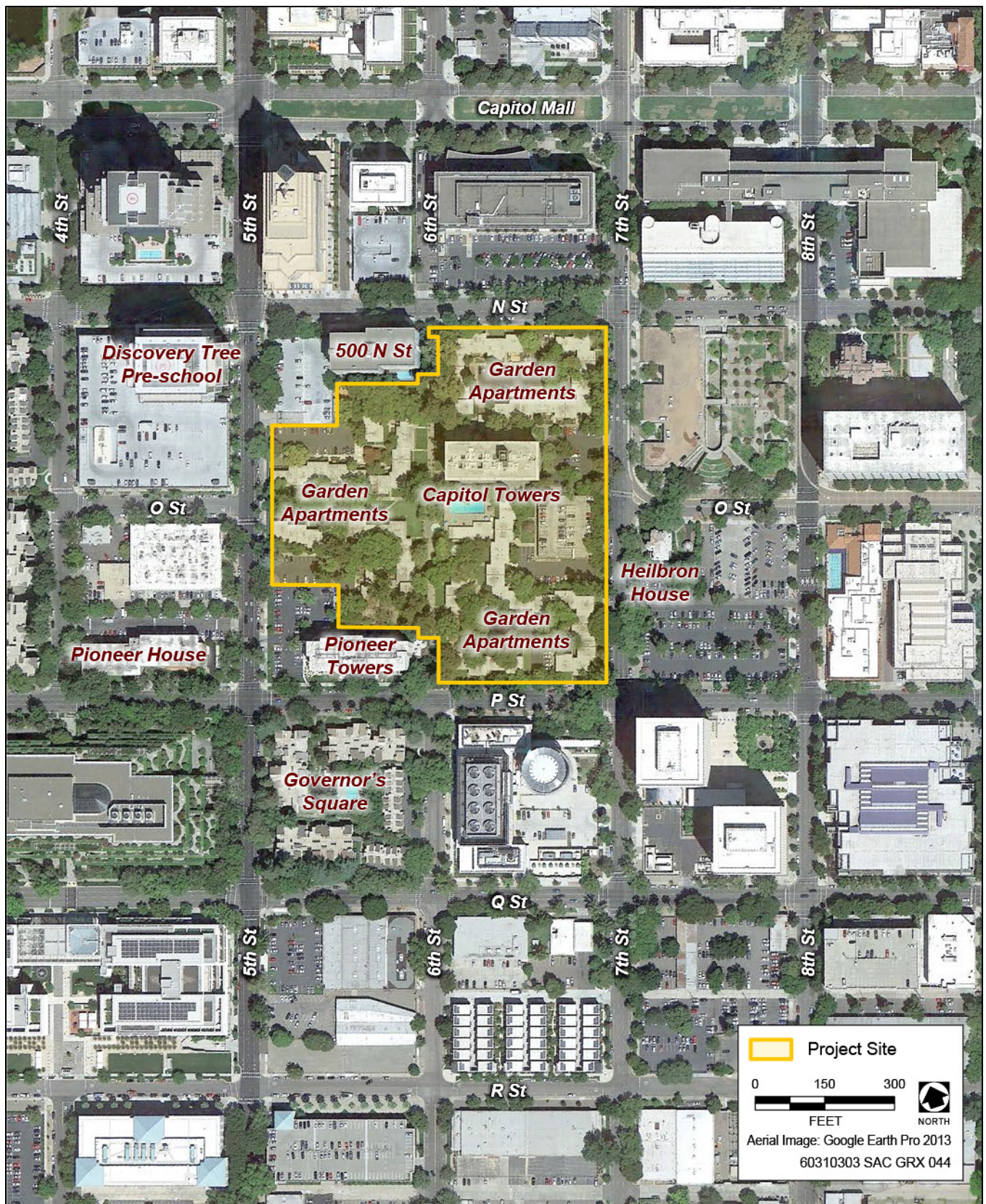
Odors are generally regarded as an annoyance rather than a health hazard (SMAQMD 2013). However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Quality and intensity are two properties present in any odor. The *quality* of an odor indicates the nature of the smell experience. *Intensity* refers to the strength of the odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Among the industries and/or facilities that are likely to emit objectionable odors are wastewater treatment plants, landfills, composting facilities, petroleum refineries, and chemical and fiberglass manufacturers. The project vicinity includes residential and office buildings to the north, south, east, and west and these uses do not typically generate objectionable odors. However, within and surrounding the project site, odors include those normally associated with an urban residential mixed use and office environment, such as cooking by residents and food establishments, vehicle exhaust, and solid waste storage.

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities.

For analysis purposes, the following uses would be considered sensitive receptors: the 15-story Capitol Towers building; the 206 two- and three-story garden apartments (however, these units would be removed in four phases as a part of the project); the 15-story 500 N Street condominium tower; the 12-story Pioneer Towers senior apartments; the two multi-family properties (Governor's Square and Pioneer House) located at the southeast and northwest corners, respectively, of 5th and P streets; and schools near the intersection of N Street and 4th Street, on I Street between 10th and 11th Streets, on P Street between 10th and 11th Streets, and the "Phoenix Schools" private preschool at 600 I Street, approximately 0.4 mile north of the project site. See Figure 4.2-1 for a graphical representation of sensitive receptors. Each of the sensitive receptors in the project vicinity is labeled on Figure 4.2-1. (Proposed residences on-site are also considered sensitive receptors for the purposes of impact analysis).



Note: Uses labeled in red above are considered sensitive receptors.

Figure 4.2-1

Location of Sensitive Receptors

4.2.2 REGULATORY SETTING

FEDERAL

Criteria Air Pollutants

The Clean Air Act (CAA) of 1970 required that regional planning and air pollution control agencies prepare a regional air quality plan to outline the measures by which both stationary and mobile sources of pollutants would be controlled to achieve all national ambient standards by the deadlines specified in the CAA. These ambient air quality standards are intended to protect public health and welfare, and they specify the concentration of pollutants (with an adequate margin of safety) to which the public can be exposed without adverse health effects. They are designed to protect those segments of the public most susceptible to respiratory distress: asthmatics, the very young, the elderly, people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels that are somewhat above ambient air quality standards before adverse health effects are observed. Table 4.2-2 presents the national (and California) ambient air quality standards (NAAQS).

Toxic Air Contaminants

TACs are regulated under both federal and state laws. Federal laws use the term “hazardous air pollutants” (HAPs) to refer to the same types of compounds that are referred to as TACs under state law. Both terms encompass essentially the same compounds. The 1977 Clean Air Act Amendments (CAAA) required EPA to identify the national emission standards for hazardous air pollutants to protect public health and welfare. These substances include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAAA, 189 substances are regulated as HAPs.

Odors

Odors are typically considered a local air quality problem. EPA has not established regulations that deal with the generation of odors. However, local air districts have developed rules that apply to and regulate the generation of odors.

STATE

Criteria Air Pollutants

Although the CAA established the NAAQS, individual states retained the option to adopt more stringent standards and to include other pollution sources. California had already adopted its own air quality standards when federal standards were established, and because of California’s unique meteorology, there is a considerable difference between the California ambient air quality standards (CAAQS) and NAAQS. As shown above in Table 4.2-2, the CAAQS are at least as protective as NAAQS and are often more stringent. California has also established standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride, which are not addressed by the NAAQS.

**Table 4.2-2
National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method	Primary ^{c,d}	Secondary ^{c,e}	Method
Ozone	1 hour	0.09 ppm (180 µg/m ³)	Ultraviolet photometry	–	Same as primary standard	Ultraviolet photometry
	8 hours	0.070 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)		
Respirable particulate matter (PM ₁₀)	24 hours	50 µg/m ³	Gravimetric or beta attenuation	150 µg/m ³	Same as primary standard	Inertial separation and gravimetric analysis
	Annual arithmetic mean	20 µg/m ³		–		
Fine particulate matter (PM _{2.5})	24 hours	–	–	35 µg/m ³	Same as primary standard	Inertial separation and gravimetric analysis
	Annual arithmetic mean	12 µg/m ³	Gravimetric or beta attenuation	12 µg/m ³		
Carbon monoxide	1 hour	20 ppm (23 mg/m ³)	Nondispersive infrared photometry (NDIR)	35 ppm (40 mg/m ³)	–	Nondispersive infrared photometry (NDIR)
	8 hours	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	–	
	8 hours (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen dioxide ^f	1 hour	0.18 ppm (339 µg/m ³)	Gas phase chemiluminescence	100 ppb (188 µg/m ³)	–	Gas phase chemiluminescence
	Annual arithmetic mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as primary standard	
Sulfur dioxide ^g	1 hour	0.25 ppm (655 µg/m ³)	Ultraviolet fluorescence	75 ppb (196 µg/m ³)	–	Spectrophotometry (paraosanine method)
	3 hours	–		–	0.5 ppm (1,300 µg/m ³)	
	24 hours	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ^g	–	
	Annual arithmetic mean	–		0.030 ppm (for certain areas) ^g	–	
Lead ^{h,i}	30-day average	1.5 µg/m ³	Atomic absorption	–	–	High-volume sampler and atomic absorption
	Calendar quarter	–		1.5 µg/m ³ (for certain areas) ⁱ	Same as primary standard	
	Rolling 3-month average	–		0.15 µg/m ³		

**Table 4.2-2
National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method	Primary ^{c,d}	Secondary ^{c,e}	Method
Visibility-reducing particles ^j	8 hours	See footnote j	Beta attenuation and transmittance through filter tape			
Sulfates	24 hours	25 µg/m ³	Ion chromatography	No national standards		
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m ³)	Ultraviolet fluorescence			
Vinyl chloride ^j	24 hours	0.01 ppm (26 µg/m ³)	Gas chromatography			

Notes: mg/m³ = milligrams per cubic meter; PM_{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ppb = parts per billion; ppm = parts per million; µg/m³ = micrograms per cubic meter

^a California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than 1. For PM_{2.5}, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standards. Contact the U.S. Environmental Protection Agency for further clarification and current national policies.

^c Concentration expressed first in the units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and reference pressure of 760 torr; parts per million (ppm) in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

^d National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

^e National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^f To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

^g On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical of 0.075 ppm.

^h The California Air Resources Board (ARB) has identified lead and vinyl chloride as toxic air contaminants, with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

ⁱ The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.

^j In 1989, ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and the "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: ARB 2013

In 1988, California passed the California Clean Air Act (CCAA) (California Health and Safety Code Section 39600 et seq.). Like its federal counterpart, the CCAA called for the designation of areas as attainment or nonattainment, but based on state ambient air quality standards rather than the federal standards. With respect to the CAAQS, Sacramento County is currently designated as nonattainment for ozone, PM₁₀, and PM_{2.5}. For all other CAAQS, the region is designated as attainment or unclassifiable. The CCAA requires each air district in which state air quality standards are exceeded to prepare a plan documenting reasonable progress toward attainment. A 3-year update is required.

Toxic Air Contaminants

The California Health and Safety Code defines TACs as air pollutants that may cause or contribute to an increase in mortality or in serious illness, or that may pose a present or potential hazard to human health. The State Air Toxics Program was established in 1983 by Assembly Bill (AB) 1807. A total of 243 substances have been designated TACs under California law. They include the 189 (federal) HAPs adopted in accordance with AB 2728. The Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources. However, AB 2588 does not regulate air toxics emissions. TAC emissions from individual facilities are quantified and prioritized. “High-priority” facilities must perform a health risk assessment and, if specific thresholds are violated, must communicate the results to the public in the form of notices and public meetings.

In 2000, ARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled vehicles and engines. The regulation is anticipated to result in an 80% decrease in statewide diesel-related health risk in 2020 relative to the year 2000 risk. Additional regulations apply to new trucks and diesel fuel. Subsequent ARB regulations on diesel emissions include the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Offroad Diesel Vehicle Regulation, and the New Offroad Compression Ignition Diesel Engines and Equipment Program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment.

Despite these reduction efforts, ARB recommends that proximity to sources of diesel PM (DPM) emissions be considered in the siting of new sensitive land uses. In April 2005, ARB published the *Air Quality and Land Use Handbook: A Community Health Perspective (Air Quality and Land Use Handbook)* (ARB 2005). This handbook is intended to give guidance to local governments in siting sensitive land uses near sources of air pollution. Studies have shown that public exposure to air pollution can be substantially elevated near freeways and certain other facilities, such as ports, rail yards, and distribution centers. Specifically, the *Air Quality and Land Use Handbook* focuses on risks from emissions of DPM, a known carcinogen, and establishes recommended siting distances of sensitive receptors. With respect to freeways, the handbook’s recommendations are: “Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with more than 100,000 vehicles per day or rural roads with 50,000 vehicles/day.” ARB notes that these recommendations are advisory and should not be interpreted as defined “buffer zones,” and that local agencies “must balance other considerations such as transportation needs, the benefits of urban infill, community economic development priorities, and other quality-of-life issues. With careful evaluation of exposure, health risks, and affirmative steps to reduce risk, where necessary, ARB’s position is that infill, mixed-use, higher-

density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level. Moreover, as stated above, the proposed project would be approximately 1,300 feet from the nearest large freeway (Interstate 5) and would satisfy the recommended setback distance.

ARB Regulations for Mobile Sources

Idling of Commercial Heavy Duty Trucks (13 CCR 2485)

This Airborne Toxic Control Measure (ATCM) was adopted to control emissions from idling trucks. It prohibits idling for more than 5 minutes for all commercial trucks with a gross vehicle weight rating over 10,000 pounds. The ATCM contains an exception that allows trucks to idle while queuing or involved in operational activities.

In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.)

This ATCM requires that specific fleet average requirements are met for criteria air pollutant emissions, particularly NO_x and particulate matter, from in-use off-road diesel-fueled vehicles. Where average requirements cannot be met, Best Available Control Technology requirements apply.

In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025)

This ATCM was adopted to reduce NO_x and particulate matter emissions from most in-use on-road diesel trucks and buses with a gross vehicle weight rating greater than 14,000 pounds and requires use of exhaust retrofit equipment and replacement of older vehicles.

Clean Car Standards

As required under AB 1493 (Pavley 2002) and as authorized by the granting of a waiver from the federal CAA, CARB established GHG emission standards for passenger vehicles, light-duty trucks, and other personal vehicles. These standards apply to all new passenger vehicles starting with the 2009 model year.

Senate Bill 656

In 2003, the State Legislature passed Senate Bill (SB) 656 to reduce public exposure to PM₁₀ and PM_{2.5}. The legislation requires the ARB, in consultation with local air pollution control and air quality management districts, to adopt a list of the most readily available, feasible, and cost-effective control measures that could be implemented by air districts to reduce PM₁₀ and PM_{2.5}. The legislation establishes a process for achieving near-term reductions in PM throughout California ahead of federally required deadlines for PM_{2.5}, and provides new direction on PM reductions in those areas not subject to federal requirements for PM. Source categories addressed by SB 656 include measures to address residential wood combustion and outdoor green-waste burning; fugitive dust sources such as paved and unpaved roads and construction; combustion sources such as boilers, heaters, and charbroiling; solvents and coatings; and product manufacturing. These measures include, but are not limited to, the following:

- ▶ Reduce or eliminate wood-burning devices allowed
- ▶ Prohibit residential open burning
- ▶ Permit and provide performance standards for controlled burns
- ▶ Require water or chemical stabilizers/dust suppressants during grading activities
- ▶ Limit visible dust emissions beyond the project boundary during construction
- ▶ Require paving/curbing of roadway shoulder areas
- ▶ Require street sweeping

2010 Green Building Code

On January 12, 2010, the California Building Standards Commission adopted the 2010 California Green Building Standards Code, otherwise known as the CALGreen Code. In addition to the new statewide mandates, CALGreen encourages local governments to adopt more stringent voluntary provisions, known as Tier 1 and Tier 2 provisions, to further reduce air pollutant emissions, improve energy efficiency, and conserve natural resources. If a local government adopts one of the tiers, the provisions become mandates for all new construction within that jurisdiction. Significant features of the 2010 CALGreen Code include the following:

- ▶ Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies
- ▶ Mandatory use of low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard.

Odors

The California Health and Safety Code includes extensive regulatory guidance to address odors, food safety, worker safety, and related topics, including Sections 114149-114149.3, "Ventilation," and Sections 114244-114245.7, "Refuse."

Executive Order S-1-07

Executive Order S-1-07 acknowledges that the transportation sector is the main source of GHG emissions in California. The order established a goal of reducing the carbon intensity of transportation fuels sold in California by a minimum of 10% by 2020. It also directed ARB to determine whether this Low Carbon Fuel Standard could be adopted as a discrete, early-action measure after meeting the mandates in AB 32. ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

LOCAL

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the agency responsible for air quality planning and development of the air quality plan in the project area. The air quality plan establishes the strategies used to achieve compliance with the NAAQS and CAAQS in all areas within SMAQMD's jurisdiction. All projects within SMAQMD's jurisdictional area are also subject to adopted

rules and regulations in effect at the time of construction and operation. SMAQMD develops rules and regulations and emission reduction programs to control emissions of criteria air pollutants, ozone precursors, TACs, and odors within its jurisdiction.

SMAQMD regulates air quality through its planning and review activities. SMAQMD has permit authority over most types of stationary emission sources; can require stationary sources to obtain permits; and can impose emission limits, set fuel or material specifications, or establish operational limits to reduce air pollutant emissions. SMAQMD regulates new or expanding stationary sources of TACs. For CEQA analyses, SMAQMD has developed their *CEQA Guide to Air Quality Assessment* (SMAQMD 2013) that provides guidance on how to evaluate air quality impacts from land use development projects. Because the science and tools used to analyze air quality impacts continues to change, SMAQMD periodically updates the *CEQA Guide to Air Quality Assessment* to maintain current methodologies, models, and protocols for evaluating air quality. This air quality assessment was developed consistent with the SMAQMD's *CEQA Guide to Air Quality Assessment* (SMAQMD 2013).

For state air quality planning purposes, Sacramento County is classified as a severe nonattainment area for ozone. SMAQMD must update the Clean Air Plan every three years to reflect progress in meeting the air quality standards, and to incorporate new information regarding the feasibility of control measures and new emission inventory data. SMAQMD's record of progress in implementing previous measures must also be reviewed. The Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013 SIP Revisions) and the 2009 Triennial Report and Plan Revision are the latest plans issued by SMAQMD. These plans address attainment of the federal 8-hour ozone standard and the state ozone standard, respectively.

These attainment plans depend heavily on SMAQMD's permit authority, which is exercised through the District's regulations and rules. With respect to the construction phase of the proposed project, applicable SMAQMD regulations would relate to construction and stationary equipment, PM generation, architectural coatings, and paving materials. Equipment used during project construction would be subject to SMAQMD rules and regulations (see Appendix C, p. 506).

Relevant SMAQMD rules include:

- ▶ **Rule 201 – General Permit Requirements:** Requires any project that includes the use of certain equipment capable of releasing emissions to the atmosphere as part of project operation to obtain a permit from the SMAQMD prior to operation of the equipment including an emergency generator, boiler, or heater. 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 401 – Ringelmann Chart:** Prohibits individuals from discharging into the atmosphere from any single source of emissions whatsoever any air contaminant whose opacity³ exceeds certain specified limits.

³ Opacity means degree of transparency.

- ▶ **Rule 402 – Nuisance:** To protect the public health, Rule 402 prohibits any person from discharging such quantities of air contaminants that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.
- ▶ **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 Volatile Organic Compounds (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 453 – Cutback and Emulsified Asphalt Paving Materials:** Asphalt paving operations that may be associated with implementation of the project would be subject to Rule 453. This rule applies to the manufacture and use of cutback asphalt and emulsified asphalt for paving and maintenance operations.

Sacramento 2030 General Plan

The following goal and policies from the 2030 General Plan are related to air quality.

Goal ER 6.1 Improved Air Quality. Improve the health and sustainability of the community through improved regional air quality and reduced greenhouse gas emissions that contribute to climate change.

- ▶ **Policy ER 6.1.2 New Development.** The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides, and particulate matter (PM₁₀ and PM_{2.5}) through project design.
- ▶ **Policy ER 6.1.3 Emissions Reduction.** The City shall require development projects that exceed SMAQMD ROG and NO_x operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project. (RDR)
- ▶ **Policy ER 6.1.5 Development near TAC Sources.** The City shall ensure that new development with sensitive uses located adjacent to TAC sources, as identified by the California Air Resources Board (CARB), minimizes potential health risks. In its review of these new development projects, the City shall consider current guidance provided by and consult with CARB and SMAQMD.
- ▶ **Policy ER 6.1.6 Sensitive Uses.** The City shall require new development with sensitive uses located adjacent to mobile and stationary toxic air contaminants (TAC) be designed with consideration of site and building orientation, location of trees, and incorporation of appropriate technology for improved air quality (i.e., ventilation and filtration) to lessen any potential health risks. In addition, the City shall require preparation of a health risk assessment, if recommended by Sacramento Metropolitan Air Quality Management District, to identify health issues, reduce

exposure to sensitive receptors, and/or to implement alternative approaches to development that reduces exposure to TAC sources.

- ▶ **Policy ER 6.1.14 Zero-Emission and Low-Emission Vehicle Use.** The City shall encourage the use of zero-emission vehicles, low-emission vehicles, bicycles and other non-motorized vehicles, and car-sharing programs by requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.
- ▶ **Policy ER 6.1.4 Protect all Residents Equally.** The City shall ensure that all land use decisions are made in an equitable fashion in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.

In addition to the 2030 General Plan policies that directly address air quality, there are a large number of General Plan policies that indirectly relate to air quality, or that would help to improve air quality as a co-benefit of the implementation of the subject policy. For example, Appendix B of the 2030 General Plan includes a summary of policies that relate to climate change. Some of these policies would reduce greenhouse gas emissions, including those from transportation. Those policies from Appendix B – particularly those related to land use, transportation, and urban design – would likely improve local and regional air quality as a co-benefit. Please refer to Appendix B of the 2030 General Plan for more detail.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan Update sometime in early 2015. The 2035 General Plan proposes to delete Policy ER 6.1.5 Development near TAC Sources, and delete Policy ER 6.1.6 Sensitive Uses, and to add Policy ER 6.1.4:

- ▶ **Policy ER 6.1.4 Sensitive Uses.** The City shall coordinate with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants, and will impose appropriate conditions on projects to protect public health and safety.

4.2.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

The discussion below presents the methodologies used to conduct air quality analysis, as well as to assess the significance of the project's impacts. All project modeling is included in Appendix C of this Draft EIR.

Criteria Air Pollutants

The construction and operational emissions associated with implementation of the proposed project were compared with the applicable thresholds of significance to determine the level potential impact. SMAQMD's significance thresholds serve as a proxy for determining whether the proposed project would result in a violation of any air quality standard, cause a substantial contribution to an existing or projected air quality violation, and/or conflict with any applicable air quality plan.

Construction

The proposed project would be built out over a number of years. For the purposes of this analysis, it is assumed buildout would occur over approximately six years. The proposed project's construction air pollutant emissions (criteria pollutants and TACs) were modeled using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2 (CAPCOA 2013). CalEEMod allows the user to input project-specific construction parameters such as construction schedule, heavy-duty construction equipment numbers and types, haul trucks, and construction workers. The project applicant provided project-specific construction information that was used to estimate the proposed project's construction emissions. Where project-specific construction information was not available, default parameters contained in CalEEMod were used. It should be noted that CalEEMod defaults typically result in conservative estimates of emissions in order to avoid underestimating emissions when information is not available. To conservatively estimate the maximum daily emissions, the proposed project's construction emissions were modeled based on a worst-case scenario representing an intensive day of construction. The construction analysis assumes buildout over approximately six years and shows results for the period where the maximum amount of overlap is anticipated among the four phases. Anticipated phasing is described in Chapter 2.0 of this EIR, "Project Description." For the purposes of construction-related impact analysis, a more conservative phasing program was assumed in order to provide worst-case analysis. The worst-case assumptions include more overlap among phases and that the project would be constructed in earlier years when construction equipment emissions are higher (due to regulatory requirements that reduce equipment emissions rates in later years). Phase 1 is assumed to be constructed between late 2015 and October 2016. Phase 2 is assumed to be constructed between approximately December 2016 and September 2018. Phase 3 is assumed to be constructed between approximately November 2017 and September 2019. Phase 4 is assumed to be constructed between approximately November 2017 and September 2021. See Appendix C of this Draft EIR for detailed modeling assumptions and outputs. Table 4.2-3 summarizes maximum daily construction emissions for the proposed project, as well as maximum daily emissions with application of SMAQMD's Basic Construction Emission Control Practices (described in more detail below under the heading, "Project-Specific Impacts and Mitigation").

Table 4.2-3 Maximum Daily Construction Emissions				
Emissions Source	Pollutant Emissions (lb/day) ¹			
	ROG	NO _x	PM ₁₀ ²	PM _{2.5}
Maximum Daily Construction Emissions (lb/day)	156.64	81.74	20.37	11.98
SMAQMD Significance Threshold (lb/day)	–	85	–	–
<i>Exceeds Significance Threshold?</i>	No	No	No	No
Daily Emissions with SMAQMD Basic Construction Mitigation Measures	156.64	81.74	10.41	6.51
Notes: lb/day = pounds per day; NO _x = oxides of nitrogen; PM ₁₀ = suspended particulate matter; PM _{2.5} = fine particulate matter; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District ¹ Emissions shown account for the implementation of SMAQMD's Basic Construction Emission Control Practices, which are recommended for all projects regardless of the level of emissions. ² PM ₁₀ emissions are defined as the sum of particulate matter with aerodynamic diameter 0 to 2.5 micrometers and particulate matter with aerodynamic diameter 2.5 to 10 micrometers. Source: Estimated by AECOM in 2014				

Operation

Following construction of the proposed project, operational activities associated with the proposed uses would generate air pollutant emissions. CalEEMod was also used to estimate operational emissions based on the proposed land use types and sizes. The operational emissions associated with the activities for existing land uses and the proposed project were quantified using CalEEMod to determine the net change in operational emissions that would occur from operation of the proposed project. Trip generation rates for the existing and proposed land uses were obtained from the traffic study prepared for the proposed project which is included its entirety in Appendix H. However, as discussed in Chapter 2, “Project Description”, at least 30% of the total combined neighborhood support / retail and support uses proposed in both project scenarios would be used for support service uses and not neighborhood retail. Support services are communal uses dedicated to on-site residential amenities (e.g., meeting rooms, common space, exercise areas), which unlike neighborhood retail would not generate additional vehicle trips. Therefore, trip generation rates determined in the traffic study (see Appendix H) were not applied to 30% of the total combined neighborhood retail and support services land uses proposed in each project scenario.

Although air pollutant emissions associated with vehicle trips for the support service uses, emissions associated with area and energy sources associated with these support service uses were included in the modeling. See Appendix C for further details.

Tables 4.2-4 and 4.2-5 summarize the project’s net change in operational emissions.

Emissions Source	Pollutant Emissions (lb/day)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Area	35.59	1.14	0.53	0.53
Energy	0.53	4.62	0.37	0.37
Mobile	34.25	59.60	37.99	10.63
Hotel / Condo / Retail Scenario—Maximum Daily Emissions	70.38	65.36	38.89	11.52
Existing Sources—Maximum Daily Emissions	9.39	6.51	5.40	1.60
Net Increase	60.98	58.85	33.49	9.92
SMAQMD Significance Threshold	65	65	–	–
Exceeds Significance Threshold?	No	No	N/A	N/A

Notes: lb/day = pounds per day; N/A = not applicable; NO_x = oxides of nitrogen; PM₁₀ = particulate matter with aerodynamic diameter less than 10 micrometers; PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Source: Data compiled by AECOM in 2014

Table 4.2-5 Operational Emissions Associated with the Condo / Retail Scenario				
Emissions Source	Pollutant Emissions (lb/day)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Area	34.51	1.23	0.57	0.57
Energy	0.40	3.42	0.28	0.28
Mobile	27.00	49.24	31.98	8.94
Condo / Retail Scenario—Maximum Daily Emissions	61.92	53.89	32.83	9.79
Existing Sources—Maximum Daily Emissions	9.39	6.51	5.40	1.60
Net Increase	52.52	47.38	27.42	8.19
SMAQMD Significance Threshold	65	65	—	—
Exceeds Significance Threshold?	No	No	N/A	N/A
Notes: lb/day = pounds per day; N/A = not applicable; NO _x = oxides of nitrogen; PM ₁₀ = particulate matter with aerodynamic diameter less than 10 microns; PM _{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District.				
Source: Data compiled by AECOM in 2014				

Carbon Monoxide

CO impacts were evaluated using the methodology included in SMAQMD's *CEQA Guide to Air Quality Assessment* (SMAQMD 2013).

Lead

This analysis does not directly evaluate lead. The construction and operation of the proposed project would generate few, if any, quantifiable or foreseeable emissions of these substances. This is because unleaded fuel would be used for construction equipment and no lead would be included in new building materials.

Please refer to Section 4.7, "Hazards and Hazardous Materials" for additional information related to lead-based paint.

Toxic Air Contaminants

The AERMOD dispersion model was used to estimate TAC concentrations at specific distances from emission sources, using hourly meteorological data from the Sacramento Executive Airport, which is located south of downtown Sacramento (Lakes Environmental 2014). A series of volume sources in AERMOD were used to represent construction activities that would occur on the project site. The volume sources were assumed to be the total acreage of the project site, to account for the potential for construction emissions to occur over that entire area on a given day. The volume sources representing emissions from the construction equipment were given an initial exhaust-release height of five meters to account for the height of the equipment's exhaust stack and the initial plume rise of the heated exhaust. An initial vertical dimension of 1.2 meters (calculated by an equation in AERMOD) was also applied to the volume sources.

Appendix C shows the volume source locations and the sensitive receptors modeled. To ensure conservative results, the model assumed the entire site would represent construction emission sources, although the existing Capitol Towers building is proposed to remain on-site, and this area would not be a source of construction emissions. Construction emission pollutant concentrations were modeled for sensitive receptors that would be the closest to proposed construction areas, in consideration of both on-site and off-site sensitive receptor locations. Sensitive receptors were assumed to have a height of 1.8 meters (approximately 6 feet) for the ground-level residences and for each ground-level floor at Pioneer Towers and 500 N Street. An additional three meters (approximately 10 feet) for each floor was added to the ground-level height to represent sensitive receptors on each floor of the neighboring residential buildings.

Plotfiles for each volume source were imported into the Hotspots Analysis and Reporting Program (HARP) model, Version 1.4f (ARB 2014b). HARP is a software package that can be used to calculate potential health effects for individual receptors. Cancer risk was calculated in HARP using the Office of Environmental Health Hazard Assessment (OEHHA) methodology (OEHHA 2003) for the length of the project construction.

The estimated cancer risk was based on the pollutant concentrations estimated with AERMOD, an inhalation potency factor, and default estimates of breathing rate, body weight, and exposure period (OEHHA, 2003) for an adult living at these receptors for all six years of the construction period. Additional details are provided in Appendix C.

The chronic noncancer inhalation hazard indices for the proposed project were calculated by dividing the modeled annual average DPM concentrations by the reference exposure level (REL). The REL is the concentration below which no adverse noncancer health effects are anticipated. The OEHHA has recommended an ambient concentration of five micrograms per cubic meter as the chronic inhalation REL for DPM. No inhalation REL for acute (i.e., short-term) effects has been determined for DPM by OEHHA.

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, air quality impacts are considered significant if the project would result in:

- ▶ construction emissions of NO_x above 85 pounds per day;
- ▶ operational emissions of NO_x or ROG above 65 pounds per day;
- ▶ violation of any air quality standard or a substantial contribution to an existing or projected air quality violation;
- ▶ PM_{10} concentrations equal to or greater than 5% of the state ambient air quality standard (i.e., 50 micrograms per cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard. However, if project emissions of NO_x and ROG are below the

emission thresholds given above, then the project would not result in violations of the PM₁₀ ambient air quality standards;

- ▶ CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 parts per million [ppm]) or the 8-hour state ambient standard (i.e., 9.0 ppm); or
- ▶ exposure of sensitive receptors to substantial pollutant concentrations.
- ▶ TAC exposures would create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.
- ▶ objectionable odors affecting a substantial number of people, or
- ▶ cumulatively considerable net increase of any criteria pollutant for which the project area is in nonattainment under an applicable federal or state ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors).

ISSUES SCOPED OUT IN THE INITIAL STUDY

An initial study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An initial study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment, and, therefore, would not require additional analysis in the EIR. This process is often referred to as “scoping out” issues.

No air quality issues were scoped out in the initial study.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT 4.2-1	The proposed project could result in short-term (construction) emissions of NO _x above 85 pounds per day. <i>Based on the analysis below, the impact would be less than significant with mitigation.</i>
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Project construction would occur over an approximate six-year period and consist of several activities: building demolition, site preparation, grading, excavation, building construction, asphalt paving, and application of architectural coatings. The proposed project would result in the temporary generation of ROG and NO_x, emissions during construction activities. ROG and NO_x emissions are primarily associated with exhaust from mobile equipment, including off-road construction equipment and on-road motor vehicles.

As shown in Table 4.2-3, construction emissions for the proposed project would result in maximum unmitigated daily emissions of approximately 157 pounds of ROG and 82 pounds of NO_x. The maximum daily emissions shown in Table 4.2-3 would not exceed any of the thresholds of significance. Using the conservative methodology described in detail in this section, worst-case maximum daily NO_x emissions are estimated to be less than 82 pounds per day. Additional modeling assumptions and details are provided in Appendix C.

SMAQMD recommends that all projects involving construction activities, regardless of the significance determination, implement SMAQMD's Basic Construction Emission Control Practices (SMAQMD 2014, p. 3-8). SMAQMD's Basic Construction Emission Control Practices include such things as watering the construction site twice daily, limiting vehicle speeds on unpaved roadways to 15 miles per hour, minimizing vehicle idling, covering haul trucks transporting soil, and cleaning paved roads. The emissions estimates presented above take into account reductions attributable to District Rules and Regulations and Basic Construction Emission Control Practices. Without the application of SMAQMD's Basic Construction Emission Control Practices, the impact is conservatively assumed to be **potentially significant**.

Mitigation Measures

Project construction would not exceed the SMAQMD threshold of significance for NO_x. Implementation of Mitigation Measure 4.2-1 would reduce fugitive PM dust and equipment exhaust emissions. With implementation of the SMAQMD Basic Construction Emission Control Practices, construction emissions impacts are considered **less than significant with mitigation**.

Mitigation Measure 4.2-1: Implement SMAQMD Basic Construction Emission Control Practices.

If project phasing changes substantially relative to that assumed in the EIR, the applicant shall provide evidence that maximum daily emissions remain below applicable SMAQMD significance thresholds, adjusting phasing, as necessary to achieve relevant thresholds.

City approval of any grading or improvement plans shall require the following Basic Construction Emission Control Practices:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Cover any haul trucks that will be traveling along freeways or major roadways.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speed on unpaved roads to 15 mph.
- Complete pavement of all driveways and sidewalks to be paved as soon as possible. In addition, lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment shall be checked by a certified mechanic and determined to be running in proper condition before it is operated.

IMPACT The proposed project could result in long-term (operational) emissions of NO_x or ROG above
4.2-2 65 pounds per day. *Based on the analysis below, the impact would be less than significant.*

Daily activities associated with the operation of the proposed project would generate criteria air pollutant emissions and precursors from mobile and area sources. Mobile sources include vehicle trips arriving at, and departing from the planned land uses. Area sources include consumer products (i.e., cleaning supplies, kitchen aerosols, cosmetics, and toiletries), natural gas combustion for water and space heating, landscape maintenance equipment, and periodic architectural coatings.

Existing land uses include 203 residential units in the Capitol Towers building, 206 garden apartment units, and approximately 4,000 square feet of retail uses. The 206 garden apartment units are proposed to be removed as part of the proposed project under either the Condo / Retail Scenario or the Hotel / Condo / Retail Scenario. The 203 residential units in the Capitol Towers building would remain as part of the proposed project under either project scenario. The emissions associated with the existing land uses were subtracted from the emissions for the proposed project to calculate the net change in emissions associated with project implementation.

The Hotel / Condo / Retail Scenario includes a 300-room hotel, 1,171 new residential units (which includes 49 live-work units), and 70,000 new square feet of neighborhood support/retail services uses. As discussed in Chapter 2.0, "Project Description," at least 30% of the total combined neighborhood support/retail services uses would be used for support service uses and not neighborhood retail. Support services are uses associated with amenities for residents or guests of the project (i.e., gym, spa, community room, etc.) and would not involve vehicular traffic (i.e., would not generate additional vehicle trips). The Condo / Retail Scenario refers to the project without the hotel component, with a total of 1,267 new residential units (which includes 49 live-work units) and 52,000 new square feet of neighborhood support/retail space. Similar to the "Hotel / Condo / Retail Scenario," 30% of the total combined neighborhood support/retail services uses included in the Condo / Retail Scenario would be used for residential amenities that would not generate additional vehicle trips. The net increase in emissions for the Hotel / Condo / Retail Scenario and the Condo / Retail Scenario are compared to applicable thresholds of significance. Estimated daily emissions for the respective project scenarios are shown in Tables 4.2-4 and 4.2-5. As shown in Tables 4.2-4 and 4.2-5, both the Hotel / Condo / Retail Scenario and Condo / Retail Scenario long-term operational emissions would not exceed the SMAQMD's ROG and NO_x thresholds of significance. As shown, ROG emissions are estimated to be between 52 and 61 pounds per day compared to a threshold of 65 pounds per day and NO_x emissions are estimated to be between 47 and 59 pounds per day compared to a threshold of 65 pounds per day.

In the 2030 General Plan Master EIR, operational impacts were analyzed in Impact 6.1-3 (starting on p. 6.1-13). The General Plan Master EIR discloses significant impacts related to operational criteria air pollutant emissions in excess of relevant SMAQMD significance thresholds. The General Plan Master EIR does not propose mitigation, but cites mitigating policies that would reduce emissions associated with projects accommodated under the General Plan. The General Plan Master EIR cites Policy ER

6.1.3, which requires development projects that would exceed SMAQMD's ROG and NO_x operational thresholds to incorporate design or operational features that result in at least a 15% reduction in emissions. As shown in Tables 4.2-4 and 4.2-5, the project's net change in operational emissions would not exceed SMAQMD significance thresholds and therefore this policy does not apply to the proposed project. As shown, ROG emissions are estimated to be between 52 and 61 pounds per day compared to a threshold of 65 pounds per day and NO_x emissions are estimated to be between 47 and 59 pounds per day compared to a threshold of 65 pounds per day.

As shown in Tables 4.2-4 and 4.2-5, the project's net change in operational emissions would not exceed any of the relevant operational ROG and NO_x SMAQMD significance thresholds under the Hotel / Condo / Retail Scenario and Condo / Retail Scenario. This impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.2-3 The proposed project could violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in PM₁₀ concentrations equal to or greater than 5% of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) during project construction. *Based on the analysis below the impact would be less than significant with mitigation.*

SMAQMD recommends that lead agencies model PM₁₀ emission concentrations generated by construction activity for all projects except those that implement all Basic Construction Emission Control Practices and do not disturb more than 15 acres per day. The entire project site is less than 15 acres in land area. SMAQMD has determined projects that meet the above two conditions do not have the potential to exceed or contribute to SMAQMD's concentration-based threshold of significance for PM₁₀ and PM_{2.5}.

The total disturbed acreage for all phases and project components would be approximately 10 acres. As shown in Tables 4.2-4 and 4.2-5, the project's net change in operational emissions would not exceed any of the relevant SMAQMD significance thresholds. Table 4.2-3 shows maximum daily construction-related air pollutant emissions associated with implementation of the project – both with and without application of SMAQMD's Basic Construction Emission Control Practices.

As noted previously, projects that disturb fewer than 15 acres per day and implement SMAQMD's Basic Construction Emission Control Practices (see Mitigation Measure 4.2-1) do not have the potential to exceed or contribute to SMAQMD's concentration-based thresholds of significance for PM₁₀ (i.e., exceed ambient air quality standard or contribute 5% of ambient air quality standard) (and therefore PM_{2.5}). Without implementation of SMAQMD's Basic Construction Emission Control Practices, the impact is considered **potentially significant**.

Mitigation Measures

Projects that disturb fewer than 15 acres per day and implement SMAQMD's Basic Construction Emission Control Practices (see Mitigation Measure 4.2-1) do not have the potential to exceed or

contribute to SMAQMD's concentration-based thresholds of significance for PM₁₀ (i.e., exceed ambient air quality standard or contribute 5% of ambient air quality standard) (and therefore PM_{2.5}). The impact is considered **less than significant with mitigation**.

Mitigation Measure 4.2-3: Implement Mitigation Measure 4.2-1: Implement SMAQMD Basic Construction Emission Control Practices.

IMPACT 4.2-4 The proposed project could result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm). *Based on the analysis below, the impact would be less than significant.*

Motor vehicles are the primary source of CO. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. CO concentration depends on motor vehicle activity, particularly during peak commute hours, and meteorological conditions. Transport of CO is limited because it disperses rapidly with distance from the source under normal meteorological conditions. However, under specific meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels related to local sensitive land uses, such as residences, hospitals, schools, and child care facilities.

SMAQMD has established a two-tier set of screening criteria to determine whether a project would have the potential to exceed the 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9.0 ppm for CO. The screening criteria have been developed to help agencies analyze potential CO impacts and identify when site-specific CO dispersion modeling would be required. According to SMAQMD's *CEQA Guide to Air Quality Assessment*, the first tier of the analysis is based on the LOS for intersections affected by the project. The proposed project has the potential to cause a localized exceedance of the CO standard if it would (1) generate traffic that causes an intersection's LOS to deteriorate to LOS E or F, or (2) contribute additional traffic to an intersection that already operates at LOS E or F. If the first tier screening criteria are not met, second tier screening will be evaluated. The second tier screening criteria require that the proposed project fulfill all the following three criteria: (1) the project will not result in an impact to an intersection experiencing more than 31,600 vehicles per hour, (2) the project will not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air will be substantially limited, and (3) the mix of vehicle types at the intersection is not anticipated to be substantially different from the County average. Based on the conservative analysis in the traffic study, under existing plus project conditions for both project scenarios (i.e. Hotel / Condo / Retail and Condo / Retail), there are no intersections in the project area that would operate at LOS D or worse, with the addition of project traffic (see Appendix H, Kittleson & Associates 2014a and Kittleson & Associates 2014b). As shown in Table 16 and 17 of the traffic impact assessment report, all intersections are expected to operate at overall LOS C or better in cumulative plus project conditions (Kittleson & Associates 2014a).

Using SMAQMD guidance, the proposed project would meet all of the SMAQMD's CO hotspot second tier screening criteria and would not generate traffic volumes that would cause an intersection's LOS to deteriorate to LOS E or F, or contribute additional traffic to an intersection that already operates at LOS E or F. Therefore, the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT The project could result in exposure of sensitive receptors to substantial pollutant concentrations.
4.2-5 *Based on the analysis below, the impact would be less than significant.*

The proposed project does not include stationary sources that would emit substantial amounts of air pollutants or TACs, such as manufacturing facilities that could create substantial pollutant concentrations on-site. Although the R-5 zone permits non-residential uses, these businesses must comply with State regulations cited in this section related to use, handling, and worker safety.

The project site is not adjacent to a high-volume roadway that would be anticipated to carry a substantial amount of heavy duty (diesel) truck traffic. The closest freeway to the site is I-5 located approximately 1,300 feet west of the western edge of the project site, which is more than double the ARB-recommended setback distance from large roadway sources, to avoid TAC impacts (ARB 2005). Therefore, concentrations of mobile-source TACs would not be significant during operation of the project. The proposed project does not include uses that would generate substantial diesel truck traffic or that would require substantial use of transport refrigeration units.

Construction

The greatest potential for TAC emissions resulting from construction of the proposed project would originate from DPM emissions associated with heavy equipment operations during construction activities. People most likely to be affected by air pollutants include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, child-care centers, athletic facilities, long-term health-care facilities, rehabilitation centers, convalescent centers, and retirement homes. As described previously, existing residences adjacent to, and on, the project site including seniors residing in Pioneers Towers would be the closest sensitive receptors during construction activities. See Figure 4.2-1 for the locations of the nearest sensitive receptors.

Project construction would generate DPM emissions from the use of off-road diesel construction equipment required for demolition, excavation, materials handling and installation, and other construction-related activities. Most DPM emissions associated with material delivery trucks and construction worker vehicles would occur off-site. For the purposes of this analysis, PM_{2.5} exhaust emissions from on-site diesel-fueled construction equipment were used to represent DPM emissions, as DPM is considered to be less than or equal to 10 micrometers in diameter. Therefore, PM_{2.5} represents the upper limit for DPM emissions associated with construction of the proposed project.

Typically, construction projects generate DPM in a single area for a relatively short period of time. The dose of TACs to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure a person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period to a fixed amount of emissions results in a higher exposure level and higher health risks for the maximally exposed individual. The estimated cancer risk for an adult living at this

location for all six years of the construction period is 5.58 in 1 million (see Appendix C for more detail). The modeled cancer risks would not exceed the significance threshold of 10 in 1 million (construction emissions are treated as “stationary sources” for the purposes of assessing impacts relative to the relevant threshold of significance).

The chronic (i.e., long-term) noncancer hazard index for the nearest sensitive receptor associated with the proposed project would be 0.282, which is less than the SMAQMD significance threshold of 1.0 for noncancer health impacts. Figure 4.2-1 indicates the location of the nearest sensitive receptors with respect to the proposed project construction activities. The estimated cancer risk for an adult living in the adjacent residences for all six years of the construction period is 5.58 in 1 million, which does not exceed the significance threshold of 10 in 1 million. Therefore, the impact would be **less than significant**.

Operational

The proposed project does not include stationary sources that would emit TACs. In addition, the project site is not adjacent to a high-volume roadway, and does not include uses that would generate substantial diesel truck traffic or that would require substantial use of transport refrigeration units. Therefore, the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT The proposed project could create objectionable odors affecting a substantial number of people.
4.2-6 *Based on the analysis below, the impact would be less than significant.*

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

Two situations increase the potential for odor problems. The first occurs when a new odor source is located near existing sensitive receptors. The second occurs when new sensitive receptors are developed near existing sources of odors. SMAQMD recommends that significance determinations be made on a case-by-case basis (SMAQMD 2013). If the receptor would be located upwind from the source, the likelihood of the receptor being exposed to objectionable odors would be lower than if it was downwind from the odor source. SMAQMD has developed recommended screening-level distances for major odor sources.

Potential sources of odors during construction of the proposed residential and commercial land uses would include exhaust from diesel construction equipment. However, construction equipment would operate intermittently throughout the day rather than generating continuous emissions. In addition, all construction-related odor emissions would cease after construction is complete. Considering the low concentrations of diesel exhaust generated during construction activities along with its highly dispersive

properties, it is anticipated that nearby residents in the adjacent Capitol Towers building would not be substantially affected by construction-related diesel exhaust odors. The proposed project would not use construction techniques that are known to produce unusual odor concentrations, and construction would be a temporary condition.

Major sources of odors that occur during project operation typically include wastewater treatment and pumping facilities, sanitary landfills, painting/coating operations, auto body and repair shops, and composting facilities. There are no existing major sources of odors within one mile of the project site. The existing residential and retail development on-site does not represent any major sources of odors. The proposed project would not locate new residential uses close to any existing sources of odors.

Operation of the proposed project would not add any major odor sources and any odors generated would be similar to existing odors associated with land uses in the area. The project proposes residential and retail development, and a hotel under one scenario. These uses are not substantial generators of odor emissions.

If a food service use is developed, cooking processes and the disposal of food waste could be an odor source detectable for nearby existing and proposed receptors. Compliance with industry-required waste disposal practices (i.e., California Retail Food Code Article 4, "Refuse", Health and Safety Code Section 114244-114245.7) and SMAQMD's required Rule 402 ("Nuisance") would limit any potential odor exposure. Furthermore, any proposed restaurants or other food service uses would be designed to ensure that all kitchen exhaust ventilation systems are installed in accordance with the California Retail Food Code (Health and Safety Code Section 114149). In addition, for residential land uses, any waste products from on-site operations with the potential to emit odors (e.g., trash enclosures) would be disposed in proper containers and hauled away weekly as part of general collection services provided by the City (City of Sacramento 2014). It is not anticipated that the proposed project's operational activities, under either scenario, would cause a significant odor impact on a substantial number of sensitive receptors. As a result of the proposed uses and the application of existing regulations, the proposed project's operational activities would not create objectionable odors affecting a substantial number of people, and the proposed new residents would not be affected by any existing odor sources.

The proposed project could generate odors during project construction and operational. However, construction equipment would operate intermittently and would cease after completion of the proposed project. The project does not propose any uses that would generate substantial odors during operation. If future uses include food service, existing regulations would avoid potentially significant odor impacts. Compliance with the regulations will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored. The impact would be **less than significant**.

Mitigation Measures

None required.

4.2.4 CUMULATIVE IMPACT DISCUSSION

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG's MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

For air quality impacts, the geographic focus of the cumulative analysis is the Sacramento Federal Nonattainment Area (SNFA) for ozone, which includes the counties of Sacramento, Yolo, Solano (partial), Sutter (partial), Placer (except the Lake Tahoe Air Basin), and El Dorado (except the Lake Tahoe Air Basin). The exception is for TAC and odorous emissions, where the impacts are more localized and therefore the focus of the analysis is more localized to the relevant potential sources of emissions from past, present, and future projects that could combine with emissions associated with implementation of the proposed project.

IMPACT Cumulative impact related to ozone precursors. *Based on the analysis below, the impact is less than*
4.2-7 *cumulatively considerable.*

The City analyzed construction-related cumulative impacts under Impact 6.1-7 of the General Plan Master EIR (starting on page 6.1-19) and identifies the impact as a significant cumulative impact. The City analyzed operational cumulative impacts under Impact 6.1-8 of the General Plan Master EIR (starting on page 6.1-20). The City found that the change in land use designations included as a part of the 2030 General Plan would be a significant cumulative impact.

The 2030 General Plan's land use designation for the project site is "Central Business District." This designation provides for "mixed-use, high-rise development and single-use or mixed-use development within easy access to transit" (i.e., includes ground-floor office/retail beneath residential apartments and condominiums). The overall density of the proposed project and floor area ratio of the proposed project is consistent with the land use designation.

The proposed project is consistent with the land use designation for the 2030 General Plan and would not exceed the assumptions used to develop the 2030 General Plan or the MTP/SCS, and therefore is also consistent with the impact analysis contained in the MTP/SCS Program EIR related to air quality.

The infill and mixed-use nature of the project in the City's downtown area would place residents within a closer proximity to jobs and commercial amenities, which would facilitate walking and biking trips, thereby eliminating some vehicle trips. In addition, the project's transit-oriented location would make using public transit feasible to reach jobs in both the downtown area and the region. The distances of

vehicle trips generated by the proposed project would also be reduced on average and the project site's proximity to amenities and jobs would further reduce VMT in the region.

The reduction in VMT associated with the location of the project site has been demonstrated through the travel demand analysis that SACOG performed to support the MTP/SCS. The regional VMT per capita in 2008 was estimated to be 26 miles per day. For the traffic analysis zone that includes the Sacramento Commons project site, the average per-capita VMT in 2008 is approximately 9 miles per day. In 2035, forecast regional average per-capita VMT is 24 miles per day, whereas the project site and vicinity would have an average of approximately 5 miles per day (SACOG, 2011).

The MTP/SCS EIR identified a significant cumulative air quality impact and indicated that the land use change described in the MTP/SCS would represent a cumulatively considerable contribution to this impact (p. 19-19). Mitigation Measures AIR-1 through AIR-5 are proposed in the MTP/SCS EIR to address this impact. Mitigation Measure AIR-1 recommends that lead agencies estimate emissions and apply air district-recommended mitigation measures, as provided in this EIR. Mitigation Measure AIR-2 recommends adherence to the ARB Handbook siting guidance to the maximum extent possible, which is accomplished, as appropriate by the proposed project location and allowable uses. Mitigation Measure AIR-3 recommends an assessment of new and existing odor sources, as provided in this EIR. Mitigation Measures AIR-4 and AIR-5 recommend application of standard construction mitigation measures, as provided in this EIR. The MTP/SCS EIR concludes that, even with implementation of mitigation measures, this cumulative impact would be significant and unavoidable.

However, the proposed project would not result in a cumulatively considerable contribution to the cumulative impact identified in the 2030 General Plan EIR and MTP/SCS EIR. Consistent with recommendations from SMAQMD, if project emissions do not exceed the NO_x or ROG significance thresholds (85 pounds per day for NO_x for construction and 65 pounds per day for NO_x and ROG during operation) it would not be considered cumulatively considerable (SMAQMD 2011, p. 8-1). Construction emissions for the proposed project would result in maximum daily emissions of approximately 82 pounds of NO_x, which is below the construction threshold of significance. The proposed project would not exceed SMAQMD's operational thresholds of significance for ROG or NO_x. In accordance with the SMAQMD guidance, a project whose emissions would not exceed the NO_x or ROG significance thresholds would not be cumulatively considerable (SMAQMD 2011). The impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.2-8 Cumulative impact related to particulate matter concentrations. *Based on the analysis below, the impact is less than cumulatively considerable.*

The City analyzed cumulative particulate matter concentration impacts under Impact 6.1-9 of the General Plan Master EIR (starting on page 6.1-21). The City found that compliance with General Plan policies would reduce particulate matter emissions, but not enough that cumulative projects would not collectively exceed thresholds. This impact was considered significant and unavoidable in the General Plan Master EIR.

SACOG found that a proposed project's contribution to a cumulative short-term air pollutant emissions impact could be addressed through implementation of Mitigation Measures AIR-4, which requires proposed projects to meet the requirements of the applicable air district with jurisdiction over the area in which construction activity would occur if the project is anticipated to exceed thresholds of significance for short-term criteria air pollutant emissions (pp. 5-70 – 5-71).

The proposed project's contribution to this cumulative impact is not cumulatively considerable. The proposed project is consistent with the land use designation for the 2030 General Plan and would not exceed the assumptions used to develop the 2030 General Plan or the MTP/SCS. For particulate matter (PM₁₀ and PM_{2.5}), if a project would not disturb 15 acres on any given day and would incorporate SMAQMD Basic Construction Emission Control Practices (see Mitigation Measure 4.2-1), the project would not be considered to make a cumulatively considerable contribution, according to SMAQMD guidance (SMAQMD 2011, p. 8-5). Because the project site is less than 15 acres and the proposed project is required to comply with SMAQMD Basic Construction Emission Control Practices, the proposed project will be developed consistent with SMAQMD's requirements and, therefore, complies with Mitigation Measure AIR-4 from the MTP/SCS EIR. Therefore, the impact is **less than cumulatively considerable**.

Mitigation Measures

Mitigation Measure 4.2-8: Implement Mitigation Measure 4.2-1: Implement SMAQMD Basic Construction Emission Control Practices.

IMPACT 4.2-9 Cumulative impact related to carbon monoxide (CO) concentrations. *Based on the analysis below, the impact is less than cumulatively considerable.*

The City analyzed cumulative CO concentration impacts under Impact 6.1-10 of the General Plan Master EIR (starting on page 6.1-22). The City found that development outside and within the City's Policy Area would increase traffic and change traffic flows. However, the City identified that existing CO levels in the Sacramento area are relatively low and emissions rates are expected to decline substantially due to cleaner burning fuels. The City found that the contribution of the 2030 General Plan to cumulative CO concentrations is not anticipated to be considerable and CO levels are not expected to exceed the NAAQS or CAAQS. The City found the impact to be cumulatively less than significant (p. 6.1-22).

Regional impacts related to CO concentrations are evaluated in the MTP/SCS EIR under Impact AIR-2 (p. 5-45). The MTP/SCS EIR concludes that implementation of Mitigation Measure AIR-1, which requires modeling of CO emissions to determine if a project will exceed applicable thresholds of significance and to mitigate impacts that exceed the threshold, would ensure a project does not result in a cumulatively considerable contribution to this impact (pp. 5-48 – 5-51).

This EIR complies with MTP/SCS EIR Mitigation Measure AIR-1 because the maximum daily and hourly volumes at any of the affected intersections would not exceed SMAQMD's screening threshold of 31,600 vehicles per hour used to determine whether a project will exceed the ambient air quality standard for CO (see Appendix H for details). The proposed project would also not contribute traffic to

locations where horizontal or vertical mixing of air would be substantially limited and would not add a mix of vehicles that would differ substantially from the county average. Therefore, implementing the proposed project would not cause a CO hotspot. Specifically, the CO concentrations resulting from the proposed project would not violate the CAAQS for either the 1-hour period (20 ppm) or the 8-hour period (9.0 ppm).

Since the volumes at affected intersections would not exceed SMAQMD's screening threshold and the CO concentrations resulting from the proposed project would not violate the CAAQS for either the 1-hour period (20 ppm) or the 8-hour period (9.0 ppm), the impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.2-10	Cumulative impact related to exposure of sensitive receptors to substantial pollutant concentrations. <i>Based on the analysis below, the impact is less than cumulatively considerable.</i>
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The City analyzed cumulative impacts related to exposure of sensitive receptors to substantial TAC concentrations under Impact 6.1-11 of the General Plan Master EIR (starting on page 6.1-23). The City found that impacts could occur from siting sensitive land uses near multiple TAC sources in the same area and that the cumulative increase in vehicles and trucks on local high-volume roadways would result in a significant cumulative impact. The General Plan Master EIR found that buildout of the 2030 General Plan would result in a significant cumulative impact relating to TAC exposure before mitigation.

Several mitigating policies are referenced in the General Plan Master EIR cumulative analysis, including Policy ER 6.1.4, which requires the City to make equitable land use decisions related to health effects of air pollution; Policy ER 6.1.8 (labeled as Policy ER 6.1.5 in the 2030 General Plan), which indicates that the City will ensure that new development involving sensitive uses adjacent to TAC sources consider potential health risks; and Policy ER 6.1.19, which commits the City to educating the public about air quality standards, health effects, and efforts to improve air quality. Regarding Policy ER 6.1.5, this project has complied by studying potential TAC impacts in detail, as reported in this EIR and Policy 6.1.19 is not applicable to the proposed project. With implementation of the identified mitigating policies, the City found that implementation of the 2030 General Plan would result not result in a significant cumulative impact relating to TAC exposure.

The MTP/SCS EIR concludes that implementation of the MTP/SCS land use forecast would result in a significant cumulative air quality impact (p. 19-19). Mitigation Measures AIR-1 through AIR-5 are proposed in the MTP/SCS EIR to address this impact. This EIR references the mitigation measures identified in Chapter 5 of the EIR, including Mitigation Measures AIR-1 through AIR-5. Mitigation Measure AIR-1 recommends that lead agencies estimate emissions and apply air district-recommended mitigation measures, as provided in this EIR. Mitigation Measure AIR-2 recommends adherence to the ARB Handbook siting guidance to the maximum extent possible, which is accomplished, as appropriate by the proposed project location and allowable uses. Mitigation Measures AIR-4 and AIR-5 recommend application of standard construction mitigation measures, as provided in

this EIR. The MTP/SCS EIR concludes that, even with implementation of mitigation measures, this cumulative impact would be significant and unavoidable.

However, the proposed project would not result in a cumulatively considerable contribution to this cumulative impact. The proposed project does not include stationary sources that would emit substantial amounts of air pollutants or TACs, such as manufacturing facilities that could create substantial pollutant concentrations on-site. Although the R-5 zone permits non-residential, these businesses must comply with State regulations cited in this section related to use, handling, and worker safety. Since the project does not include stationary sources that would emit substantial amounts of air pollutants or TACs, General Plan Master EIR mitigating policies and MTP/SCS EIR mitigation measures are not applicable.

The closest freeway to the site is I-5 located approximately 1,300 feet west of the western edge of the project site, which is more than double the ARB-recommended setback distance from large roadway sources to avoid TAC impacts (ARB 2005). As described in detail under Impact 4.2-5, the project would not expose sensitive receptors to pollutant concentrations during construction that would result in a significant impact. There is no known major construction site adjacent to the proposed project, the construction-related TAC emissions of which would combine with on-site TAC emission to create an impact that is substantially greater than that of the proposed project alone during construction. The impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.2-11	Cumulative impact related to odors. <i>Based on the analysis below, the impact is less than cumulatively considerable.</i>
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The City considers odor impacts to be a project-specific impact and thus the 2030 General Plan Master EIR does not analyze odor emissions (p. 6.1-1).

The MTP/SCS EIR identified a potentially significant cumulative air quality impact for odor emissions (p. 19-20). Mitigation Measures AIR-3 is proposed in the MTP/SCS EIR to address this impact. Mitigation Measure AIR-3 recommends that lead agencies should assess new and existing odor sources for individual land use projects to determine whether sensitive receptors would be exposed to objectionable odors. The MTP/SCS EIR concludes that, even with implementation of mitigation measures, this cumulative impact would be significant and unavoidable.

The proposed project would not result in a cumulatively considerable contribution to the cumulative impact identified in the MTP/SCS EIR. Potential sources of odors during construction of the proposed project would include exhaust from diesel construction equipment. However, construction equipment would operate intermittently throughout the day rather than generating a continuous plume of emissions. In addition, all construction-related odor emissions would cease after completion of the proposed project. There is no major construction site adjacent to the proposed project. Therefore, no construction-related odors would combine with on-site odors to create an impact substantially greater than that of the proposed project alone. Considering these aforementioned factors, the proposed project's construction

activities would not expose a substantial number of receptors to objectionable odors. There are no existing major sources of odors within 1 mile of the project site and the project does not propose uses that would add any major odor sources that would combine with existing odor sources to generate a cumulative impact. Food service uses and trash collection for the proposed project and other past, present, and future projects would be required to comply with existing regulations that reduce the potential for odor emissions. Therefore, the impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

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4.3 BIOLOGICAL RESOURCES

This section addresses existing known biological resources that have been identified on the project site, and the potential for the site to support additional biological resources in the future with implementation of the proposed project. The analysis describes the existing environmental conditions, the methods used for assessment, and the potential environmental impacts associated with implementing the proposed project. Mitigation measures are proposed to address potentially significant impacts of the proposed project. This section also provides a brief overview of federal, state, and local laws and regulations pertaining to the protection of biological resources.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to the loss of trees and related impacts to wildlife. Both of these topics are addressed in this section. Copies of the NOPs and comments received in response are included in Appendix B of this EIR.

An AECOM biologist performed a biological reconnaissance survey of the project site on April 9, 2014, to determine if habitat present on the project site could support any special-status species that are known to occur in the Sacramento area.¹ Prior to conducting the field survey, AECOM biologists conducted queries of special-status species databases maintained by the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), and the California Native Plant Society (CNPS) to create a list of potentially occurring special-status plant and wildlife species known, or with the potential to occur in the vicinity of the proposed project. These database queries are described in more detail in the special-status species section below. A biological resources assessment report was prepared to support this EIR and is included in Appendix L. The findings in this EIR are based in part on an arborist report, which is included as Appendix M. The April 9, 2014, reconnaissance-level biological field survey verified the information provided in the database queries to determine if the project site supports sensitive habitats or natural communities and if habitat present on the project site could support any special-status species that are known to occur in the Sacramento area. The methods and results of the biological site assessment are provided in Appendix L.

4.3.1 ENVIRONMENTAL SETTING

The project site is located in downtown Sacramento approximately 0.3 mile east of the Sacramento River. The site is generally bounded by 5th, 7th, N, and P Streets and encompasses approximately 10 developed acres on portions of four city blocks. The project site is currently developed with residential, commercial, and recreational uses, landscaped areas with mature vegetation, trees, a parking structure, and surface parking areas.

The project site is generally flat, with elevations ranging from approximately 15 to 20 feet above mean sea level. It is located within the Sacramento West and Sacramento East U.S. Geological Survey (USGS) quadrangles (USGS 1980).²

¹ The weather during the survey was sunny and warm and it was a clear day with visibility at 10 miles. The mean temperature for Sacramento for the day was 68 degrees Fahrenheit with a high of 81 degrees Fahrenheit, but the survey was conducted in the morning, beginning at 9 A.M., and was approximately 65 degrees Fahrenheit with winds of between 2 and 8 miles per hour, and zero precipitation. Average humidity was 62 percent and the barometer was at 30 inches.

² This refers to a USGS 7.5-minute quadrangle map, which is usually named after a local physiographic feature.

The project site is located in an urban setting in the City of Sacramento's Central Business District (CBD) and is currently developed with residential rental property consisting of two- and three-story garden apartments and the 15-story Capitol Towers building, approximately 4,122 square feet of neighborhood convenience retail space, recreational amenities (including a swimming pool), laundry facilities, various landscaped areas, a three-level parking structure containing 200 parking spaces, as well as 190 spaces on surface lots. Sharing the four-block project area, but not part of the project site, are the separately owned 15-story 500 N Street condominium tower and the 12-story Pioneer Towers senior apartments.

The CBD is Sacramento's most intensely developed area. The CBD includes a mixture of retail, residential, office, governmental, entertainment, and visitor-serving uses built on a framework of streets and park spaces associated with the original Sutter Land Grant in the 1840s.

A mix of high-density residential and office complexes are located in the immediate vicinity of the project site. Surrounding land uses include federal and state offices to the north, west, and east. Two multi-family properties (Governor's Square and Pioneer House) are located at the southeast and northwest corners, respectively, of 5th and P Streets. The State of California Central Plant, which heats and cools state buildings, is located on the south side of P Street, across the street from the project site.

Vegetation on the project site is comprised of ornamental landscaping and does not include any native plant communities or natural habitats. The nearest natural habitat is located approximately 0.3 mile east of the project site along the Sacramento River, but the river corridor is also heavily altered by humans and surrounded by intense urban development, leaving only narrow strips of riparian vegetation and the open water in the river channel itself as the only remnants of natural habitat. Remnant areas of natural habitat are also located approximately 1.5 miles north of the project site in and along the American River.

Habitat on the project site is classified as "urban" according to the CDFW's California Wildlife Habitat Relationship System (Mayer and Laudenslayer 1988). On-site urban vegetation consists primarily of street tree strips (i.e., linear rows of trees) and shade tree/lawn structure (i.e., grassy lawn areas with trees shading portions of the lawn). Trees are distributed in planting strips around the perimeter of the project site along City streets and around on-site buildings, parking lots, and adjacent to sidewalks and walkways that traverse the site. Trees and grassy lawn areas are found within the interior of the project site. At these locations, small, mostly rectangular patches of lawn are generally surrounded by trees or along the walkways that traverse the center portion of the site. Most of the on-site trees were planted during the development of the project site in the 1960s, and are mature, though some immature trees exist in specific locations where dead, dying, or structurally unsound trees were removed and replaced, including 24 trees that are less than 6 inches in diameter at breast height (dbh). Based on the arborist report (Appendix M), there are a total of 291 trees on the project site that provide a total tree canopy area of approximately 5.7 acres (Dudek 2014). The distribution of trees on the project site, as per the arborist's tree inventory, is shown in Figure 4.3-1.

There are 50 different tree species represented on the project site. The most abundant of these is London plane tree (*Platanus x acerifolia*), with 62 trees. The next most common is Japanese maple

(*Acer palmatum*) with 18 trees. Other species that are relatively common on the site, but with less than 18 trees each include, hackberry (*Celtis sinensis*), tulip tree (*Liriodendron tulipifera*), American elm (*Ulmus americanana*), sweetgum (*Liquidambar styraciflua*), and crape myrtle (*Lagerstroemia indica*). The majority of the trees on or around the project site are nonnative species. Of the 291 trees present on-site, 50 are classified as a City Street Tree or a Heritage Tree. The remaining 241 trees are not considered protected trees under the City Code. City Street Trees and Heritage Trees are discussed below in more detail.

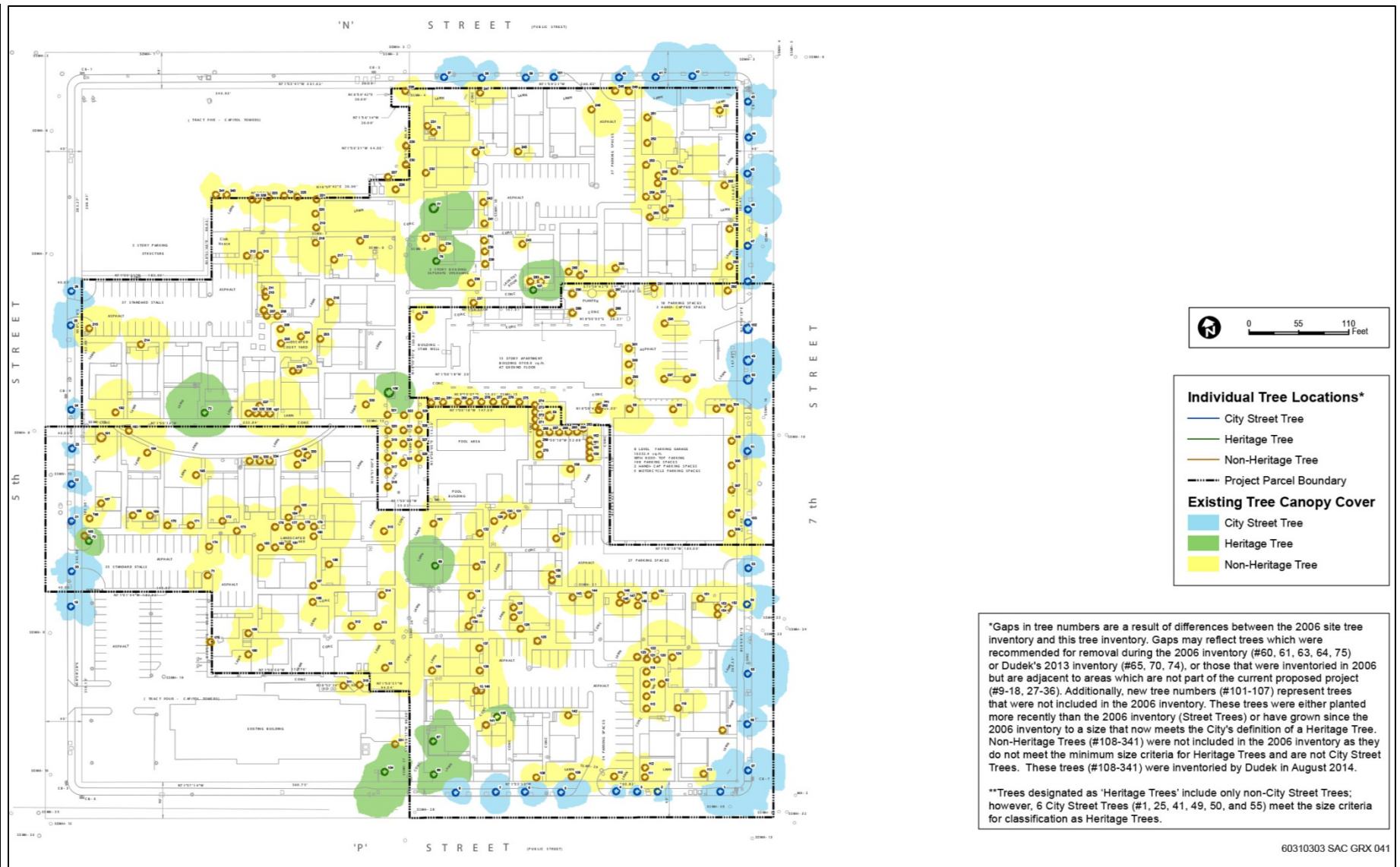
In general, urban landscapes provide low-value habitat for most wildlife species because of an overall lack of vegetative cover and high levels of human disturbance. However, due to the large number of trees on the site, there are some wildlife species that occur on a regular basis at the project site. Fauna on the project site is dominated by species that have adapted to human activity and the urban landscape setting. Species observed during the field survey on April 9, 2014 include house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), bushtit (*Psaltriparus minimus*), American robin (*Turdus migratorius*), rock pigeon (*Columba livia*), western scrub-jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), black phoebe (*Sayornis nigricans*), American goldfinch (*Carduelis tristis*), Anna's hummingbird (*Calypte anna*), and gray squirrel (*Sciurus griseus*) (Appendix L). Other wildlife species that are likely to use the developed and disturbed habitats present on or immediately adjacent to the project site include mourning dove (*Zenaida macroura*), American crow (*Corvus branchyrhychos*), brown rat (*Rattus norvegicus*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and raccoon (*Procyon lotor*), which are common in this area of the City. None of these species are special-status species. The potential for other species that qualify as special-status species to utilize the project site for nesting, foraging, or other purposes is discussed further below.

SPECIAL-STATUS SPECIES

In addition to the common species observed during the April field survey, a review of special-status plant and wildlife species known to occur in the vicinity of the site was performed.

Special-status species include plants and animals in the following categories:

- ▶ species officially listed by the State of California or the federal government as endangered, threatened, or rare;
- ▶ candidates for state or federal listing as endangered or threatened;
- ▶ taxa (i.e., biological categories or groups) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations (CCR) Section 15380 of the State CEQA Guidelines;
- ▶ species identified by the CDFW as species of special concern;
- ▶ species listed as Fully Protected under the California Fish and Game Code;
- ▶ plant taxa considered by CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, or 2B.



*Gaps in tree numbers are a result of differences between the 2006 site tree inventory and this tree inventory. Gaps may reflect trees which were recommended for removal during the 2006 inventory (#60, 61, 63, 64, 75) or Dudek's 2013 inventory (#65, 70, 74), or those that were inventoried in 2006 but are adjacent to areas which are not part of the current proposed project (#9-18, 27-36). Additionally, new tree numbers (#101-107) represent trees that were not included in the 2006 inventory. These trees were either planted more recently than the 2006 inventory (Street Trees) or have grown since the 2006 inventory to a size that now meets the City's definition of a Heritage Tree. Non-Heritage Trees (#108-341) were not included in the 2006 inventory as they do not meet the minimum size criteria for Heritage Trees and are not City Street Trees. These trees (#108-341) were inventoried by Dudek in August 2014.

**Trees designated as 'Heritage Trees' include only non-City Street Trees; however, 6 City Street Trees (#1, 25, 41, 49, 50, and 55) meet the size criteria for classification as Heritage Trees.

60310303 SAC GRX 041

Source: Dudek 2014

Figure 4.3-1

Tree Survey

All plants with a CRPR are considered "special plants" by CDFW. The term "special plants" is a broad term used by CDFW to refer to all of the plant taxa inventoried in CDFW's CNDDDB, regardless of their legal or protection status. Plants ranked as CRPR 1A, 1B, 2A, and 2B may qualify as endangered, rare, or threatened species within the definition of CEQA Guidelines Section 15380.

The term "California species of special concern" is applied by CDFW to animals not listed under the federal Endangered Species Act (ESA) or California ESA, but that are nonetheless declining at a rate that could result in listing, or that historically occurred in low numbers and for which there are known threats to their continued viability.

To assess the potential of the proposed project to affect special-status plant or wildlife species, or sensitive vegetation communities, the CDFW's California Natural Diversity Database (CNDDDB) (2014), the USFWS species list for the Sacramento West and Sacramento East USGS quadrangles (USFWS 2014), and the CNPS database (CNPS 2014) were reviewed. The search query included the USGS 7.5-minute quadrangle of the project site (Sacramento East), and eight surrounding quadrangles. The April 9, 2014, biological field survey verified the search data and reviewed the project site for sensitive habitats and natural communities including the potential for special-status species.

As described in the biological resources assessment report, no wetlands, riparian habitat, waterways, or other sensitive habitats are present on the project site, and there is a general lack of suitable habitat for sensitive biological resources. No suitable habitat is present for special-status plant species known to occur in the region and the majority of special-status wildlife species known to occur within the nine-quadrangle search area have no potential to occur on the project site because they are associated with vernal pool, riparian, freshwater marsh, or other aquatic habitats (or immediately adjacent uplands) that are not present on the project site. Therefore, species associated exclusively with these habitat types are not discussed further in this section. The potential for the remaining species, which are primarily associated with upland habitats and may sometimes be found in urban areas, is evaluated further based on the species-specific habitat requirements described in Table 4.3-1. Figure 4.3-2 shows the distribution of CNDDDB records of special-status species occurrences within three miles of the project site.

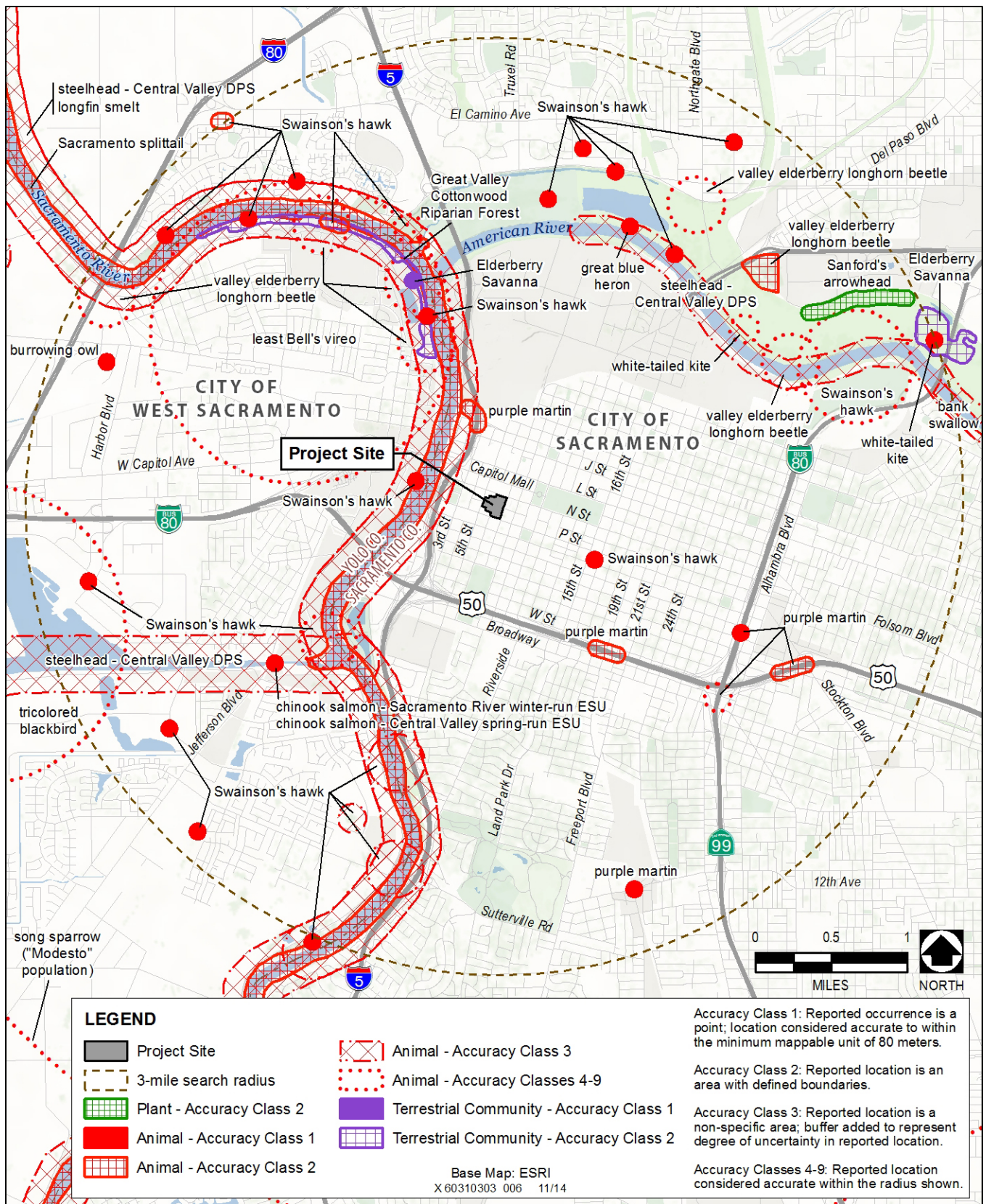
As described in Table 4.3-1, only two special-status species, Swainson's hawk (*Buteo swainsonii*) and white-tailed kite (*Elanus leucurus*), have potential to occur on the project site. These species were not encountered on-site during the biological resources reconnaissance survey and the California Natural Diversity Database does not contain record of these species nesting on-site.

In addition, the urban tree landscape within the project site, in particular the mature trees, provides potential nesting habitat for these and a variety of other bird species, including other raptors, covered by the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, as described in the "Regulatory Setting" section below. Common raptors protected under the MBTA and California Fish and Game Code that may nest on the project site include American kestrel (*Falco sparverius*) and Cooper's hawk (*Accipiter cooperi*).

**Table 4.3-1
Special-Status Wildlife Species and Potential to Occur in the Vicinity of the Project Site**

Species	Federal Status	State Status	Habitat	Potential to Occur on the Project Site**
Invertebrates				
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T	-	Associated with elderberry shrubs for completion of life cycle. Elderberry shrubs often, but not always, associated with riparian habitats.	None. No suitable habitat (i.e., elderberry shrubs) present for this species.
Birds*				
Swainson's hawk <i>Buteo swainsoni</i> (nesting)	-	T	Typically nests in tall (generally around 50 feet or taller) trees in riparian woodlands, along roadsides or field borders, isolated trees, and on the edges of remnant oak woodlands or small groves. Nest trees are generally located within 2 miles of foraging habitat and typically provide a panoramic view of the territory. Will nest in large trees in urban landscapes if foraging habitat is available nearby. Forages in open grassland and agricultural habitats.	Very low. Trees on-site provide potential nest sites for this species.
White-tailed kite <i>Elanus leucurus</i> (nesting)	-	FP	Nests in riparian zones, oak woodlands, and occasionally in isolated trees within 0.5 mile of foraging habitat. Forages in agricultural fields, meadows with emergent vegetation, and grasslands.	Very low. Trees on-site provide potential nest sites for this species.
Grasshopper sparrow <i>Ammodramus savannarum</i> (nesting)	-	CSC	Forages and nests in dense grasslands; favors a mix of native grasses, forbs, and scattered shrubs. Nests in depressions on the ground at the bases of grass clumps. Prefers large tracts of habitat.	None. No suitable nesting habitat present for this species.
Golden eagle <i>Aquila chrysaetos</i> (nesting)	-	FP	Open grassland and oak savannah with large trees or cliffs for nesting.	None. No suitable habitat present for this species.
Burrowing owl <i>Athene cunicularia</i> (burrow sites, wintering sites)	-	CSC	Open dry grasslands and desert habitat; nests and dens in underground burrows, especially those of ground squirrels.	None. No suitable burrow habitat present for this species.
Northern harrier <i>Circus cyaneus</i> (nesting)	-	CSC	Forages and nests in open (treeless) grasslands, marshes, and agricultural areas. Nests on the ground in dense, tall vegetation in undisturbed areas.	None. No suitable habitat present for this species.
American peregrine falcon <i>Falco peregrinus anatum</i>	D	D/FP	Typically nests in scrapes on cliff ledges in woodland, forest, and coastal habitats; however, this species has become adapted to urban environments where it may nest on protected ledges of tall buildings or bridges. The ledges must have some edge barrier to prevent eggs and nestlings from falling off and be protected from predators and human interaction. Prefers breeding sites in close proximity to water.	None. There are no suitable nesting structures for this species on the project site, but could nest nearby.

Table 4.3-1 Special-Status Wildlife Species and Potential to Occur in the Vicinity of the Project Site				
Species	Federal Status	State Status	Habitat	Potential to Occur on the Project Site**
Loggerhead shrike <i>Lanius ludovicianus</i> (nesting)	-	CSC	Forages in grasslands, shrublands, and open woodlands with areas of bare ground. Nests in trees or shrubs within suitable foraging habitat.	None. This species nests only within suitable foraging habitat, which is not present on the project site.
Purple martin <i>Progne subis</i> (nesting)	-	CSC	Nests in caves or other overhanging structures such as freeway overpasses.	None. No suitable nesting habitat present for this species.
Mammals				
Pallid bat <i>Anthrozous pallidus</i>	-	CSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats. Roosts in rock crevices, oak hollows, bridges, or buildings.	None. No suitable roosting habitat present for this species.
Western red bat <i>Lasiurus blossevilli</i>	-	CSC	Roosts primarily in tree foliage, especially in cottonwood, sycamore, and other riparian trees or orchards (Pierson et al. 2004). Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging, including grasslands, shrublands, and open woodlands.	None. No suitable roosting habitat present for this species.
American Badger <i>Taxidea taxus</i>	-	CSC	Forages and burrows in open shrub, forest, and herbaceous habitats with friable soils.	None. No suitable habitat present for this species.
<p>Notes: CNDDB = California Natural Diversity Database</p> <p>¹ Federal Status: E = Endangered T = Threatened D = Delisted</p> <p>² State Status: CSC = California Species of Special Concern E = Endangered FP = Fully Protected T = Threatened D = Delisted</p> <p>* Because the distribution and abundance of individual bird species varies seasonally, the season, or life phase, during which the species is of conservation concern in California is provided in parentheses beneath the bird species scientific name. There is potential for any of these bird species to fly over or pass through the project site, however, these species would not be nesting on or otherwise residing on the project site during the season or life phase when the species is of conservation concern in California.</p> <p>* There is no record of these species being on-site currently.</p> <p>Sources: CNDDB, 2014; CNPS, 2014; USFWS, 2014</p>				



Source: CDFW 2014

Figure 4.3-2 CNDB Records within 3 Miles of the Sacramento Commons Project Site

American Peregrine Falcon

American peregrine falcon has been reported to nest on the Resources Building at 1416 9th Street near the project site. This species reportedly nested at the Resources Building many years ago, but the nest site on this building was screened to exclude the species and no subsequent nesting has been documented in downtown Sacramento (Jim Estep pers. comm. 2014). Adult peregrine falcons have been observed in downtown Sacramento, including in the project vicinity, as recently as summer 2014 (Estep pers. comm. 2014, Airola pers. comm. 2014), but no current nest sites are known. This species is not expected to nest on the project site due to a lack of preferred nesting structures (i.e., bridges or tall buildings with partially enclosed ledges that are protected from direct human interaction), but it is possible they could nest in surrounding buildings that provide suitable structure, such as the Resources Building. Buildings constructed in the initial project phases may provide suitable nesting conditions, but it is unlikely that a pair would nest on a new building on a site with ongoing demolition and construction. Protected ledges on tall buildings are preferred and the ledges must have some edge barrier to prevent eggs and nestlings from falling off and be protected from predators and human interaction.

Swainson's Hawk

Swainson's hawks in the Central Valley typically nest in tall (around 50 feet tall on average) trees in riparian woodlands, along roadsides or field borders, isolated trees, and on the edges of remnant oak woodlands or small groves (Estep 1989, Anderson et al. 2007). Remnant riparian forest edges contain the majority of known nests in the Central Valley. However, this is a function of nest tree availability rather than dependence on riparian forest (Estep 1989, England et al. 1997). Nests are usually constructed high up in the tree (average nest height is around 40 feet), providing protection to the nest as well as visibility from it. Nests are generally constructed in trees that provide a panoramic view of the hawk's territory. Tree species most commonly used for nesting in the Central Valley are Fremont cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), black walnut (*Juglans californica*), eucalyptus (*Eucalyptus* spp.), and willow (*Salix* spp.) (Anderson et al. 2007, Estep 2007a).

Swainson's hawks will occasionally nest in urban areas if there is a suitable nest tree that is tall enough to provide a panoramic view of the surrounding landscape, has dense enough foliage to visually protect the nest from disturbances, and is located within two miles of foraging habitat (England et al. 1995 in Estep 2009a). Most urban nest trees are ornamental pines (*Pinus* spp.), coast redwood (*Sequoia sempervirens*), giant sequoia (*Sequoiadendron giganteum*), or native valley oaks (England et al. 1995 in Estep 2009, Estep pers. comm. 2007a). Although tree species most commonly used by Swainson's hawk are not common on the project site (there is one redwood and one ornamental pine on the site that may be suitable for Swainson's hawk nesting), there are many other tree species that could potentially be used for nesting by Swainson's hawk. Approximately 10 percent of the trees on the project site have the appropriate size and structure to provide potential nest sites for Swainson's hawk, including a number of large London plane trees (*Platanus x acerifolia*), American elm trees (*Ulmus Americana*), and tulip trees (*Liriodendron tulipifera*); however, these trees are surrounded by tall buildings that block views from the tree canopies and the urban setting is characterized by continuous traffic, light and noise pollution, and other disturbances that substantially reduce suitability and attractiveness for Swainson's hawk.

While Swainson's hawk will use a variety of nesting habitats, it is a species of open plains, not woodlands, and their nest trees are almost always selected along the edges of tree stands or woodlands and not on the interior of them (England et al. 1997, Estep pers. comm. 2007a, Estep 2009b) or within areas surrounded by tall buildings. Swainson's hawks are visually oriented and require large, wide-open spaces and visibility from the nest (Estep pers. comm. 2007a, Estep 2009b).

Of primary importance to nest site selection is proximity to high-quality foraging habitat. Swainson's hawks cover large areas in search of prey. However, they do not nest in areas that are not close to suitable foraging habitat (Estep 1989, England et al. 1995 in Estep 2009a). Nest sites are generally located within approximately two miles of suitable foraging habitat, which consists of alfalfa, disked fields, fallow fields, dry-land pasture, beets, tomatoes, irrigated pasture, grains, other row crops, and uncultivated grasslands (Estep 1989, Estep pers. comm. 2007b, Estep 2009a). While lands committed to such uses are not located on or near the project site, potential foraging habitat within approximately two miles of the project site exists at the Downtown Railyards site, vacant lots on the west bank of the Sacramento River in West Sacramento, at Sutter's Landing Regional Park, and along the American River Parkway.

Prey abundance (the amount of rodent prey) and accessibility (ability to visually detect and capture the prey) are the most important features determining the suitability of Swainson's hawk foraging habitat (Estep 1989, Estep 2009b). Prey accessibility is based largely on vegetative structure (cover and height) of the foraging habitat with lower vegetative cover providing greater access to prey (Estep 2009b). Swainson's hawks feed primarily on small rodents, but also consume insects and birds. Although the most important foraging habitat for Swainson's hawks lies within a one-mile radius of each nest (City of Sacramento et. al 2003, Appendix H, p. 5-29), Swainson's hawks have been recorded foraging up to 18.6 miles from nest sites (Estep 1989). Any habitat within the foraging distance may provide food at some time in the breeding season that is necessary for reproductive success. However, reproductive success decreases for Swainson's hawks as distance from foraging habitat increases and Swainson's hawks nesting in urban areas have been shown to have lower reproductive success than those nesting in rural areas (England et al. 1995, England et al. 1997).

There are numerous Swainson's hawk nesting records in the CNDDDB in the vicinity of the project site. Most of these records are from the Sacramento and American Rivers. However, there is a record of a Swainson's hawk pair nesting in a 60-foot tall redwood tree in Fremont Park at the corner of 15th and Q Streets, which is approximately 0.67 mile from the project site, from 2006 to 2012 (CNDDDB 2014). Fremont Park is one square block in size and completely surrounded by urban development, with minimal foraging habitat within approximately two miles. Unlike the project site, however, the nest tree in Fremont Park provides panoramic views of the surrounding area. Buildings in the area around Fremont Park at the time of the record were generally two to three stories high and are not taller than the nest tree.

White-Tailed Kite

White-tailed kites inhabit low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, oak woodlands, and riparian areas (Dunk 1995). White-tailed kites generally nest in dense stands of trees, but like Swainson's hawks, they nest on habitat edges adjacent to open foraging habitat (CDFW 2005). They occasionally nest in isolated trees. They typically nest within 0.5 mile of foraging habitat and are rarely found away from their preferred foraging habitats (Dunk 1995, CDFW

2005, Estep pers. comm. 2014). Preferred foraging habitat in the Central Valley includes alfalfa and other hay crops, irrigated pastures, sugar beets, and tomatoes (Erichsen et al. 1994, Estep pers. comm. 2014), but they also forage in dry pastures, annual grasslands, open oak woodlands, rice stubble fields, seasonal wetlands, marsh edges, and occasionally in orchards (Erichsen 1995, Estep pers. comm. 2014). None of these habitats occur on or adjacent to the project site. They have been reported to nest in a wide variety of tree and shrub species ranging from shrubs such as coyote brush (*Baccharis pilularis*) that are less than 10 feet tall to redwood trees over 150 feet tall (Dunk 1995). However, they most often build their nests near the tops of trees (generally 20 to 100 feet above ground) with dense canopies (CDFW 2010). White-tailed kite is a year-round resident in the Central Valley, other lowland valleys, and along the entire length of the coast (Dunk 1995). Approximately 33 percent of the trees currently present on the project site have the appropriate size and structure to provide potential nest sites for white-tailed kite.

TREES PROTECTED UNDER CITY ORDINANCE

Based on the results of an arborist survey (Dudek 2014) conducted on the site, there are a total of 291 trees on or adjacent to the project site of which 50 trees (16 different species) meet the City's definition of either a City Street Tree or a Heritage Tree and are protected under Chapters 12.56 and 12.64 of the Sacramento City Code. Trees adjacent to the project site consist of trees that are just outside of the project parcel boundaries along the periphery of the project site along 5th, 7th, N, and P Streets that may be subject to direct removal or pruning to facilitate implementation of the proposed project.

There are 39 trees located along the perimeter of the project site that meet the definition of a City Street Tree (City Code Section 12.56.020), which includes any tree growing on a public street right-of-way. There are 11 trees on the project site that are not in the public street right-of-way that meet the criteria for classification as a Heritage Tree, as defined by the City (City Code Section 12.64.020). The City classification for a Heritage Tree includes any tree of good quality in terms of health, vigor of growth, and conformity to generally accepted horticultural standards of shape and location of its species with a trunk circumference measuring 100 inches or more; any oak, sycamore, buckeye, or riparian tree of good quality in terms of health, vigor of growth, and conformity to generally accepted horticultural standards of shape and location of its species with a trunk circumference measuring 36 inches or more; or any tree designated by the City Council to be of special historical or environmental value or of significant community benefit. Of the 39 trees that meet the definition of a City Street Tree, 6 also meet the size criteria for classification as Heritage Trees. Table 4.3-2 summarizes the Heritage and City Street Tree count by species and type on or adjacent to the project site.

The designated City Street Trees adjacent to the project site generally exhibit fair to good health and structural conditions, with many good ratings assigned to smaller, more recently planted trees that are exhibiting more vigorous growth than older, larger trees. The Heritage Trees located within the private property of the project site (i.e., not on a City street right-of-way) generally exhibit fair health and structural conditions. This rating summary is consistent with older, larger trees that meet the size criteria for Heritage Tree status and exhibit less vigorous growth and other maladies typical of aging urban trees. Tree health and structural issues observed in Heritage Trees include wood rot, canopy dieback, mistletoe, epicormic (adventitious) sprouting,³ and previous limb failure, amongst others.

³ This is a shoot growing from a bud that lies underneath the bark of the trunk, stem, or branch of a plant.

**Table 4.3-2
Heritage and City Street Tree Count by Species and Type On or Adjacent* to the Project Site**

Scientific Name	Common Name	Tree Quantities		
		Heritage Tree	City Street Tree	Total
<i>Acer buergerianum</i>	Trident maple	0	1	1
<i>Acer spp.</i>	Maple	0	2	2
<i>Cedrus atlantica</i>	Blue atlas cedar	1	0	1
<i>Cinnamomum camphora</i>	Camphor	0	1	1
<i>Fraxinus oxycarpa</i>	Raywood ash	0	1	1
<i>Fraxinus velutina</i>	Modesto ash	2	0	2
<i>Ginkgo biloba</i>	Ginkgo	0	3	3
<i>Liquidambar styraciflua</i>	Liquidambar	0	3	3
<i>Liriodendron tulipifera</i>	Tulip tree	1	10	11
<i>Pinus canariensis</i>	Canary Island pine	1	0	1
<i>Platanus x acerifolia</i>	London plane tree	1	4	5
<i>Platanus racemosa</i>	California sycamore	2	0	2
<i>Pyrus calleryana</i>	Bradford pear	0	1	1
<i>Quercus rubra</i>	Red oak	0	3	3
<i>Ulmus americana</i>	American elm	3	5	8
<i>Zelkova serrata</i>	Zelkova	0	5	5
Total		11	39	50

Notes:

* Trees adjacent to the project site consist of City Street Trees along the perimeter of the project site along 5th, 7th, N, and P Streets that may be subject to direct removal or pruning to facilitate project implementation. See Appendix M for more detail.

Source: Dudek 2014

Tree health assessments consider a number of observable tree characteristics. For example, a tree with a “fair” health rating is one that exhibits average overall health. There is nothing necessarily wrong with a tree that has a “fair” rating – only that it is not exhibiting better than average health. Trees with “fair” ratings can live for a very long time. Structural condition relates to the architecture of the tree. Trees with “poor” structural ratings usually have trunk issues (cavities, cracks, etc.), poor branch attachments that can lead to branch failure, or other structural soundness issues that relate to the risk of a tree or tree part failing. Table 4.3-3 provides a summary of Heritage and City Street Tree health on or adjacent to the project site.

The impact analysis below evaluates the proposed project’s effects on biological resources, which includes Heritage or City Trees, as appropriate.

Table 4.3-3 Heritage and City Street Tree Health Summary on or Adjacent* to the Project Site			
Health Rating*	Tree Quantities		
	Heritage Trees**	City Street Trees	Total
Good	3	12	15
Fair	8	24	32
Poor	0	3	3
Total	11	39	50

Note:

* Trees adjacent to the project site consist of City Street Trees along the perimeter of the project site along 5th, 7th, N, and P Streets that may be subject to direct removal or pruning to facilitate project implementation. See Appendix M for more detail.

** Of the 6 City Street Trees that meet the size criteria for classification as Heritage Trees, 5 (#1, 25, 41, 49, and 50) have a "Fair" health rating and 1 (#55) has a "Good" health rating. See Appendix M for a listing of all the trees.

Source: Dudek 2014

4.3.2 REGULATORY SETTING

FEDERAL

Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects threatened and endangered plants and animals, along with their critical habitat. Species that are proposed for listing are covered by this act and are treated as if they were listed during the environmental review process. USFWS administers the federal ESA for all terrestrial species and addressing project impacts always requires consultation with USFWS. There are two ways to address impacts: a Section 10 (a) incidental take permit is used when a nonfederal government is addressing impacts and Section 7 consultation applies to projects either undertaken by a federal agency or private projects that require a federal permit or other approval.

Migratory Bird Treaty Act

The MBTA authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs. Most actions that result in a taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. Examples of permitted actions that do not violate the MBTA are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird banding, and other similar activities. USFWS is responsible for overseeing compliance with the MBTA.

Section 404 of the Clean Water Act

Section 404 of the federal CWA requires a project applicant to obtain a permit from the U.S. Army Corps of Engineers (USACE) before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. There are no waterways, wetlands, or aquatic resources of any kind on the project site.

STATE

California Endangered Species Act

Under the California Endangered Species Act (CESA), CDFW is responsible for maintaining a list of endangered and threatened species (California Fish and Game Code Section 2070). Sections 2050–2098 of the California Fish and Game Code outline the protection provided to California’s rare, endangered, and threatened species. Section 2080 prohibits the taking of plants and animals listed under the CESA. Section 2081 establishes an incidental take permit program for state-listed species. CDFW maintains a list of “candidate species,” which are species that CDFW formally notices as being under review for addition to the list of endangered or threatened species.

Pursuant to CESA requirements, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project study area and whether the proposed project would have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any proposed project that may affect a candidate species.

Project-related impacts on species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of the CESA. “Take” of protected species incidental to otherwise lawful management activities may be authorized under California Fish and Game Code Section 206.591. Authorization from CDFW would be in the form of an incidental take permit.

California Fish and Game Code

Fully Protected Species

Certain species are considered *fully protected*, meaning that the California Fish and Game Code explicitly prohibits all take of individuals of these species except take permitted for scientific research. Section 5050 lists fully protected amphibians and reptiles, Section 5515 lists fully protected fish, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals.

Protection of Birds and Their Nests

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the California Fish and Game Code or any regulation made pursuant thereto. Section 3503.5 prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Migratory nongame birds are protected under Section 3800, while other specified birds are protected under Section 3505.

LOCAL

Sacramento 2030 General Plan

The following goals and policies from 2030 General Plan are related to biological resources.

Goal ER 2.1 Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

- ▶ **Policy ER 2.1.1 Resource Preservation.** The City shall encourage new development to preserve onsite natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.
- ▶ **Policy ER 2.1.4 Retain Habitat Areas.** The City shall retain plant and wildlife habitat areas where there are known sensitive resources (e.g., sensitive habitats, special-status, threatened, endangered, candidate species, and species of concern). Particular attention shall be focused on retaining habitat areas that are contiguous with other existing natural areas and/or wildlife movement corridors.
- ▶ **Policy ER 2.1.10 Habitat Assessments.** The City shall consider the potential impact on sensitive plants for each project requiring discretionary approval and shall require preconstruction surveys and/or habitat assessments for sensitive plant and wildlife species. If the preconstruction survey and/or habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level or industry-recognized (if no protocol has been established) surveys shall be conducted; or (2) presence of the species shall be assumed to occur in suitable habitat on the project site. Survey Reports shall be prepared and submitted to the City and the California Department of Fish and Game (CDFG) or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.
- ▶ **Policy ER 2.1.11 Agency Coordination.** The City shall coordinate with State and Federal resource agencies (e.g., CDFW, U.S. Army Corps of Engineers, and USFWS) to protect areas containing rare or endangered species of plants and animals.

Goal ER 3.1 Urban Forest. Manage the city's urban forest as an environmental, economic, and aesthetic resource to improve Sacramento resident's quality of life.

- ▶ **Policy ER 3.1.2 Manage and Enhance.** The City shall continue to plant new trees, ensure new developments have sufficient right-of-way width for tree plantings, manage and care for all publicly owned trees, and work to retain healthy trees.
- ▶ **Policy ER 3.1.3 Trees of Significance.** The City shall require the retention of trees of significance (such as heritage trees) by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City shall require tree replacement or suitable mitigation.
- ▶ **Policy ER 3.1.9 Funding.** The City shall provide adequate funding to manage and maintain the city's urban forest on City property, including tree planting, training, maintenance, removal, and replacement.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. The 2035 General Plan is in draft form as of the writing of this document. The 2035 General Plan includes a revision to one policy that is relevant to the project:

- ▶ **Policy ER 2.1.10 Habitat Assessments.** The City shall consider the potential impact on sensitive plants and wildlife for each project requiring discretionary approval. If site conditions are such that potential habitat for sensitive plant and/or wildlife species may be present, the City shall require habitat assessments, prepared by a qualified biologist, for sensitive plant and wildlife species. If the habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level surveys shall be conducted (where survey protocol has been established by a resource agency), or, in the absence of established survey protocol, a focused survey shall be conducted consistent with industry-recognized best practices; or (2) suitable habitat and presence of the species shall be assumed to occur within all potential habitat locations identified on the project site. Survey Reports shall be prepared and submitted to the City and the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.

The approach in this EIR is consistent with both the 2030 and draft 2035 version of this policy. Protocol-level species surveys for relevant species are required to be conducted no more than 30 days prior to construction (see mitigation provided under Impact 4.3-1).

City Street Trees

The City recognizes that the planting and preservation of trees enhances the natural scenic beauty, increases life-giving oxygen, promotes ecological balance, provides natural ventilation, air filtration, and temperature, erosion, and acoustical controls, increases property values, improves the lifestyle of residents, and enhances the identity of the City. Title 12, Chapter 12.56 of the Sacramento City Code includes provisions to protect City Street Trees. All removal, trimming, pruning, cutting, or other maintenance activities on any City Street Tree requires a permit from the director of the Department of Transportation, pursuant to Section 12.56.070 of the City Code. A City Street Tree is defined as any tree growing on a public street right-of-way that is maintained by the City. Where appropriate, the Director may require the replacement of City Street Trees proposed for removal.

Heritage Trees

Heritage Trees promote scenic beauty, enhance property values, reduce soil erosion, improve air quality, abate noise, and provide shade to reduce energy consumption. Title 12, Chapter 12.64 of the Sacramento City Code sets forth provisions to protect significant specimen trees existing in the City known as Heritage Trees. The City Code defines Heritage Trees as follows:

1. Any tree of any species with a trunk circumference of one hundred (100) inches or more, which is of good quality in terms of health, vigor of growth and conformity to generally accepted horticultural standards of shape and location for its species.
2. Any native oak, sycamore, or buckeye or riparian tree, having a circumference of thirty-six (36) inches or greater when a single trunk, or a cumulative circumference of thirty-six (36) inches or greater when a multi-trunk, which is of good quality in terms of health, vigor of growth and conformity to generally accepted horticultural standards of shape and location for its species.
3. Any tree thirty-six (36) inches in circumference or greater in a riparian zone. The riparian zone is measured from the centerline of the water course to thirty (30) feet beyond the high water line.
4. Any tree, grove of trees or woodland trees designated by resolution of the city council to be of special historical or environmental value or of significant community benefit.

The City has initiated an effort to update its tree ordinances.

4.3.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

For this impact analysis, the CNDDDB (2014), the USFWS species list for the Sacramento West and Sacramento East USGS quadrangles (USFWS, 2014), and the CNPS inventory for the Sacramento West and Sacramento East USGS quadrangles (CNPS, 2014) were consulted regarding special-status plant and wildlife species known to occur in the vicinity of the site. A reconnaissance-level field survey was performed on April 9, 2014. Protocol-level species surveys were not conducted because the protocols for special-status species that have potential to occur on the project site require that surveys be conducted no more than 30 days prior to construction. During the reconnaissance-level survey, habitats on the project site, including trees, were evaluated for their potential to support nesting birds, particularly Swainson's hawk and white-tailed kite.

In addition, an arborist report prepared for the project (Dudek 2014) was reviewed for specific information about trees on or adjacent to the project site to identify trees protected under the City Code that could be affected by the project, as well as trees that have appropriate size and structure to potentially support nesting raptors, especially Swainson's hawk and white-tailed kite.

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, biological resource impacts are considered significant if the project would:

1. result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of threatened or endangered species of plant or animal;
2. substantially reduce the number or restrict the range of a special-status species;

3. substantially reduce the habitat of a fish or wildlife species;
4. cause a fish or wildlife population to drop below self-sustaining levels;
5. threaten to eliminate a plant or animal community;
6. interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridor;
7. adversely affect other special-status species or species of special concern; or have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means;
8. conflict with any local policies or ordinances protecting biological resources; or
9. create a potential health hazard, or use, production, or disposal of materials that would pose a hazard to plant or animal populations in the area affected.

Thresholds 1, 2, 3, 4, and 5 above are closely related and addressed under Impact 4.3-1, below. Thresholds 8 and 9 are also addressed in the City's 2030 General Plan Master EIR and below under Impacts 4.3-2 and 4.3-3, respectively.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An initial study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An initial study may be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process is often referred to as "scoping out" issues.

Certain issues were scoped out in the initial study or are not relevant to the project site. For example, the project site does not contain riparian habitats or other sensitive natural communities. The proposed project site is located in a developed urban environment. There are no riparian habitats or other sensitive habitats on or adjacent to the project site that would be affected by project construction or operation. Therefore, no impact on riparian habitat or other sensitive natural communities would occur during construction or operation of the proposed project. These issues are not further addressed in this EIR.

The project site does not contain federally protected wetlands or other features regulated under Section 404 of the Clean Water Act. The project site does not support any wetlands or waters regulated by other agencies. Therefore, no impact on wetlands would occur during construction or operation of the proposed project and these issues are not further addressed.

The project site is in a developed urban area and does not contain wildlife movement corridors, streams or waterways, or native wildlife nursery sites. Therefore, no impact on fish or wildlife movement or migratory corridors would occur during construction or operation of the proposed project and these issues are not further addressed.

The project site is not in a location subject to a HCP, NCCP, or other local, regional, or state HCP. Therefore, no impact related to HCP or NCCP provisions would occur during construction or operation of the project. This issue is not further addressed.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT The proposed project could result in substantial degradation of the quality of the environment or
4.3-1 reduction of habitat or population below self-sustaining levels of threatened or endangered species
of plant or animal, substantially reduce the number or restrict the range of a special-status species,
substantially reduce the habitat of a fish or wildlife species, or cause a fish or wildlife population to
drop below self-sustaining levels. *Based on the analysis below, the impact would be less than
significant with mitigation.*

No threatened or endangered plant or animal species are currently present on the project site. The only threatened or endangered animal species with the potential to occur on the project site are Swainson's hawk (a state threatened species) and white-tailed kite (a state fully protected species) (see Table 4.3-1). With respect to bird species that nest on or adjacent to the project site, the project has the potential to affect these species as a result of removal of, or other impacts on trees that could provide nesting habitat. However, the small, urban nature of the project site and the lack of bird or raptor nests observed during the survey make it unlikely that removal of trees that could be used for nesting would adversely impact the regional bird population. Furthermore, the loss of existing trees would not be expected to have a substantial effect on the long-term viability of any common or special-status bird or raptor population or cause a population to drop below self-sustaining levels because most of the species that may use the site are relatively common and, because of the highly disturbed nature of the site and surrounding environment, the site provides poor quality nesting habitat for special-status raptors (i.e., Swainson's hawk and white-tailed kite) compared to the open, undeveloped habitats in which these species typically nest. As discussed in the following paragraphs, there is abundant nesting habitat of equal or better quality available in the vicinity of the project site and in the greater Sacramento area to maintain current populations of birds and raptors.

Project construction would result in removal of approximately 199 of the approximately 291 trees existing on the project site or along its perimeter. Of the trees identified for removal, approximately 11 have the size and structure characteristics to potentially support Swainson's hawk nests. An additional 65 trees provide potentially suitable nesting habitat for white-tailed kites and all 199 of these trees provide potential nesting habitat for other raptors or bird species protected by the MBTA and the California Fish and Game Code. However, the probability of Swainson's hawks nesting on or adjacent to the project site is very low because this species generally nests close (typically within 2 miles) to suitable foraging habitat (e.g., open fields, grasslands, agricultural fields, fallow fields, and pastures). The project site does not contain suitable foraging habitat for special-status species, as noted in the biological resources assessment report (Appendix L). Swainson's hawks nesting within or adjacent to urban areas have been shown to have lower reproductive success than those nesting in more rural areas (Estep pers. comm. 2007, Estep 2009). In addition, nests are generally constructed in trees that provide a panoramic view of the hawk's territory; trees on the project site are surrounded by tall buildings that block views from the tree canopies. White-tailed kites generally nest in dense stands of trees but, like Swainson's hawks, they typically nest on habitat edges adjacent to open foraging habitat (CDFW 2005). They occasionally nest in

isolated trees, but in the Central Valley, are rarely found far from agricultural areas or open grasslands (CDFW 2005, Estep pers. comm. 2014). While this species has occasionally been found nesting on urban edges adjacent to preferred foraging habitat or in city parks (Estep 2014), the probability of white-tailed kites nesting on the project site is also very low because there is no preferred foraging habitat within approximately 0.5 mile of the site and this species tends to avoid human disturbance associated with urban areas (Estep 2014). Furthermore, the urbanized setting in which the project is located is characterized by continuous traffic, light and noise pollution, and other disturbances that substantially reduce suitability and attractiveness for Swainson's hawk and white-tailed kite that typically prefer more rural settings.

Project construction would result in the removal of approximately 199 trees out of approximately 291 on-site (based on the current Conceptual Site Plan and Conceptual Landscape Plan – see Chapter 2 for more detail). The removal of approximately 199 trees should be viewed in the context of the approximately 16,604 City-maintained trees existing in the Central City area, including a conservative estimate of approximately 4,700 of the largest trees (greater than 25 inches in diameter) (Hocker 2014). These larger trees may be able to support nesting habitat for raptors. Within a 1-mile radius of the center of the project site, the City maintains approximately 7,738 trees, of which approximately 2,053 are greater than 25 inches in diameter (Hocker 2014). These larger trees could presumably support large raptor nests. The City's Urban Forestry section manages about 115,000 trees Citywide within street rights-of-way, parks, and other City facility grounds (American Forests 2014). Based on the Conceptual Landscape Plan, 92 trees would be preserved on site that would continue to provide nesting habitat for birds, including 19 trees that provide potentially suitable nest trees for Swainson's hawk and 36 that are potentially suitable for white-tailed kite nesting. In addition, based on the Conceptual Landscape Plan, the proposed project would plant approximately 247 trees on the project site.

There is also an undetermined number of larger trees on private property in the Central City area and throughout the rest of Sacramento and trees within the Sacramento and American River corridors provide much higher-quality nesting habitat for Swainson's hawk and white-tailed kite. Trees within City parks in the vicinity of the proposed project site, such as Capitol Park, Crocker Park, and Southside Park, provide better nesting conditions for Swainson's hawks and white-tailed kites than the proposed project site. However, even with respect to these parks, high-density urban environments provide poor quality nesting habitat overall and are unlikely to sustain long-term reproductive success.

Although the probability is very low, there is some possibility of Swainson's hawk or white-tailed kite nesting on the site. If trees are to be removed during the raptor breeding season (March–August), direct destruction of an active Swainson's hawk or white-tailed kite nest, including mortality of eggs and chicks, could result if an active nest were present. In addition, project construction could disturb active nests near the construction area, potentially resulting in nest abandonment by the adults and mortality of chicks and eggs. Direct or indirect loss of an active Swainson's hawk or white-tailed kite nest is a potentially significant impact requiring mitigation because these species are uncommon, their regional population numbers are declining, and the species are considered vulnerable to extinction in the State of California due to a restricted range and relatively few populations. Therefore, the direct or indirect loss of an active nest of these species as a result of project implementation would be considered a substantial adverse effect on a special-status species, and, therefore, a significant impact under CEQA, as well as a violation of the MBTA and California Fish and Game Code.

Tree removal and ground disturbances associated with project implementation could also result in direct destruction of active nests of other birds protected under the MBTA and California Fish and Game Code. Project construction could also result in disturbance of breeding birds causing nest abandonment by the adults and mortality of chicks and eggs. Loss of common birds and raptors (those not meeting the definition of special-status as provided above) would not be a significant impact under CEQA because it would not result in a substantial effect on their populations locally or regionally; however, destruction of any bird nest would be a violation of the MBTA or California Fish and Game Code and mitigation to avoid the loss of active nests of these species is required for compliance with these regulations and is addressed in Mitigation Measure 4.3-1b, below.

Project construction has the potential to indirectly disturb peregrine falcons if they are nesting in the project vicinity during construction. Peregrine falcons nest on tall buildings that mimic their natural cliff habitat. However, as provided above, there are no known current nest sites in downtown Sacramento and this species is not expected to nest on the project site due to a lack of preferred nesting structures (i.e., bridges or tall buildings with partially enclosed ledges that are protected from direct human interaction). While there are no known active peregrine falcon nests documented in downtown Sacramento, as discussed above, should an active nest be established adjacent to the project site, the potential indirect impacts to an active nest as a result of project construction would be considered a substantial adverse effect on a special-status species, and, therefore, a significant impact under CEQA as well as a violation of the MBTA and California Fish and Game Code.

The site is currently developed and will continue to be a developed area after project construction. Trees may be subject to periodic pruning following completion of the project, consistent with how they are currently maintained. Periodic pruning is a current, ongoing practice and is not expected to result in a loss of nesting habitat for bird species that may occur in the area. In addition, any pruning would be subject to protections for active nests, as specified in the federal MBTA and California Fish and Game Code and summarized above in Section 4.3.2, "Regulatory Setting." Mitigation Measure 4.3-1b, described below will protect nesting birds protected by MBTA and California Fish and Game Code.

The common bird nesting season is generally considered to be February 15-September 15, while the Swainson's hawk and peregrine falcon nesting season is generally March 1-August 31. Tree removal and construction performed outside of the nesting season would not require mitigation because it would not result in loss of individuals. While loss of nests of common bird or raptor species (e.g., mourning dove, house sparrow, American kestrel, and Cooper's hawk) would not be considered a significant impact because it would not result in a substantial effect on their populations locally or regionally, cause any population to drop below self-sustaining levels, or result in a trend toward these species being listed as threatened or endangered, destruction of any migratory bird nest is a violation of the MBTA and Section 3503 of the California Fish and Game Code and is, therefore, addressed in Mitigation Measure 4.3-1b below. The direct or indirect loss of active Swainson's hawk, white-tailed kite, or peregrine falcon nests is considered a **potentially significant** impact requiring mitigation because these species are uncommon, their regional population numbers are declining, and the species are considered vulnerable to extinction in the State of California due to a restricted range and relatively few populations.

Mitigation Measures

The following mitigation measures will implement 2030 General Plan policies ER 2.1.1, ER 2.1.4, ER 2.1.10, ER 2.1.11, and ER 3.1.3. Implementing Mitigation Measures 4.3-1a and 4.3-1b would reduce impacts on Swainson's hawk, white-tailed kite, peregrine falcon, other raptors, and migratory birds to a **less-than-significant** level because it would ensure that these species are not disturbed during nesting and project construction would not result in nest abandonment and loss of eggs or young.

Mitigation Measure 4.3-1a: Avoid Direct Loss of Swainson's Hawk.

Swainson's hawk

- If construction, tree removal, trimming, or pruning for any project phase on the project site is to begin during the nesting season for Swainson's hawk (March 1–August 31), a preconstruction survey for Swainson's hawk shall be conducted. Surveys for Swainson's hawk nests shall be conducted no more than 30 days before the beginning of construction for all project phases. Surveys for Swainson's hawk nests shall be conducted in all suitable nesting habitat within line of sight of construction activities within a 0.25-mile radius of the project site.
- If active Swainson's hawk nests are found within the nest survey area, the construction contractor shall avoid impacts on such nests by establishing a no-disturbance buffer around the nest. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. Based on guidance for determining a project's potential for impacting Swainson's hawks (Swainson's hawk Technical Advisory Committee 2000), projects in urban areas have a low risk of adversely affecting nests greater than 600 feet from project activities. Therefore, 600 feet is the minimum adequate buffer size for protecting nesting Swainson's hawks from disturbances associated with the proposed project. However, the qualified biologist shall consult with the California Department of Fish and Wildlife to confirm the adequacy of the no-disturbance buffer size prior to commencement of construction.
- No construction activity shall occur within the buffer area of a particular nest until a qualified biologist in consultation with California Department of Fish and Wildlife, confirms that the chicks have fledged or the nesting cycle has otherwise completed. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases, according to CDFW guidance (Calderaro pers. comm. 2014). The no-disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist.

Mitigation Measure 4.3-1b: Avoid Direct Loss of Swainson’s Hawk, White-Tailed Kite, Peregrine Falcon, and Nesting Birds Protected by the Migratory Bird Treaty Act and California Fish and Game Code.

White-tailed Kite, Peregrine Falcon, and Protected Bird Species

- If construction activity, tree removal, trimming, or pruning for any project phase on the project site is to begin during the nesting season for white-tailed kite, peregrine falcon, other raptors (except Swainson’s hawk), or other protected bird species in this region (generally late February through early September), a qualified biologist shall conduct preconstruction surveys in areas of suitable nesting habitat for white-tailed kite, peregrine falcon, common raptors, and bird species protected by the Migratory Bird Treaty Act or California Fish and Game Code. Surveys shall be conducted no more than 30 days before any ground disturbance is expected to occur for all project phases and shall extend at least 300 feet from the edge of the disturbance activity for non-raptor bird species and at least 500 feet for all raptor species potentially nesting in the area.
- If no active nests are found, no further mitigation is required. If active nests are found, the construction contractor shall avoid impacts on such nests by establishing a no-disturbance buffer around the nest. The appropriate buffer size for all nesting birds shall be determined by a qualified biologist but shall extend a minimum of 300 feet from the nest for non-raptor bird species and 500 feet for raptor species. The buffer size may be adjusted, as determined by a qualified biologist, depending on the species of nesting bird, nature of the project activity, the extent of existing disturbance in the area, visibility of the disturbance from the nest site, and other relevant circumstances.
- No construction activity shall occur within the established buffer area of an active nest until a qualified biologist confirms that the chicks have fledged and are no longer dependent upon the nest or the nesting cycle has otherwise completed. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases, according to CDFW guidance (Calderaro pers. comm. 2014). The no-disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist.

IMPACT 4.3-2 The proposed project could conflict with any local policies or ordinances protecting biological resources. *Based on the analysis below, the impact would be less than significant with mitigation.*

As described above in the Environmental Setting, the project site contains approximately 291 trees with existing tree canopy coverage of approximately 247,402 square feet (5.7 acres). On the project site, 50 trees are designated as protected or regulated trees under Chapters 12.56.020 and 12.64.020 of the City’s Code, including 39 trees that meet the definition of a City Street Tree and 11 trees that meet the criteria for classification as a Heritage Tree. Of the 39 City Street Trees, six also meet the size criteria for classification as a Heritage Tree.

Much of the site will need to be graded to accommodate the construction of buildings, parking lots, and the placement of necessary infrastructure (utilities, access roads, fire lanes, etc.). However, the proposed East-West and North-South Promenades (open space walkways) through the central portion of the project site will allow for retention of some trees. Additionally, many of the trees adjacent to Capitol Towers building and non-City Street Trees along 7th Street, N Street, and P Street will be retained.

Construction of the proposed project is expected to result in the removal of approximately four Heritage Trees, approximately four City Street Trees, and approximately 191 Non-Heritage Trees (trees that do not meet the City’s definition of either a Heritage Tree or City Street Tree and are not regulated by City Code), as shown in Table 4.3-4 (Dudek 2014). As noted in the Arborist Report (Dudek 2014), the removal of approximately 199 trees would result in the loss of approximately 142,410 square feet of tree canopy cover. A total of 92 existing trees are proposed to be retained on site, leaving a remaining tree canopy cover of approximately 104,993 square feet (see Appendix M).

Tree Type	Retain	Remove (Construction)	Remove (Health)	Total
Heritage Tree	7	4	0	11
City Street Tree	35	4	0	39
Other Trees	50	190	1	241
Total	92	198	1	291

Source: Appendix M, Arborist Report (Dudek 2014).

The proposed project’s Conceptual Landscape Plan (see Figures 2-4a and 2-4b) includes a total of approximately 247 new trees to be planted, as discussed in Chapter 2, “Project Description,” and as shown on the Conceptual Landscape Plan presented in Appendix N. The Conceptual Landscape Plan identifies approximately 147 new trees planted throughout the site at ground level, while the remaining approximately 100 new trees would be planted on balconies and roof tops, referred to as “podium” trees. Including newly-planted ground level trees (147), podium-level trees (100) trees, and 92 existing healthy trees proposed to be retained on-site, a total of approximately 339 trees are included in the proposed project’s Conceptual Landscape Plan.

Project construction, including installation of project landscape, would occur in phases (see Chapter 2.0 of this EIR, “Project Description,” for a discussion of phasing). Trees would be planted as the project builds out, allowing those trees to mature and contribute to the tree canopy prior to overall project completion.

The City’s 2030 General Plan Policy LU 4.3.1 provides that within the Traditional Neighborhood land use designation the “City shall protect the pattern and character of Sacramento’s unique traditional neighborhoods, including the... tree canopy ...” The proposed project is located within the Central Business District land use designation, and the City has no policy similar to 2030 General Plan Policy LU 4.3.1 relating to tree canopy within the Central Business District.

As shown in Table 4.3-5, including only trees proposed to be retained on-site (92) and new ground-level trees (147), at 10 years after installation of project landscaping the tree canopy cover on the project site would be approximately 155,811 square feet (roughly 62 percent of the existing coverage) and at 25 years would increase to 251,699 square feet (roughly a 2 percent increase over existing canopy coverage).

Characteristic or Ecosystem Service	Existing Total	Total by Year (Including Retained and Planted Trees)					
		0	5	10	15	20	25
Quantity of Trees	291	239	239	239	239	239	239
Total Trunk Diameter (in.)	4,865	1,970	2,440	2,896	3,322	3,719	4,102
Canopy Cover (ft ²)	247,403	107,698	126,117	155,811	188,019	220,021	251,699
Leaf Surface Area (ft ²)	1,242,394	610,103	694,099	895,062	1,100,495	1,230,913	1,401,139
Carbon Storage (lb.)	362,132	188,303	193,404	207,736	231,638	264,655	306,726
Gross Carbon Sequestration (lb./year)	26,329	11,250	13,616	15,954	18,570	20,775	23,421
Avoided Runoff (ft ³ /year)	7,527	3,671	4,141	5,243	6,375	7,110	8,051

Source: Appendix M, Arborist Report (Dudek 2014).

If proposed podium trees are also included (100), as shown in Table 4.3-6, at 10 years after installation of project landscaping, the tree canopy cover on the project site would be approximately 167,201 square feet (roughly 68 percent of the existing coverage) and at 25 years would increase to 275,979 square feet (roughly a 12 percent increase compared to existing canopy coverage).

Characteristic or Ecosystem Service	Existing Total	Total by Year (Including Retained and Planted Trees)					
		0	5	10	15	20	25
Quantity of Trees	291	339	339	339	339	339	339
Total Trunk Diameter (in.)	4,865	2,070	2,670	3,246	3,782	4,289	4,762
Canopy Cover (ft ²)	247,403	109,718	131,777	167,201	204,999	242,211	275,979
Leaf Surface Area (ft ²)	1,242,394	618,263	713,039	942,152	1,178,645	1,335,253	1,518,309
Carbon Storage (lb.)	362,132	188,413	194,534	211,196	238,508	275,665	321,856
Gross Carbon Sequestration (lb./year)	26,329	11,530	14,446	17,274	20,700	23,555	26,581
Avoided Runoff (ft ³ /year)	7,527	3,711	4,241	5,503	6,805	7,690	8,701

Source: Appendix M, Arborist Report (Dudek 2014).

Therefore, as trees included in the proposed project mature, it is anticipated that the tree canopy coverage on the project site would be similar to the existing coverage. Where applicable, the changes

in tree totals and tree canopy are addressed further in other sections in the EIR, specifically in Section 4.6, “Greenhouse Gas Emissions and Energy” and Section 4.1, “Aesthetics.”

The City’s 2030 General Plan includes Policy ER 3.1.3, which requires the retention of trees of significance (such as Heritage Trees) wherever possible, or if tree removal cannot be avoided, the policy requires tree replacement or suitable mitigation. Title 12 of the City’s Code implements 2030 General Plan Policy ER 3.1.3 and sets forth the requirements to protect Heritage Trees and City Street Trees.

Chapters 12.56 and 12.64 of Sacramento City Code address permit and replacement requirements for pruning or removal of Heritage Trees and City Street Trees. Prior to tree removal, tree pruning, or soil disturbance around a City Street Tree or Heritage Tree, a permit is required from the City’s Director of Transportation, pursuant to Section 12.56.070 of the City Code. Pruning, removal, and replacement of City-regulated trees (Heritage Trees and City Street Trees) would be required to comply with Title 12 Chapters 12.56 and 12.64 of the City’s Code and would be conducted in coordination with the City’s Urban Forester. The proposed project is consistent with the City’s 2030 General Plan Policy ER 3.1.3 because the project proposes to retain approximately 42 of the 50 City Street Trees and Heritage Trees on the project site (approximately 80% of the regulated trees on-site) and will comply with the requirements of Title 12 of the City Code to address the protection and replacement of regulated tree resources.

Comments received in response to the Notice of Preparation (NOP) expressed concern regarding the loss of trees to accommodate the project, as well as the potential for the project, once completed, to affect the health of any existing trees on-site. In addition, there is the potential for trees retained on-site (Heritage Trees, City Street Trees and Non-Heritage Trees) to be damaged by construction-related activity or to experience a decline in health following project completion without measures in place to protect trees prior to and during construction and to monitor trees after construction activity has been completed. As identified in Chapter 12.56 of the City Code, the City recognizes various benefits of tree cover that, “enhances the natural scenic beauty, increases life-giving oxygen, promotes ecological balance, provides natural ventilation, air filtration, and temperature, erosion, and acoustical controls, increases property values, improves the lifestyle of residents, and enhances the identity of the city.” Therefore, the City recognizes the biological benefits of trees, as referenced in this section, as well as aesthetic benefits, erosion-related benefits, the potential of trees and other landscaping to contribute historic value to properties and districts, and sequestration benefits related to greenhouse gas emissions (see also Section 4.1 (aesthetics), 4.4 (Cultural Resources), 4.8 (Hydrology and Water Quality), and 4.6 (Greenhouse Gas Emissions and Energy) for further discussion of non-biological benefits urban trees). In consideration of the number of trees existing on the project site and the benefits of urban trees, the potential loss of trees due to project construction would be considered a **potentially significant** impact of the project.

Mitigation Measures

The following mitigation measure would ensure that Heritage Trees and City Street Trees would be replaced consistent with Title 12, Chapters 12.56 and 12.64 of the City Code. Mitigation Measure 4.3-2 also provides for tree protection measures to be implemented prior to and during construction and tree

monitoring during and after construction for Heritage Trees, City Street Trees, and Non-Heritage Trees. With implementation of this mitigation measure, the impact is considered **less than significant**.

Mitigation Measure 4.3-2: Avoid and Minimize Impacts on Trees.

The project applicant shall submit a Tree Permit application to the City Department of Public Works (Maintenance Services Division), as required by the City Code, for removal and pruning affecting a Heritage Tree or City Street Tree and such activity shall not be performed until a permit has been issued. When allowed, according to the conditions of the permit, construction activity that requires pruning or encroachment into the canopy dripline of a Heritage Tree or City Street Tree would be monitored by the project arborist, who will make recommendations for minimizing impacts to retained trees. In addition, the following tree replacement, protection, and monitoring actions shall be implemented:

- Any Heritage Trees to be removed for construction purposes shall each be replaced with one 24-inch box size tree. The replacement trees shall be planted on site and incorporated into the project's landscape plan.
- Any City Street Trees to be removed for construction purposes shall be replaced with either 24-inch box size trees or 15-gallon size tree (as required under City Code Section 12.56.090 based on the sizes of the City Street Trees to be removed). Replacement trees for City Street Trees shall be replanted within the City right-of-way in coordination with the City's Urban Forester. If replacement trees for City Street Trees cannot be accommodated in the City's right-of-way, they shall be planted on site and incorporated into the project landscape plan. If City Street Tree replacement trees cannot be incorporated into the project landscape plan, they shall be planted at another off-site location at the City's direction.
- Replacement trees shall consist of shade tree species appropriate to the site and which consider the post-construction environment (e.g., shading from buildings). Selection of replacement tree species shall be conducted in consultation with the City's Director of Urban Forestry.
- Tree planting shall comply with the City's landscaping requirements (City Code Sections 17.612.010 and 17.612.040).
- Canopy or root pruning of any retained Heritage or City Street Trees to accommodate construction and/or fire lane access shall be conducted according to applicable ANSI A300 tree pruning standards and International Society of Arboriculture best management practices.
- All retained trees on-site (Heritage or City Street Trees) shall be protected from construction-related impacts pursuant to Sacramento City Code Section 12.64.040 (Heritage Trees) and Section 12.56.060 (City Street Trees). Full details of tree protection measures are available in the Arborist Report (see Appendix M), but a summary is provided here.

- Under the tree protection measures, an International Society of Arboriculture-(ISA) Certified Arborist shall be assigned to monitor tree health and construction activity near all trees retained on-site (including trees that do not meet the Heritage Tree or City Street Tree definition). Protection measures prior to construction include: health inspection of large trees; a pre-construction meeting with all contractors and the arborist to discuss protocols; pre-construction training for all construction crews; tree removal, pruning and inspection during site preparation; and erection of a protective fencing and signage around all trees or groups of trees. Tree protection measures during construction shall include: preserved trees shall not have signs, ropes, cables or other items attached to them; all heavy equipment shall avoid the fenced protection zones; no storage or discard of any supply or material within the fenced protection zones; grade changes of more than two feet are not permitted within 30 feet of a tree's drip line; care shall be taken when moving equipment or supplies near trees (especially overhead); all trenching shall be outside the fenced protection zones unless a Tree Permit, when required by City Code, has been obtained; an irrigation schedule shall be implemented for any substantially pruned tree within 48 hours; canopy pruning can only be done under an approved Tree Permit, when required by City Code; and periodic washing of tree foliage may be necessary (but not more than once every two weeks).
- On-site trees in the post-construction landscape (including Heritage Trees, City Street Trees, and Non-Heritage Trees proposed for retention plus newly-planted landscape trees) shall be monitored by an ISA Certified Arborist for a period of up to 5 years. Post-construction monitoring shall be conducted at least monthly for Year 1, quarterly for Year 2, and twice annually for Years 3-5. Post-construction monitoring shall begin at the completion of landscape installation. Monitoring periods may be staggered for the project site to account for construction phasing, but shall be no less than 5 years for each tree. Should any retained or newly-planted trees die within the 5-year monitoring period, the tree shall be removed and replaced at a 1:1 ratio with a 24-inch box size tree of the same or comparable species (unless it is determined that a different species is better suited to the location, as recommended by the monitoring arborist). Post-construction monitoring reports shall be prepared and submitted to the entity responsible for landscape management and to the City's Urban Forester. Monitoring reports shall address tree mortality and summarize tree replacement efforts (if any) and shall provide management recommendations for promoting on-site tree health. Upon completion of the 5-year monitoring period, a final post-construction monitoring report shall be prepared and submitted to the City's Urban Forester documenting all monitoring efforts and summarizing tree survival and replacement totals.

**IMPACT
4.3-3**

The proposed project could create a potential health hazard, or use, production, or disposal of materials that would pose a hazard to plant or animal populations in the area affected. *Based on the analysis below, the impact would be less than significant.*

During project operation, no uses are anticipated that would involve significant quantities of hazardous materials. Automobile-oriented uses, which may include or store potentially hazardous materials (i.e.,

auto service and repair stations, gas stations, and fast food restaurants) are not permitted as a part of the proposed project. Uses permitted in the R-5 zone include retail and commercial services (such as restaurants) that could at most involve relatively small quantities of hazardous materials. However, these businesses must comply with existing regulations cited in this section related to use and handling of hazardous materials, and worker safety. Relevant uses would be regulated by the Hazardous Materials Release Response Plans and Inventory Act of 1985, Hazardous Waste Control Act, Emergency Services Act, Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), Underground Storage Tank Program, and the California Integrated Waste Management Act and the State Unified Program.

The project site is a developed urban area supporting residential, retail, and commercial buildings, parking structures, and recreational amenities. The project site would continue to support these same land uses following project implementation. Depending on the scenario selected, the proposed project would add between 965 and 1,061 net new dwelling units. The Hotel / Condo / Retail Scenario would add up to 70,000 net new square feet of neighborhood support/retail space (which could include an approximately 15,000 square-foot market). The Condo / Retail Scenario could add up to 52,000 net new square feet of neighborhood support/retail space (which could include an approximately 15,000 square-foot specialty market).

While this population and retail service increase could result in small increases in air, water, and soil pollutants generated at the site, this increase is not anticipated to be substantial and compliance with federal, state, and local policies would minimize the potential impacts on plant or animal populations from this incremental increase in pollutants. The impact is **less than significant**.

Mitigation Measures

None required.

4.3.4 CUMULATIVE IMPACTS

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG's MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

Public Resources Code, Section 21155.2 [c] [1] provides that, "where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]" (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the cumulative discussion below.

For biological resources impacts, the geographic scope for the cumulative analysis is the greater Central Valley, as identified by the 2030 General Plan Master EIR.

Impacts related to conflicts with the City's Tree Ordinances (Sacramento City Code 12.56 and 12.64) are not considered cumulative impacts. Compliance with the City Code is required of all projects; compliance with the City Code would not lead to an impact that is more severe in a cumulative context. This impact was not addressed in a cumulative context in the City's 2030 General Plan Master EIR.

IMPACT 4.3-4 Cumulative impact related to habitat and special-status species. *Based on the analysis below, the proposed project's contribution to this cumulative impact is not cumulatively considerable.*

The General Plan Master EIR addressed impacts to habitats and special-status species under Impacts 6.3-2, 6.3-3, 6.3-4, 6.3-5, 6.3-6, 6.3-7, and 6.3-8. Most of the habitats and special-status species addressed under the General Plan Master EIR, however, would not be adversely affected by the project, since the project is in a highly urban environment. Impact 6.3-4 addresses adverse effects to special-status bird species (p. 6.3-36). The General Plan Master EIR identifies that development under the proposed General Plan could result in the removal of mature trees that could serve as perching or nesting sites. The City indicates that there are various existing regulations that would protect these species, such as the MBTA, California Fish and Game Code, FESA, and CESA. The City also developed Policies ER 2.1.7 through ER 2.1.12 to further reduce the potential impact. Even with existing regulations and General Plan policies, however, the City found that impacts could be significant. The City developed Mitigation Measure 6.3-4 to address this impact (p. 6.3-34 and 6.3-37). Mitigation Measure 6.3-4 would require surveys prior to site construction and appropriate avoidance measures if special-status bird species are present. The City found in the General Plan Master EIR that even with the implementation of Mitigation Measure 6.3-4, the cumulative impact would be significant and unavoidable.

The General Plan Master EIR outlines cumulative impacts related to habitat and species under Impact 6.3-13 (p. 6.3-50), finding a potentially significant cumulative impact associated with past development, buildout of the 2030 General Plan, and development throughout the greater Sacramento Valley (p. 6.3-51). With implementation of Mitigation Measure 6.3-13 (p. 6.3-34 and 6.3-52), the City found that the contribution of buildout of the 2030 General Plan to this potentially significant cumulative impact to be less than significant (less than cumulatively considerable).

Under Impact BIO-1a, the MTP/SCS Program EIR found that land use and transportation components of the MTP/SCS would result in a potentially significant impact to special-status plant species in the cumulative impact analysis area (p. 6-34). Mitigation Measure BIO-1 included in the MTP/SCS Program EIR would minimize the cumulative contribution of the MTP/SCS to impacts on special-status plant species, but would not reduce them to less-than-significant level. The MTP/SCS Program EIR explained that development in the SACOG region through 2035 was projected to impact 53,914 acres of habitat, both wildland and agricultural, for special-status species and other important natural communities (including riparian habitat, oak woodlands, and wetlands). As described above, no suitable habitat is present on-site for special-status plant species known to occur in the region. Impact BIO-1b from the MTP/SCS Program EIR addresses impacts to special-status wildlife species, finding potentially significant impacts. Mitigation Measure BIO-2 is designed to minimize impacts to special-status wildlife species, but

would not be sufficient to mitigate impacts to a less-than-significant level in all cases. The impact was considered significant and unavoidable in the MTP/SCS Program EIR (p. 6-61).

The project site is proposed on a developed urban site in downtown Sacramento. As discussed in this section, the only potential biological resources impacts associated with the proposed project relates to the potential loss of active nests of Swainson's hawk, white-tailed kite, and other nesting birds and loss of trees. As mitigated, the proposed project would be required to avoid impacts to special-status species and to nesting migratory birds and raptors. The project site encompasses approximately 10 acres currently developed with residential, commercial, and recreational uses, landscaped areas with mature vegetation, trees, a parking structure, and surface parking areas. Vegetation on the project site is comprised entirely of ornamental landscaping and does not include any native plant communities or natural habitats. Habitat on the project site is classified as urban according to the CDFW's California Wildlife Habitat Relationship System (Mayer and Laudenslayer 1988). Mitigation Measure 4.3-4 in this EIR was developed to address site-specific conditions and to implement General Plan Master EIR Mitigation Measures 6.3-13 and 6.3-2 and MTP/SCS Program EIR Mitigation Measures BOI-2. Given the size of the project site, the location of the project site in downtown Sacramento, and the developed nature of the project site, the proposed project's potential contribution to this cumulative impact is **not cumulatively considerable**.

Mitigation Measures

Mitigation Measure 4.3-4: Implement Mitigation Measure 4.3-1a: Avoid Direct Loss of Swainson's Hawk and Mitigation Measure 4.3-1b: Avoid Direct Loss of Swainson's Hawk, White-Tailed Kite, Peregrine Falcon, and Nesting Birds Protected by the Migratory Bird Treaty Act and California Fish and Game Code

IMPACT 4.3-5 Cumulative impact related to the impact of hazards on plant or animal populations. *This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact.*

The City addressed impacts to biological resources from an increase in vehicle trips and associated emissions and the use of fertilizers, herbicides, and pesticides used in lawn care under Impact 6.3-1 and developed a series of policies in the 2030 General Plan to reduce potential impacts, including Policies ER 1.1.1 through ER 1.1.7 that focus on the protection of water resources; Policies ER 6.1.1 through ER 6.1.15 that address air quality, and Policies PHS 3.1.1 through PHS 3.1.7 that address handling, use, and disposal of household hazardous materials (pp. 6.3-31 and 6.3-32). In this same section of the General Plan Master EIR, the City identifies that various existing regulatory requirements would also effectively reduce this potential impact and that between existing regulations and 2030 General Plan policies, impacts related to buildout of the General Plan would be less than significant.

The General Plan Master EIR discusses cumulative impacts related to biological resources from the use, production, or disposal of hazardous materials under Impact 6.3-12 (p. 6.3-49). The City found that existing regulations and 2030 General Plan policies would ensure that buildout of the 2030 General Plan would have a less-than-cumulatively considerable contribution to any significant cumulative impact (p. 6.3-49).

The MTP/SCS Program EIR does not address this impact.

The City of Sacramento finds that the cumulative impact of the proposed project related to hazards and plant or animal populations has been fully addressed by the 2030 General Plan Master EIR. Therefore, there is **no cumulative** hazards impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does not have the potential to result in a cumulatively considerable impact related to hazards on plant or animal populations.

Mitigation Measures

None required.

IMPACT 4.3-6 Cumulative impact to tree canopy. *Based on the analysis below, the proposed project's contribution to this cumulative impact is **not cumulatively considerable**.*

As explained above, impacts related to conflicts with the City's Tree Ordinances are not considered cumulative impacts and no other potential cumulative impacts associated with tree or tree canopy impacts are identified in the General Plan Master EIR. The MTP/SCS Program EIR evaluated impacts to protected trees under Impact BIO-5, finding significant and unavoidable impacts, even after the application of Mitigation Measure BIO-8 (p. 6-106). Mitigation Measure BIO-8 requires a project-level biological resources assessment and this EIR, including Appendix L, implements this mitigation measure. The proposed project also complies with Mitigation Measure BIO-8 by avoiding impacts to protected trees, where feasible, through the project design and through implementation of Mitigation Measure 4.3-2.

As detailed in Impact 4.3-2, the proposed project's Conceptual Landscape includes a total of approximately 247 new trees to be planted, as discussed in Chapter 2, "Project Description", and as shown on the Conceptual Landscape Plan presented in Appendix N. Including only trees proposed to be retained on-site (92) and new ground-level trees (147), at 10 years after installation of project landscaping the tree canopy cover on the project site would be approximately 155,811 square feet (roughly 62 percent of the existing coverage) and at 25 years would increase to 251,699 square feet (roughly a 2 percent increase over existing canopy coverage). If proposed podium trees are also included (100), at 10 years after installation of project landscaping, the tree canopy cover on the project site would be approximately 167,201 square feet (roughly 68 percent of the existing coverage) and at 25 years would increase to 275,979 square feet (roughly a 12 percent increase compared to existing canopy coverage). Therefore, as trees included in the proposed project mature, it is anticipated that the tree canopy coverage on the project site would be similar to the existing coverage. As noted previously, Mitigation Measure 4.3-2 would ensure compliance with City Code requirements related to protected trees and requires monitoring by an ISA Certified Arborist for a period of up to 5 years of all on-site trees in the post-construction landscape (including Heritage Trees, City Street Trees, and Non-Heritage Trees proposed for retention plus newly-planted landscape trees) and, if necessary, replanting of on-site trees in the post-construction landscape at a 1:1 ratio with 24-inch box size trees. The proposed project's contribution to any cumulative impact resulting from cumulative loss of tree canopy coverage within the City is **not cumulatively considerable**.

Mitigation Measures

Mitigation Measure 4.3-6: Implement Mitigation Measure 4.3-2: Avoid and Minimize Impacts on Trees

4.4 CULTURAL RESOURCES

This section addresses cultural resources, including paleontological resources, on the project site and in the project vicinity. Cultural resources include the built environment, architectural and cultural landscape resources, historic-era and prehistoric archaeological resources, and human remains. Paleontological resources include fossilized remains of vertebrate and invertebrate organisms, fossil tracks, and plant fossils. The analysis describes the existing environmental conditions, the methods used for assessment, and the potential environmental impacts associated with implementing the proposed project. Mitigation measures are proposed to address potentially significant impacts of the proposed project. This section also provides a brief overview of federal, state, and local laws and regulations pertaining to cultural and paleontological resources.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns about the proposed project related to:

- ▶ adverse impacts to archaeological resources and recommended steps to ensure against these impacts; and
- ▶ adverse impacts to the project site as an historical resource including the garden apartments, historically significant architecture, and landscape architecture and site design, as well as trees that contribute as landscape features.

Each of these topics is addressed in this section with the exception of the loss of trees, separate from their loss as a component of the site's landscape design, which is discussed in Section 4.3 of this EIR, "Biological Resources."

Copies of the NOPs and comments received in response are included in Appendix B of this EIR.

After the application was submitted for the proposed project, a nomination was filed with the California State Historic Preservation Officer (SHPO) in the Office of Historic Preservation (OHP) for the "Capitol Towers and Garden Apartments" complex (on the project site) to be listed in the National Register of Historic Places (NRHP). The nomination was heard before the State Historical Resources Commission (SHRC) on November 7, 2014. The SHRC voted to approve the nomination and requested the SHPO forward the nomination to the Keeper of the National Register (Keeper). On December 31st, 2014, the Keeper determined the property is eligible for listing in the NRHP. Due to the property's formal determination of eligibility for listing in the National Register of Historic Places, and therefore its listing in the California Register of Historical Resources, the property is considered an historical resource for purposes of evaluating impacts of the proposed project pursuant to CEQA. An historical resources inventory, conducted prior to the National Register nomination process began, which included an evaluation of the buildings and site and the potential for cultural resources on the project site prepared by JRP Historical Consulting, LLC (JRP) is included in Appendix D. The registration form prepared by Page & Turnbull and submitted for the National Register nomination by Sacramento Modern (SacMod), a local non-profit association dedicated to preserving modern art, architecture, and design in the Sacramento region, is also included in Appendix D.

4.4.1 ENVIRONMENTAL SETTING

PALEONTOLOGICAL RESOURCES

Geologic Formations

Surficial deposits at the project site consist of levee and basin deposits of Holocene age (i.e., within the last 11,700 years), underlain by the Riverbank Formation (ENGEO 2014; Helley and Harwood 1985; Wagner et al. 1987). These formations are described below.

Fill Material

ENGEO (2014) reports that approximately the top 10 feet of soil at the project site consists of artificial fill material that was likely placed in the 1860s (Holocene age). This material may contain brick fragments, wood, and other debris and may vary in thickness and consistency.

Levee and Channel Deposits

This Holocene-age formation consists of sand, silt, and gravel deposited by active stream channels (e.g., the Sacramento and American Rivers) and their natural levees, as well as adjacent broad alluvial fans. At the project site, this formation correlates with the “weak and compressible soils” reported by ENGEO (2014). These deposits are likely present at depths of 10–40 feet below the ground surface, and the thickness of this layer likely varies from 3 to 20 feet (ENGEO 2014).

Riverbank Formation

The Riverbank Formation is Pleistocene in age; estimates place the age between 130,000 and 450,000 years Before Present (B.P.) (Marchand and Allwardt 1981). In the project vicinity, the Riverbank Formation forms higher alluvial fans and terraces of major rivers and can be divided into upper and lower members. Sediments in the Riverbank Formation consist of weathered reddish gravel, sand, and silt. In the Sacramento Valley, this formation contains more mafic rock fragments than in the San Joaquin Valley, and thus tends toward stronger soil-profile developments that are more easily distinguishable from the younger Modesto Formation (Helley and Harwood 1985). At the project site, the Riverbank Formation correlates with the “dense sand and gravels” reported by ENGEO (2014) at depths of 40–60 feet below the ground surface.

Pleistocene-age alluvial deposits are sedimentary in nature; sedimentary alluvial deposits frequently contain fossils. Remains of land mammals have been found at several localities in alluvial deposits referable to the Riverbank Formation. There are at least nine recorded Rancholabrean-age vertebrate fossil sites from the Riverbank Formation in Sacramento County. Several localities near the cities of Davis and Woodland have yielded the remains of Rancholabrean-age rodents, snakes, horses, antelope, Harlan’s ground sloth, mammoth, and saber-toothed tiger from sediments referable to the Riverbank Formation (Hay 1927; UCMP 2014).

The results of the UCMP paleontological records search (UCMP 2014) indicated that no fossil remains have been recovered from the project site. However, the occurrence of Pleistocene vertebrate fossil remains in sediments referable to the Riverbank Formation in Sacramento and throughout the Central

Valley indicates that this rock formation is paleontologically sensitive (UCMP 2014). Additional information regarding paleontological resources pertaining to the project site is included in Appendix D.

CULTURAL RESOURCES

Records Search

A records search conducted at the North Central Information Center (NCIC) of the California Historical Resource Information System (CHRIS) on May 2, 2014, identified 13 previous investigations within one-quarter mile of the project site. No previous investigations had been conducted at the project site, and no previously identified cultural resources existed at that time the NOP had been released within the site. However, on December 31, 2014 the Keeper of the National Register (Keeper) determined the property is eligible and a formal determination of eligibility for listing in the NRHP was issued, noting that, because of property owner objections the property was not listed in the NRHP. Properties with a NRHP eligibility determination are automatically listed in the California Register of Historical Resources. One historic-era archaeological resource had been recorded within one-quarter mile of the project site, but no site record that describes the resource is on file at NCIC. The recorded location of the resource is just over one block south of the project site (North Central Information Center 2014).

One nearby recorded historical resource is the Heilbron House, located at 704 O Street, across 7th Street from the Capitol Towers parking garage. The house was listed in the NRHP in 1976 and was automatically listed in the California Register of Historical Resources (CRHR). The resource is also listed in the Sacramento Register. None of the registers or lists, at the time of the records search, included identified historical resources within the project site. However, as discussed further below, a nomination was filed with the California State Historic Preservation Officer (SHPO) in the Office of Historic Preservation (OHP) for the “Capitol Towers and Garden Apartments” complex (on the project site) to be listed in the NRHP (see Appendix D for nomination form). The nomination was heard before the State Historical Resources Commission (SHRC) on November 7, 2014. The SHRC voted to approve the nomination and requested the SHPO forward the nomination to the Keeper of the National Register (Keeper.) Properties either listed in, or determined eligible for listing in the NRHP are automatically listed in the CRHR.

Native American Consultation

A request for a search of Native American Heritage Commission (NAHC) sacred lands file was sent on May 1, 2014. The NAHC response letter (dated May 29, 2014) stated that the sacred lands database failed to indicate the presence of Native American resources in the immediate project area. The NAHC letter listed Native American organizations and individuals who may have knowledge of cultural resources in the project area (NAHC 2014).

Letters that included a brief project description and a project map were sent to each organization or individual identified on the NAHC list. As of the writing of this EIR, one response has been received from organizations or individuals identified on the NAHC list. The Shingle Springs Band of Miwok Indians indicated in a letter dated June 16, 2014, that they are not aware of any known cultural resources on the project site, but they would like to receive updates on the project and receive any environmental reports prepared for the project. The Shingle Springs Band of Miwok Indians have been

added to the City's mailing list for notifications regarding the proposed project. Also note that the United Auburn Indian Community has also requested to receive all CEQA notices filed by the City with the County Clerk.

Native American and Archaeological Resource Sensitivity

As discussed above, the top approximately 10 feet of soil at the project site consists of artificial fill material that was likely placed on the site in the 1860s, and has been subjected to substantial disturbance related to urban development subsequent to the placement of the fill material. While it is possible that Native American or archaeological resources could be present within the Holocene-age levee and channel deposits that underlie the fill material or on top of the Pleistocene-era formation that underlies the levee and channel deposits, it is unlikely that intact significant resources are present within the project site's artificial fill.

HISTORICAL OVERVIEW AND DESCRIPTION OF THE EXISTING BUILT ENVIRONMENT

The following historical overview and description of the existing built environment on and adjacent to the project site is based on the report titled *Historical Resource Inventory and Evaluation Report, Capitol Towers Apartments, 1500 7th Street, Sacramento, California 95814* prepared by JRP Historical Consulting, LLC (JRP) (2014) and the NRHP nomination for the Heilbron House (Price 1976). The JRP report is included as Appendix D of this EIR.

North American and European trappers and settlers arrived in the area in the 1830s, encouraged by the fur trade and Mexican government land grants. John A. Sutter arrived in 1839 and established a fort and trading post, forming the core of the settlement that became the City of Sacramento. After the discovery of gold in January 1848, Sacramento became a primary supply point for the influx of gold seekers. The Sacramento River allowed the city to serve as the main port for the importation of the miners and mining supplies, and for shipping gold bound for San Francisco. The City of Sacramento was founded in 1849 and was the first California city to incorporate in February 1850. California attained statehood on September 9, 1850, and in 1854, Sacramento became the state capital.

The project site is located in the formerly mixed-use portion of Sacramento referred to historically as the "West End." Although the West End did not have clearly defined boundaries, the area was roughly located between the Sacramento River to the west and the State Capitol building to the east, the Southern Pacific Railroad yard to the north and Y Street (now Broadway) to the south. Many stately homes were constructed in this area of Sacramento in the late 19th century, including the Heilbron House. The Heilbron House was built in 1881 for August Heilbron, one of California's early cattle barons. The house was designed by Nathaniel Goodell in the Italianate style.

By the turn of the 20th century, the West End had entered a period of economic and physical transition. Until that time, the area had been the focus of Sacramento's river transportation, local economy, and residential growth. By the 1910s, the area had evolved into a predominantly working-class quarter and home to hundreds of itinerant laborers. A demarcation arose between the West End and other neighborhoods to the east and south. As the City expanded eastward, and more immigrants entered Sacramento, wealthier residents left the West End or did not settle there; rather, they took up residence in the middle- and upper-middle-class residential areas that were developing in and being annexed into

the eastern and southern portions of the City, generally following the development of new streetcar lines. This shifted the West End's population and demographics. Property owners and speculators in the West End subdivided parcels, constructed shanties along the alleys, and converted single family residences into multiunit rentals or rooming houses.

The West End became the subject of the first post–World War II redevelopment project in California. Eventually, three redevelopment phases were carried out in the area with the support of the federal government. In addition to redevelopment, the West End was subject to zoning changes and transportation improvements as the City's Planning Department redesigned the M Street corridor to create a monumental approach to the Capitol that came to be known as "Capitol Mall." The final redevelopment project was also intertwined with saving the "Old Sacramento" portion of the West End, and the modernization of the state and interstate highway system that developed the Interstate 5 freeway through the West End.

The Capitol Towers project was the first residential development in the 15-block Capitol Mall redevelopment project area. After demolition of hundreds of West End buildings within the redevelopment area boundaries, the Sacramento Redevelopment Agency sold the four-blocks bounded by 5th, 7th, N, and P Streets in December 1958 to the Renewal and Development Corporation of New York, owned by developers James H. Scheuer and Roger Stevens. The initial plans on this combined four block area, referred to as a superblock, for the Capitol Towers project included three 15-story apartment towers and 208 low-rise garden apartments for a total of 680 units.

As was done for other similar redevelopment projects across the country, Scheuer hired a collection of well-known and experienced designers and planners for the Capitol Towers project. The lead design company was the San Francisco architectural firm of Wurster, Bernardi, and Emmons (WBE), which worked in collaboration with New York architect Edward Larrabee Barnes, fellow Bay Area architecture firm DeMars & Reay, and the San Francisco landscape architecture firm Lawrence Halprin & Associates. Additional consultants on the design team included architectural consultants Mayer, Whittlesey & Glass and Dreyfuss & Blackford; planning consultant Carl Feiss; housing consultant Nathaniel S. Keith; and color consultant, New York architect and designer, Alexander Girard, AIA.

Construction cost estimates in 1959 exceeded expectations, and the project team had to revise the project to reduce costs and better align the project with available funding and mortgage guarantees. The design team members were directly involved in the development of these changes to the original plans. The most extensive changes to the plans were to the project's landscaping and site work. All garden walls were to be changed from concrete to wood, all brick was changed in favor of colored concrete, the pool was poured concrete instead of cast stone, the landscape design's sunken pool was eliminated, all shrubs and vines proposed for private patio areas were eliminated, trees were reduced in size from 5 gallons to 1 gallon, and elaborate play structures were changed to a standard swing set. Also, the project's layout changed from the original design. While the main elements of the project were retained, the new layout shifted the main axis of the property from an east-west orientation to a north-south orientation, reorganized the combination of small and large sets of garden apartment units strung together under continual roofs, and reduced the size and scale of the landscaped courtyards.

Construction of the tower began in late summer/early fall 1962, two years after the original agreement, which was to initiate tower construction after completion of the project's first garden apartment units. The property's financial struggles led to the two other high-rise towers originally planned for Capitol Towers not coming to fruition as part of this project. Other later projects on the superblock separate from the Capitol Towers development resulted in the construction of the Pioneer II Tower building, completed in 1978, and the Bridgeway Tower (500 N Street) building, completed in 1980.

The Capitol Towers project was part of a growing trend toward increased development of apartments, with improved amenities across the country during the 1950s and 1960s. Both land use development pressures and increased demand for such housing fueled this growth; at the end of the 1960s, nearly half of the housing starts in the country were for apartments. Capitol Towers was also among the growing number of residential and commercial properties of the period where artwork was installed as part of the project. In 1961, Jacques Overhoff produced an eight-panel set of concrete relief art pieces for Capitol Towers, which are installed on the wall by the pool facing west toward the property's central plaza.

Capitol Towers was among the early projects in Sacramento of its type, utilizing a prominent design team to plan the combined super-block site, including the buildings' designs, site plan and landscape plan, and among the first of the multiple garden apartment complexes developed in the City during the 1960s and 1970s. Hundreds of small apartment buildings were built in Sacramento from the 1950s to the 1970s, often replacing single-family and multi-family homes and increasing the number of units within the City from 4,000 to 23,910. Despite economic and other challenges that necessitated changes to the project's original, more ambitious plans, the Capitol Towers gained statewide and national attention as academics, planners, and architects assessed the redevelopment trends in the late 1950s and 1960s that were quickly altering many of the nation's urban environments. Sacramento was one of many cities with highly active redevelopment strategies that were reshaping their built environment. Planners and others were hopeful that high-profile projects, such as Capitol Towers would prove to be successful in reversing urban decay.

4.4.2 REGULATORY SETTING

FEDERAL

National Register of Historic Places

The National Historic Preservation Act (NHPA) established the NRHP as "an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (Title 36, Section 60.2 of the Code of Federal Regulations). The NRHP recognizes buildings, structures, sites (including both historic-era and prehistoric archaeological sites), districts, and objects that are significant at the national, state, or local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Historic properties of potential significance must meet one of the following four established criteria:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history;
- B. Are associated with the lives of persons significant in our past;
- C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or may be likely to yield, information important in prehistory or history

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for NRHP listing. There are seven Criteria Considerations (Criteria Considerations A-G) that deal with properties usually excluded from listing in the NRHP, including: moved buildings; cemeteries; religious properties; birthplaces and graves; reconstructed properties; commemorative properties; and, properties that have achieved significance within the past 50 years (i.e., Criteria Consideration G). According to National Park Service Bulletin *How to Apply the National Register Criteria for Evaluation* (U.S. Department of the Interior 1997), Criteria Consideration G is not applicable to the project site and is not discussed further because Criterion G refers to recently constructed properties and planning and construction began on the Capitol Towers property over 50 years ago.

In addition to meeting one of the four evaluation criteria a historic property must retain integrity in order to convey its significance. The NRHP defines integrity using seven aspects: location, design, setting, materials, workmanship, feeling, and association.

STATE

Office of Historic Preservation

The State of California implements the NHPA through its statewide comprehensive cultural resources surveys and preservation programs. The OHP, as an office administered within the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historical Resources Inventory. The SHPO is an appointed official who implements historic preservation programs within the state's jurisdiction.

California Register of Historical Resources

The CRHR is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (Public Resources Code Section 5024.1[a]). The criteria for CRHR eligibility are based on NRHP criteria (Public Resources Code Section 5024.1[b]; California Code of Regulations [CCR] Title 14, Section 4850 et seq.). To be eligible for the CRHR, a prehistoric or historic-era property must be significant at the local, state, and/or national level under one or more of the following four criteria:

- 1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

To be eligible for the CRHR, a resource must meet one of the criteria of significance described above and retain enough of its historical character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. As with the NRHP, the CRHR also includes special considerations for certain properties not otherwise eligible. Because construction began on the Capitol Towers property over 50 years ago, and it has been demonstrated that sufficient time has passed to understand the property's historical importance, the special consideration for properties less than 50 years old does not apply to the project site and is not discussed further.

Additionally, the CRHR consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes:

- ▶ California properties listed in the NRHP and those formally determined eligible for the NRHP,
- ▶ California Registered Historical Landmarks from No. 770 onward, and
- ▶ California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion in the CRHR.

California Environmental Quality Act

CEQA is the principal state law governing environmental review of proposed discretionary actions by California public agencies. CEQA requires lead agencies to determine, before approval, whether a project would have a significant impact on the environment, which includes historical or unique archaeological resources. The State CEQA Guidelines generally recognize that historical resources include the following (Section 15064.5[a]):

1. a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (Public Resources Code Section 5024.1);
2. a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g); and
3. any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Public Resources Code Section 21084.1 of CEQA and CEQA Guidelines Section 15064.5 apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated as a “unique” archaeological resource in accordance with the provisions of Public Resources Code Section 21083. As defined in Section 21083.2, a unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- ▶ contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information;
- ▶ has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- ▶ is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource is an archaeological artifact, object, or site that does not meet the criteria listed in Public Resources Code Section 21083.2(g) and need not be given further consideration, other than the simple recording of its existence by the lead agency if it so elects (Public Resources Code Section 21083.2[h]). The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5[c][4]).

Public Resources Code Section 5024.1(f) requires a lead agency to make provisions for handling the accidental discovery of historical or unique archaeological resources during construction. Provisions include an immediate evaluation of the find by a qualified archaeologist. Work may continue on other parts of the project site while mitigation of the historical or unique archaeological resource takes place.

In the event that human remains are discovered in any location other than a dedicated cemetery, Public Resources Code Section 5024.1(e) requires that all work stop until the county coroner in which the remains are discovered is contacted. If the coroner determines the remains to be Native American, the coroner must contact the NAHC within 24 hours. The NAHC would then identify any person or persons it believes to be the most likely descendant of the deceased individual.

LOCAL

Sacramento 2030 General Plan

The following goal and policies from the Historic and Cultural Resources Element of the General Plan (City of Sacramento 2009b) are related to cultural resources.

Goal HCR 2.1. Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city’s historic and cultural resources to enrich our sense of place and our understanding of the City’s prehistory and history.

- ▶ **Policy HCR 2.1.1 Identification.** The City shall identify historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) to provide adequate protection of these resources.
- ▶ **Policy HCR 2.1.2 Applicable Laws and Regulations.** The City shall ensure that City, State, and Federal historic preservation laws, regulations, and codes are implemented, including the California Historical Building Code and State laws related to archaeological resources, to ensure the adequate protection of these resources.
- ▶ **Policy HCR 2.1.3 Consultation.** The City shall consult with the appropriate organizations and individuals (e.g., Information Centers of the California Historical Resources Information System (CHRIS), the Native American Heritage Commission (NAHC), and Native American groups and individuals) to minimize potential impacts to historic and cultural resources.
- ▶ **Policy HCR 2.1.5 National, California, and Sacramento Registers.** The City shall pursue eligibility and listing for qualified resources including historic districts and individual resources under the appropriate register(s).
- ▶ **Policy HCR 2.1.6 Planning.** The City shall take historical and cultural resources into consideration in the development of planning studies and documents.
- ▶ **Policy HCR 2.1.8 Historic Preservation Enforcement.** The City shall ensure that City enforcement procedures and activities comply with local, State, and Federal historic and cultural preservation requirements.
- ▶ **Policy HCR 2.1.10 Early Consultation.** The City shall minimize potential impacts to historic and cultural resources by consulting with property owners, land developers, and the building industry early in the development review process.
- ▶ **Policy HCR 2.1.12 Contextual Elements.** The City shall promote the preservation, rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual elements (e.g., structures, landscapes, street lamps, signs) related to the historic resource.
- ▶ **Policy HCR 2.1.13 Adaptive Reuse.** The City shall encourage the adaptive reuse of historic resources when the original use of the resource is no longer feasible.
- ▶ **Policy HCR 2.1.14 Demolition.** The City shall consider demolition of historic resources as a last resort, to be permitted only if rehabilitation of the resource is not feasible, demolition is necessary to protect the health, safety, and welfare of its residents, or the public benefits outweigh the loss of the historic resource.
- ▶ **Policy HCR 2.1.15 Archaeological Resources.** The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological, historic, and cultural resources including prehistoric resources.

- ▶ **Policy HCR 2.1.16 Preservation Project Review.** The City shall review and evaluate proposed preservation projects and development projects involving Landmark parcels and parcels within Historic Districts based on adopted criteria and standards.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has proposed an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. The 2035 General Plan is in draft form as of the writing of this document. There are no relevant substantial changes to cultural resources policies as a part of the draft 2035 General Plan.

City of Sacramento Historic Preservation Program

The City's historic preservation program began in 1974 with the enactment of the City's first historic preservation ordinance.¹ Amendments to the original preservation ordinance, to expand the program city-wide and follow "Certified Local Government" program requirements, in partnership with the State Office of Historic Preservation and National Park Service, were enacted in 2001, under Ord. 2001-027, followed by Ordinance No. 2006-063, in 2006, and, most recently, on September 30, 2013, the sections of the City Code, then under Chapter 17.134 related to historic preservation, were included in a comprehensive update of Title 17 as part of the City's new "Planning & Development Code," formerly known as the Zoning Code. Under the new Title 17, most of the Historic Preservation Chapter was relocated to Chapter 17.604, and portions moved to other chapters within Title 17. However, the substance of the preservation sections was generally not materially changed, and changes related to procedure were also relatively minor.

The Sacramento Municipal Code also provides for the compilation of uncodified ordinances adopting designations and deletions of Landmarks, Contributing Resources and Historic Districts into the Sacramento Register of Historic & Cultural Resources (Sacramento Register). Eligibility criteria for listing individual Landmark properties, and for listing Historic Districts and their Contributing Resources in the Sacramento Register are as follows:

Landmark Eligibility Criteria [17.604.210(A)] The criteria and requirements for listing on or deleting from the Sacramento Register as a landmark, historic district or contributing resource are as follows:

Requirements

The individual nominated resource meets one or more of the following criteria:

- ▶ It is associated with events that have made a significant contribution to the broad patterns of the history of the city, the region, the state or the nation;
- ▶ It is associated with the lives of persons significant in the city's past;
- ▶ It embodies the distinctive characteristics of a type, period or method of construction;

¹ The ordinance was adopted in December of 1974 and the Preservation Board was established in 1975.

- ▶ It represents the work of an important creative individual or master;
- ▶ It possesses high artistic values; or
- ▶ It has yielded, or may be likely to yield, information important in the prehistory or history of the city, the region, the state or the nation;
- ▶ The nominated resource has integrity of location, design, setting, materials, workmanship and association. Integrity shall be judged with reference to the particular criterion or criteria specified in subsection A.1.a of this section;
- ▶ The nominated resource has significant historic or architectural worth, and its designation as a landmark is reasonable, appropriate and necessary to promote, protect and further the goals and purposes of this chapter.
- ▶ Factors to be considered. In determining whether to list a nominated resource on the Sacramento register as a landmark, the factors below shall be considered.
 - A structure removed from its original location is eligible if it is significant primarily for its architectural value or it is the most important surviving structure associated with a historic person or event.
 - A birthplace or grave is eligible if it is that of a historical figure of outstanding importance and there is no other appropriate site or structure directly associated with his or her productive life.
 - A reconstructed building is eligible if the reconstruction is historically accurate, if the structure is presented in a dignified manner as part of a restoration master plan, and if no other original structure survives that has the same association.
 - Properties that are primarily commemorative in intent are eligible if design, age, tradition, or symbolic value invests such properties with their own historical significance.
 - Properties achieving significance within the past 50 years are eligible if such properties are of exceptional importance.

A nominated historic district meets one or more of the following criteria:

- ▶ The area is a geographically definable area; or
- ▶ The area possesses either:
 - A significant concentration or continuity of buildings unified by: (A) past events or (B) aesthetically by plan or physical development; or
 - The area is associated with an event, person, or period of significant or important to the city history; or

- ▶ The designation of the geographic area as a historic district is reasonable, appropriate and necessary to protect, promote and further the goals and purposes of this chapter and is not inconsistent with other goals and policies of the city.
- ▶ Factors to be considered in determining whether to list a geographic area on the Sacramento register as a historic district:
 - A historic district should have integrity of design, setting, materials, workmanship and association;
 - The collective value of the buildings and structures in a historic district taken together may be greater than the historic value of each individual building or structure.

Contributing resources to a nominated historic district must satisfy all of the following requirements:

- ▶ The nominated resource is within a historic district;
- ▶ The nominated resource either embodies the significant features and characteristics of the historic district or adds to the historical associations, historical architectural qualities or archaeological values identified for the historic district;
- ▶ The nominated resource was present during the period of historical significance of the historic district and relates to the documented historical significance of the historic district;
- ▶ The nominated resource either possesses historic integrity or is capable of yielding important information about the period of historical significance of the historic district; and
- ▶ The nominated resource has important historic or architectural worth, and its designation as a contributing resource is reasonable, appropriate and necessary to protect, promote and further the goals and purposes of this chapter.

To be listed in the Sacramento Register, a property or historic district must be nominated (typically by the City's Preservation Director at a public hearing after finding a property eligible for listing in the Sacramento Register) and then heard at public hearings before the City's Preservation Commission and then the City Council, as defined in Chapter 17.812 of the City Code, and approved by the City Council. At its public hearing the City Council may adopt, modify, reject, or continue the action recommended by the Preservation Commission.

With respect to this property, SacMod's application to nominate Capitol Towers as a Historic District for listing in the Sacramento Register is pending before the City. On February 19, 2015, a Preservation Director public hearing was held in which the Preservation Director reviewed the nomination submittal materials, took public testimony, concurred with the nomination, and forwarded the nomination for consideration by the Preservation Commission to make a recommendation to the City Council for consideration and action. The Preservation Commission public hearing on the nomination is currently scheduled for March 18th, 2015.

4.4.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

The methods of analysis for the evaluation of potential impacts on cultural and paleontological resources included a review of geologic maps and reports covering the geology of the project area, an archival search conducted at the UCMP, a records search conducted at the NCIC of the CHRIS, a search of the NAHC sacred lands file, consultation with Native American organizations and individuals identified by the NAHC, an inventory and evaluation of the Capitol Towers property by JRP, review of the registration form materials of the Capitol Towers' property for the NRHP nomination submitted by SacMod, and consideration of materials related to hearings before the SHRC and the actions by the Keeper. Potential resources were evaluated according to the detailed criteria provided for the NRHP, the CRHR, the Sacramento Register, relevant sections of the Public Resources Code, and the CEQA Guidelines, as described above.

Construction Vibration

Please refer to Section 4.9 of this EIR, "Noise and Vibration," which addresses potential effects on historic structures related to vibration – both during construction and operational phases of the project. Operational impacts on historical resources are typically attributed to vibration, including vibration from vehicle or rail operations. Some historic resources are more susceptible to damage from vibration than modern buildings, depending on their materials and structure.

Paleontological Resource

The project site is completely developed and consists primarily of paved areas with small areas of urban street trees and planters; therefore, a stratigraphic inventory and a records search were conducted to develop a baseline inventory, by rock unit, of paleontological resources in the planning area and vicinity, and to assess the potential paleontological productivity of each rock unit.

Geologic maps and reports covering the geology of the project area and vicinity were reviewed to determine the exposed rock units and to delineate their respective areal distributions in the project area. Wagner et al. (1987) and Helley and Harwood (1985) have provided regional surficial geologic mapping and correlations of the various geologic units in the project vicinity at scales of 1:250,000 and 1:75,000, respectively. The literature review was supplemented by an archival search conducted at the University of California Museum of Paleontology (UCMP) on April 18, 2014 (UCMP 2014).

A paleontologically sensitive rock unit is one that is rated high for potential paleontological productivity and is known to have produced unique, scientifically important fossils. The rating of potential paleontological productivity for a rock unit exposed in the project area refers to the abundance and densities of fossil specimens, previously recorded fossil sites, or both, in exposures of the unit in and near the project area. Exposures of a specific rock unit in the project area are most likely to yield fossil remains that represent particular species in quantities or densities similar to those previously recorded from the unit in other locations. Therefore, the paleontological sensitivity determination for a rock unit is based primarily on the types and numbers of fossils previously recorded from that rock unit (i.e., the paleontological productivity).

The following tasks were completed to establish the paleontological sensitivity of each rock unit in the project area:

- ▶ The potential paleontological productivity of each rock unit was assessed, based on the density of fossil remains previously documented within the rock unit.
- ▶ The potential of a rock unit in the project area to contain a unique paleontological resource was analyzed.

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, cultural or paleontological resources impacts are considered significant if the project would:

- ▶ Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5; Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines 15064.5;
- ▶ Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- ▶ Disturb any human remains, including those interred outside of formal cemeteries.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An initial study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An initial study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process is often referred to as “scoping out” issues.

No cultural or paleontological resources issues were scoped out in the initial study. Therefore, the EIR provides a comprehensive assessment of potential cultural and paleontological impacts.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT The proposed project could result in a substantial adverse change in the significance of the
4.4-1 Heilbron House. *Based on the analysis below, the impact is less than significant.*

The Heilbron House, located at 704 O Street, across 7th Street from Capitol Towers’ four-level parking structure, is listed in the NRHP for its Italianate architectural style and is also listed on the CRHR and the Sacramento Register. The Heilbron House retains its character-defining features, which includes its verticality in form and openings, Mansard roof, slanted bays, ornate balconied porch, and Corinthian columns, and sufficient integrity of location, setting, materials, workmanship, design, feeling and association.

The neighborhood setting around the house has been altered since it was originally constructed in 1881. As discussed in Section 15064.5(b)(1) of the CEQA Guidelines, changes in the “immediate surroundings” of an historical resource can result in a potentially significant impact where it “materially impairs” the resource. The block bound by 7th/8th Streets and O/P Streets includes the Heilbron House and several surface parking lots. Light rail tracks servicing all three Regional Transportation light rail lines (Blue, Gold, and Green) run adjacent to the Heilbron House block. Development surrounding the block includes office buildings, a recreation facility (The Capital Athletic Club), and a four-level parking structure (located on the project site). The buildings on the blocks surrounding the Heilbron House include a mix of low-rise and high-rise buildings, including the office buildings at 744 P Street and 1449 8th Street, and the 15-story Capitol Towers residential high-rise. On the block of 7th Street between O Street and P Street, the proposed project would remove the existing four-level parking structure and low-rise garden apartments, and develop an East-West Promenade to improve the pedestrian flow from the O Street light rail station to the project site, a community plaza on the corner of 7th Street and P Street, and a 24-story residential high-rise. In consideration of the existing urban context in which the Heilbron House is located, removing the existing four-level parking structure and adjacent low-rise garden apartments and replacing those structures with a 24-story residential high-rise, a community plaza, and the East-West Promenade would not materially impair any physical characteristics of the Heilbron House that convey its significance as an important example of Italianate architecture in Sacramento and justifies its inclusion in the NRHP, CRHR, or Sacramento Register, and it would also remain as an example of the major homes that had been developed historically in this West End area of Sacramento. Therefore, the proposed project would have a **less-than-significant** impact on the Heilbron House.

Mitigation Measures

None required.

IMPACT 4.4-2 The proposed project could result in a substantial adverse change in the significance of Capitol Towers. *Based on the analysis below, the impact is considered significant and unavoidable.*

CEQA Guidelines Section 15064.5(b) states that “a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” CEQA Guidelines Section 15064.5 (b) (1) notes, “Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” Specific to resources listed in the CRHR, CEQA Guidelines 15064.5 (b) (2) notes, “The significance of an historical resource is materially impaired when a project: (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources.”

The proposed project would demolish the existing 206-unit garden apartments and most of the landscape/site design features on the project site, along with an associated parking structure, parking lots, and landscaped areas. The existing high-rise Capitol Towers building would remain and be renovated. The existing east-west and north-south pedestrian walkways that bisect the property would

remain, but would be modified by the proposed project and would include new landscaping in the form of soft and hardscape, and, with the proposed new improvements, current requirements for fire department emergency access would need to be met. The Jacques Overhoff sculptural wall is proposed to be protected and retained during construction and relocated along the proposed North-South Promenade, adjacent to the tower building (see Figure 2-4a).

Historical Resource Evaluation and Determination

In 2008, JRP Historical Consulting (JRP) prepared an inventory and evaluation of the project site in connection with a previously proposed development project on the property. JRP issued an updated evaluation in May 2014 regarding the historic eligibility of the property (see Appendix D).

In July 2014, SacMod retained architecture and historic preservation services firm, Page & Turnbull, to prepare a nomination to the NRHP for the Capitol Towers property. The nomination was submitted to the SHPO in July 2014. This process is described in the NOP response letter drafted by SacMod, which is provided for review in Appendix B of this EIR.

The nomination was heard before SHRC on November 7, 2014. The SHRC voted to approve the nomination and requested the SHPO forward the nomination to the Keeper for a determination of eligibility. On December 31, 2014, the Keeper made a formal determination that the property is eligible for listing in the National Register of Historic Places, and the property was thereby automatically listed in the California Register of Historical Resources.

SacMod has since submitted a nomination application to the City of Sacramento for listing the property in the Sacramento Register. As noted previously, on February 19, 2015, a Preservation Director public hearing was held in which the Preservation Director reviewed the nomination submittal materials, took public testimony, concurred with the nomination, and forwarded the nomination for consideration by the Preservation Commission to make a recommendation to the City Council for consideration and action.

While disagreement exists between historical experts concerning the historical value of the project site (see Appendix D), for the purposes of CEQA, the project site constitutes a historical resource based on its current listing on California Register of Historical Resources. Therefore, for the purposes of this EIR, the “Capitol Towers and Garden Apartments” (as it is called on the NR nomination form) is found to be an historical resource. The impact analysis contained below considers the significance of project-related impacts to an historical resource.

Evaluation

The proposed project site was inventoried and evaluated to assess whether the property should be considered a historical resource for the purposes of CEQA—that is, whether it is listed in, determined eligible for, or appears to meet the criteria for listing in the CRHR, the NRHP, or the Sacramento Register or should otherwise be deemed an historical resource pursuant to Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a). JRP evaluated the project site for eligibility for listing as an historic resource (see Appendix D of this EIR). Thereafter, on December 31, 2014, the Keeper determined the property is eligible for listing in the NRHP. The discussion below summarizes findings included in the registration form approved by the Keeper.

NRHP Criterion A and CRHR Criterion 1 – Association with historically significant events

In the registration form, the Keeper found the Capitol Towers property to have sufficient importance within the context of historical events and trends to be significant under NRHP Criterion A or CRHR Criterion 1 (summarized in the discussions of federal and state regulations below).

From the registration form for the NRHP statement of significance summary paragraph, “Capitol Towers, constructed between 1959 and 1965 on most of a four-block area in Sacramento, California, is locally significant under Criterion A in the area of Community Planning and Development as the residential component and inaugural privately sponsored development in Sacramento’s first realized urban redevelopment area, the Capitol Mall Redevelopment Project. The initial construction of 92 garden apartment units, starting in 1959 and completed in 1960, represented the first private investment in Sacramento to replace the blighted neighborhoods demolished by the Sacramento Redevelopment Agency (SRA) under slum clearance. As SRA’s Capitol Mall Redevelopment Project was the first to use tax increment financing, the construction of Capitol Towers was at the forefront of redevelopment in California that would reshape many of the state’s urban areas in the second half of the twentieth century.” See full assessment in Appendix D.

NRHP Criterion B and CRHR Criterion 2 – Association with historically significant individuals

In the registration form, the Keeper found the Capitol Towers property does not have significance under NRHP Criterion B or CRHR Criterion 2. There are no known historically significant individuals who lived in or are associated with this property and whose activities and contributions can be directly tied to this property. This property’s rental units had hundreds of tenants over the years, and research did not indicate that any significant individuals lived at Capitol Towers and contributed significantly to local, regional, state, or national history while in living on the site. The property is also not significant for its association with any of the developers, because their contributions to American history are wide and varied and the Capitol Towers project does not illustrate their place in history.

NRHP Criterion C and CRHR Criterion 3 – Importance in architecture or association with prominent designers

In the registration form, the Keeper found the property has sufficient importance in architecture/planning or association with prominent designers to be significant under NRHP Criterion C or CRHR Criterion 3.

From the registration form for the NRHP nomination summary statement of significance paragraph, “Capitol Towers is also locally significant under Criterion C as a well-planned example of urban redevelopment housing. Not only does its pedestrian-oriented design combine low-rise and high-rise buildings, integrated landscape features, and amenities for its residents, the design also maintains a strong urban presence while balancing privacy and community for its residents. Capitol Towers exhibited thoughtful and people-oriented design and planning features from conception through completion, even as the designers refined the design while adhering to the requirements that came with federal funding. In addition, Capitol Towers was the first redevelopment project constructed by many of its talented design team that included Wurster, Bernardi, and Emmons, Edward Larrabee Barnes, DeMars & Reay, and Lawrence Halprin, and reflects their social and aesthetic philosophies. In particular, Capitol Towers embodies the design and planning approach of Wurster, Bernardi, and

Emmons applied to a large urban property, and is considered by Lawrence Halprin to be his first urban plaza. As the final components of the property, the high-rise tower, and the four-level parking garage were completed in early 1965, the period of significance under Criterion C is 1965. Just a few months shy of the fifty-year mark at the time of the nomination, Capitol Towers is effectively fifty years old and the need to satisfy Criteria Consideration G is waived.” See the full discussion of significance in Appendix D.

NRHP Criterion D and CRHR Criterion 4 – Has yielded or is likely to yield important information for history

The Capitol Towers property, as a historic architectural resource, has not yielded and is unlikely to yield important information for history. NRHP Criterion D and CRHR Criterion 4 are typically used to evaluate historic sites and archaeological resources.

Integrity Considerations

From the NRHP nomination’s registration form for the Capitol Towers property, the property was found to,

“retain sufficient integrity of urban design concepts, spatial organization, circulation patterns, primary residential buildings, and key landscape features to convey its significance, despite alterations to component elements. It retains all seven aspects of integrity.

Location. The Capitol Towers Complex has not been moved and retains integrity of its location. No major buildings or resources have been demolished or relocated.

Design. The composition, balance, and juxtaposition of the low-rise garden apartment buildings and high-rise tower, arranged to shape associated open spaces, is a major organizational design component of the Capitol Towers property that remains clearly evident. All defining elements of the design are extant. This includes the staggered setbacks of the garden apartments, the opposing patio and balcony orientations of the lower and upper garden apartment units, prominent circulation patterns, the open central plaza, varied softscape and hardscape areas, and parking locations at the outer edges. The spatial relationship between the low-rise and the high-rise buildings and the composition of built and landscape features has not been altered. The loss of some design features on contributing resources, including wood-slat screens in the breezeways and wood paneled balcony railings, somewhat alters the appearance of the low-rise buildings. The buildings retain adequate integrity in form, massing, layout, materials, and other character-defining design features: unifying deep eaves, original aluminum window units, and wood-slat sunshades at the patios. The high-rise tower retains integrity despite the addition of stone tile cladding along the corners of the middle section and at the base of its concrete columns and alterations to the first floor. The buildings are all intact, retain the primary components found in the original design, and continue to be contributing resources to the property. Despite cosmetic alterations to and around the swimming pool and the loss of some street furniture, including the original globe light standards, kiosks, some wood-slat benches, and trash receptacles, the landscape design maintains a hierarchy of spaces and uses among communal, semi-public, and private spaces. The planting plan supplements and enhances circulation and plan composition. Tree planting arrangements and prominent species are mature and character-defining. As such, the overall site landscape at Capitol Towers retains integrity. The concrete block laundry and lounge buildings retain integrity in form, material, massing, and design, with the presence of their simple shape and deep overhang. Some new doors and windows have replaced the originals

within existing openings, and generally these buildings retain sufficient integrity to be contributing resources.

Setting. The setting at Capitol Towers has not been significantly altered since the property was constructed. The surrounding context continues to be a fairly dense urban environment. The addition of two towers at the northwest and southwest corners, in areas planned for towers and constructed separately from Capitol Towers, does not adversely affect the setting of Capitol Towers. The two corner residential towers are compatible in height and massing to surrounding towers, and like the centrally located high-rise building, create a complementary interplay of vertical and horizontal massing. Capitol Towers continues to be successful as a pedestrian-oriented, multi-family housing community in a park-like setting with a measured spatial arrangement of integrated built and landscaped areas. As such, Capitol Towers retains its integrity of setting.

Materials. Capitol Towers has lost some original materials – most notably the wood-slat screens at the breezeways, wood panel balcony railing of the garden apartment buildings, original globe light standards, and kiosks. The primary built and landscape resources retain the majority of original materials and the selective removal of materials does not detrimentally affect the overall property's integrity. Therefore, the property retains integrity of materials.

Workmanship. Similarly, the loss of some original materials has resulted in the loss of some workmanship, though the most notable examples of workmanship remain. This includes the board-formed concrete in a vertical board pattern on the high-rise tower, the wood-framed extended eaves, and the formed cast panels which comprise Overhoff's concrete sculptural wall. This original piece, despite being painted, continues to serve as a focal point to the central plaza. Overall, the property retains integrity of workmanship.

Feeling. The overall feeling of Capitol Towers remains that of a large-scale, pedestrian-oriented multi-family residential complex, as it was originally designed and developed. The pleasant outdoor environment and communal atmosphere is a testament to the concepts of the original design, efforts that brought together a combination of architectural, landscape, and artistic features to create an engaging urban residential complex. Although the removal and replacement of some architectural elements affect the period feel, Capitol Towers still conveys the feeling of a complete residential community with a midcentury Modern plan and composition.

Association. Capitol Towers retains its integrity of association with early urban redevelopment in Sacramento and California. Despite some alterations, its essential form, design, and spatial organization have not changed from when it was constructed between 1959 and 1965. The components of the program and site plan are present and active. The complex is surrounded by other buildings and properties that are part of the Capitol Mall Redevelopment Project, including the Federal Building directly to the north that was constructed shortly after Capitol Towers' initial low-rise units were built.

Sacramento Register Criteria

The Sacramento Register criteria are similar to the NRHP and CRHR criteria, although the former are enumerated differently, as listed in Sacramento Municipal Code Sections 17.604.210(A)(1)(a)i to 17.604.201(A)(1)(a)vi and 17.604.210(A)(1)(b). Please see Appendix D of this EIR for more details on the evaluation relative to the various Registers' criteria.

Initial Presumption of Eligibility

Prior to December 31, 2014, when the Keeper of the Register made the formal determination that the Capitol Towers property was eligible for listing in the NRHP (National Register of Historic Places Regs., 36 C.F.R. § 60.6 [1983]), and, therefore, the property was automatically listed in the CRHR, an Historical Resource Inventory and Evaluation Report prepared by JRP, which was peer reviewed by an AECOM architectural historian, supported a conclusion that the project site did not meet the criteria for listing in the CRHR, the NRHP, or the Sacramento Register. However, the NRHP nomination prepared by Page & Turnbull on behalf of SacMod concluded that the project site qualifies for listing in the NRHP.

When an EIR is prepared, “the issue is whether substantial evidence supports the agency’s conclusions, not whether others might disagree with those conclusions” (*North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 626). Ordinarily, this is true even where there is “evidence of a disagreement with other agencies” (Id. at p. 643). However, there is an exception to this general rule as it relates to historical resources. Pursuant to CEQA, a resource listed in the CRHR is as a matter of law an historical resource notwithstanding contrary expert opinions (Public Resources Code Section 21084.1). Public Resources Code Section 5024.1(d)(1), in turn, provides that where the Keeper determines that a California property is eligible for listing in the NRHP, the property is automatically listed in the CRHR. Therefore, since the Keeper found the Capitol Towers property eligible for listing on the NRHP, the property is, as a matter of law, considered an historical resource for the purposes of CEQA.

Therefore, for the purposes of this EIR, the project site is now considered as an historical resource eligible for listing in the NRHP, and listed in the CRHR.

Additionally, the Sacramento Register includes its own set of standards, criteria, and processes (see section 4.4.2 above), the City developed its preservation program to be “consistent with state and federal preservation standards and criteria, for the identification, protection and assistance in the preservation, maintenance and use of historic and cultural resources” (City Code Section 17.604.100[B][4]). To be listed in the Sacramento Register a property must be nominated by the City Council, Preservation Commission, or the Preservation Director. Once a nomination application is submitted, the nomination is, typically, heard by the Preservation Director. If the Preservation Director concurs with the statement of nomination, the director shall issue a written statement of the reasons for the nomination based on the Sacramento Register eligibility criteria. Upon issuance of the Preservation Director’s written statement, the resource shall be deemed nominated for listing on the Sacramento Register, and the nomination is then forwarded to the City’s Preservation Commission. The Preservation Commission will hold at least one public hearing on the nomination and make a recommendation on the nomination to the City Council. The City Council will hold a public hearing on the nomination and they may adopt, modify or reject, or continue the action recommended by the Preservation Commission, which, if the Commission supports the nomination, typically would be a recommendation for the Council to adopt an ordinance listing the property in the Sacramento Register. SacMod has submitted a nomination application to the City for Capitol Towers to be nominated for listing in the Sacramento Register. As noted previously, on February 19, 2015, a Preservation Director public hearing was held in which the Preservation Director reviewed the nomination submittal materials,

took public testimony, concurred with the nomination, and forwarded the nomination for consideration by the Preservation Commission to make a recommendation to the City Council for consideration and action.

Potential impacts to the resource are discussed and evaluated below.

Conclusion

As discussed above, for the purposes of this EIR, the Capitol Towers property, which comprises the existing built environment on the project site, including the designed landscape, is considered an historical resource pursuant to CEQA. Demolition of all of the existing 206 garden apartment units, landscape and site features, and other physical elements of the property, as well as renovation of the Capitol Towers high-rise, constitutes a substantial adverse change to the historical resource because the resource's physical characteristics that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources would be materially impaired.

The City's 2030 General Plan Master EIR discusses potential impacts to historic resources associated with buildout of the General Plan under Impact 6.4-1, acknowledging that known historic resources are primarily focused in the Central City area (p. 6.4-25). The City developed policies intended to reduce or avoid impacts to historic resources, including "a variety of regulations and incentives aimed at preserving both publicly and privately owned historic and cultural resources" (p. 6.4-26). The following policies are cited as mitigation in the Master EIR: Policies HCR 1.1.1, 1.1.2, 2.1.1 – 2.1.14, 2.1.16, 3.1.1-3.1.5, and LU 1.1.5 and 2.4.2. Each of these policies applies to City actions and does not directly create a requirement for new development. However, many of these policies relates to topics considered in this EIR. In particular, Policy HCR 2.1.14 specifically speaks to demolition of historic resources, "The City shall consider demolition of historic resources as a last resort, to be permitted only if rehabilitation of the resource is not feasible, demolition is necessary to protect the health, safety, and welfare of its residents, or the public benefits outweigh the loss of the historic resource."

Policies HCR 1.1.1 and 1.1.2 are related to the City's administration and operations and Policy HCR 2.1.1 commits the City to identify historic and cultural resources and provide adequate protection of these resources. Policy HCR 2.1.2 requires compliance with applicable regulations and Policy HCR 2.1.3 requires consultation with Native American groups and both of these policies were implemented in preparation of this EIR. Policies HCR 2.1.6, 2.1.10, 2.1.11, 2.1.16, and 3.1.2, are implemented through the research, analysis, documentation, mitigation, and alternatives development presented in this EIR. Policy LU 2.4.2 call for the City to promote building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers. The policy, HCR 2.1.11, in the Historic & Cultural Resource Element also provides that, "The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale, massing and relationship of proposed new development to surrounding historic resources."

SACOG's MTP/SCS Program EIR also discusses potential historic resources effects – under Impact CR-1 (starting on p. 7-46). As with the General Plan Master EIR, the MTP/SCS EIR observes that

historic resource impacts are more likely in downtown areas, such as the vicinity of the project site. If impacts to historic resources cannot be avoided through project design, this EIR concludes that impacts could be potentially significant. Mitigation Measure CR-1 is identified to reduce impacts, but none of the mitigation measures would reduce impacts on cultural resources from the proposed project to a less-than-significant level.

The research, resource identification, and evaluation components of MTP/SCS Program EIR Mitigation Measure CR-1 were completed as part of the preparation of this EIR and are described in the environmental setting and historical resource evaluation and determination discussions in this section and thus are implemented by the preparation of this EIR. MTP/SCS Program EIR Mitigation Measure CR-1 also requires that the lead agency consider avoidance of significant historical resources as the primary mitigation. Because implementation of the proposed project description and basic project objectives requires demolition of the garden apartments and alterations to the site design and landscape, avoidance would be inconsistent with the proposed project description and objectives. Three alternatives were designed that limit the size and/or footprint of the proposed project with the goal of reducing the significant impact on historic resources to the extent feasible, while still allowing for some development, though noting that the impact to historic resources would still be considered significant. Since SACOG cannot impose mitigation on local lead agencies, the impact was considered significant and unavoidable in the MTP/SCS Program EIR. Because development of the proposed project would create a substantial adverse change in the significance of a historical resource the impact is considered **significant**, requiring mitigation.

Mitigation Measures

Implementation of Mitigation Measure 4.4-2 would reduce, per CEQA Guidelines Section 15064.5(4), the project's impact to the historical resource, Capitol Towers (also referred to as Capitol Towers and garden apartments), but as discussed further below, the impact on historical resources would not be reduced to a less than significant level. The measures for which the project applicant would be responsible for completion are documentation of the property, dissemination of the documentation, inclusion of historical interpretative displays and information in the project, website publication, incorporation of Capitol Towers' sculptural wall into the project (Jacques Overhoff wall), and retention of the Capitol Towers high-rise.

These measures would, based upon CEQA Guidelines Section 15064.5(4), reduce the impact by relaying information to interested members of the public, as well as Sacramento Commons' residents and visitors, regarding the historical, architectural and landscape architectural significance of Capitol Towers and the history of urban renewal and redevelopment in Sacramento and provides for retention of Capitol Towers' sculptural wall and the Capitol Towers high-rise. However, compliance with Mitigation Measure 4.4-2 would not reduce the proposed project's impact on historical resources to a less-than-significant level and the impact would be **significant and unavoidable** because the proposed demolition of all the garden apartments and alteration of the designed landscape and site design in the Capitol Towers complex would materially impair the historical resource's physical characteristics that convey its significance and justify the property's inclusion, or eligibility for inclusion, in the CRHR. The mitigation measure was drafted to respond to the objectives of City's General Plan policies HCR 2.1.2, 2.1.4, 2.1.6, 2.1.8, 2.1.11, 2.1.12, 2.1.13, 2.1.16, 3.1.1, 3.1.2, 3.1.3, and 3.1.4, and

to implement MTP/SCS EIR Mitigation Measure CR-1 (please see Appendix O for a complete description of MTP/SCS EIR mitigation measures).

Mitigation Measure 4.4-2: Documentation, Interpretation, Reuse, and the Retention/Rehabilitation of the Residential Tower

a) Documentation / Recordation

Prior to any structural demolition, site clearing, and removal activities, the project applicant shall retain a professional who meets the Secretary of the Interior's Standards for Architectural History, and also with professional experience involving historic landscapes, to prepare written and photograph documentation of the Capitol Towers and garden apartments complex, features, and landscape areas identified as historic.

The documentation for the property shall be prepared based on the National Park Services' (NPS) Historic American Building Survey (HABS) and Historic American Landscape Survey (HALS) Historical Report Guidelines. This type of documentation is based on a combination of HABS/HALS standards (Levels II and III) and HABS/HALS Photography Guidelines (November 2011).²

The written historical data for this documentation shall follow HABS / HALS Level II standards and shall be derived from the following documents, as well as other documents as appropriate: "National Register of Historic Places Registration Form for Capitol Towers", prepared by Flora Chou (Page & Turnbull) in 2014 and "Historical Resource Inventory and Evaluation Report, Capitol Towers Apartments, 1500 7th Street, Sacramento, California 95814," prepared by JRP in 2014.

The written data shall be accompanied by select existing drawings available in the City's files or provided to the City from another organization's historic resource files or databases. Existing drawing may include drawings of the buildings, sites, structures, objects, or landscapes, whether original construction or later alterations, that portray or depict the historic value of significance of the site. The existing drawings will be photographed with large-format negatives or photographically reproduced on Mylar. Efforts shall be made to locate original construction drawings or plans of the property during the period of significance. If located, these drawings shall be photographed, reproduced, and included in the dataset.

HABS/HALS standard large format or another method providing equivalent or greater archival quality shall be used. If digital photography is used, the ink and paper combinations for printing photographs must be in compliance with NPS photo policy and have a permanency rating 150 years or greater. Photographs shall be labeled with text reading "Capitol Towers Apartments, 1500 7th Street, Sacramento" and photograph number on the back of the photograph.

Photograph views for the dataset shall include images of the entire Capitol Towers property, including the garden apartments, high-rise tower building, landscape and site features. The

² National Parks Service, "Federal Register, Vol. 68, No. 139, Monday July 21, 2003 Notices, Department of the Interior, National Park Service Guidelines for Architectural and Engineering Documentation," http://www.nps.gov/history/hdp/standards/standards_regs.pdf (accessed August 2014); National Parks Service, "Heritage Documentation Programs HABS/HAER/HALS Photography Guidelines, November 2011," Standards and Guidelines, http://www.cr.nps.gov/hdp/standards/PhotoGuidelines_Nov2011.pdf (accessed August 2014).

dataset shall include: (a) contextual views capturing the spatial relations of buildings, structures, the landscape features, and of the site; (b) views of each side of each building and interior views, where possible; (c) oblique views of buildings; (d) detail views of character-defining features, including features on the interiors of some buildings; (e) detail views of each portion of the site and its landscape features, including views from within the site and from the exterior of the site, from the north, east, south, and west. The size of this property shall require up to 20 contextual views, 20 views of the garden apartments (including both the two- and three-story types,) 5 views of the high-rise; 10 views of the landscape (hardscape and softscape), 5 views of the Overhoff sculptural wall, and 15 detail views of the site. All views shall be referenced on a photographic key. This photograph key shall be on a map of the property and shall show the photograph number with an arrow indicating the direction of the view. Historic photographs shall also be collected, reproduced, and included in the dataset. The project applicant shall provide funding to acquire the appropriate use and copyrights to reproduce historic images in the dataset for public dissemination.

All written and photograph documentation of the Capitol Towers and garden apartments complex shall be approved by the City's Preservation Director prior to any site clearing, demolition and removal activities.

Two copies of the HABS/HALS documentation of the Capitol Towers complex shall be disseminated on archival quality paper to appropriate repositories and interested parties, per below. If digital prints are produced, the ink and paper combinations for printing photographs must be in compliance with NPS photo policy and have a permanency rating of 150 years or greater. Additional copies shall be in PDF files/ format copies produced on archival DVDs or otherwise distributed electronically. The distribution of the documentation shall include the California Historical Resources Information System (CHRIS) North Central Information Center (NCIC) at California State University Sacramento; the California State Library in Sacramento; University of California, Berkeley, Bancroft Library; The Cultural Landscape Foundation; the Center for Sacramento History (CSH); the Sacramento County Historical Society; the Sacramento Public Library's Sacramento Room; and other local repositories determined by the City's Preservation Director.

b) Interpretation

Under the direction of the City's Preservation Director and the City's History Manager, measures shall be implemented to interpret the property's historic significance for the public and for future residents that will inhabit the Sacramento Commons property. All costs associated with interpretation of the property shall be borne by the project applicant. Interpretive and/or educational exhibits shall include, but are not necessarily limited to the following items:

Permanent Interpretive Displays/Signage/Plaques

The project applicant shall install a minimum of four interpretive displays within the project that provides information to visitors and residents regarding the history of the Capitol Towers and garden apartments complex within the context of Sacramento urban renewal and redevelopment. These displays shall be integrated into the design of the public areas of the new housing and retail, and they shall be installed in highly visible public areas, such as the

property's plazas or in public areas on the interiors of buildings. The displays shall include historical data taken from the HABS/HALS documentation or other cited archival sources and shall also include photographs. Displayed photographs shall include information about the subject, the date of the photograph, and photo credit / photo collection credit.

The project applicant shall install at least one sign or plaque in each quadrant of the superblock to indicate that the Capitol Towers and garden apartment complex once stood on the property. Additional signage / plaques may be installed to provide interpretive information about any historical photographs installed on the property.

Interpretive displays and the signage/plaques installed on the property shall be sufficiently durable to withstand typical Sacramento weather conditions for at least 10 years, like fiber-glass embedment panels, that meet National Park Service signage standards.³ Displays and signage/plaques shall be lighted, installed at pedestrian-friendly locations, and be of adequate size to attract the interested pedestrian. Maintenance of displays and signage/plaques shall be included in the management of the common area maintenance program on the property.

Exhibits and Written Documentation for Publication on a Website

The project applicant shall publish exhibits and written documentation on a website regarding the history of the urban renewal and redevelopment, with a focus on the Capitol Towers property. This information shall be derived from the HABS/HALS documentation, the "NRHP Registration Form for Capitol Towers", prepared by Flora Chou (Page & Turnbull) in 2014, and the "Historical Resource Inventory and Evaluation Report, Capitol Towers Apartments, 1500 7th Street, Sacramento, California 95814," prepared by JRP in 2014, and other sources as appropriate. The publication shall include text and photographs. The text shall be written for popular consumption, but shall also be properly cited following historical documentation standards. The City's Preservation Director and History Manager shall review and comment on the text prior to its publication to ensure that it is accurate and sufficiently detailed.

Publication of these materials shall be either on an independent website maintained by the project applicant (or its successor property management company) or be donated for posting on a local history website, such as www.sacramentohistory.org (owned by CSH). The materials shall be available on the website for at least two years following each phase of demolition of the garden apartments at Capitol Towers.

Traveling Exhibit

The project applicant shall have a traveling exhibit prepared to be offered for display, for the most part at appropriate California and Sacramento venues including, but not limited to, museums, archives with exhibit space, public libraries, and public buildings, and potentially also to university or national agency exhibition spaces. The exhibit shall include panels or boards that provide information and photographs regarding Capitol Towers and garden apartments

³ National Park Service, "Wayside Exhibits: A Guide to Developing Outdoor Interpretive Exhibits, October 2009," Harpers Ferry Center Wayside Exhibits, <http://www.nps.gov/hfc/pdf/waysides/wayside-guide-first-edition.pdf> (accessed August 2014).

within the context of Sacramento's urban renewal and redevelopment history. The exhibit shall include three panels that can be, self-standing, wall mounted or displayed on easels.

c) Salvage and Reuse

The project applicant shall consult with the City's Preservation Director and the Director of the Sacramento Metropolitan Arts Council regarding the salvage and reuse of one of the character-defining landscape features: the Overhoff sculptural wall. The wall shall be retained on the property either in situ, or moved and reused within the property at an appropriate location. Although the wall is modular, if moved, the panels shall stay together in the same placement order and configuration as they exist today.

d) Retention & Rehabilitation of Residential Tower

Prior to commencement of any alterations or renovations to the existing Capitol Towers residential tower, not proposed for demolition as a part of the proposed project, the City Preservation Director shall review and confirm the renovations comply with the Secretary of the Interior's (SOI) Standards for the *Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* or the *SOI Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* unless this contributing resource is removed from the California Register of Historic Places. Additional guidance for this work may include the *Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings*.

IMPACT The proposed project could result in a substantial adverse change in the significance of an
4.4-3 archaeological resource. *Based on the analysis below, the impact is considered less than significant with mitigation.*

A records search conducted at the NCIC of the CHRIS on May 2, 2014, identified one recorded historic-era archaeological resource within one-quarter mile of the project site, but no recorded archaeological resources within or adjacent to the project site.

A search of the NAHC sacred lands file failed to indicate the presence of Native American resources in the immediate project area. The NAHC letter listed Native American organizations and individuals who may have knowledge of cultural resources in the project area. Letters that included a brief project description and a project map were sent to each organization or individual identified on the NAHC list. As of the writing of this EIR, one response has been received from organizations or individuals identified on the NAHC list. The Shingle Springs Band of Miwok Indians indicated in a letter dated June 16, 2014, that they are not aware of any known cultural resources on the project site, but they would like to receive updates on the project and receive any environmental reports prepared for the project.

As discussed above, approximately the top 10 feet of soil at the project site consists of artificial fill material that was likely placed on the site in the 1860s, and has been subjected to substantial disturbance related to urban development subsequent to the placement of fill material. However, installation of deep foundations and potentially subsurface building systems, such as an elevator

basement, would likely take place between 15 to 60 feet below the surface on the project site. While it is possible that Native American or archaeological resources could be present within the Holocene-age levee and channel deposits that underlie the fill material or on top of the Pleistocene-era formation that underlies the levee and channel deposits, it is unlikely that intact significant resources are present in consideration of the development history of the project site.

The 2030 General Plan Master EIR addressed effects on archaeological resources under Impact 6.4-2, acknowledging that infill development and related installation of infrastructure could damage prehistoric resources (p. 6.4-28). The Master EIR identifies that existing regulations would reduce potential impacts, as well as policies intended to reduce or avoid impacts to historic resources, including policies HCR.1.1.1, 1.1.2, 2.1.1 – 2.1.5, 2.1.10, 2.1.15, and 3.1.1 – 3.1.4.

Policies HCR 1.1.1 and 1.1.2 are related to the City's administration and operations and Policy HCR 2.1.1 commits the City to identify historic and cultural resources and provide adequate protection of these resources. Policy HCR 2.1.2 requires compliance with applicable regulations and Policy HCR 2.1.3 requires consultation with Native American groups and both of these policies was implemented in preparation of this EIR. Policies HCR 2.1.10, and 3.1.2, are implemented through the research, analysis, documentation, mitigation, and alternatives development presented in this EIR. Policy HCR 2.1.15 requires the City to ensure compliance with protocols that protect or mitigate impacts to archaeological, historic, and cultural resources, including prehistoric resources.

SACOG's MTP/SCS Program EIR discusses potential prehistoric resources effects under Impact CR-2 (starting on p. 7-51). The MTP/SCS EIR observes that the potential for prehistoric resource impacts varies based on the location of the subject project, with higher potential in areas that had Native American occupation and activity. According to the MTP/SCS EIR, "surficial archaeological deposits are more likely to be heavily disturbed within urban areas and more intact in rural settings..." (p. 7-53). In order to reduce potential prehistoric resources impacts, the MTP/SCS EIR includes Mitigation Measure CR-2.

The research, resource identification, and evaluation components of MTP/SCS Program EIR Mitigation Measure CR-2 were completed as part of the preparation of this EIR. The cultural resource investigation conducted for the project identified no previously recorded archaeological or Native American cultural resources on or immediately adjacent to the project site. The only remaining concern is the potential for project construction to encounter and inadvertently damage or destroy unknown subsurface significant prehistoric or historic-era cultural resources. Therefore, because there remains the possibility that project-related earthmoving activities could damage or destroy significant cultural or archaeological resources, the impact is considered **potentially significant**.

Mitigation Measures

Mitigation Measure 4.4-3 requires that construction workers be alerted to the possibility of encountering both historic-era and prehistoric archaeological resources and, in the event that resources are encountered, requires that measures be implemented to avoid or minimize impacts on the resource. In consideration of the fact the soils that underlie the project site have been extensively disturbed as a result of construction of the existing uses on the project site, substantially reducing the likelihood that intact cultural resources are present and would be encountered during construction of the proposed

project, the impact would be **less than significant with mitigation**. This mitigation measure implements General Plan Policy HCR 2.1.15 and MTP/SCS EIR Mitigation Measure CR-2.

Mitigation Measure 4.4-3: Protect or Mitigate Impacts on Prehistoric and Historic-Era Archaeological Resources and Human Remains

To minimize potential adverse effects on prehistoric and historic-era archaeological resources and human remains, the project applicant shall implement the following measures:

- The project applicant shall retain a qualified archaeologist (i.e., defined as an archaeologist meeting the Secretary of the Interior’s Standards for professional archaeology) to carry out all actions related to archaeological resources and human remains.
 - Before the start of any ground-disturbing activities, the qualified archaeologist shall conduct a cultural resources sensitivity training session for all construction personnel working on the project. The training shall include an overview of potential cultural resources that could be encountered during ground-disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified archaeologist for further evaluation and action; and shall describe penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources.
 - If items of historic or archaeological interest are discovered, the construction contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery and immediately notify the qualified archaeologist for further evaluation and action. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, baked clay fragments, or faunal food remains (bone and shell); stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and/or battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include the remains of stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. After cessation of excavation, the contractor shall immediately contact the City of Sacramento Community Development Department. The contractor shall not resume work until authorization is received from the City after the following steps are taken:
 - Any inadvertent discovery of cultural resources during construction shall be evaluated by a qualified archaeologist.
 - If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the State CEQA Guidelines), mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the State CEQA Guidelines, with a preference for preservation in place. Consistent with State CEQA Guidelines Section 15126.4(b)(3), this may be accomplished by planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or

deeding the site into a permanent conservation easement. If avoidance is not feasible, the archaeologist shall develop a treatment plan in consultation with the City and appropriate Native American representatives (if the find is of Native American origin). The treatment plan shall include, but shall not be limited to, data recovery procedures based on location and type of archaeological resources discovered, procedures for disposition or curation of recovered materials, and a preparation and submittal of report of findings to the City's Preservation Director and the North Central Information Center of the California Historical Resources Information System.

- If a human bone or bone of unknown origin is found during construction, pursuant to Public Resources Code Section 5024.1, all work shall stop in the vicinity of the find, and the county coroner and the City of Sacramento Community Development Department shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-interment of the human remains and any associated artifacts. No additional work is to take place within 100 feet of the find until the identified appropriate actions have taken place.

IMPACT The proposed project could directly or indirectly destroy a unique paleontological resource or site
4.4-4 or unique geologic feature. *Based on the analysis below, the impact is considered less than significant with mitigation.*

The results of the UCMP paleontological records search (UCMP 2014) indicated that no fossil remains have been recovered from the project site. As described above in the environmental setting, the Holocene-age rock formations at the project site are not considered paleontologically sensitive. Therefore, construction-related earthmoving activities in these formations would have no impact on any unique paleontological resources. However, installation of deep foundations and potentially subsurface building systems, such as an elevator basement, would likely take place within the Riverbank Formation located between 15 to 60 feet below the surface on the project site. Because of the large number of vertebrate fossils recovered from this formation throughout the Central Valley and the Sacramento region, this formation is considered paleontologically sensitive.

The fill material and the levee and channel deposits in the project area are of Holocene age. By definition, to be considered a fossil, a resource must be more than 11,700 years old. Holocene deposits contain only the remains of extant, modern taxa (if any resources are present), which are not considered "unique" paleontological resources. Furthermore, the fill material in the project area consists of soil and debris that were excavated from another location and brought to the site. Therefore, the fill material and the levee and channel deposits are not considered paleontologically sensitive, since this was brought to the site thousands of years after any fossils could have been deposited.

The 2030 General Plan Master EIR addressed effects on paleontological resources under Impact 6.5-5, acknowledging that although the City and surrounding area are not highly sensitive for these resources future ground-disturbing activities could nonetheless encounter these resources (p. 6.5-25).The 2030

General Plan Master EIR identifies Policy HCR 2.1.15 to mitigate potentially significant impacts. This policy requires that if paleontological resources are discovered during excavation or construction, proper protocols shall be followed. This policy is incorporated in Mitigation Measure 4.4-4, below. With this policy, the Master EIR concluded that impacts of implementing the 2030 General Plan would be less than significant.

SACOG's MTP/SCS Program EIR discusses potential prehistoric resources effects under Impact CR-3 (starting on p. 7-57). The MTP/SCS EIR suggests that ground-disturbing activity associated with construction and installation of utilities could damage paleontological resources and identifies Mitigation Measure CR-4 to address potentially significant effects. The research, resource identification, and evaluation components of MTP/SCS Program EIR Mitigation Measure CR-4 were completed as part of the preparation of this EIR.

The paleontological resource investigation conducted for the project identified no previously recorded paleontological resources on or immediately adjacent to the project site. The only remaining concern is the potential for project construction to encounter and inadvertently damage or destroy unknown paleontological resources. This impact is considered **potentially significant**.

Mitigation Measures

Mitigation Measure 4.4-4, which implements General Plan Policy HR 2.1.15 and MTP/SCS EIR Mitigation Measure CR-4, ensures that impacts from damage to or destruction of unique paleontological resources would be reduced by requiring paleontological resources training session for all construction personnel and identifying that work shall cease if paleontological resources are discovered, that the resource is evaluated, and that a recover plan is prepared and implemented. The impact is considered **less than significant with mitigation**.

Mitigation Measure 4.4-4: Protect or Mitigate Impacts on Paleontological Resources

To minimize potential adverse effects on previously unknown potentially unique, scientifically important paleontological resources, the project applicant shall implement the following measures:

- Before the start of any earthmoving activities, the project applicant shall retain a qualified paleontologist to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered.
- If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work in the vicinity of the find and notify the City of Sacramento Community Development Department. The project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology guidelines (1996). The recovery plan shall include, but shall not be limited to, (a) a field survey surrounding the site where the paleontological resources were discovered, (b) development of sampling and data recovery procedures

based on location and type of paleontological resources discovered, (c) museum storage coordination for any specimen recovered, and (d) prepare a report documenting the findings. Recommendations in the recovery plan shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

IMPACT 4.4-5 The proposed project could disturb human remains, including those interred outside of formal cemeteries. *Based on the analysis below, the impact is considered less than significant with mitigation.*

The top 10 feet of soil at the project site consists of artificial fill material that was likely placed on the site in the 1860s, and has been subjected to substantial disturbance related to more recent urban development. While it is possible that human remains could be present within the Holocene-age levee and channel deposits that underlie the fill material or on top of the Pleistocene-era formation that underlies the levee and channel deposits, it is unlikely that human remains are present in these conditions.

The 2030 General Plan Master EIR addressed effects on archaeological resources under Impact 6.4-2, along with archaeological resources defined in CEQA Guidelines Section 15064.5. Please see the discussion related to the General Plan Master EIR under Impact 4.2-2, which applies to this impact, as well.

SACOG's MTP/SCS Program EIR discusses potential impacts to human remains under Impact CR-4 (starting on p. 7-59). The MTP/SCS EIR suggests that construction could adversely impact human remains. The MTP/SCS EIR identifies existing regulations that would help to ensure against adverse effects, including citing Section 7050.5 of the California Health and Safety Code, Section 27491 of the Government Code and Section 5097.98 of the Public Resources Code (p. 7-60). With application of these regulations, the impact was considered less than significant (p. 7-60). Nonetheless, because there remains the possibility that project-related earthmoving activities could encounter and damage or destroy human remains, the impact is considered **potentially significant**.

Mitigation Measures

Mitigation Measure 4.4-5, which implements 2030 General Plan Policy HCR 2.1.15, would protect human burials by requiring compliance with laws, regulations, and protocols that protect or mitigate impacts on human remains. The impact is considered **less than significant with mitigation**. These two impacts are addressed by the same mitigation language since they have substantial overlap.

Mitigation Measure 4.4-5: Implement Mitigation Measure 4.4-3: Protect or Mitigate Impacts on Prehistoric and Historic-Era Archaeological Resources and Human Remains

4.4.4 CUMULATIVE IMPACT DISCUSSION

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are

considered in tandem with impacts of buildout conditions described in the SACOG's MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

Public Resources Code, Section 21155.2 [c] [1] provides that, "where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]" (Public Resources Code, Section 21155.2 [c][1]). This provision of state law applies to the cumulative discussion below.

For historical resource impacts, the geographic focus of the cumulative analysis is the county of Sacramento, and the cumulative context for archaeological resources would be the known territory of the local Native American population, which includes portions of seven counties (p. 6.4-30). This is the same context used in the General Plan Master EIR.

IMPACT Cumulative historical resources impacts. *Based on the analysis below, this is a significant cumulative*
4.4-6 *impact, the project would have a cumulatively considerable contribution, and the cumulative impact is significant and unavoidable.*

As described above, historical resources impacts were analyzed in the 2030 General Plan Master EIR (Impact 6.4-1). The analysis determined that growth projected to occur within the City would occur through both infill development and build out of currently undeveloped areas. Increased maximum-density allowances in the urban area could lead to the demolition of historic or potentially historic buildings and structures. The analysis determined that the policies in the Historic and Cultural Resources Element of the 2030 General Plan include a variety of regulations and incentives aimed at preserving both publicly and privately owned historic and cultural resources. Specifically, Policy HCR 2.1.14 directly reduces the probability of demolition of historic buildings or resources. This policy requires that the City consider demolition of historical resources as a last resort to be permitted only if rehabilitation of the resource is not feasible and demolition is necessary to protect the health, safety, and welfare of its residents, or the benefits outweigh the loss of the historic resource. However, because preservation may not always be feasible and the benefits of some projects may justify demolishing historic resources within the City limits, the 2030 General Plan Master EIR concluded that **this impact would be significant and unavoidable.**

The 2030 General Plan Master EIR also addressed cumulative historical resources impacts associated with past, present, and future development throughout Sacramento County, identifying a significant cumulative impact (Impact 6.4-3, starting on page 6.4-30). The General Plan's contribution was identified as cumulatively considerable and the Master EIR identifies the same mitigating policies referenced under Impact 6.4-1, ultimately concluding that the cumulative impact is significant and unavoidable.

Unlike the 2030 General Plan Master EIR, the MTP/SCS EIR concludes that mitigation measures in Chapter 7, including Mitigation Measure CR-1 (which requires project-specific historical resource

studies to be performed), would minimize the contribution of the MTP/SCS to cumulative impacts to cultural resources. The MTP/SCS EIR concludes cumulative cultural resource impacts, including potential cumulative effects on historical resources, associated with the regional contribution to this impact would be mitigated to acceptable levels (p. 19-21).

As discussed in the project-specific impact analysis above, the proposed project would demolish all the existing 206-unit garden apartments on the project site to accommodate the proposed project, along with an associated parking structure, parking lots, the existing site plan and all the existing landscaped areas. As discussed in more detail in Section 4.4.3 above, for the purposes of this EIR, the Capitol Towers property is a historical resource pursuant to CEQA. Demolition of all the existing 206-unit garden apartments, landscape and site features, and other physical elements of the property, as well as renovation of the Capitol Towers high-rise, is considered to be a significant effect on the environment because the significance of the historical resource would be materially impaired as a result of this project. The historical resource would be materially impaired through the demolition of the historical resource's physical characteristics that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources. Mitigation Measure 4.4-2 would, per CEQA Guidelines, reduce the impact by requiring documentation of the property, dissemination of the documentation, inclusion of historical interpretative displays and information in the project, website publication, and incorporation of Capitol Towers' sculptural wall into the project. However, the direct project **impact would remain significant and unavoidable** because the proposed demolition of all the 206-unit garden apartments, landscape features, and other physical elements of the property, as well as renovation of the Capitol Towers high-rise, would materially impair the historical resource's physical characteristics that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources. Consistent with the conclusion in the 2030 General Plan Master EIR, the City finds that all significant historical resources are unique and non-renewable members of a finite class of resources. Therefore, the City concludes that all significant adverse effects erode a dwindling resource base. Therefore, the project would have a **cumulatively considerable contribution to this significant cumulative impact**.

Mitigation Measures

No additional mitigation is feasible beyond Mitigation Measure 4.4-2, which implements MTP/SCS EIR Mitigation Measure CR-1. This is a **significant and unavoidable** cumulative impact.

Mitigation Measure 4.4-6: Implement Mitigation Measure 4.4-2: Documentation, Interpretation, Reuse, and the Retention/Rehabilitation of the Residential Tower

IMPACT 4.4-7 Cumulative archaeological resources impacts. *Based on the analysis below, this is a significant cumulative impact and the project would have a less than cumulatively considerable contribution with mitigation.*

The 2030 General Plan Master EIR addressed cumulative archaeological resources impacts under Impact 6.4.4, identifying a significant cumulative impact associated with development throughout the region. The 2030 General Plan Master EIR identified the same set of mitigating policies identified for project-level impacts for cumulative impacts (see summary above under Impact 4.4-2). The 2030

General Plan Master EIR concludes that implementation of the 2030 General Plan will result in significant and unavoidable cumulative archaeological resources impacts.

Unlike the 2030 General Plan Master EIR, the MTP/SCS EIR concludes that mitigation measures in Chapter 7, including Mitigation Measure CR-2 (which requires project-specific archaeological resource studies to be performed), would minimize the contribution of the MTP/SCS to cumulative impacts to cultural resources. The MTP/SCS EIR concludes cumulative cultural resource impacts, including potential cumulative effects on historical resources, associated with the regional contribution to this impact would be mitigated to acceptable levels (p. 19-21).

Based upon previous cultural resource surveys and research, the area that comprises the City of Sacramento has been inhabited by prehistoric and historic peoples for thousands of years. The proposed project, in combination with other development in the City of Sacramento could contribute to the loss of significant archaeological resources. However, in consideration of the fact the soils that underlie the project site have been extensively disturbed as a result of construction of the existing uses on the project site, there is a low likelihood that intact cultural resources are present and would be encountered during construction of the proposed project. Notwithstanding the low likelihood that cultural resources will be encountered during construction, proper planning and appropriate mitigation is necessary to ensure the proposed project will not result in a cumulatively considerable contribution to the regional cumulative impact identified in the 2030 General Plan Master EIR. Therefore, this impact is considered potentially **cumulatively considerable** before mitigation.

Mitigation Measures

Mitigation Measure 4.4-3, which implements MTP/SCS EIR Mitigation Measure CR-2, requires that construction workers be alerted to the possibility of encountering both historic-era and prehistoric archaeological resources and, in the event that resources are encountered, requires that measures be implemented to avoid or minimize impacts on the resource. As demonstrated by the analysis under Impact 4.4-2, incorporation of Mitigation Measure 4.4-3 would reduce project-level impacts to a less-than-significant level. In addition, the incorporation of this mitigation would ensure that the project would have a **less than cumulatively considerable** contribution to this significant cumulative impact.

Mitigation Measure 4.4-7: Implement Mitigation Measure 4.4-3: Protect or Mitigate Impacts on Prehistoric and Historic-Era Archaeological Resources and Human Remains

IMPACT 4.4-8 The proposed project, in combination with other development in the Sacramento region, could adversely affect human remains. *Based on the analysis below, this is a significant cumulative impact and the project would have a less than cumulatively considerable contribution with mitigation.*

The 2030 General Plan Master EIR addressed effects on archaeological resources under Impact 6.4-2, along with archaeological resources defined in CEQA Guidelines Section 15064.5. Similarly, cumulative impacts to human remains are addressed in Impact 6.4-4, along with archaeological resources defined in CEQA Guidelines Section 15064.5. The same set of mitigating policies is identified for cumulative impacts as were identified for project-level impacts (see summary above under Impact 4.4-2).

The analysis of determined that the City of Sacramento and the surrounding area have had a long cultural history and are known to have been occupied by Native American groups for thousands of

years before settlement by non-Native peoples. Human burials have been found throughout the City, and human burials outside of formal cemeteries often occur in prehistoric contexts. The analysis determined that human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Public Resources Code Section 5097. The analysis determined that the California Health and Safety Code (Sections 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains; protect them from disturbance, vandalism, or destruction; and establish procedures to be implemented if Native American skeletal remains are discovered. Public Resources Code Section 5097.98 also addresses the disposition of Native American burials, protects such remains, and establishes the NAHC to resolve any related disputes.

The analysis determined that 2030 General Plan Policies HCR 2.1.2 and HCR 2.1.15 would protect human burials by requiring compliance with laws, regulations, and protocols that protect or mitigate impacts on human remains. However, the analysis concluded that no feasible mitigation measures beyond what the 2030 General Plan policies require are available to ensure that no human remains are damaged or destroyed. Therefore, the 2030 General Plan Master EIR concluded that the impact would be significant and unavoidable.

Unlike the 2030 General Plan Master EIR, the MTP/SCS EIR concludes that impacts on human remains from construction projects related to land use changes resulting from implementation of the proposed MTP/SCS at the regional level are considered less than significant (p. 7-60). Therefore, the MTP/SCS EIR concludes implementing the MTP/SCS will not result in a cumulatively significant impact on human remains (p. 19-21).

In consideration of the fact the soils that underlie the project site have been extensively disturbed as a result of construction of the existing uses on the project site, there is a low likelihood that human remains are present and would be encountered during construction of the proposed project. Notwithstanding the low likelihood that human remains will be encountered during construction, proper planning and appropriate mitigation is necessary to ensure the proposed project will not result in a cumulatively considerable contribution to the regional cumulative impact identified in the 2030 General Plan Master EIR. Therefore, this impact is considered potentially **cumulatively considerable** before mitigation.

Mitigation Measures

Mitigation Measure 4.4-3, which implements 2030 General Plan Policy HCR 2.1.15, would protect human burials by requiring compliance with laws, regulations, and protocols that protect or mitigate impacts on human remains. As demonstrated by the analysis under Impact 4.4-2, incorporation of Mitigation Measure 4.4-3 would reduce project-level impacts to a less-than-significant level. In addition, the incorporation of this mitigation would ensure that the project would have a **less than cumulatively considerable** contribution to this significant cumulative impact.

Mitigation Measure 4.4-8: Implement Mitigation Measure 4.4-3: Protect or Mitigate Impacts on Prehistoric and Historic-Era Archaeological Resources and Human Remains

IMPACT 4.4-9 Cumulative paleontological resources impacts. *Based on the analysis below, this is a significant cumulative impact and the project would have a less than cumulatively considerable contribution with mitigation.*

The 2030 General Plan Master EIR addressed effects on paleontological resources under Impact 6.5-5, acknowledging that the City and surrounding area are not highly sensitive for these resources (pp. 6.5-25 and 6.5-28). The Master EIR identifies Policy HCR 2.1.15 to mitigate potentially significant impacts. This policy requires that if paleontological resources are discovered during excavation or construction, proper protocols shall be followed. With this policy, the Master EIR concluded that impacts of implementing the 2030 General Plan would be less than significant. Cumulative paleontological impacts were discussed under Impact 6.5-7 of the 2030 General Plan Master EIR with reference to the same policy (Policy HCR 2.1.15) (p. 6.5-27). The 2030 General Plan Master EIR identifies a potentially significant impact, which is mitigated to a less-than-significant level through implementation of Policy 2.1.15 (p. 6.5-28).

The MTP/SCS EIR concludes that mitigation measures in Chapter 7, including Mitigation Measure CR-4 (which requires project-specific paleontological resource studies to be performed), would minimize the contribution of the MTP/SCS to cumulative impacts to cultural resources. This EIR, including mitigation identified herein, provides the resource studies identified in Mitigation Measure CR-4. The MTP/SCS EIR concludes cumulative cultural resource impacts, including potential cumulative effects on unique paleontological resources, associated with the regional contribution to this impact would be mitigated to acceptable levels (p. 19-21).

Mitigation Measures

Mitigation Measure 4.4-9, which implements General Plan Policy HR 2.1.15 and MTP/SCS EIR Mitigation Measure CR-4, reduces potential impacts from damage to or destruction of unique paleontological resources by requiring paleontological resources training session for all construction personnel and identifying that work shall cease if paleontological resources are discovered, that the resource is evaluated, and that a recover plan is prepared and implemented. Incorporation of this mitigation would ensure that the project would have a **less than cumulatively considerable** contribution to this significant cumulative impact.

Mitigation Measure 4.4-9: Implement Mitigation Measure 4.4-4: Protect or Mitigate Impacts on Paleontological Resources

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4.5 GEOLOGY AND SOILS

This section describes existing geology and soils in the project vicinity and on the project site, as relevant to the proposed project and a brief overview of federal, state, and local laws and regulations pertaining to geology and soils. The analysis describes seismic hazards, soil conditions, and other geotechnical considerations that could affect people and structures on the project site. Included in this section is an overview of the existing environmental conditions, the methods used for assessment, and the impacts of implementing the proposed project. Mitigation measures are proposed to address potentially significant impacts associated with implementation of the proposed project.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to historic soil conditions on the project site, compliance with building code requirements related to earthquakes, and grading. Each of these topics is addressed in this section. Copies of the NOPs and comments received in response are in Appendix B to this EIR.

This section is based, in part, on a geotechnical report prepared for the proposed project. A copy of the *Geotechnical Feasibility Report* prepared by ENGEO, Inc., is included in Appendix E.

Impacts related to paleontological resources are addressed in Section 4.4 of this EIR, “Cultural Resources.”

4.5.1 ENVIRONMENTAL SETTING

REGIONAL GEOLOGY

The project is located in the Sacramento Valley, approximately 0.3-mile east of the Sacramento River in downtown Sacramento. The Sacramento Valley is part of the Great Valley geomorphic province. The Great Valley is a forearc basin,¹ composed of thousands of feet of sedimentary deposits, that has undergone periods of subsidence and uplift over millions of years. Helley and Harwood (1985) indicate that surficial deposits at the project site consist of Holocene alluvium, which is underlain by Pleistocene alluvial deposits at depth. Wagner et al. (1987) indicate that the surficial deposits at the project site are composed of Holocene levee and channel deposits.

FAULTS AND SEISMICITY

The Sacramento Valley has generally not been seismically active and does not fall into an Alquist-Priolo Earthquake Fault Zone. Earthquake Fault Zones are regulatory zones with potential for a future surface fault because they lie within an active fault zone (see also below under the heading, “Regulatory Setting”). Faults with evidence of activity during the last 11,700 years (i.e., “active” faults) are generally located in the Coast Ranges to the west or near Lake Tahoe to the east. The few notable exceptions include the Dunnigan Hills Fault, located approximately 23 miles northwest of the project site, and the Cleveland Hills Fault, located near Lake Oroville approximately 59 miles northeast of the project site (Jennings 1994). However, research conducted by the California Department of Water Resources indicates that the magnitude 5.7 earthquake that occurred on August 1, 1975, along the

¹ A forearc is the region between an oceanic trench and the associated volcanic arc and are found at convergent tectonic margins.

Cleveland Hills Fault, most likely resulted from reservoir-induced stress (DWR 1989). The regionally active faults, their distances from the project site, and the estimated moment magnitudes is presented in Table 4.5-1 and included in Appendix E.

Table 4.5-1 Regionally Active Faults		
Fault Name	Approximate Distance from Project Site (miles)	Maximum Moment Magnitude
Great Valley Segment 4a, Trout Creek	27	6.5
Great Valley Segment 4a, Gordon Valley	30	6.7
Great Valley Segment 3, Mysterious Ridge	31	6.7
Great Valley Segment 5, Pittsburg Kirby Hills	33	6.5
Hunting Creek–Berryessa	39	6.7
Green Valley Connected	39	6.6
West Napa	48	6.5
Greenville Connected	51	6.7
Great Valley Segment 2	55.5	6.3
Mount Diablo Thrust	56.5	6.5
Great Valley Segment 7	58	6.6
Calaveras (combined segments)	59	6.8
Bartlett Springs	59.5	6.9
Hayward–Rodgers Creek (combined segments)	61	7.2
Source: ENGEO 2014, page 3		

The intensity of ground shaking depends on the distance from the earthquake's epicenter to the site, the magnitude of the earthquake, site soil conditions, and the characteristics of the source. Ground motions from seismic activity can be estimated by probabilistic method at specified hazard levels and by site-specific design calculations using a computer model. A preliminary determination that a peak horizontal ground acceleration of 0.34 *g* (where *g* is the percentage of gravity) would be appropriate for use in earthquake-resistant design at the project site was developed (ENGEO 2014). This calculation indicates that a relatively low level of seismic shaking would be expected at the site.

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. The loss of soil strength can result in bearing capacity insufficient to support foundation loads, increased lateral pressure on retaining or basement walls, and slope instability. Based on a review of existing subsurface data near the site, the project site is underlain by soil deposits that could liquefy during a seismic event (ENGEO 2014). Liquefaction-induced settlement could be on the order of several inches or more for the code-prescribed Maximum Considered Earthquake. If not properly designed, liquefaction of soils could also induce down-drag on the pilings that would be installed for the proposed high-rise buildings on the project site.

SOILS

A review of U.S. Natural Resources Conservation Service (NRCS) soil survey data (NRCS 2014) indicates that the project site soils have been classified as “urban land.” Urban land is defined by the NRCS as, “land mostly covered by streets, parking lots, buildings, and other structures of urban areas” (NRCS). NRCS does not provide ratings for this soil type. However, based on the *Geotechnical Feasibility Report*, a review of historic maps of the City of Sacramento shows that the project site was developed with established streets around and through the site by 1854. In response to floods that occurred in 1861 and 1862, the residents of Sacramento elected to raise the City street grades by 8 to 10 feet, which entailed converting the ground floors of many businesses into basements. The earth was moved from locations near the confluence of the American and Sacramento rivers and used to raise city blocks beginning in 1868. Streets east of the Sacramento River to approximately 12th Street were raised. A U.S. Geological Survey topographic map published in 1901 shows the project site at an elevation of 21 feet above mean sea level (amsl). The Sacramento Commons Tentative Map shows that most of the project site has an elevation between approximately 16 and 18 feet amsl.

Based on a review of a foundation report prepared for the existing Capitol Towers structure, it was determined that the project site consists of compressible, sandy, fine-grained soil dating from the 1860s to a depth of approximately 10 feet below ground surface (bgs) (ENGEO 2014). The fill may contain brick fragments, wood, and other debris associated with demolition in place and likely varies in thickness and consistency. Weak and compressible fine-grained soils are present to a depth of 30 to 45 feet bgs, underlain by variable-thickness loose to medium-dense sand. This sand may be liquefiable and has varying thicknesses of approximately 3 to 20 feet. A layer of medium-dense to very dense gravel and sand is anticipated at variable depths ranging from 40 to 60 feet bgs.

The layer of medium-dense to very dense gravel and sand layer is a potential bearing layer for deep foundations, but may be intermittent and variable across the site. This layer could contain cobbles of varying sizes. Some explorations at 601 Capitol Mall encountered a weaker and potentially compressible layer below this denser sand and gravel layer. The foundation report for 500 7th Street describes a similar potentially weak layer below the dense gravel and sand at some locations. Hard silts, clays, and dense sands are generally anticipated below a depth of about 60 feet. This layer is anticipated to be fairly consistent, thick, and suitable for support of deep foundations (ENGEO 2014).

GROUNDWATER

A review of data from groundwater monitoring wells in the project vicinity indicates that the average depth to groundwater in the area is approximately 10 to 15 feet bgs (ENGEO 2014). The subsurface borings and the foundation report for the Capitol Towers building (from 1961) indicate that groundwater was encountered at depths of 15 to 18 feet bgs. The reported high and low groundwater table elevations were tabulated from nearby monitoring wells and determined that the groundwater table at the project site has likely risen to an elevation as shallow as 6 to 8 feet bgs (ENGEO 2014). Because of the project site’s proximity to the Sacramento River, groundwater levels at the project site would be expected to fluctuate.

4.5.2 REGULATORY SETTING

FEDERAL

Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. To accomplish this goal, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was substantially amended in November 1990 by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities, program goals, and objectives.

The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRPA designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies include the National Institute of Standards and Technology, National Science Foundation, and U.S. Geological Survey.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (California Public Resources Code Sections 2621–2630), was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as Earthquake Fault Zones around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. In 2012, 13 Official Maps of new and revised Alquist-Priolo Earthquake Fault Zones were distributed to affected cities and counties (California Geological Survey 2012). This was an update to the same maps prepared and distributed in 2010. There are 36 counties and 105 cities included on the list of communities affected by the zones. Neither Sacramento County nor the City of Sacramento is included on the list (California Geological Survey 2010).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690 to 2699.6), addresses earthquake hazards from non-surface fault rupture, including liquefaction and seismically induced landslides. The act established a mapping program for areas that have the potential for

liquefaction, landslide, strong ground shaking, or other earthquake and geologic hazards. The act also specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

National Pollutant Discharge Elimination System Permit

In California, the State Water Resources Control Board (SWRCB) administers regulations promulgated by the U.S. Environmental Protection Agency (Title 55, Section 47990 of the Code of Federal Regulations) requiring the permitting of stormwater-generated pollution under the National Pollutant Discharge Elimination System (NPDES). In turn, the SWRCB's jurisdiction is administered through nine regional water quality control boards. Under these federal regulations, an operator must obtain a general permit through the NPDES Stormwater Program for all construction activities with ground disturbance of 1 acre or more. The general permit requires the implementation of best management practices (BMPs) to reduce sedimentation into surface waters and to control erosion. One element of compliance with the NPDES permit is preparation of a storm water pollution prevention plan (SWPPP) that addresses control of water pollution, including sediment, in runoff during construction. (See Section 4.8, "Hydrology and Water Quality," for more information about NPDES permits and SWPPPs).

California Building Standards Code

The California Building Standards Commission is responsible for coordinating, managing, adopting, and approving building codes in California. The State of California provides minimum standards for building design through the California Building Standards Code (CBC) (California Code of Regulations Title 24). Where no other building codes apply, Chapter 29 of the CBC regulates excavation, foundations, and retaining walls. The CBC applies to building design and construction in the state and is based on the federal Uniform Building Code used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The CBC has been modified for California conditions with numerous more detailed or more stringent regulations.

The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. The CBC requires an evaluation of seismic design that falls into Categories A–F (where F requires the most earthquake-resistant design) for structures designed for a project site. The CBC philosophy focuses on "collapse prevention," meaning that structures are designed to prevent collapse for the maximum level of ground shaking that could reasonably be expected to occur at a site. Chapter 16 of the CBC specifies exactly how each seismic design category is to be determined on a site-specific basis, through the site-specific soil characteristics and proximity to potential seismic hazards.

Chapter 18 of the CBC regulates the excavation of foundations and retaining walls. This chapter regulates the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. Chapter 18 also regulates analysis of expansive soils and the determination of the depth to groundwater table. For Seismic Design Category C, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading. For Seismic Design Categories D, E, and F, Chapter 18 requires these same analyses plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss,

and lateral movement or reduction in foundation soil-bearing capacity. It also requires measures such as ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these as a part of structural design. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions. Peak ground acceleration must be determined from a site-specific study, the contents of which are specified in CBC Chapter 18.

Finally, Appendix Chapter J of the CBC regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

LOCAL

Sacramento 2030 General Plan

The following goals and policies from the 2030 General Plan (City of Sacramento 2009a) are related to geology and soils.

Goal EC 1.1 Hazards Risk Reduction. Protect lives and property from seismic and geologic hazards and adverse soil conditions.

- ▶ **Policy EC 1.1.1 Review Standards.** The City shall regularly review and enforce all seismic and geologic safety standards and require the use of best management practices (BMPs) in site design and building construction methods.
- ▶ **Policy EC 1.1.2 Geotechnical Investigations.** The City shall require geotechnical investigations to determine the potential for ground rupture, ground-shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present.

Goal ER 1.1 Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American rivers, and their shorelines

- ▶ **Policy ER 1.1.6 Construction Site Impacts.** The City shall continue to require construction contractors to comply with the City's erosion and sediment control and stormwater management and discharge control ordinances.
- ▶ **Policy ER 1.1.7 Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and storm water management and discharge control ordinance.

Sacramento 2035 General Plan

The proposed project was initiated while the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan

sometime in early 2015. The 2035 General Plan is in draft form as of the writing of this document. None of the proposed changes relate to geology and soils goals or policies.

Sacramento City Code

Chapter 15.20 of the City Code adopts the CBC and amends particular sections, where appropriate, to suit the specific conditions within the City. All new construction and modifications to existing structures within the City are subject to the requirements of the Code.

The City's Grading, Erosion, and Sediment Control Ordinance (Chapter 15.88 of the Sacramento City Code) applies to projects where 50 cubic yards or more of soil is excavated and/or disposed. This ordinance requires preparation of a grading plan, erosion and sediment control (ESC) plan, and post-construction erosion and sediment control plan with BMPs, which must be approved by the City. In addition, the City's Stormwater Management and Discharge Control Ordinance (Chapter 13.16 of the Sacramento City Code) requires that projects take steps to minimize and contain sediment and pollutants in stormwater discharges from construction sites.

The code sections noted above are summarized below.

Chapter 15.88.250 Erosion and Sediment Control Plans

The City requires that ESC plans be prepared for all projects to control surface runoff and erosion and to retain sediment and prevent pollution of site runoff during construction-related grading through all final improvements and permanent structures are complete. The ESC plan is required to be prepared and submitted concurrently with the final grading plan.

15.88.260 Postconstruction Erosion and Sediment Control Plan

The City requires a post-construction plan be prepared for all projects to control surface runoff and erosion and retain sediment on site after all planned final improvements and/or structures have been installed or erected. The PC plan shall be prepared and submitted concurrently with the final grading plan and is required to contain a statement of the purpose of the proposed best management practices to be used (post construction) during project operation.

13.16.120 Reduction of Pollutants in Stormwater

Projects that may result in pollutants entering the City's stormwater conveyance system shall be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) that must include an employee training program. In addition, the City requires that any development in the city shall prevent pollutants from entering the stormwater conveyance system and shall require compliance with all applicable federal, state and local laws, ordinances or regulations, including, but not limited to, the City's Grading, Erosion and Sediment Control Ordinance.

13.16.130 Compliance with Best Management Practices

Projects undertaking any activity or use that may cause or contribute to stormwater pollution or contamination, illegal discharges, or nonstormwater discharges shall: (1) comply with best

management practices guidelines or pollution control requirements established or imposed by the City; and (2) properly operate and maintain any treatment control device or other measures utilized on the premises to prevent or reduce, to the maximum extent practicable, stormwater pollution or contamination, illegal discharges or nonstormwater discharges, as required by the City (Ord. 2004-042 § 1).

Department of Utilities

The City of Sacramento Department of Utilities maintains policies and guidelines regarding grading, erosion control, stormwater drainage design, inspection, and permitting with responsibility for several types of permits, including grading and construction permits. The City provides guidance on methods for geotechnical evaluations, which provide recommendations for projects in order to avoid geologic hazards.

4.5.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

Impacts associated with geology and soils were evaluated qualitatively based on available information regarding geology and soils, standard construction practices, building materials, and the duration of project construction. This section is based, in part, on a geotechnical report prepared for the proposed project. A copy of the *Geotechnical Feasibility Report* prepared by EN GEO, Inc., is included in Appendix E.

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, geology and soils impacts are considered significant if the project would:

- ▶ Allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards;
- ▶ Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, or be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property; or
- ▶ Result in substantial soil erosion or the loss of topsoil.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An Initial Study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An Initial Study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process

is often referred to as “scoping out” issues. Below is a summary of how the Sacramento Commons Initial Study was used to focus the scope of the geology and soils analysis for this EIR.

The proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. As described in Chapter 2, “Project Description,” sewer service for the project would be provided through the City’s combined sewer system and flows would be conveyed to the Sacramento Regional Wastewater Treatment Plant for treatment. Thus, no impact related to the use of septic tanks or alternative wastewater disposal systems would occur, and this issue is not discussed further in this EIR. In addition, the project site is located in a flat area, and no potential for landslides exists. Therefore, no impact would occur and this issue is not discussed further in this EIR.

As shown in Figure 6.5-3 of the 2030 General Plan Master EIR, the project site is in an area mapped as “MRZ-1,” which indicates that there is adequate information to indicate that no significant mineral deposits are present, or where it has been determined that little likelihood exists for their presence (City of Sacramento 2009b, page 6.5-13). Therefore, mineral resources are not evaluated further in this EIR.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT 4.5-1 The proposed project could expose people and property to seismic ground shaking and surface fault rupture. *Based on the analysis below, this impact would be less than significant.*

Sacramento is not located in an Alquist-Priolo Earthquake Fault Zone (California Geological Survey [CGS] 2010). The closest fault zoned under the Alquist-Priolo Fault Zone Act is the Green Valley Fault, approximately 42 miles southwest of the project site in an unincorporated area of Solano County (CGS 2012). There are no known faults within or adjacent to the project site and, therefore, surface fault rupture is unlikely.

The closest active fault is located approximately 27 miles west of the project site, along the margin between the Great Valley and the Coast Ranges. The geotechnical report provides a preliminary determination that a peak horizontal ground acceleration of 0.34 *g* (where *g* is the percentage of gravity) would be appropriate for use in an earthquake-resistant design at the project site (see Appendix E). This calculation indicates that a relatively low level of seismic shaking would be expected at the project site. Different types of structures are subject to different levels of damage from seismic activity. Unreinforced masonry buildings and other buildings constructed before 1930 that have not been seismically retrofitted would be most likely to suffer structural failure or collapse as a result of seismic ground shaking. The existing Capitol Towers building, which would remain on the project site, was built in 1966 in compliance with building codes applicable at that time.

Compliance with the CBC and local building codes, grading regulations, and other regulations that are designed to reduce potential seismic risk, would be required of proposed buildings and other proposed structures associated with development at the site. The CBC is based on the federal Uniform Building Code used throughout the United States, modified for California conditions with numerous more detailed or more stringent regulations. The state earthquake protection law requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes and the CBC requires an evaluation of seismic design focused on “collapse prevention,” for the maximum level of

ground shaking that could reasonably be expected to occur at a site. Chapter 16 of the CBC specifies exactly how each seismic design category is to be determined on a site-specific basis. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls and the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. Chapter 18 also regulates analysis of expansive soils and the determination of the depth to the groundwater table. For Seismic Design Category C, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading. For Seismic Design Categories D, E, and F, Chapter 18 requires these same analyses plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also requires measures such as ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these as a part of structural design. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics, consistent with the design earthquake ground motions based upon a site-specific study.

A lead agency may rely on generally applicable development standards to address potential impacts of a proposed project. Existing regulations have been specifically designed to minimize and reduce damage from seismic events and compliance with these existing regulations would ensure the project would be designed and constructed to reduce damage from seismic events to the maximum extent practicable. In addition, compliance with City ordinances set forth in the City Code will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored. Therefore, this is a **less-than-significant** impact.

Mitigation Measures

None required.

IMPACT 4.5-2 The proposed project could expose people and property to subsidence, compression, expansion, and liquefaction of unstable soils. *Based on the analysis below, this impact would be less than significant with mitigation.*

The geotechnical report (ENGEO 2014, Appendix E) indicates that the artificial fill on the project site was placed sometime in the 1860s and may contain brick fragments, wood, and other deleterious debris from demolition activities and may vary in thickness and consistency. The artificial fill may be of insufficient bearing strength for the new buildings and could result in differential settlement under high building loads.

Furthermore, because of the shallow groundwater table at the project site (approximately 10-18 feet bgs), construction dewatering may be required. The water itself can provide physical support to the overlying soils, keeping them from collapsing downward. Groundwater often provides partial support for the near-surface soil materials and, when withdrawn, the soils can slough into the excavation area. This can result in a potential hazard to construction workers. If the dewatering system draws down the water table adjacent to the excavation area, there is a possibility of ground settlement that may undermine

existing foundations on adjacent sites, causing cracking. (Groundwater impacts associated with construction dewatering are addressed in Section 4.8, "Hydrology and Water Quality").

As described above, ENGEO (2014) reviewed a foundation report prepared for the existing Capitol Towers building, which indicated the subsurface soil layers consist of sand, gravel, and artificial fill intermixed with various debris. The geotechnical report determined that because of the project site soil types, the shallow depth to groundwater, and the distance from active seismic sources, the project site may be subject to liquefaction. The geotechnical report contains general recommendations as to the types of construction methods that could be employed to reduce the potential for damage to the structures that would be built as part of the proposed project.

Soils exhibit expansive properties when a high percentage of clay is present that may increase the volume when water is present and decrease when dry. Even if the artificial fill contains a high percentage of clay, much of that material will require removal and replacement with clean fill as part of proposed project construction. The underlying sands and gravels are not subject to expansion because they do not contain clay.

Impacts associated with liquefaction were analyzed in Impact 6.5-1 of the 2030 General Plan Master EIR (p. 6.5-20). The analysis presented in the Master EIR supported findings that all projects in the City are required by law to design and construct new development in accordance with the CBC and that the provisions contained in the CBC have been specifically designed to reduce the risk to people and structures from secondary effects associated with seismic hazards, such as liquefaction. Impacts associated with unstable and expansive soils were analyzed in Impact 6.5-2 of the 2030 General Plan Master EIR (City of Sacramento 2009b, p. 6.5-21). The analysis determined that new structures and facilities could be exposed to geologic hazards associated with unstable soil conditions such as expansive soils and subsidence. The analysis found that subsidence has been observed in the City (specifically in downtown Sacramento near Interstate 5, which is located approximately 1,700 feet west of the center of the project site), and that subsidence or settlement may also occur locally over smaller areas near construction dewatering activities. The analysis also found that as part of the construction permitting process, the City requires completed reports of soil conditions at the construction sites to identify potentially unsuitable soil conditions: liquefaction, settlement, subsidence, lateral spreading, and collapse.

The City requires that these evaluations be conducted by registered soil professionals and incorporate measures to eliminate unstable soil conditions. Furthermore, the design of foundations and excavation-wall support must conform to the requirements contained in the CBC. General Plan Policy EC 1.1.2 requires preparation of a geotechnical investigation for any project within City limits to determine site-specific soil characteristics and recommends appropriate measures to reduce any potential adverse effects. General Plan Policy EC 1.1.1 requires the City to review proposed development to ensure that appropriate design and operational practices would be implemented and BMPs are incorporated in site design and building construction methods. In addition, the project is required to comply with the Chapter 13.16.130 of the City Code, which requires BMPs be included both during and after construction. The project applicant has complied with Policy EC 1.1.2 and prepared a Geotechnical Report to determine the soil conditions and to provide any recommendations to address any potentially

unstable conditions to ensure the project is designed and constructed to reduce the potential for building damage in the event of an earthquake.

Due to the findings in the geotechnical analysis and because project site soil conditions require site-specific design-level analysis to reduce seismic hazards per the CBC and local building codes, this impact would be **potentially significant**.

Mitigation Measures

The 2030 General Plan requires the incorporation of BMPs in site design and building construction method and geotechnical investigations to determine the potential for ground rupture, ground-shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present. The mitigation measure outlined below requires a licensed geotechnical consultant to prepare a design-level geotechnical report for City review and approval to address potential site-specific soil stability issues in consideration of building-specific design coefficients. Furthermore, project design and construction is required to comply with the CBC, which contains provisions specifically designed to regulate and reduce hazards from construction in unstable soils. Mitigation Measure 4.5-2 is designed to implement 2030 General Plan Policies EC 1.1.1 and EC 1.1.2 and the impact is considered **less than significant with mitigation**.

Mitigation Measure 4.5-2: Prepare a Final, Design-Level Geotechnical Report and Implement Recommendations Contained in the Report.

Before building permits are issued and construction activities begin on any project development phase, the project applicant shall retain a licensed geotechnical engineer to prepare a final, design-level geotechnical report for the proposed facilities. The final geotechnical report shall be prepared in accordance with generally accepted geotechnical engineering practices and shall address all California Building Code requirements. The final geotechnical report shall be submitted for review and approval to the City of Sacramento Department of Utilities. The final geotechnical report shall address and make recommendations on:

- seismic design parameters;
- building specific design coefficients;
- seismic ground shaking;
- liquefaction;
- dewatering;
- expansive/unstable soils;
- soil bearing capacity;
- appropriate sources, depth, and types of fill;
- structural foundations;
- soil corrosion of concrete and steel; and
- pavement and parking areas.

Based on the information above, the geotechnical investigation shall set forth the required type and sizing of structural materials required for each newly constructed building and any necessary engineering practices to address site-specific soil conditions. In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include site-specific subsurface testing of soil and groundwater conditions. Final designs shall be

consistent with the version of the California Building Code that is applicable at the time building and grading permits are applied for as well as standard, accepted, and proven engineering practices used throughout the Sacramento area to address potential site-specific soil conditions. Such engineering practices may include, but are not limited to the following:

- removal of any deleterious materials within the fill and potential recompaction of the soil;
- shoring of trenches during construction dewatering as required by the federal Occupational Safety and Health Administration, waterproofing of underground structures, and installation of subdrains;
- construction of high-rise buildings on deep foundations; and
- construction of low- to mid-rise buildings on mat foundations with ground improvements.

All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicant. Special recommendations contained in the geotechnical engineering report shall be noted on the grading plans and implemented, as appropriate, before construction begins. The project applicant shall be required to perform an engineering inspection to certify that earthwork has been completed in conformity with recommendations contained in the geotechnical report and requirements determined by the City.

IMPACT 4.5-3 The proposed project could create soil erosion or loss of topsoil. *Based on the analysis below, the impact would be less than significant.*

The proposed project would entail redevelopment of an area with limited topsoil and would result in earthmoving activities on the 10.13-acre project site. Based on the current project design, the project is estimated to require approximately 48,093 cubic yards of excavated material (Wood Rodgers 2014). If not managed properly, project construction activities—grading, staging, use of stockpiles, trenching, and foundation excavation—would expose soils to erosive forces and could transport sediment into the drainage system (and ultimately into the Sacramento River, which is approximately 2,100 feet west of the center of the project site). These effects could increase turbidity, degrade water quality, and result in siltation to local waterways. The runoff could cause erosion and could increase sedimentation and transport of pollutant sources to storm drain systems and water courses away from the project area. Erosion has the potential to temporarily degrade existing water quality and beneficial uses by altering the dissolved oxygen content, temperature, pH, suspended sediment and turbidity levels, or nutrient content, or by causing toxic effects in the aquatic environment. Therefore, if uncontrolled, project-related construction activities could result in erosion or siltation. If project activities are implemented without proper procedures and design measures, soil erosion and loss of topsoil could occur, leading to sediments being transported to storm drains, potentially reducing water quality in receiving waters or causing siltation that could alter drainage ways or directly harm aquatic organisms.

However, the project would be required to comply with existing regulations that are designed to reduce erosion and related impacts. Existing regulations require that grading, erosion, and sediment control plans be prepared and implemented in accordance with the City's grading and stormwater control

ordinances. These regulations also require the project applicant to prepare and implement a SWPPP in compliance with the City's NPDES permit and to implement BMPs designed to reduce erosion.

The project would need a grading permit, which would require submittal of a grading plan, erosion and sediment control plan, and post-construction erosion and sediment control plan for review and approval by the City, according to the requirements of Chapter 15.88 of the Sacramento City Code. In order to obtain coverage under the SWRCB's Construction General Permit (NPDES No. CAS000002 Order No. 2009-0009-DWQ), the project would require preparation and submittal of a project-specific SWPPP at the time the notice of intent to discharge is filed. The project would also require erosion and sediment control and engineering plans and specifications for pollution prevention, which are designed to identify effective sediment control measures for both construction and operational phases of the project, based on site-specific characteristics.

Compliance with the above-referenced existing regulations would implement MTP/SCS Program EIR Mitigation Measure GEO-1, which suggests that projects comply with erosion control measures identified in a SWPPP (SACOG 2011, p. 9-29). Compliance with the above-referenced existing regulations would also implement 2030 General Plan Policy ER 1.1.6, which commits the City to requiring that projects comply with the City's erosion and sediment control and stormwater management and discharge control ordinances.

The proposed project would be developed in a manner that ensures that impacts from soil erosion would be less than significant. Existing regulations require that grading, erosion, and sediment control plans be prepared and implemented in accordance with the City's grading and stormwater control ordinances (Chapters 15.88 Grading, Erosion and Sediment Control and 13.16 Stormwater Management and Discharge Control). Existing regulations also require the project applicant to prepare and implement a SWPPP in compliance with the City's NPDES permit and to implement BMPs designed to reduce erosion. Compliance with City ordinances set forth in the City Code will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored. Therefore, the project's impact on erosion and loss of topsoil would be **less than significant**.

Mitigation Measures

None required.

4.5.4 CUMULATIVE IMPACT DISCUSSION

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG's MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been

adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

Public Resources Code, Section 21155.2 (c)(1) provides that, “where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]” (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the cumulative discussion below.

For geology and soils impacts, the geographic scope for the cumulative analysis is the City’s Policy Area, as depicted in the 2030 General Plan.

IMPACT 4.5-4 Cumulative impacts related to exposure to seismic ground shaking and surface fault rupture and potential for subsidence, compression, expansion, and liquefaction of unstable soils. *This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact.*

Soil and geologic conditions are site-specific and there is little, if any, cumulative relationship between implementation of the proposed project and past, present, and future projects in the Sacramento region. Adherence to relevant plans, codes, and regulations with respect to project design and construction would reduce project-specific and cumulative geologic impacts to a less-than-significant level. Since geologic hazards are site-specific, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not create a potentially significant cumulative impact relative to geologic hazards. The MTP/SCS EIR did not identify any significant geologic, soils or seismicity cumulative effects.

The 2030 General Plan Master EIR found that soil and geologic conditions are site-specific and there is little, if any, cumulative relationship between implementation of the General Plan and cumulative actions in other jurisdictions throughout the region. The General Plan Master EIR found that, since geologic hazards are site-specific, the General Plan, in combination with other past, present, and reasonably foreseeable future projects, would not create a potentially significant cumulative impact on geological resources (p. 6.5-26). Therefore, there is **no cumulative impact** and the proposed project does not have the potential to result in a cumulatively considerable contribution to a potentially significant cumulative impact relating to seismic ground shaking and surface fault rupture and potential for subsidence, compression, expansion, and liquefaction of unstable soils.

Mitigation Measures

None required.

IMPACT 4.5-5 Cumulative impacts related to soil erosion or loss of topsoil. *This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact.*

Analysis of erosion impacts focuses on the geotechnical effects of erosion related to specific project development. As with geologic hazards impacts, these are site-specific effects and would not combine with other similar projects to create a cumulative impact. The MTP/SCS EIR did not identify any significant geologic, soils, or seismicity cumulative effects.

The 2030 General Plan Master EIR found that, since the specific geotechnical characteristics of each project site can vary considerably, each project within the General Plan Policy Area would require the preparation of a site-specific geotechnical investigation that would evaluate each site and recommend measures to prevent erosion, as appropriate. Compliance with Chapter 15.88 of the Sacramento Municipal Code, also known as the Grading Ordinance, requires that an Erosion and Sediment Control Plan must be prepared for each project within the General Plan Policy Area prior to the commencement of grading.

General Plan Policy ER 1.1.6 requires all construction contractors comply with the City's erosion and sediment control and stormwater and discharge control ordinances during site development activities. During project construction, City staff from the appropriate department (e.g., building or utilities) routinely visit construction sites to ensure compliance with required building requirements. Thus, erosion during project construction and project operation for development within the Policy Area would be controlled. With implementation of all required regulations and preparation of Erosion and Sediment Control Plans, and geotechnical investigations, the City found in the General Plan Master EIR that projects developed under the proposed General Plan would have a less-than-significant impact. For this reason, cumulative geotechnical erosion impacts were not evaluated in the General Plan Master EIR (p. 6.5-26) and there is **no cumulative impact**. Therefore, the proposed project does not have the potential to result in a cumulatively considerable contribution to a potentially significant cumulative impact relating to soil erosion or loss of topsoil.

Mitigation Measures

None required.

4.6 GREENHOUSE GAS EMISSIONS AND ENERGY

This section addresses greenhouse gas (GHG) emissions in the project vicinity and relevant to the proposed project and impacts of the project related to energy efficiency. The analysis describes the existing environmental conditions, the methods used for assessment, and the impacts of implementing the proposed project. Mitigation measures are proposed to address potentially significant impacts associated with implementation of the proposed project. This section also provides a brief overview of relevant federal, state, and local laws and regulations. The analysis is conducted using guidance provided by the City of Sacramento and Sacramento Metropolitan Air Quality Management District, and the land use development model, California Emissions Estimator Model Version 2013.2.2 (CAPCOA 2013).

GHG emissions have the potential to adversely affect the environment because they can contribute, on a cumulative basis, to global climate change. GHG emissions are recognized by this EIR as a potential cumulative impact because although the emissions of one single project would not cause global climate change, GHG emissions from multiple projects could result in a cumulative impact to noticeably change the global average temperature.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to GHG sequestration and emissions. Copies of the NOPs and comments received in response are included in Appendix B.

4.6.1 ENVIRONMENTAL SETTING

GREENHOUSE GASES

GHGs play a critical role in determining the earth's surface temperature. A portion of the solar radiation that enters the earth's atmosphere is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space. This infrared radiation (i.e., thermal heat) is absorbed by GHGs within the earth's atmosphere. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on the earth.

GHGs are present in the atmosphere naturally, are released by natural and anthropogenic (human-caused) sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals and plants; decomposition of organic matter; volcanic activity; and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels by stationary and mobile sources, waste treatment, and agricultural processes. The following GHGs are widely accepted as the principal contributors to human-induced global climate change:

- ▶ carbon dioxide (CO₂),
- ▶ methane,
- ▶ nitrous oxide,
- ▶ hydrofluorocarbons (HFCs),

- ▶ perfluorocarbons (PFCs),
- ▶ sulfur hexafluoride, and
- ▶ nitrogen trifluoride.¹

Natural sources of CO₂ include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; and evaporation from oceans; anthropogenic sources include burning of coal, oil, natural gas, and wood. Methane is the main component of natural gas and is associated with agricultural practices and landfills. Nitrous oxide is a colorless GHG that results from industrial processes, vehicle emissions, and agricultural practices. HFCs are synthetic chemicals used as a substitute for chlorofluorocarbons in automobile air conditioners and refrigerants. PFCs are produced as a byproduct of various industrial processes associated with aluminum production and the manufacturing of semiconductors. Sulfur hexafluoride is an inorganic, odorless, colorless, nontoxic, nonflammable GHG used for insulation in electric power transmission and distribution equipment and in semiconductor manufacturing. Nitrogen trifluoride is used in the electronics industry during the manufacturing of consumer items, including photovoltaic solar panels and liquid-crystal-display (i.e., LCD) television screens.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO₂. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the gas's "atmospheric lifetime" (the length of time that the gas remains in the atmosphere). The reference gas for GWP is CO₂, which has a GWP of 1. The GWPs of other GHG pollutants are then determined relative to CO₂. For example, the other main GHGs that have been attributed to human activity include methane, which has a GWP of 21, and nitrous oxide, which has a GWP of 310 (IPCC 2007). Thus, 1 ton of methane has the same contribution to the greenhouse effect as approximately 21 tons of CO₂. GHGs with lower emission rates than CO₂ may still contribute to climate change because they are more effective at absorbing outgoing infrared radiation than CO₂ (i.e., they have a high GWP). The concept of CO₂ equivalents (CO₂e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

GHG emissions related to human activities have been determined to be highly likely responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's atmosphere and oceans, with corresponding effects on global circulation patterns and climate (IPCC 2007). Similarly, accumulation and effects of GHGs are borne globally, as opposed to the more localized air quality effects of criteria air pollutants and toxic air contaminants. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; however, no single project alone is expected to measurably contribute to a noticeable incremental change in the global average temperature or to a global climate, local climate, or microclimate.

TRENDS OF CLIMATE CHANGE

Warming of the climate system is considered to be unequivocal, with global surface temperature increasing by approximately 0.3 to 0.6 degree Celsius (°C) over the last 100 years (IPCC 2013). Because GHGs have an atmospheric residence of up to 200 years, continued warming is projected to

¹ Nitrogen trifluoride is recognized by the State of California as a GHG (California Health and Safety Code, Section 38505[g]).

increase the global average temperature by an average of 0.3°C per decade over the next 100 years (IPCC 2013).

The causes of this warming have been identified as both natural processes and human actions. The Intergovernmental Panel on Climate Change concluded that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the warming from preindustrial times to 1950 and had a small cooling effect afterward. However, since 1950, increasing GHG concentrations resulting from human activity, such as fossil fuel burning and deforestation, have been determined with 95% certainty to be responsible for most of the observed temperature increase (IPCC 2013).

EFFECTS OF CLIMATE CHANGE

During the same period when increased global warming has occurred, many other changes have occurred or are predicted to occur in other natural systems. Sea levels have risen; precipitation patterns throughout the world have shifted, with some areas becoming wetter and others drier; snowlines can rise, resulting in changes to the snowpack, runoff, and water storage; increased drought and wildfire risks; and numerous other conditions have been observed. Although it is difficult to prove a definitive cause-and-effect relationship between global warming and other observed changes to natural systems, there is a high level of confidence in the scientific community that these changes are a direct result of increased global temperatures caused by the increased presence of GHGs in the atmosphere (IPCC 2007).

According to the *City of Sacramento Climate Action Plan* (City of Sacramento 2012), climate change is expected to affect the Sacramento region in the following ways:

- ▶ variable precipitation patterns, with the possibility of reduced average rainfall;
- ▶ reduced snowpack and snowline at higher elevations;
- ▶ earlier, hotter, more frequent, and longer heat waves;
- ▶ more frequent and extreme storm events and associated flood risk;
- ▶ diminished air quality:
- ▶ sea level rise–induced levee failure, leading to critical infrastructure damage in the Sacramento–San Joaquin Delta;
- ▶ increased pressure on water supplies and diminished water quality;
- ▶ increased climate-related illnesses (from factors such as extreme heat, air quality, and disease-bearing vectors);
- ▶ loss of natural habitat and agricultural productivity; and
- ▶ compromised energy supply and security.

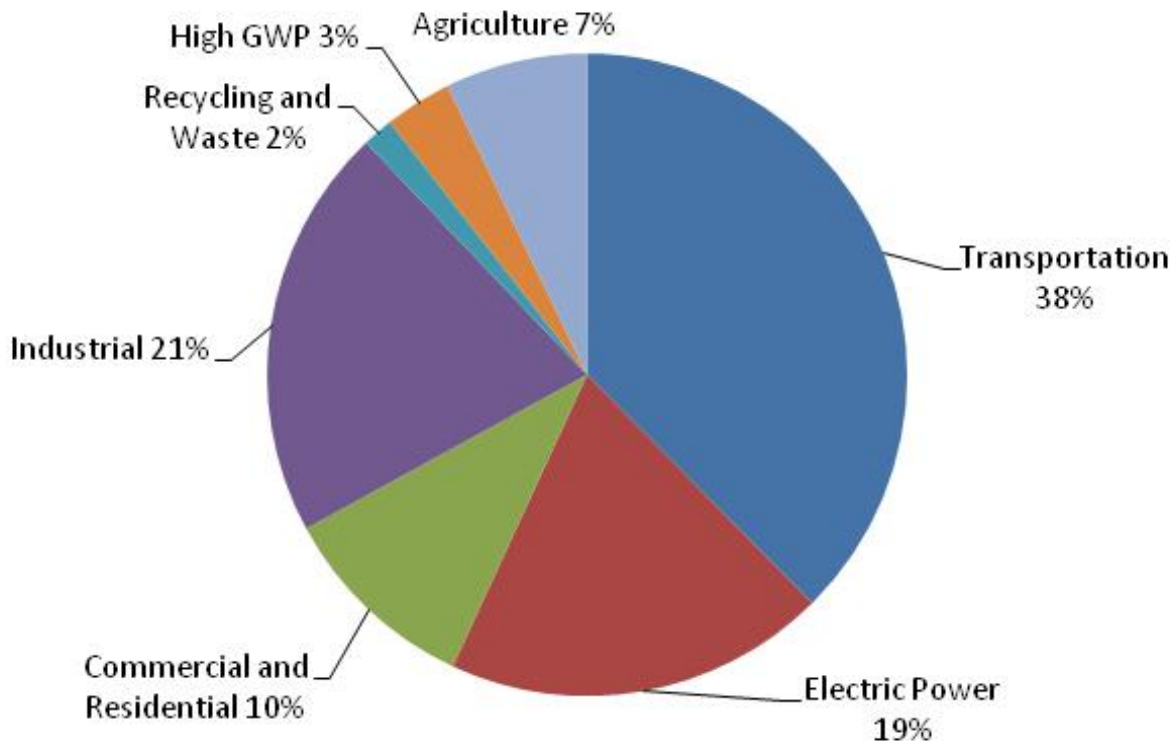
GREENHOUSE GAS EMISSION SOURCES

GHG emissions contributing to global climate change are attributable in large part to human activities. To account for and regulate GHG emissions, sources of GHG emissions are grouped into emission categories. The California Air Resources Board (ARB) identifies the following categories, which account for most anthropogenic GHG emissions generated in California:

- ▶ *Transportation:* On-road motor vehicles, recreational vehicles, aviation, ships, and rail
- ▶ *Electric Power:* Use and production of electrical energy
- ▶ *Industrial:* Mainly stationary sources (e.g., boilers and engines) associated with process emissions
- ▶ *Commercial and Residential:* Area sources, such as landscape maintenance equipment, fireplaces, and consumption of natural gas for space and water heating
- ▶ *Agriculture:* Agricultural sources that include off-road farm equipment; irrigation pumps; crop residue burning (CO₂); and emissions from flooded soils, livestock waste, crop residue decomposition, and fertilizer volatilization (methane and nitrous oxide)
- ▶ *High-GWP Gases:* Refrigerants for stationary- and mobile-source air conditioning and refrigeration, electrical insulation (e.g., sulfur hexafluoride), and various consumer products that use pressurized containers
- ▶ *Recycling and Waste:* Waste management facilities and landfills, primarily CO₂ emissions from combustion and methane from landfills and wastewater treatment

STATE GREENHOUSE GAS EMISSIONS INVENTORY

ARB performs an annual GHG inventory for emissions of the major GHGs. As shown in Figure 4.6-1, California produced 448.1 million metric tons (MMT) of CO₂e in 2011 (ARB 2013). Combustion of fossil fuels in the transportation category was the single largest source of California's GHG emissions in 2011, accounting for 38% of total GHG emissions in the state. The transportation category was followed by the industrial category, which accounts for 21% of total GHG emissions in California, and the electric power category (including in- and out-of-state sources), which accounts for 19% of the state's total GHG emissions (ARB 2013).



Source: ARB 2013

Figure 4.6-1

2011 California Greenhouse Gas Emissions by Category

4.6.2 REGULATORY SETTING

FEDERAL

U.S. Environmental Protection Agency “Endangerment” and “Cause or Contribute” Findings

In *Massachusetts v. Environmental Protection Agency et al.*, 12 states and cities (including California) along with several environmental organizations sued to require U.S. Environmental Protection Agency (EPA) to regulate GHGs as pollutants under the Clean Air Act (CAA) (127 S. Ct. 1438 [2007]). The United States Supreme Court ruled that GHGs fit within the CAA’s definition of a pollutant and that EPA had the authority to regulate GHGs. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- ▶ *Endangerment Finding:* The current and projected concentrations of the six key GHGs—CO₂, methane, nitrous oxide, HFCs, PFCs, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- ▶ *Cause or Contribute Finding:* The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

U.S. Environmental Protection Agency Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year 2008 Consolidated Appropriations Act (House of Representatives Bill 2764; Public Law 110-161), which required EPA to develop "...mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy...." The Reporting Rule applies to most entities that emit 25,000 metric tons of CO₂e or more per year. Since 2010, facility owners have been required to submit an annual GHG emissions report with detailed calculations of the facility's GHG emissions. The Reporting Rule also mandates compliance with recordkeeping and administrative requirements to enable EPA to verify annual GHG emissions reports.

STATE

The legal framework for GHG emission reductions has come about through governors' executive orders, legislation, and regulation. The major components of California's climate change initiative are reviewed below.

California Air Resources Board

ARB is responsible for maintaining GHG emissions inventories for the state, which are used to monitor the state's ability to meet the GHG emission reduction targets of Assembly Bill 32 (described further below). ARB is also required to develop the AB 32 Scoping Plan and its updates, which are the blueprints for how the state will achieve its GHG reduction targets. With respect to land use development projects, ARB is tasked with setting regional GHG reduction targets for passenger vehicles pursuant to Senate Bill 375 (described further below).

Executive Order S-3-05

Executive Order S-3-05, issued in recognition of California's vulnerability to the effects of climate change, set forth the following target dates by which statewide GHG emissions would be progressively reduced: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80% below 1990 levels.

Assembly Bill 32

In 2006, the California Legislature passed Assembly Bill (AB) 32 (California Health and Safety Code Section 38500 et seq.), also known as the Global Warming Solutions Act. AB 32 requires ARB to design and implement feasible and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020. AB 32 anticipates that the GHG reduction goals will be met, in part, through local government actions. ARB has identified a GHG reduction target of 15% from current levels (i.e., levels as of 2005) for local governments (municipal and communitywide). As noted by ARB, successful implementation of the plan relies on local governments' land use planning and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions.

Climate Change Scoping Plan

Pursuant to AB 32, ARB adopted the *Climate Change Scoping Plan* (Scoping Plan) in December 2008, outlining measures to meet the 2020 GHG reduction goals. To meet these goals, California must reduce its GHG emissions by 30% below projected 2020 business-as-usual emissions levels, or about 15% from today's levels (i.e., levels as of 2005). The Scoping Plan recommends measures that are worth studying further, and that the State of California may implement, such as new fuel regulations. It estimates that a reduction of 174 MMT of CO₂e (about 191 million U.S. tons) from the transportation, energy, agriculture, forestry, and other sources could be achieved should the state implement all of the measures in the Scoping Plan. The Scoping Plan relies on the requirements of Senate Bill (SB) 375 (discussed below) to implement the carbon emission reductions anticipated from land use decisions.

ARB is required to update the Scoping Plan at least once every 5 years to evaluate progress and develop future inventories that may guide this process. ARB released *First Update to the Climate Change Scoping Plan: Building on the Framework* in May 2014 (ARB 2014).

Executive Order S-1-07

Executive Order S-1-07 acknowledges that the transportation sector is the main source of GHG emissions in California. The order established a goal of reducing the carbon intensity of transportation fuels sold in California by a minimum of 10% by 2020. It also directed ARB to determine whether this Low Carbon Fuel Standard could be adopted as a discrete, early-action measure after meeting the mandates in AB 32. ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

Senate Bill 97

SB 97, enacted in August 2007, recognizes climate change as a prominent environmental issue that requires analysis under CEQA. On December 30, 2009, the Natural Resources Agency adopted amendments to the State CEQA Guidelines, as required by SB 97. These State CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The amendments became effective March 18, 2010.

Senate Bills 1078 and 107 and Executive Orders S-14-08 and S-21-09

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In February 2014, the California Public Utilities Commission (CPUC) reported that California's three large investor-owned utilities (IOUs) (i.e., Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric) collectively provided 22.7% of their 2013 retail electricity sales using renewable sources and are continuing progress toward future 2020 requirements (CPUC 2014).

Executive Order S-14-08 expanded the state's Renewable Portfolio Standard to 33% renewable power by 2020. Executive Order S-21-09 directs ARB under its AB 32 authority to enact regulations to help the state meet its Renewable Portfolio Standard goal of 33% renewable energy by 2020.

The 33%-by-2020 goal and requirements were expanded in April 2011 with SB 2 (1X) by requiring CPUC to biennially report the status of RPS procurement, including status of permitting and siting, projected ability to meet RPS goals, and identify barriers and recommendations on how to best achieve RPS requirements. This new Renewable Portfolio Standard applies to all electricity retailers in the state, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. Consequently, the Sacramento Municipal Utility District, which would be the electricity provider for the proposed project, must meet the 33% goal by 2020. All of these entities must adopt the new Renewable Portfolio Standard goals of 20% of retail sales from renewables by the end of 2013 and 25% by the end of 2016.

Senate Bill 375

In addition to policy directly guided by AB 32, the Legislature in 2008 passed SB 375, which provides for regional coordination in land use and transportation planning and funding to help meet the AB 32 GHG reduction goals. SB 375 aligns regional transportation planning efforts, regional GHG emissions reduction targets, and land use and housing allocations. SB 375 requires regional transportation plans developed by the state's 18 metropolitan planning organizations, including the Sacramento Area Council of Governments (SACOG), to incorporate a "sustainable communities strategy" that will achieve GHG emission reduction targets set by ARB. SB 375 also includes provisions for streamlined CEQA review for some infill projects. For example, the Sustainable Communities Environmental Assessment was created by SB 375 to provide streamlining benefits for qualifying transit-oriented infill development projects. SACOG's *Metropolitan Transportation Plan/Sustainable Communities Strategy for 2035* (the MTP/SCS) was adopted on April 19, 2012. SACOG's MTP/SCS calls for meeting and exceeding ARB's GHG reduction goals for passenger vehicles and light-duty trucks of 7% by 2020 and 16% by 2035, where 2005 is the baseline year for comparison (SACOG 2012).

In addition, SB 375 establishes several CEQA streamlining benefits for qualifying residential or mixed-use residential infill projects. For example, an environmental document prepared pursuant to CEQA for a residential or mixed-use residential project that is consistent with the use designation, density, building intensity, and applicable policies specified for the project area in SACOG's MTP/SCS is not required to reference, describe, or discuss growth-inducing impacts, or any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network (Public Resources Code, Section 21159.28[a]).

California Green Building Standards Code

In January 2010, the State of California adopted the California Green Building Standards Code (CALGreen Code), which establishes mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. These standards include a mandatory set of minimum guidelines, as well as more rigorous voluntary measures, for new construction projects to achieve specific green building performance levels. This code went into effect as part of local jurisdictions' building codes on January 1, 2011. The 2013 update to the code has been adopted and became effective January 2014.

REGIONAL AND LOCAL

SACOG Sustainable Communities Strategy

In April 2012, SACOG, the designated MPO for the Sacramento region, adopted MTP/SCS (SACOG 2012). Building on prior plans including the Blueprint Growth Strategy discussed below and the 2008 MTP, the SCS accommodates future growth through a more compact land use pattern largely within the region's current development footprint, emphasizes operational improvements over new roadway capacity projects, and reflects other factors that have tended to reduce motor vehicle use. The SCS demonstrates that, if implemented, the region will achieve a 9% per-capita GHG reduction in passenger vehicle emissions in 2020 and a 16% reduction in 2035. These reductions meet the targets for SACOG of 7% and 16% per-capita GHG reduction from 2005 for the years 2020 and 2035, respectively, established by CARB. In June 2012, CARB issued an Acceptance of GHG Quantification Determination for the SACOG SCS, indicating that ARB concurs with SACOG's quantification of GHG emission reductions from the final MTP/SCS and its determination that the SCS would achieve the 2020 and 2035 targets established by CARB.

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is tasked with attaining and maintaining ambient air quality standards within the project region. As part of their responsibilities, SMAQMD also provides guidance for how GHG emissions should be evaluated in CEQA analyses. In November 2014, SMAQMD established numeric thresholds of significance for construction and operational-related GHG emissions (SMAQMD 2014a). See Chapter 4.2, "Air Quality" for a more detailed description of SMAQMD.

Sacramento 2030 General Plan

Appendix B to the 2030 General Plan contains a list of policies from each of the 2030 General Plan elements that have some relationship to climate change. This full list of 2030 General Plan policies related to climate change is included in Appendix F of this EIR. The following goal and policies from the 2030 General Plan are related to GHG emissions and energy efficiency.

Goal ER 6.1 Improved Air Quality. Improve the health and sustainability of the community through improved regional air quality and reduced greenhouse gas emissions that contribute to climate change.

- ▶ **Policy ER 6.1.7 Greenhouse Gas Reduction Goal.** The City shall work with the California Air Resources Board to comply with statewide greenhouse gas reduction goals as established in the Global Warming Solutions Act of 2006 for 2020 and any subsequent targets.
- ▶ **Policy ER 6.1.8 Citywide Greenhouse Gas Assessment.** The City shall comply with pertinent State regulations to assess citywide greenhouse gas emissions for existing land uses and the adopted General Plan buildout.
- ▶ **Policy ER 6.1.9 Greenhouse Gas Reduction in New Development.** The City shall reduce greenhouse gas emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting

development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio in each community; and other methods of reducing emissions.

- ▶ **Policy ER 6.1.11 Coordination with SMAQMD.** The City shall coordinate with SMAQMD to ensure projects incorporate feasible mitigation measures if not already provided for through project design.
- ▶ **Policy ER 6.1.14 Zero-Emission and Low-Emission Vehicle Use.** The City shall encourage the use of zero-emission vehicles, low-emission vehicles, bicycles and other non-motorized vehicles, and car-sharing programs by requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.

Goal U.6.1 Adequate Level of Service. Provide for the energy needs of the City and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

- ▶ **Policy U 6.1.5 Energy Consumption per Capita.** The City shall encourage residents and businesses to consume 25 percent less energy by 2030 compared to the baseline year of 2005.
- ▶ **Policy U 6.1.7 Solar Access.** The City shall ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize solar access.

Goal LU 2.6 City Sustained and Renewed. Promote sustainable development and land use practices in both new development, reuse, and reinvestment 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 2.6.6 Efficiency through Density.** The City shall support an overall increase in average residential densities throughout the city consistent with the adopted General Plan Land Use & Urban Form Diagram, as new housing types shift from lower-density, large lot developments to higher-density, small lot and multifamily developments as a means to increase energy efficiency, conserve water, and reduce waste.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. The 2035 General Plan is in draft form as of the writing of this document. According to the draft 2035 General Plan Master EIR, a full list of sustainability-related policies and implementation programs is provided in Appendix F to the draft 2035 General Plan Master EIR (p. 4.14-3). The following new policy related to GHG emissions have been added as a part of the draft 2035 General Plan:

- ▶ **Policy ER 6.1.9 Climate Change Assessment and Monitoring.** The City shall continue to assess and monitor performance of GHG emissions reduction efforts beyond 2020, progress toward

meeting long-term GHG emission reduction goals, the effects of climate change, and the levels of risk in order to plan a community that can adapt to changing climate conditions and be resilient to negative changes and impacts.

City of Sacramento Climate Action Plan

On February 14, 2012, to directly address the issue of climate change and GHG emissions, the City adopted its climate action plan (CAP) (City of Sacramento 2012). The intent of the CAP is to identify the nature of GHG emissions in the city and to implement policies, actions, and measures to reduce existing and future GHG emissions. A baseline GHG emissions inventory for the year 2005 was performed as part of the CAP development process. The baseline inventory determined that the city of Sacramento generated approximately 4.1 MMT of CO₂e in 2005.

The CAP established GHG emissions reduction goals of 15% below 2005 levels by the year 2020, 38% below 2005 levels by the year 2030, and 83% below 2005 levels by the year 2050. To accomplish these GHG reduction goals, the CAP has developed strategies and measures that relate to the following topics of GHG reduction:

- ▶ Strategy 1: Sustainable Land Use
- ▶ Strategy 2: Mobility and Connectivity
- ▶ Strategy 3: Energy Efficiency and Renewable Energy
- ▶ Strategy 4: Waste Reduction and Recycling
- ▶ Strategy 5: Water Conservation and Wastewater Reduction
- ▶ Strategy 6: Climate Change Adaptation
- ▶ Strategy 7: Community Involvement and Empowerment

Sacramento's CAP meets the requirements of State CEQA Guidelines Section 15183.5. Therefore, it is a "qualified CAP" that can be used to streamline CEQA review when projects are determined to be consistent with the CAP. The proposed project has been evaluated for its consistency with the CAP's strategies and measures, as discussed below in Methods of Analysis and Impact 4.6-1.

The City uses a checklist to evaluate project consistency with the CAP (see Appendix F for more detail).

4.6.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

The issue of global climate change is inherently a cumulative issue as the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the proposed project's impact to climate change is addressed only as a cumulative impact; a separate cumulative section is not included in the impact analysis.

In February 2012, the City developed the CAP to reduce GHG emissions pursuant to AB 32. Using the City's CAP Consistency Review Checklist as a guide, this analysis evaluates whether the proposed project would comply with the City's Climate Action Plan. A "yes" or "not applicable" response to each of the CAP Consistency Review Checklist questions would result in a determination that the proposed

project complies with the City's Climate Action Plan. A "no" response demonstrates the proposed project is not fully compliant with the City's CAP and additional analysis would be required. The project complies with the City's CAP, as shown in the CAP Checklist included in Appendix F.

CEQA Guidelines Section 15183.5 provides a procedure for the analysis and mitigation of GHG emissions through the preparation and implementation of a climate action plan that satisfies specific requirements. The City prepared the CAP with the intention that the CAP would implement the climate change-related General Plan policies and would qualify under Section 15183.5 as a plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. Projects that demonstrate consistency with the CAP would not result in an increase in GHG emissions beyond what the City has identified and mitigated for in the CAP and the impact would be less than significant.

As recommended by the SMAQMD, the proposed project's construction and operational GHG emissions were modeled using the same methods and assumptions as those for air quality emissions (see Appendix C for detailed modeling outputs and assumptions). CalEEMod Version 2012.2.2 can estimate GHG emissions in units of metric tons (MT) of CO₂e from construction-related sources and operational activities. Construction-related GHG emissions include those from heavy-duty construction equipment, on-road material haul trucks, and construction worker vehicles. For operational emissions, in addition to mobile, area, and energy (e.g., electricity and natural gas) sources, CalEEMod also estimates indirect GHG emissions associated with electricity consumption, water consumption, and solid waste disposal. Trip generation rates for the existing and proposed land uses were obtained from the traffic study prepared for the proposed project, which is included its entirety in Appendix H. However, as discussed in Chapter 2, "Project Description," a minimum of 30% of the total combined neighborhood retail / support services uses proposed in both project scenarios would be support service uses and not neighborhood retail. Support services are communal uses dedicated to on-site residential amenities (e.g., meeting rooms, common space, exercise areas), which, unlike neighborhood retail, would not generate additional vehicle trips. Therefore, trip generation rates determined in the traffic study (see Appendix H) were not applied to 30% of the total combined neighborhood retail / support services land uses proposed in each project scenario.

Although GHG emissions associated with vehicle trips for the support service uses, GHG emissions associated with area and energy sources associated with these support service uses were included in the modeling. See Section 4.2, "Air Quality," and Appendix C for further details.

This EIR considers the primary uses of energy for this project, the benefit of existing regulations that require energy-efficient construction, the location and design of the project relative to energy use, and the degree to which the project would create adverse physical environmental effects related to the wasteful use of energy beyond that already addressed and, as necessary, mitigated in this EIR.

THRESHOLDS OF SIGNIFICANCE

Typically, projects evaluate their GHG impacts using the Appendix G Checklist criteria. CEQA Guidelines Section 15064.4 provides a discussion on how lead agencies can analyze and determine significance for GHG emissions impacts, including whether a project complies with a plan to reduce

GHG emissions (Section 15064.4[b][3]). Section 15183.5 of the CEQA Guidelines expands the discussion of the use of a plan to reduce GHG emissions:

[P]ublic agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

The Sacramento CAP qualifies under Section 15183.5 of the CEQA Guidelines as a plan for the reduction of GHG emissions for use in project impact analyses pertaining to development projects. Therefore, pursuant to Section 15183.5 of the CEQA Guidelines, the proposed project's GHG emissions and energy impact would be considered significant if it would:

- ▶ conflict with the City's CAP.

In addition to the threshold of significance presented above, the City of Sacramento has also identified significance criteria to evaluate the proposed project. Pursuant to the City's thresholds, the proposed project would be considered significant if it would:

- ▶ impede the City or state's efforts to meet AB 32 standards for the reduction of GHG emissions.

If the City determines a project is consistent with the City's CAP, this consistency would also help the City to achieve the GHG emission reduction goals of AB 32. Thus, this analysis is focused on the proposed project's consistency with the City's CAP.

Compliance with the CAP and state building energy and sustainability code standards would also address Appendix F of the *CEQA Guidelines* relating to energy type, use, and efficiency. The proposed project's impact related to energy would be considered significant if the project would:

- ▶ involve wasteful, inefficient and unnecessary consumption of energy during construction or operation of the project.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An Initial Study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An Initial Study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process is often referred to as "scoping out" issues.

No GHG emissions, energy, or climate change issues were scoped out in the initial study.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT 4.6-1 The project could conflict with the City's Climate Action Plan. *Based on the analysis below, the impact would not be cumulatively considerable.*

As part of the City's CAP, a CAP Consistency Review Checklist was developed to help new development projects subject to CEQA demonstrate consistency with the CAP. Projects that are determined to be consistent with the CAP would be eligible for CEQA streamlining with respect to evaluating GHG impacts. The CAP Consistency Review Checklist includes seven criteria against which a project must be evaluated. If a project is determined to be consistent with all seven criteria or can justify why certain criteria are not applicable to the project, it is considered to be consistent with the City's CAP and its impact with respect to GHGs would be considered less than significant. The following list summarizes the project's compliance with the seven criteria. The full CAP Consistency Review Checklist is included in Appendix F.

- (1) *Consistency with City's FAR and/or density standards* - The proposed project is an urban infill project within the Central Business District and meets the density limits for residential buildings in the R-5 zoning district and floor area ratio ranges for commercial and mixed-use buildings permitted for Central Business District land use.
- (2) *Reduction of average vehicle miles traveled* - The proposed project is located in the Central Business District, which would meet the requirement of generating less than 15.9 vehicle miles traveled per capita.
- (3) *Incorporation of traffic calming measures* - Incorporating traffic calming measures is not applicable because the proposed project is an infill project with sufficient existing infrastructure. The current site is bounded by sidewalks, on-street parking, Class II bike lanes, and planter strips with street trees.
- (4) *Incorporation of pedestrian facilities and connection to public transportation* - The project site is located adjacent (i.e., within 1/4th mile) to a light rail stop to the east and several bus stops with bus routes that have 15-minute headways during commute periods (see Section 4.11 Traffic/Transportation for details on public transit). The site is located in an area with high pedestrian activity and premium pedestrian facilities (e.g., shopping, restaurants). The proposed commercial land uses would further enhance the pedestrian nature of the area by adding more pedestrian-friendly and accessible amenities for residents and employees in the vicinity of the project site.
- (5) *Incorporation of bicycle facilities* - The proposed project would comply with standards for bicycle facilities (i.e., bicycle to vehicle parking ratios, permanently anchored bicycle racks, bike racks within 100 feet of a visitor entrance, and visible to passerby for 5% of the visitor vehicle parking capacity) pursuant to the City's Zoning Code and State CALGreen Code requirements. The existing project site and surrounding area includes on-street bike amenities, a dedicated bike lane on 5th Street, and Class II bike routes.

- (6) *Exceed Title 24 Energy Efficiency standards* - The proposed project would comply with the alternative requirement to exceed the new minimum building code standards (after January 1, 2014) by 10% for residential land uses and by 5% for commercial projects. This requirement is in light of more rigorous minimum energy efficiency standards that are effective after January 1, 2014. Measures to increase the energy efficiency of the proposed buildings could include, but are not limited to, increased wall insulation, smart meters, above-standard ventilation systems, or energy efficiency lighting fixtures.
- (7) *Compliance with CALGreen Tier I water efficiency standards* - The proposed project would comply with CALGreen Tier 1 requirements for indoor and outdoor water use.

The proposed project would meet the requirements of all applicable CAP Consistency Review Checklist items and GHG impacts are not cumulatively considerable.

As demonstrated below, the infill and mixed-use nature of the project in the City's downtown area would place residents within a close proximity to jobs and commercial amenities, which would facilitate more walking and biking trips, thereby eliminating some vehicle trips and associated GHG emissions. Similarly, the project's transit-oriented location would make using public transit feasible to reach jobs in both the downtown area and the region. The distances of vehicle trips generated by the proposed project would also be reduced and the project site's proximity to amenities and jobs would further reduce VMT in the region.

The relationships between density, mix of land uses, urban design, and the quality of the non-automobile transportation network, on one hand, and VMT, on the other, is complex. There is extensive literature showing that VMT can be reduced with density, land use mix, a connected transportation network, access to employment and regional destinations, and transit-supportive development patterns, among other factors (see work by Reid Ewing, Robert Cervero, Susan Handy, Lawrence Frank, and Gary Pivo, among others²). These factors have varying levels of influence on travel demand.

According to SACOG, the project site's location within Center/Corridor Community Type and within the City's Central Business District help to minimize VMT (and associated GHG emissions) due to the presence of higher intensity development, greater accessibility to employment and services, better transit service, and enhanced pedestrian/bike amenities relative to other Community Types. Because of these characteristics, residents of Center/Corridor community areas are estimated to generate 29% less VMT per capita than the regional average and more than twice as many person trips by transit, walk, or bicycle modes compared to the regional average (SACOG 2014). The reduction in VMT associated with the location of the project site has been established through the travel demand analysis that SACOG performed to support the MTP/SCS. The regional VMT per capita in 2008 was estimated to be 26 miles per day. For the traffic analysis zone that includes the Sacramento Commons project site, the average per-capita VMT in 2008 is approximately 9 miles per day. In 2035, forecast regional average per-capita VMT is 24 miles per day, whereas the project site and vicinity would have an average of approximately 5 miles per day (SACOG 2011, Chapter 5B, p. 84).

² Reid Ewing and Robert Cervero. 2001. "Travel and the Built Environment" Transportation Research Record, 1780, Paper No. 01-3515. U.S. Environmental Protection Agency. 2013 (June). Our Built and Natural Environments: A Technical Review of the Interactions among Land Use, Transportation, and Environmental Quality.

As determined in the CAP Consistency Review Checklist, the proposed project would be considered consistent with the CAP. In addition, SACOG’s MTP/SCS EIR evaluates whether buildout of the MTP/SCS plan area in a manner consistent with the MTP/SCS is consistent with the 2050 target included in Executive Order S-3-05. The MTP/SCS EIR concludes that implementation of the MTP/SCS would result in a continued declining trajectory of GHG emissions within the region through 2050. In consideration of reductions included in the ARB Scoping Plan, additional reductions reasonably likely to occur within the region, and implementation of the MTP/SCS, the MTP/SCS EIR concludes that emissions within the MTP/SCS plan area could be as low as 3.72 MMtCO_{2e} by 2050, which is four percent below the goal for the region established by Executive Order S-3-05 (pp. 8-47 - 48). Therefore, as an infill project that is consistent with SACOG’s MTP/SCS (see Appendix A), the proposed project will assist the region in complying with the policy included in Executive Order S-3-05. SACOG has confirmed the project’s consistency with the MTP/SCS through an analysis and letter included as Appendix A of this EIR.

SMAQMD and California Air Pollution Control Officers Association (CAPCOA) recommend that CEQA GHG analyses, regardless of significance, quantify and disclose the project's GHG emissions. Pursuant to these recommendations, the proposed project’s amortized construction and operational emissions under the Hotel / Condo / Retail Scenario and Condo / Retail Scenario are presented below in Table 4.6-1 and Table 4.6-2, respectively. As recommended by SMAQMD, the proposed project’s construction emissions were amortized over the assumed lifetime of the project and added to long-term annual operational emissions (SMAQMD 2014b).

Table 4.6-1	
Annual Operational Greenhouse Gas Emissions under the Hotel / Condo / Retail Scenario	
Emissions Source	CO _{2e} per Year (MT)
Area	20
Energy	2,747
Mobile	7,242 ¹
Waste	374
Water	220
Total operational GHG emissions	10,604
Amortized construction emissions	95
Total (operational + amortized construction)	10,699

Notes: CO_{2e} = carbon dioxide equivalent; GHG = greenhouse gas; MT = metric tons; NA = not applicable.
 Totals may not add due to rounding.
¹ Mobile-source GHG emissions are not required to be included in this estimate of operational GHG emissions pursuant to California Public Resources Code Section 21159.28, which exempts the evaluation of mobile-source GHG emissions for residential or mixed-use projects that are consistent with the land use designation, density, building intensity, and applicable policies specific for the area in an approved Sustainable Communities Strategy. Therefore, mobile-source GHG emissions are provided for informational purposes only.
 Source: Modeled by AECOM in 2014

Table 4.6-2	
Annual Operational Greenhouse Gas Emissions under the Condo / Retail Scenario	
Emissions Source	CO ₂ e per Year (MT)
Area	22
Energy	2,151
Mobile	6,074 ¹
Waste	314
Water	218
Total operational GHG emissions	8,778
Amortized construction emissions	95
Total (operational + amortized construction)	8,873

Notes: CO₂e = carbon dioxide equivalent; GHG = greenhouse gas; MT = metric tons; NA = not applicable.
 Totals may not add due to rounding.
¹ Mobile-source GHG emissions are not required to be included in this estimate of operational GHG emissions pursuant to California Public Resources Code Section 21159.28, which exempts the evaluation of mobile-source GHG emissions for residential or mixed-use projects that are consistent with the land use designation, density, building intensity, and applicable policies specific for the area in an approved Sustainable Communities Strategy. Therefore, mobile-source GHG emissions are provided for informational purposes only.
 Source: Modeled by AECOM in 2014

The proposed project is a residential mixed-use project proposed on an approximately 10-acre infill site in downtown Sacramento located close to a variety of transit resources and meets the requirements of a transit priority project (please refer to Chapter 4 for more details on the transit priority project criteria). Since the project is a transit priority project, this EIR is not required to analyze GHG emissions impacts associated with cars and light-duty truck trips generated by the project (Public Resources Code Section 21159.28 [a]). Therefore, the information presented below related to mobile sources is for information purposes only.

The existing tree coverage on-site is estimated to provide approximately 26,328 pounds per year of CO₂ sequestration (see Appendix M for more detail, Dudek 2014). The project proposes to remove trees that provide a total of approximately 15,491 pounds per year of CO₂ sequestration (Dudek 2014). As illustrated in the arborist report, the current Conceptual Landscape Plan includes planting of 247 trees (Appendix M, p. 19). The Conceptual Landscape Plan calls for planting of 147 trees at ground level and another 100 trees at podium level (see Figures 2-4a and 2-4b). Considering existing trees that would be preserved as a part of the project and new trees, the total sequestration potential after 25 years of growth would exceed the existing canopy by approximately 1.6 percent. This estimate does not include the additional sequestration benefit of 25 years of growth for existing, preserved trees (for detailed description of methods and analysis, see Appendix M, p. 19).

As summarized above, the proposed project would meet the requirements of all applicable CAP Consistency Review Checklist items and, therefore, is considered consistent with the City's CAP. Because the City's CAP was developed to help achieve the City's fair share of the AB 32 reduction target, projects that are consistent with the City's CAP would also be considered to assist in the state's effort to achieve AB 32 GHG reduction targets. Therefore, the proposed project would not impede the state's effort to meet AB 32 standards for GHG reductions. Accordingly, the construction-related GHG impacts and contribution to climate change would **not be cumulatively considerable**.

Mitigation Measures

None required.

IMPACT The project could involve wasteful, inefficient and unnecessary consumption of energy during
4.6-2 construction or operation of the project. *Based on the analysis below, this impact would be less than
 significant.*

To assure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code Section 21100[b][3]). Appendix F of the State CEQA Guidelines recommends that EIRs address state goals for conserving energy, including:

- ▶ decreasing overall per-capita energy consumption;
- ▶ decreasing reliance on fossil fuels such as coal, natural gas, and oil; and
- ▶ increasing reliance on renewable energy sources.

Construction energy consumption is primarily generated from combustion of fossil fuels for vehicles and equipment that, if operated efficiently, use less energy and generate fewer emissions. Although all development projects would involve the short-term generation of construction-related energy consumption, it is important to consider the types of land uses that are developed. For example, construction-related energy consumption used to develop a mixed-use, transit-oriented, and infill project such as the proposed project would help accommodate future residents and employees at a higher GHG efficiency (i.e., less GHG emissions per capita) than a greenfield project located further away from transit options and less central to amenities and populations found in an urban environment (SACOG 2014). In other words, because of the proposed project's proximity to amenities (e.g., distance to jobs, shopping, entertainment) and feasibility of using non-motorized transportation to reach those amenities, regional modeling developed by SACOG demonstrates that this infill project would reduce transportation emissions compared to a project located on the urban fringe without access to transit, with fewer bicycle/pedestrian amenities, reduced access to jobs and amenities, and with lower development densities (SACOG 2014). Additionally, although construction-related energy consumption and GHG emissions would be generated as a result of the proposed project, newer residential units designed to meet the requirements of the CAP Consistency Review Checklist would operate at a higher energy efficiency than existing residential units (i.e., 10% above minimum energy efficiency standards for residential, 5% above minimum energy efficiency for commercial).

Energy use would be required, as well, for demolition. The 2013 CALGreen Code (Title 24, Part 11 of the California Code of Regulations) requires all construction contractors to reduce construction waste and demolition debris by 50%. Existing City regulations require all contractors to comply with the Construction and Demolition Debris Recycling Ordinance (Title 8, Chapter 8.124 of the Sacramento City Code) by reducing project waste entering landfill facilities by 50% by weight through recycling. Depending on the energy required for recycling compared to disposal, these existing requirements could help to make energy use for demolition more efficient.

The proposed project's operational energy use is closely tied to (1) its status as a transit priority project, which would reduce vehicle use and energy use associated with transportation (Section 4.11); (2) compliance with the state Building Energy Efficiency Code and CALGreen Code; and (3) consistency with the City's CAP. These codes and the CAP contain many requirements for building energy efficiency, water conservation, and waste reduction that also reduce energy use.

The transit priority nature of the proposed project in a central location allows residents to access amenities such as retail, restaurants, cultural events, and jobs using alternative modes of transportation such as public transit, walking, and biking, which would reduce overall transportation-related energy consumption. In addition, vehicle trips from the proposed project would be anticipated to travel shorter trip distances to reach amenities and places of employment, which also reduces transportation-related energy consumption. As described above, the reduction in VMT associated with the location of the project site has been demonstrated through the travel demand analysis that SACOG performed to support the MTP/SCS that shows that the project location is estimated to have per-capita VMT rates of approximately 65% less than the regional average in 2008 and 79% less than the regional average in 2035 (SACOG 2011, Chapter 5B, p. 84). Since transportation accounts for more energy consumption than heating, cooling, and powering of buildings, powering industry, or any other use, the travel demand reducing features of the project are important for consideration in an assessment of energy efficiency (U. S. Energy Information Administration 2014, Lawrence Berkeley National Laboratory 2005).

As described above, compliance with the CAP Consistency Review Checklist would ensure the proposed residential units achieve higher energy and water efficiency than existing housing units, thereby providing a higher GHG efficiency (i.e., less GHG emissions per capita).

Therefore, the proposed project would not conflict with applicable energy standards, including the City's CAP (as demonstrated in Impact 4.6-1), and would not use energy inefficiently, thereby reducing the project's effects on local and regional energy supplies, requirements for additional supply capacity, and peak and base-period demands for electricity and other forms of energy. Therefore, the proposed project's contribution to cumulative energy consumption impacts within the region would be **less than significant**.

Mitigation Measures

None required.

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4.7 HAZARDS AND HAZARDOUS MATERIALS

This section addresses existing environmental conditions on the site and in the vicinity, the methods used for assessing potential impacts, and the potential environmental impacts associated with implementing the proposed project. Mitigation measures are proposed to address potentially significant impacts of the proposed project. This section also provides a brief overview of federal, state, and local policies, laws, and regulations pertaining to hazards and hazardous materials. Specifically, this section addresses the potential for project construction activities to encounter contaminated soils, potentially hazardous building materials (e.g., asbestos), and for hazardous materials to be released during project construction or operation. Human-caused hazards that have the potential to affect the project site include hazardous and toxic materials (including facilities regulated by the U.S. Environmental Protection Agency [EPA], previous hazardous waste and disposal, previous toxic releases, existing utility pipelines) and existing underground storage tanks. The section also analyzes the significance of potential impacts of hazards associated with historic and current land uses at the project site and surrounding sites, and of hazardous materials that may be introduced by new uses at the project site.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to contaminated groundwater, wind and the potential for the creation of a wind tunnel effect, and other hazardous materials that may affect the project site. Hazardous materials are addressed in this section. Groundwater quality impacts associated with construction dewatering are addressed in Section 4.8, (“Hydrology and Water Quality”). Copies of the NOPs and comments received in response are in Appendix B to this EIR. Emergency access is addressed in Section 4.11 of this EIR, “Transportation/Traffic.”

This section is based on a 2012 Phase I Environmental Site Assessment (Phase I ESA) IVI Assessment Services Inc. (IVI) performed for the project site, including the existing Capitol Towers and Villas buildings (Appendix K). This EIR is also supported by a Geotechnical Feasibility Report and additional research related to the Railyards South Groundwater Plume by ENGEO, Inc. (Appendix E). Finally, this section incorporates a wind hazard evaluation prepared by Don Ballanti (Appendix J).

4.7.1 ENVIRONMENTAL SETTING

This section provides a summary of existing conditions related to hazards and hazardous materials on and surrounding the project site.

Union Pacific Railyards Contaminated Groundwater Plume

The Phase I ESA identifies that that the eastern portion of the project site is underlain by the South Plume Study Area (South Plume) associated with the former Union Pacific Railyards (UP Railyards), which is located approximately 0.5 to 0.75 miles north of the project site (Figure 4.7-1). Groundwater in the vicinity of the former UP Railyards is contaminated with solvents (volatile organic compounds such as 1, 4-dioxane), metals, and petroleum hydrocarbons. A system of 12 groundwater extraction and treatment wells were installed and remediation including a groundwater pump and treat systems, soil vapor extraction, and removal of contaminated soils is ongoing. An additional 168 groundwater monitoring wells were also installed at various locations throughout the UP Railyards site and to the

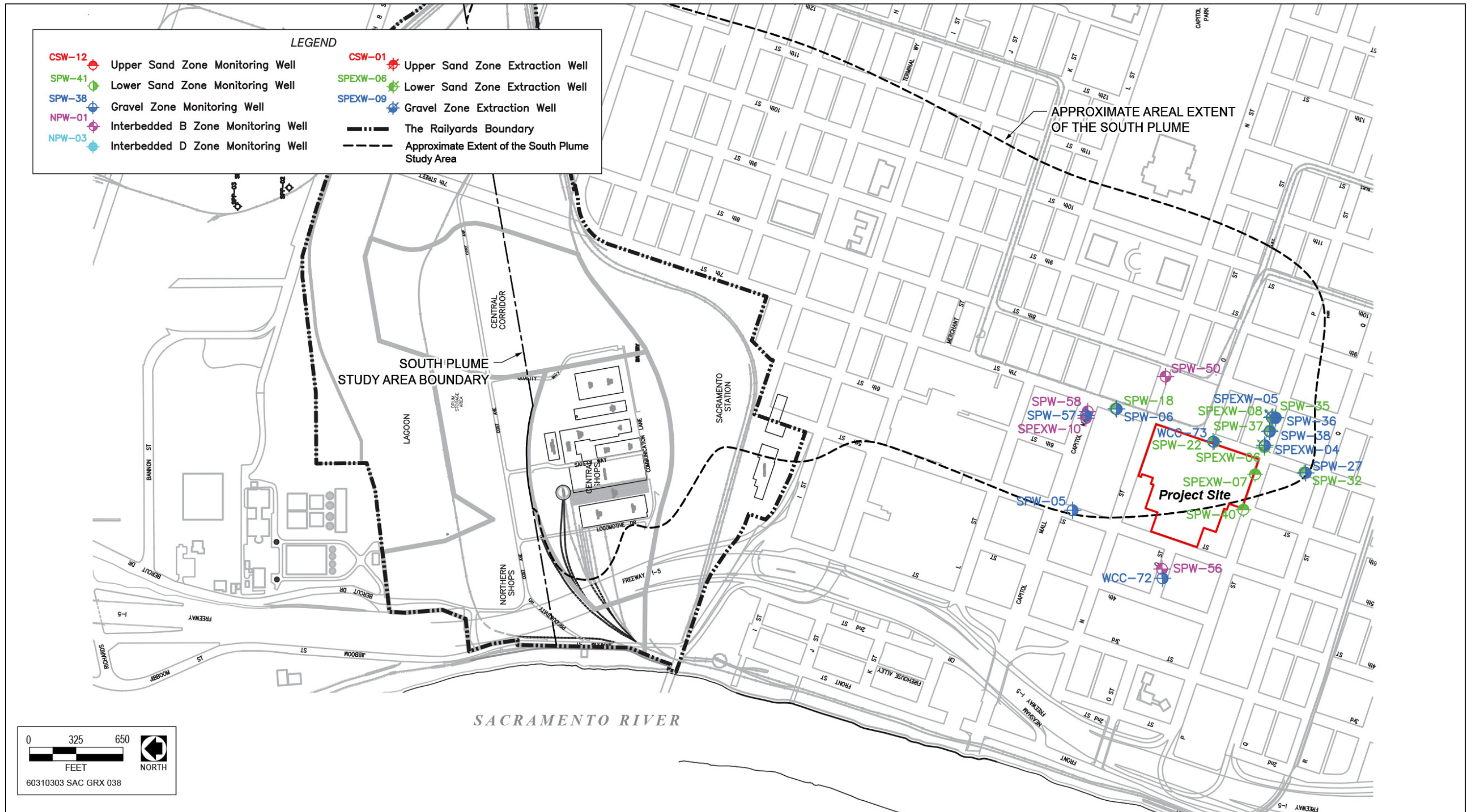
south, including areas in the vicinity of the project site. (Maps showing the location of all the monitoring wells are included in Appendix E). Contaminated soils removal would be expected to only occur within the UP Railyards property, while groundwater and soil vapor extraction occurs both on and off the UP Railyards property. According to the Phase I ESA, the contaminated groundwater and associated vapor intrusion does not meet the California Regional Water Quality Control Boards (San Francisco Regional Water Quality Control Board) environmental screening levels (ESLs) and does not pose a threat to human health or the environment under existing conditions (IVI, 2012 p. 3). Several of these monitoring and extraction wells are located in the immediate vicinity of the project site, in both 7th and P Streets immediately adjacent to the eastern and southern boundaries of the project site. These wells were installed during the early to mid-1990s and have extensive monitoring records (see Figure 4.7-1).

The 2012 Phase I ESA (Appendix E) reports the plume appears generally stable. Groundwater extraction wells located to the south and southeast of the Sacramento Commons project site influence groundwater flow direction which is generally to the southeast. Without the influence of extraction wells, groundwater flow would be expected to generally follow existing topography towards the Sacramento River to the west.

Due to the presence of contaminated groundwater in the vicinity of the project site, the Phase 1 ESA presented a comparison between contamination concentrations from groundwater samples obtained from monitoring wells located along 7th and P Streets and the general ESLs set forth by the San Francisco Bay Regional Water Quality Control Board ¹ (SFRWQCB). These concentrations were reviewed in order to assess potential vapor intrusion to indoor air, and concluded vapor intrusion from 1, 4-dioxane (a commercial solvent) should not pose a hazard at the project site because the highest value found in adjacent monitoring wells was <6.3 micrograms per liter (ug/L). The Phase 1 ESA states that SFRWQCB has not assigned a value for potential vapor intrusion concerns to 1,4-DXE. Nevertheless, the general ESL for 1,4-DXE in groundwater, where groundwater is not a potential drinking water source was noted to be 50,000 micrograms/liter (ug/L), considerably higher than the levels identified in adjacent monitoring wells (IVI 2012, p. 69). ESLs were updated in 2013; however, no change was made to general ESL for 1, 4-dioxane in groundwater, where groundwater is not a current or potential drinking water source (IVI, 2012 pp.64–65).

More recent available monitoring data (ERM 2014) for 24 monitoring wells located within 500 feet of the project site were reviewed and compared current groundwater concentrations to the indoor air residential pathway ESLs, providing a conservative estimate, assuming porous soils and shallow groundwater (10 feet) (Table E-1 SFRWQCB 2013, see Figure 4.7-1). Well depths range from 28-132 feet below the ground surface.

¹ The Central Valley RWQCB does not maintain specific ESLs and refers instead to the San Francisco Bay RWQCB.



Source: ERM 2013

Figure 4.7-1 South Groundwater Plume and Groundwater Monitoring and Extraction Well Locations

Trace concentrations of Volatile Organic Compounds (VOCs) were reported for 18 of the 24 wells, with concentrations ranging from 0.13 µg/L to 20.8 µg/L (the water quality goal for VOCs is 0.5 µg/L) (ERM 2013). Several wells exhibited VOC concentrations that were slightly above the remedial action objectives for the South Plume of 0.5 µg/L. However, the wells located within 100 feet of the project site exhibited test results that were either non-detectable for VOCs or concentrations that were below the applicable remedial action objectives. Remedial objectives are established as goals for public and environmental health proposed for a remediation project. None of the reported VOC concentrations in the nearby wells within 100 feet exceed the applicable ESL for potential vapor intrusion concern, with the exception of Well SPW-57 (4.3 ug/L), which slightly exceeds the ESL (1.8 ug/L) for vinyl chloride. This well is located off-site to the north and is 99 to 132 feet below the ground surface – deeper than areas that could be affected by the project. No groundwater to indoor air ESLs are available for 1,4-Dioxane, due to lack of volatility and no perceived vapor intrusion. However, for comparison to earlier values presented in the Phase I ESA, the highest concentration for 1,4-Dioxane was at well SPW-06 (8.6 ug/L) far below the general ESL of 50,000 ug/L. Please see Appendix E for more details.

Please see Section 4.8, “Hydrology and Water Quality” for additional information on the groundwater plume.

Asbestos

Naturally occurring asbestos (NOA) is a term applied to several types of naturally occurring fibrous materials found in rock formations throughout California. NOA is commonly found in ultramafic rock, including serpentine. Two forms of NOA are associated with serpentinite: chrysotile asbestos and tremolite/actinolite asbestos. NOA is found in ultramafic rocks, which are generally located in discontinuous belts in the Sierra Nevada and Coast Ranges. The project site is underlain by artificial fill and by Holocene- and Pleistocene-age sand, silt, and gravel (see Section 4.4, “Cultural Resources,” for a detailed description of the rock formations at the project site). These types of rocks do not contain NOA.

Asbestos is designated as a hazardous substance when the fibers have the potential to come in contact with air, because the fibers are small enough to lodge in lung tissue and cause health problems. The presence of asbestos containing materials (ACMs) in existing buildings also poses an inhalation threat if the ACMs are in a friable² state. If the ACMs are not friable, then there is no inhalation hazard, because asbestos fibers remain bound in the material matrix. Emissions of asbestos fiber to the ambient air can occur during construction activities such as renovation or demolition of structures made with ACMs (e.g., insulation), or from grading activities that disturb rock containing NOA. People exposed to asbestos may be at elevated risk for lung cancer and mesothelioma.

The Phase I ESA identifies ACMs in the existing Capitol Towers and Villas buildings located on the project site. ACMs are present in a variety of building materials such as acoustical ceiling material, joint compound, pipe and water tank insulation material, fire door insulation, drywall/joint compound, and window putty (IVI 2012, pp. 66 and 67). The Phase I ESA reports that floor tiles and roofing materials may also contain ACMs. The Phase I ESA notes that the ACMs appeared to be in good condition and that the potential for fiber release is low.

² Friable stated means that the ACMs are easily crumbled.

Lead-Based Paint

The use of lead as an additive to paint was discontinued in 1978 after human exposure to lead was determined by the United States Environmental Protection Agency (EPA) and the U.S. Occupational Health and Safety Administration (OSHA) to represent a human health risk, particularly to young children. Adverse human health effects can occur from ingestion of peeling paint chips (primarily by young children) and inhalation of paint dust (when lead-based paint is scraped, sanded, or heated during repair or demolition activities).

The Phase I ESA indicates that, because the existing Capitol Towers and Villas buildings were constructed before 1978, the potential exists for lead-based paint to be present (IVI 2012, p. 67). Painted surfaces were observed to be in good condition, with no evidence of pervasive peeling or flaking.

Underground Storage Tanks

A records search determined that one underground storage tank (UST) was removed on May 17, 1991, under a permit issued by the Sacramento County Environmental Management Department (SCEMD) (IVI 2012, p. 65). The UST was located approximately 40 feet southeast of the existing Capitol Towers building, and it formerly supplied fuel to the buildings' heating system, which now uses natural gas. The soil was tested for contamination at the time the UST was removed. Based on the low levels of total petroleum hydrocarbons detected, SCEMD issued a case closure letter on December 10, 1991 (IVI 2012, p. 65). The Phase I ESA indicates that with the removal and follow up testing, no further action or investigation is warranted with regard to this former UST.

Based on a review of historic Sanborn maps of the project site, the Phase I ESA determined that the former parking lot in the northeast corner of the project site had fueling service and, therefore, likely contained USTs (IVI 2012, p. 66). The parking lot with fueling service appears to have only been in operation during the 1950s, prior to construction of the current Capitol Towers and Villas (garden apartment) buildings. The Phase I ESA concludes that any tanks associated with the former fueling service presumably would have been discovered and removed during site preparation for the existing buildings. However, the Phase I ESA did not discover any records of USTs being removed from this portion of the project site. According to the Phase I ESA, because more than 50 years have passed since the USTs were likely removed, any contamination that was present and not removed during UST excavation has likely undergone natural attenuation. In addition, this former facility was not identified in any databases searched as a part of the Phase I ESA as an area that had contamination conditions. Based on this information, the Phase I ESA concluded that no further action or investigation appears warranted (IVI 2012, p. 66).

Hydraulic Oil Spill

A review of past records identified approximately 7 gallons of hydraulic oil leaked into the soil from the elevator in the parking garage in 1992 (IVI 2012, p. 66). Wallace-Kuhl and Associates, Inc. (WKA) removed discolored/contaminated soil associated with the leak in 1993. WKA also performed a site assessment in 1993 to determine the vertical and lateral extent of the contamination. No total petroleum hydrocarbons were detected in any of the soil samples or the groundwater sample. Nevertheless,

SCEMD subsequently requested quarterly monitoring of the on-site groundwater monitoring well. Groundwater sampling was performed during four quarters between February 1994 and November 1994. No total petroleum hydrocarbons were detected in any of the quarterly sampling events. Based on these results, a case closure letter was issued by SCEMD on January 18, 1995. The monitoring well was abandoned on March 2, 1995. Based on the current regulatory status, the Phase I ESA concluded that no further action or investigation is warranted (IVI 2012, p. 66).

Mold Investigation

The Phase I ESA (IVI 2012, p. 5) indicated that visual and olfactory observations for microbial growth were conducted in accordance with Freddie Mac Environmental Site Assessment Guidelines. Interviews with property management included as part of the Phase I ESA did not reveal any issues or tenant complaints concerning moisture or microbial growth. Conspicuous microbial growth was not identified at the time of the survey except on the ceiling and wall of the clubhouse leasing support building (located in the northwest quadrant of the project site). This mold growth appeared to be due to an active roof leak which was remediated and repaired in 2012; the building was also renovated in 2014. Phase I ESA recommendations were provided to address mold including a moisture management plan for the property. It should be noted that this building would be demolished as part of the proposed project.

Database Searches

The Phase I ESA (IVI 2012, pp. 27 through 49) summarizes a comprehensive search of more than 59 environmental databases, including those that are maintained in accordance with California Public Resources Code Section 65962.5 (i.e., on the Cortese List³). The database search results that pertain directly to the project site are discussed above. No other records listed in the database search were determined to pose a potential human health hazard at the project site.

In April 2014, AECOM searched the GeoTracker database, which is a groundwater information management system maintained by the State Water Resources Control Board (SWRCB) (State Water Resources Control Board 2014). In 2014, AECOM also searched the Hazardous Waste and Substances Site List (i.e., the “Envirostor” database) maintained by the California Department of Toxic Substances Control (DTSC) (California Department of Toxic Substances Control 2014). No new records of hazardous materials sites other than those already discussed in the Phase I ESA (IVI 2012 pp. 27–49) were found.

SCHOOLS IN THE PROJECT VICINITY

No public schools are located within 0.25 mile of the project site. There are private schools in the vicinity of the project site, including schools near the intersection of N Street and 4th Street (Discovery Tree School), approximately 400 feet from the project site; on I Street between 10th and 11th Streets (Discovery Tree School), approximately 0.5 mile northeast of the project site, on P Street between 10th and 11th Streets (Discovery Tree School), approximately 0.25 mile east of the project site; near the intersection of H Street and 13th Street (Discovery Tree School), approximately 0.7 mile from the project site; and near the intersection of Q Street and 22nd Street (Discovery Tree School,

³ California EPA’s Hazardous Waste and Substances Sites List.

approximately 1 mile east of the project site; and the “Phoenix Schools” private preschool at 600 I Street, approximately 0.4 mile north of the project site (see Figure 4.7-2).

Airports and Airstrips

The closest airport to the project site is the Sacramento Executive Airport, located approximately 3.5 miles south of the project site. The project site is not located in the clear zone, approach-departure zone, or overflight zone of any airport (SACOG 1999). There are also no private airstrips within 2 miles of the project site.

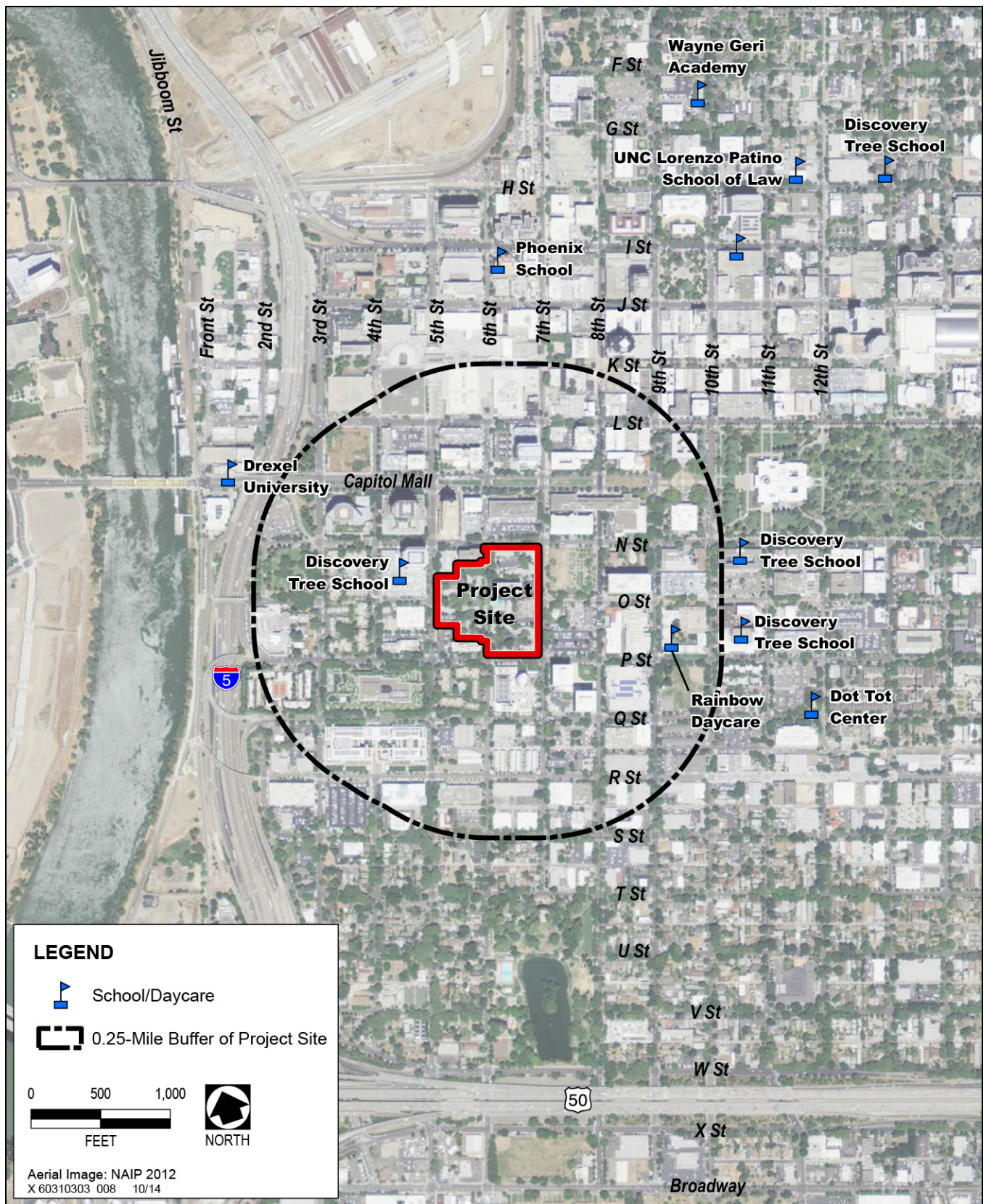
WILDLAND FIRE HAZARDS

The project site is located in a developed, urbanized area of downtown Sacramento. There are no wildlands in the project vicinity that would represent a high fire hazard.

WIND

The project site lies in the southern portion of the broad, flat, Sacramento Valley. Southwesterly winds prevail in the Sacramento Valley as marine breezes from the Pacific Ocean flow through a sea-level gap in the Coast Range—known as the Carquinez Strait—which is located approximately 50 miles to the southwest. Marine breezes dominate during the spring and summer months, and show a strong daily variation. The highest average wind speeds occur during the afternoon and evening hours, while the lightest winds occur during the night and morning hours. During the fall and winter months, when the sea breeze diminishes, northerly winds occur more frequently; however, southwesterly winds still prevail.

The prevailing wind direction is from the southwest. The highest average wind speeds occur in the afternoon and evening hours. During the fall and winter, when the sea breeze diminishes, northerly winds occur more frequently, but southwesterly winds still predominate. The area around the project site is a mixture of low-, mid-, and high-rise buildings that generally provide wind shelter from most wind directions. The area is least sheltered for easterly winds, because the area due east of the site is occupied by smaller one- and two-story structures and surface parking. The area north of the site is occupied by a row of larger structures along both sides of Capitol Mall, some exceeding 25 stories that shelter the site from northerly winds. Overall, the site is sheltered from northwesterly winds by existing structures and moderately sheltered from southwesterly and southeasterly winds. The primary wind direction in the project area is southwesterly, meaning that the wind blows from the southwest to the northeast. The project site has little shelter from easterly winds, because of the openness of the blocks across 7th Street, but the wind data show that winds from the east are very infrequent and not strong.



Source: Van Tilburg, Banvard, Soderbergh, AIA, 2014

Figure 4.7-2

Schools in Project Vicinity

4.7.2 REGULATORY SETTING

FEDERAL

Hazardous Materials Handling

The principal federal agency regulating the generation, transport, and disposal of hazardous substances is EPA, acting under the authority of the Resource Conservation and Recovery Act (RCRA) of 1976. Under the RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. The RCRA was amended in 1984 by the Hazardous and Solid Waste Amendments of 1984, which specifically prohibits the use of certain techniques to dispose of various hazardous substances. The Federal Emergency Planning and Community Right-to-Know Act of 1986 imposes hazardous-materials planning requirements to help protect local communities in the event of accidental release of hazardous substances. EPA has delegated much of the implementation of RCRA requirements to the California Department of Toxic Substances Control (DTSC).

Worker Safety Requirements

The Occupational Safety and Health Administration (OSHA) is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementing workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

U.S Department of Transportation

Transportation of hazardous materials is regulated by the U.S. Department of Transportation's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies consist of the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers for transportation of hazardous waste on public roads. The hazardous materials transportation regulations are codified in 49 CFR Parts 100–185.

STATE

Hazardous Materials Handling

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 requires preparation of hazardous materials business plans and disclosure of hazardous materials inventories. A business plan includes an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). The business plan program is administered by the California Emergency

Management Agency (CalEMA). A business plan is required if a hazardous substance would be stored for more than 30 days in any of the following quantities:

- ▶ 500 gallons or more of any solid,
- ▶ 55 gallons or more of any liquid,
- ▶ 200 cubic feet or more of any compressed gas, or
- ▶ any acutely hazardous substance or radiological material that meets the federal threshold planning quantities listed in 40 Code of Federal Regulations (CFR) Part 355, Subpart A.

Worker Safety Requirements

The California Department of Industrial Relations, Division of Occupational Safety and Health (Cal-OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal-OSHA regulations pertaining to the use of hazardous materials in the workplace (California Code of Regulations [CCR] Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and preparation of emergency action and fire prevention plans. Cal-OSHA enforces hazard communication program regulations that contain training and information requirements. These requirements include procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that employers make material safety data sheets available to employees and document employee information and training programs.

California Emergency Plan

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. The *State of California Emergency Plan* (CalEMA 2009) addresses the state's response to extraordinary emergency situations associated with natural disasters or human-caused emergencies. The plan describes the methods for carrying out emergency operations, the process for rendering mutual aid, the emergency services of governmental agencies, the methods for mobilizing resources and informing the public, and the process to ensure continuity of government during an emergency or disaster. The concepts presented in the plan emphasize mitigation programs to reduce vulnerability to disaster, and preparedness activities to ensure that capabilities and resources are available for an effective response and recovery. Response to hazardous material incidents is one part of this plan.

The plan is managed by CalEMA, which assists in coordinating the responses of other state and local agencies in accordance with the Standardized Emergency Management System, which is required by the California Emergency Services Act for managing multiagency and multijurisdictional responses to emergencies in California.

California Accidental Release Prevention Program

The goal of the California Accidental Release Prevention Program, overseen by CalEMA, is to reduce the likelihood and severity of the consequences of releases of extremely hazardous materials. Any business that handles regulated substances is required to prepare a risk management plan (RMP). Regulated substances are chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable, or explosive, such as ammonia, chlorine gas, hydrogen, nitric acid, and propane. The RMP is a detailed engineering analysis of the potential accident factors present at a business and the measures that can be implemented to reduce this accident potential. The RMP must provide safety information, hazard data, operating procedures, and training and maintenance requirements.

Public Resources Code Section 65962.5 (Cortese List)

The provisions of Public Resources Code Section 65962.5 are commonly referred to as the “Cortese List” (after the legislator who authored the legislation that enacted it). The Cortese List is a planning document used by state and local agencies to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Public Resources Code Section 65962.5 requires the California Environmental Protection Agency to develop an updated Cortese List annually, at minimum. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies in California are required to provide additional information about releases of hazardous materials for the Cortese List. The project site is not included on the Cortese List.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) protects water quality in California by setting statewide policy. The SWRCB supports the nine Regional Water Quality Control Boards, (RWQCBs), which, within their areas of jurisdiction, protect surface and groundwater from pollutants discharged or threatened to be discharged to the waters of the state. For the Sacramento area, the Central Valley RWQCB (CVRWQCB) maintains jurisdiction within the subject basin. This protection is carried out by the RWQCB through the issuance and enforcement of National Pollutant Discharge Elimination System (NPDES) permits, called Waste Discharge Requirements (WDRs), regulation of leaking underground storage tanks and contaminated properties through the Leaking Underground Storage Tank (LUST) and Spills, Leaks, Investigation, and Cleanup (SLIC) programs respectively. USTs are regulated under Chapter 6.7 of the California Health and Safety Code and 23 CCR Chapter 16. The RWQCBs issue WDRs for operating and closed landfills under 27 CCR Chapters 3, Section 20950, et seq.

LOCAL

Sacramento County Multi-Hazard Mitigation Plan

The City is a signatory to the *Sacramento County, California Multi-Hazard Mitigation Plan* (MHMP) (AMEC 2004), which was adopted in 2005. The MHMP is designed to meet the requirements of the Disaster Mitigation Act of 2000, which allows for eligibility for certain hazard mitigation (i.e., disaster loss reduction) programs under the Federal Emergency Management Agency. Formulation of the

MHMP was based on hazard identification and a risk assessment of potential natural hazards that could affect Sacramento County, a review of the county's capability to reduce hazards impacts, and recommendations to further reduce vulnerability to potential disasters.

Traffic Control Plans

Chapter 12.20 of the Sacramento City Code requires the development of a traffic control plan when streets must be closed or partially obstructed for construction activities. The plan must identify the location of the work area, the street locations that will be closed or obstructed, the types and locations of traffic control devices that will be used, and the time periods when traffic control will be effect.

Sacramento 2030 General Plan

The following goals and policies from the City's 2030 General Plan are related to hazards and hazardous materials.

Goal PHS 3.1 Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

- ▶ **Policy PHS 3.1.1 Investigate Sites for Contamination.** The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.
- ▶ **Policy PHS 3.1.2 Hazardous Material Contamination Management Plan.** The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.
- ▶ **Policy PHS 3.1.3 Household Hazardous Waste Collection Programs.** The City shall continue to provide household hazardous waste collection programs to encourage proper disposal of products containing hazardous materials or hazardous wastes.
- ▶ **Policy PHS 3.1.4 Transportation Routes.** The City shall restrict transport of hazardous materials within Sacramento to routes that have been designated as such routes.

Goal PHS 4.1 Natural and Human-made Disasters. Promote public safety through planning, preparedness, and emergency response to natural and human-made disasters.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the 2035 General Plan sometime in early 2015. The 2035 General Plan is in draft form as of the writing of this document. None

of the proposed changes included as part of the 2035 General Plan affect goals or policies related to hazards or hazardous materials.

City of Sacramento Department of Utilities

The City of Sacramento regulates the discharge of groundwater to the City's sewer and separated drainage systems. The City's Department of Utilities (DOU) Engineering Services Resolution No. 92-439 requires approval of a Memorandum of Understanding (MOU) for long-term (greater than 30 days and an approval letter for discharges of less than 30 days) groundwater dewatering discharges to the City's sewer and/or separated drainage system. The MOU must cover proposed dewatering details such as flow rate, system design, and contaminant monitoring plan (see Mitigation Measure 4.8-1 in Section 4.8 of this EIR, "Hydrology and Water Quality"). Discharges to the sewer must meet the Sacramento Regional County Sanitation District- (SRCSD) and RWQCB-approved levels. Dischargers to the sewer must obtain a SRCSD discharge permit. Discharges to the separated drainage system will require approval from RWQCB.

Hazardous Materials Response

The City's Hazardous Materials Program (HazMat) provides capability for response to hazardous material emergencies (City of Sacramento 2005). HazMat contains a minimum of 108 firefighters trained to the Hazardous Materials Response level and also includes three Hazardous Materials Response Teams (HMRTs) and one Decontamination Team. Under a contractual agreement, HazMat provides 24-hour first response to hazardous materials incidents within the City of Sacramento.

Asbestos and Lead Abatement

The proposed project would be subject to Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 902 for asbestos abatement; 8 CCR Sections 1529 and 1532.1 (construction safety orders pertaining to asbestos and lead, respectively); and CFR Part 61, Subpart M (pertaining to asbestos). These regulations govern the specific methods to be used for removal of asbestos and lead-based paint, and specify workplace safety measures that must be used in order to protect the health of construction workers during the removal process.

City of Sacramento Emergency Operations Plan

The City of Sacramento Emergency Operations Plan (EOP), published in April 2005, provides safeguards to minimize loss of life and property damage during natural disasters and emergencies of national defense. The EOP establishes an Emergency Management Organization and assigns functions and tasks in accordance with California's Standardized Emergency Management System. The EOP provides guidance as to disaster response from the initial onset through the cost recovery process. It includes policies, responsibilities, and procedures necessary to protect human health and safety, public and private property, and the environment from the effects of natural and anthropogenic disasters and emergencies. The EOP outlines the specific emergency-related responsibilities of City agencies. For example, the City of Sacramento Police Department is responsible for implementing emergency evacuations, including traffic control plans, while the City of Sacramento Fire Department is the first responder for hazardous materials incidents (City of Sacramento 2005).

City of Sacramento Evacuation Plan

The City of Sacramento Evacuation Plan (2008) provides evacuation-specific strategy and information to support and guide the City's Emergency Managers, Emergency Operations Center staff, and other governmental and non-governmental agencies that would be involved with an evacuation event in the City. Therefore, the Evacuation Plan serves as an amendment to the EOP. Flooding is considered the primary threat that would invoke an evacuation in Sacramento. Therefore, much of the Evacuation Plan is dedicated to procedures to be followed in the event of a flood emergency. However, the associated strategy and plan details apply to other hazards, as well. The City of Sacramento Police Department has divided the City into six districts with each district further divided into three or four police patrol beat areas. The Evacuation Plan provides evacuation routes and locations of sirens and shelters within each police patrol beat area. The City of Sacramento Fire Department maintains updated records of the emergency response and evacuation routes for the City (City of Sacramento 2008).

WIND

There are no applicable federal, state, regional, or local regulations that apply to wind or the placement of buildings in urban settings relative to wind.

4.7.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

This analysis considers the range and nature of foreseeable hazardous materials use, storage, and disposal resulting from construction or implementation of the proposed project, and identifies the primary ways that these hazardous materials could expose individuals or the environment to health and safety risks.

The analysis of hazardous materials impacts is based, in part, on information from the 2012 Phase I ESA (Appendix K), which was augmented with searches of the GeoTracker database and the Hazardous Waste and Substances Site List in 2014, as well as other existing documentation cited throughout this section that was used to establish existing conditions and to identify potential environmental effects.

The Phase I ESA identified recognized environmental conditions related to areawide groundwater contamination, asbestos-containing material, and lead-based paint. Each of these topics is addressed in the impact analysis below. The Phase I ESA also identified a former UST, a hydraulic oil spill, the need for a mold and moisture management plan, and a possible fueling service suspected to have contained USTs. The USTs are assumed to have been removed. No USTs were identified on the subject property and no common indicators of USTs such as vent pipes, fill ports, manways, pavement cuts, fuel gauges or dispensers were observed and the site was not identified on the California list of registered UST facilities (IVI 2012, p. 50). The oil spill was cleaned up under regulatory oversight in 1993. The mold growth was due to a roof leak in the clubhouse and was remediated and repaired in 2012; the clubhouse was also renovated in 2014.

Federal, state, regional, and local health and safety laws and regulations are designed to protect the health and safety of the public. State and local agencies are required to enforce applicable requirements. In determining the level of significance, the analysis assumes that development would comply with relevant federal, State, and local ordinances and regulations.

Due to comments received in response to the Notice of Preparation regarding wind hazards and the potential for the project to create a wind tunnel, a wind hazard evaluation was prepared (see Appendix J). There are no federal, state or local regulations that oversee hazards associated with wind or any commonly used thresholds to quantify what constitutes a hazardous wind condition; therefore, the wind hazard analysis prepared includes a qualitative analysis of the street alignment, overall massing of structures, and locations of taller buildings relative to the project site. The strength of wind accelerations near buildings is controlled by exposure, massing, and orientation. For this analysis, the potential for accelerated winds was evaluated by reviewing site exposure, building heights, and building orientations to identify locations where exposure, massing, or orientation to the prevailing winds would suggest that increased winds could affect pedestrian spaces.

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, hazard or hazardous materials impacts are considered significant if the project would:

- ▶ expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- ▶ expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials or situations;
- ▶ expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities;
- ▶ emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- ▶ substantially increase the risk of exposure of site occupants to inadvertent or accidental releases of hazardous substances transported on adjacent roadways or rail lines near the site; or
- ▶ interfere with an adopted emergency response plan or emergency evacuation plan.

Neither the City of Sacramento Environmental Checklist nor the CEQA Guidelines identify criteria for pedestrian wind hazard. For the purposes of this analysis, the following threshold was used to determine whether implementing the project would result in a significant wind impact. The project would have a significant wind impact if it would:

- ▶ alter wind in a manner that substantially increases winds in pedestrian corridors or public spaces in a manner that would create a public safety hazard.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An initial study was prepared to evaluate the potential environmental effects of the proposed project and is included in Appendix B (CEQA Guidelines Section 15063[a]). An initial study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process is often referred to as “scoping out” issues.

The proposed project was found to have no impact related to airport safety hazards, airstrip safety hazards, and wildland fire hazards. The project site is located in a developed area of downtown Sacramento where there are no wildland fire hazards. There are no airports or private airstrips within the immediate vicinity of the project site. Therefore, these issues are not evaluated further in this EIR.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT 4.7-1 The proposed project could expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities. *Based on the analysis below, the impact is considered less than significant with mitigation.*

Construction of building foundations has the potential to encounter contaminated soil. SCEMD records indicate that a former 4,000-gallon diesel UST was removed from the site in 1991 under the supervision of SCEMD. Based on the low levels of contamination identified during the testing of soil obtained during UST removal activities, the SCEMD issued a case closure letter in 1991 (IVI 2012, p. 69).

In 1992, approximately seven gallons of hydraulic oil leaked into the soil from the elevator equipment associated with the elevator in the parking garage. Discolored/contaminated soil was removed in 1993 by Wallace-Kuhl and Associates Inc. (WKA), a consulting firm contracted by Capitol Towers. WKA performed a site assessment in 1993 to determine the vertical and lateral extent of the contamination. No total petroleum hydrocarbons were detected in any of the soil samples or the groundwater sample. The SCEMD requested quarterly monitoring of the on-site groundwater and based on these results, a case closure letter was issued by the SCEMD in 1995 (IVI 2012, p. 70). Following the review of historic use of the property, the results of previous site assessments, interviews, record searches, and other research and analysis, the Phase I ESA did not identify any other recognized environmental conditions associated with the project site related to soil contamination.

Potential construction impacts associated with hazardous materials were analyzed in Impact 6.6-1 of the 2030 General Plan Master EIR (pp. 6.6-21 through 6.6-24). The City found that grading, excavation, and dewatering of sites for new development from implementation of the 2030 General Plan may expose construction workers and the public to known or potentially unknown hazardous substances present in the soil or groundwater, particularly from dewatering activities. If undiscovered hazardous material contamination is found in the soil or groundwater during construction activities for new development in the City, such contamination could cause various short-term or long-term adverse health effects in persons exposed to the hazardous substances. To prevent potential health hazards to construction workers and the public from exposure to previously unknown contamination, Policy PHS 3.1.1 of the Public Health and Safety Element of the 2030 General Plan requires that buildings and sites being considered for new development or redevelopment be investigated for the presence of

hazardous materials before development activities begin. The proposed project has complied with the requirement to investigate for the presence of hazardous materials by preparing a Phase I ESA, referred to in this section, also included in Appendix K.

Project implementation would result in earthmoving activities throughout the 10.13-acre project site, except for the approximately 0.5-acre building footprint of the existing Capitol Towers building which would remain in place. Construction activities for the project specifically, grading, staging, stockpiling, trenching, and foundation excavation could expose hazardous material contamination in the soil that could cause various short-term or long-term adverse impacts. The project would also involve deep foundation work (drilling of piles or piers) that would extend approximately 60 to 80 feet below the existing grade and interact with contaminated groundwater. The Geotechnical Feasibility Report for the proposed project identifies four deep foundation systems for possible support of the proposed high rise structures on the site. Driven and torque-installed steel piles do not create soil or groundwater surplus. Rather, for driven and torque-installed steel piles, the soil surrounding the pile is densified and the earth pressures cause the soil to adhere to the sides of the pile. This effectively seals the pile into the soil layer with no gaps created along the sides of the pile such that contaminated groundwater or soil would not be expected to discharge from these pier types. Two pile types could be drilled and could potentially create soil and groundwater spoils.

The Phase I ESA did not identify any other recognized environmental conditions associated with the project site related to soil contamination; however, it is possible that unknown hazardous materials may be uncovered during excavation. Project construction activities that are implemented without proper procedures and BMPs could violate water quality standards, or cause human health or ecological impacts. Therefore, the impact is considered **potentially significant**.

Mitigation Measures

The 2030 General Plan requires site and building investigations for hazardous materials and waste contamination, along with appropriate measures to address relevant hazards to protect the public health. The following mitigation measure would implement 2030 General Plan Policy PHS 3.1.1 and would require implementing procedures to identify and mitigate potential contamination that could potentially be identified during project construction. In the event that unknown hazardous materials are discovered during excavation or construction, it may become necessary to take samples at contaminated sites and transport samples to a laboratory for analysis. Relatively small amounts would be collected and public exposure to potential hazards would be limited. Remediation activities could include treatment of contaminated soils in a manner that would render them non-hazardous, placement of an impervious, or excavating soils and using them elsewhere under an impervious cover. Proper treatment and/or disposal could also be required. The mitigation measure below would reduce the impact by requiring appropriate measures under the direction of qualified environmental professionals to protect the health of workers and the public health against contamination, USTs, or other environmental concerns discovered during excavation or construction. The impact is considered **less than significant with mitigation**.

Mitigation Measure 4.7-1a: Identify and Remediate for Discovery of Unknown Hazardous Materials.

Prior to commencing any construction activities, a Health and Safety Plan shall be prepared and provided to the Director of the City's Community Development Department by a qualified professional to identify specific measures to take to protect worker and public health and safety and specify measures to identify, manage, and remediate wastes. In the event that excavation or construction of the proposed project reveals evidence of soil or groundwater contamination, underground storage tanks (USTs), or other environmental concerns, site preparation or construction activities shall not recommence within the contaminated areas until remediation is completed. This is the procedure established in the Health and Safety Plan and a "no further action" letter would be obtained from the appropriate regulatory agency. The Health and Safety Plan shall include the following:

- Pre-construction training of workers to identify potentially hazardous materials.
- Identification of air monitoring procedures and parameters and/or physical observations (soil staining, odors, or buried material) to be used to identify potential contamination.
- Procedures for temporary cessation of construction activity in the area of potential contamination and evaluation of the level of environmental concern if potential contamination is encountered. The evaluation shall include identification of the type and extent of contamination prepared by a qualified professional.
- Procedures for limiting access to the contaminated area to properly trained personnel.
- Procedures for notification and reporting, including internal management and local agencies (fire department, SCEMD, etc.), as needed.
- A worker health and safety plan for excavation of contaminated soil, including soils management, dust control, air monitoring, and other relevant measures.
- Procedures for characterizing and managing excavated soils in accordance with CCR Title 14 and Title 22.
- Procedures for certification of completion of remediation.

Mitigation Measure 4.7-1b: Implement Mitigation Measure 4.8-1: File a Notice of Intent with the Central Valley Regional Water Quality Control Board to Obtain Coverage Under Order R5-2013-074 or an Individual NPDES Permit or Waste Discharge Requirement and a Memorandum of Understanding with the City of Sacramento, and Prepare a Construction Dewatering Plan (Implements General Plan Policies ER 1.1.3, ER 1.1.4, and ER 1.1.7)

IMPACT 4.7-2 The proposed project could expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials or situations during construction or operation of the proposed project. *Based on the analysis below, the impact is less than significant.*

Asbestos Containing Materials, Lead-Based Paint and Mold

The proposed project would require demolition of on-site buildings that contain insulation, floor tiles and other materials that contain asbestos and may also contain lead-based paint. The primary structures that may contain asbestos and lead-based paint would be the garden apartments, originally constructed

in 1962 and renovated in 2002 and 2004, will be demolished incrementally over each of the four phases, which is assumed for the purposes of this EIR to occur through the year 2021. The phasing and estimated project buildout year are subject to change in response to market conditions. As stated above mold was also noted in the clubhouse due to a leak which was remediated and repaired in 2012; and the building was also renovated in 2014.

The proposed project would be required to comply with Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 902 for asbestos abatement; 8 CCR Sections 1529 and 1532.1 (construction safety orders pertaining to asbestos and lead, respectively); and CFR Part 61, Subpart M (pertaining to asbestos). California requires asbestos and lead abatement to be performed and monitored by contractors with appropriate certifications from the California Department of Public Health.

In addition, Cal-OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and preparation of health and safety plans. Cal-OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee-training programs. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal-OSHA standards.

Compliance with SMAQMD Rule 902 would be required as a part of the project for actions related to asbestos containing materials. Rule 902 includes health-based standards, guidance for renovations and demolition, special requirements for demolition, waste disposal requirements, testing and recordkeeping procedures, hazard posting requirements, and other measures to avoid adverse health effects.

Existing regulations (8 CCR Sections 1529 and 1532.1) address demolition or salvage of structures where lead or materials containing lead are present; removal or encapsulation of materials containing lead; new construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead; lead contamination/emergency cleanup; transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed, and maintenance operations associated with the construction activities described in this subsection. Compliance with regulations set forth above will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored.

Use of Hazardous Materials during Construction

Construction of the proposed project would involve the storage, use, and transport of hazardous materials (e.g., asphalt, fuel, lubricants, paint, grease, solvents, paint, welding gases, etc.). Based on the scale and type of project, it is anticipated that only small amounts of hazardous materials would be on the project site at any given time. No acutely hazardous materials would be used during construction of the proposed project. In addition, materials handled would not pose a significant risk to off-site residents or construction workers because they would be used and stored in accordance with existing laws and regulations (please refer to Section 4.7.2, "Regulatory Setting" for more detail). Cal/OSHA maintains regulations related to the use of hazardous materials, including requirements for safety

training, availability of safety equipment, and hazardous materials exposure warnings. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the types of hazards or chemicals, and documenting employee-training programs. Compliance with regulations set forth above will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored.

Construction impacts associated with release of hazardous materials throughout the life of the General Plan were analyzed in Impact 6.6-2 of the 2030 General Plan Master EIR (starting on p. 6.6-23). The City found that compliance with applicable regulations, hazardous waste management plans, land use plans, and emergency plans, along with implementation of General Plan Policy PHS 3.1.4, which commits the City to identifying and enforcing hazardous material transport routes; Policy PHS 3.1.5, which discourages the expansion of businesses that use hazardous materials; and PHS 3.1.6, which includes City requirements for proposed hazardous materials facilities, would reduce impacts to a less-than-significant level.

The MTP/SCS Program EIR provides a discussion of construction-related impacts associated with hazardous materials and accidental upset in Impact HAZ-9 (starting on p. 10-71). This EIR cites a list of existing regulations and finds that compliance with these regulations address normal construction activities related to land use changes from implementation of the proposed MTP/SCS. The applicable regulations from the MTP/SCS Program EIR are also cited in Section 4.7.2, Regulatory Setting of this EIR.

Use of Hazardous Materials during Project Operation

During project operation, no uses are anticipated that would involve significant quantities of hazardous materials. Automobile-oriented uses, which may use or store potentially hazardous materials (i.e., auto service and repair stations, and gas stations) are not permitted as a part of the project. Uses permitted in the R-5 zone include retail and commercial services that could at most involve relatively small quantities of hazardous materials. However, these businesses must comply with State regulations cited in this section related to use, handling, and worker safety. Relevant uses are regulated by programs described in the regulatory setting above. They provide the basis for procedures on safe handling of hazardous materials through training and implementation of best available technologies for use, storage, and transport and would aid in a more coordinated, quicker response in the event of accidental releases.

During project construction the proposed project would involve the removal of buildings that could contain asbestos, lead based paint and mold as well as the storage, use, and transport of small amounts of hazardous materials. These activities would not pose a significant risk to off-site residents or construction workers through compliance with existing laws and regulations. During project operation the proposed project would accommodate retail uses that could involve relatively small quantities of commonly used toxic materials associated with those businesses (household hazardous materials such as commonly used cleaning products). However, these businesses must comply with regulations cited in this section related to use, handling, and worker safety. Compliance with regulations set forth above will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored. Therefore, impacts associated with

exposing people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials or situations is **less than significant**.

Mitigation Measures

None required.

IMPACT 4.7-3 The proposed project could expose people (e.g., construction workers and residents) to soil vapor during construction or operation of the proposed project. *Based on the analysis below, the impact is less than significant.*

As described in Impact 4.7-1, the project would involve deep foundation work (drilling of piles or piers). Some pier types will require drilling which could create a preferential pathway for soil vapor to travel to indoor air in proposed basements and underground parking areas below existing grade.

A system of 12 groundwater extraction and treatment wells were installed and remediation is ongoing. An additional 168 groundwater monitoring wells were installed for the groundwater plume throughout the downtown area. Several of these monitoring and extraction wells are located in the immediate vicinity of the project site, in both 7th and P Streets. These wells were installed during the early to mid-1990s and have extensive monitoring records (see Figure 4.7-1).

A Phase I ESA presented a comparison between contamination concentrations from groundwater samples obtained from monitoring wells located along 7th and P Streets and the general environmental screening levels (ESLs) set forth by the SFRWQCB and determined this was not a soil vapor hazard at the project site.

More recent available monitoring data (ERM 2014) was reviewed for 24 monitoring wells located within 500 feet of the project site. Trace concentrations of VOCs were reported for 18 of the 24 wells, as discussed under existing conditions above. Some wells exhibited VOC concentrations that were slightly above the remedial action objectives for the South Plume. However, wells located within 100 feet of the project site exhibited test results that were either non-detectable for VOCs or concentrations that were below the applicable remedial action objectives.

Based on an the evaluation of current groundwater monitoring in the vicinity of the site, wells located within 100 feet of the project site are either non-detectable for VOCs or exhibit concentrations below the applicable groundwater remedial action objectives. Furthermore, none of the reported VOC concentrations in the nearby wells exceed the applicable ESL for potential vapor intrusion concern, lack volatilizations qualities, or are located off-site such that vapor intrusion is not likely to pose a human health hazard at the project site. Therefore, the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.7-4 The proposed project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. *Based on the analysis below, the impact is less than significant.*

No existing or proposed public schools are located within 0.25 mile of the project site (see Figure 4.7-2). There are three Discovery Tree private schools (corner of 5th and N Streets, 1020 N Street, and 1025 P Street) that enroll infants through pre-school. One school (at 5th and N Streets) is located across 5th Street from the project site, while the other two schools are located approximately 1,400 feet from the eastern property line of the proposed project. The use of relatively small amounts of hazardous materials during construction is addressed by compliance with existing regulations, as addressed under Impact 4.7-1 (above).

During project operation, no uses are anticipated that would require significant quantities of hazardous materials. Uses permitted in the R-5 zone include retail and commercial services that could at most involve relatively small quantities of hazardous materials. However, these businesses must comply with existing regulations cited in this section related to use, handling, and worker safety, such as those detailed above in Impact 4.7-2.

The project proposes neighborhood-serving retail uses to serve project residents including a small market, that would at most involve relatively small quantities of commonly used household hazardous materials. The use of relatively small amounts of hazardous materials during construction is addressed by compliance with existing regulations. Future uses at the project site that could involve hazardous materials must comply with regulations cited in this section related to the use, handling, and worker safety. Compliance with these regulations will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.7-5 The proposed project could substantially increase the risk of exposure of site occupants to inadvertent or accidental releases of hazardous substances transported on adjacent roadways or rail lines near the site. *Based on the analysis below, the impact is less than significant.*

The use of hazardous materials during project construction is discussed in Impacts 4.7-1 and 4.7-2, above. During project operation, retail uses would at most involve relatively small quantities of hazardous materials, and these businesses must comply with State regulations cited in this section related to the use, handling, and worker safety.

The City has major transportation corridors that would be anticipated to transport hazardous materials, including U.S. Highway 50; Interstates 5 and 80, and Capital City Freeway; and State Routes 99, 16, and 160; and the Union Pacific Railroad. The closest of these facilities to the project site is Interstate 5, which is approximately 0.25 mile west of the project site, as measured at the closest point. There are no rail lines near the site. It is possible that small quantities of hazardous materials could periodically be

transported along City streets near the project site. However, the transportation of hazardous materials is subject to applicable local, state, and federal regulations, which have been specifically designed to minimize the risk of upset during routine operations. The project proposes residential, retail (including potential food service uses), and (under one scenario) hotel uses, which do not require the delivery or use of significant quantities of hazardous materials.

No project uses are anticipated that would involve significant quantities of hazardous materials. Businesses using hazardous materials must comply with State regulations cited in this section related to use, handling, and worker safety. The project site is not adjacent to a major transportation corridor that would be anticipated to transport hazardous materials. The transportation of hazardous materials is subject to applicable local, state, and federal regulations, which have been specifically designed to minimize the risk of upset during routine operations (see above under “Regulatory Setting” for more details). Transportation of hazardous materials is regulated by the U.S. Department of Transportation’s Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies consist of the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers for transportation of hazardous waste on public roads. Compliance with these regulations will be required as a condition of project approval and be included in the project’s Mitigation Monitoring and Reporting Program to ensure compliance is monitored. The impact is **less than significant**.

Mitigation Measures

None required.

IMPACT 4.7-6 The proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. *Based on the analysis below, the impact is less than significant with mitigation.*

The project site is developed with residential and retail uses and the proposed project would maintain existing public rights-of-way and easements as a part of the proposed design. As a condition of approval, pedestrian ways internal to the project site would be designed to ensure adequate access by emergency vehicles and equipment, according to City requirements. During construction activities, the proposed project could result in temporary lane or street closures, which could affect emergency access and evacuation routes. However, Section 12.20.020 of the Sacramento City Code requires development projects to prepare traffic control plans for construction activities.

Section 12.20.20 of the City Code requires that the traffic control plan illustrate the location of the proposed work area; provide a diagram showing the location of areas where the public right-of-way would be closed or obstructed and the placement of traffic control devices necessary to perform the work; show the proposed phases of traffic control; and identify the time periods when the traffic control

would be in effect and the time periods when work would prohibit access to private property from a public right-of-way. The plan may be modified by the City at any time in order to eliminate or avoid traffic conditions that are hazardous to the safety of the public.

During construction, it may be necessary to restrict or redirect pedestrian, bicycle or vehicular movements around the site to accommodate demolition, material hauling, construction, staging, and modifications to existing infrastructure. Such restrictions could include lane closures, lane narrowing, and detours, which would be temporary. Lane restrictions, closures, and/or detours could cause an increase in traffic volumes and delays on adjacent roadways. In the event of an emergency, emergency response access or response times could be adversely affected. To prevent interference with emergency response, the traffic control plans provide information on access for emergency vehicles. Preparation of the required traffic control plan and compliance with the plan would minimize construction impacts related to interference with emergency response. Without a plan to address access during construction, the impact is conservatively assumed to be **potentially significant**.

Mitigation Measures

During construction, the City requires development projects prepare traffic management plans for construction activities, as required by Section 12.20.020 of the Sacramento City Code. The City requires that the traffic control plan illustrate the location of the proposed work area; provide a diagram showing the location of areas where the public right-of-way would be closed or obstructed and the placement of traffic control devices necessary to perform the work; show the proposed phases of traffic control; and identify the time periods when traffic control would be in effect and the time periods when work would prohibit access to private property from a public right-of-way. The plan may be modified by the City at any time in order to eliminate or avoid traffic conditions that are hazardous to the safety of the public. Compliance would minimize construction impacts related to interference with emergency response. Since this topic is more closely related to transportation, the mitigation measure is included in Section 4.11 of this EIR. The impact is considered **less than significant with mitigation**.

Mitigation Measure 4.7-6: Implement Mitigation Measure 4.11-5: Prepare and Implement Construction Traffic Management Plan

IMPACT 4.7-7 The proposed project could increase winds that would pose a hazard to pedestrians. *Based on the analysis below, the impact is less than significant.*

An evaluation was prepared by a qualified meteorologist (Don Ballanti), regarding the potential for the proposed project to result in a wind safety hazard by substantially increasing winds at pedestrian levels (Ballanti 2014). The results of that evaluation are summarized below and a copy of the report is provided in Appendix J.

The prevailing wind direction is from the southwest. The highest average wind speeds occur in the afternoon and evening hours. During the fall and winter, when the sea breeze diminishes, northerly winds occur more frequently, but southwesterly winds still predominate. A potentially significant hazard to public safety could occur if the exposure, orientation, and massing of project structures could alter winds within or surrounding the project site in a manner that substantially increases wind in pedestrian corridors or public spaces. Considering the protection from prevailing winds afforded to the project site

from the existing tall buildings in the project vicinity, and considering the massing, height, and required design elements of the proposed project, as set forth in the Planned Unit Development Guidelines for the proposed project (Ballanti 2014), concluded that development of the proposed project would not have the potential to result in a wind safety hazard by substantially increasing winds along pedestrian corridors or in public spaces. Therefore, the impact is **less than significant**.

Mitigation Measures

None required.

4.7.4 CUMULATIVE IMPACT DISCUSSION

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG’s MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

Public Resources Code, Section 21155.2 [c] [1] provides that, “where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]” (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the cumulative discussion below.

The cumulative context for the analysis of potential hazardous materials impacts (including hazardous materials usage during construction, exposure to potentially contaminated soils, water or vapors, wind hazards, and accidental spill or release of hazardous materials near a school) is site-specific and would not combine with other uses to create a cumulative effect. Compliance with all applicable federal, state, and local regulations related to hazards and hazardous materials would be required; therefore, these issues are not addressed in the cumulative impact analysis.

For hazards and hazardous materials impacts, the geographic scope for the cumulative analysis is the City’s Policy Area, as depicted in the 2030 General Plan.

IMPACT 4.7-8	Cumulative impacts related to the emission, handling, or release of, or exposure to hazardous materials. <i>This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact and pursuant to Public Resources Code section 21155.2(c)(1), this cumulative impact is not cumulatively considerable.</i>
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Hazards and hazardous materials conditions are site-specific and there is little, if any, cumulative relationship between implementation of the proposed project and past, present, and future projects in

the Sacramento region. Adherence to relevant regulations during construction and operational phases of the project would reduce impacts related to hazardous materials – both those impacts associated with proposed project, as well as other projects developed in the City.

The 2030 General Plan Master EIR found that hazardous materials impacts are generally site-specific rather than cumulative (p. 6.6-25). The City found that compliance with existing regulations for projects throughout the City would determine impacts and the need for mitigation. A separate evaluation of cumulative impacts, therefore, was not required as a part of the Master EIR, since the impacts of all projects in the Policy Area was included as a part of the EIR’s base impact analyses.

The MTP/SCS EIR also concludes that hazardous materials and other public health and safety issues are generally site-specific and/or project-specific, and would not be significantly affected by other development outside of the region. Therefore, the MTP/SCS EIR concludes that implementation of the MTP/SCS will not result in a cumulative impact relating to hazards and hazardous materials (p.19-23).

The City of Sacramento finds that the cumulative impact of the proposed project related to emission, handling, or release of, or exposure to hazardous materials has been fully addressed by the 2030 General Plan Master EIR and MTP/SCS EIR. Therefore, there is **no cumulative** hazards impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does not have the potential to result in a cumulatively considerable impact related to emission, handling, or release of, or exposure to hazardous materials.

Mitigation Measures

None required.

IMPACT 4.7-9 Cumulative impacts related to interference with emergency response or conflict with an emergency response plan or emergency evacuation plan. *This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact and pursuant to Public Resources Code section 21155.2(c)(1), this cumulative impact is not cumulatively considerable.*

The proposed project would maintain existing public rights-of-way and easements as a part of the proposed design and will be required to prepare a traffic control plan to avoid adverse effects related to emergency access during construction activities.

As a part of the 2030 General Plan Master EIR, the City identified that demolition and construction activities within the City’s Policy Area could interfere with emergency and evacuation routes and adversely affect emergency response times and access. This could lead to a cumulative impact if multiple construction sites are simultaneously restricting access. However, the EIR found that implementation of Sacramento Municipal Code Sections 12.20.020 and 12.20.030, which require preparation of construction traffic control plans would reduce impacts to emergency response. The City may deny or revise plans to ensure compatibility in such situations (p. 6.6-26) and the EIR found that compliance with existing regulations would avoid a significant cumulative impact.

Buildout of the MTP/SCS would require the management of emergency and emergency evacuation plans. These impacts were addressed at the regional and local level under Impact HAZ-7 in the

MTP/SCS Program EIR and found to be less than significant (p. 10-58). Impacts were also determined to be less than significant within center and corridor communities.

The City of Sacramento finds that the cumulative impact of the proposed project related to emergency response or conflict with an emergency response plan or emergency evacuation plan has been fully addressed by the 2030 General Plan Master EIR and MTP/SCS EIR. Therefore, there is **no cumulative** hazards impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does not have the potential to result in a cumulatively considerable impact related to emergency response or conflict with an emergency response plan or emergency evacuation plan.

Mitigation Measures

None required.

4.8 HYDROLOGY AND WATER QUALITY

This section discusses hydrology and water quality in the project vicinity. The analysis describes the existing environmental conditions, the methods used for assessment, and the potential environmental impacts associated with implementing the proposed project. Mitigation measures are included to address potentially significant impacts of the proposed project. This section also provides a brief overview of federal, state, and local laws and regulations pertaining to hydrology and water quality.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to construction-related erosion and other water quality effects, stormwater permits, waste discharge requirements, and contaminated groundwater. Each of these topics was evaluated based on publicly available information including local planning and policy documents, flood data, and water quality data acquired from Geotracker (State Water Resources Control Board 2014). Copies of the NOPs and comments received in response are included in Appendix B to this EIR.

4.8.1 ENVIRONMENTAL SETTING

SURFACE WATER

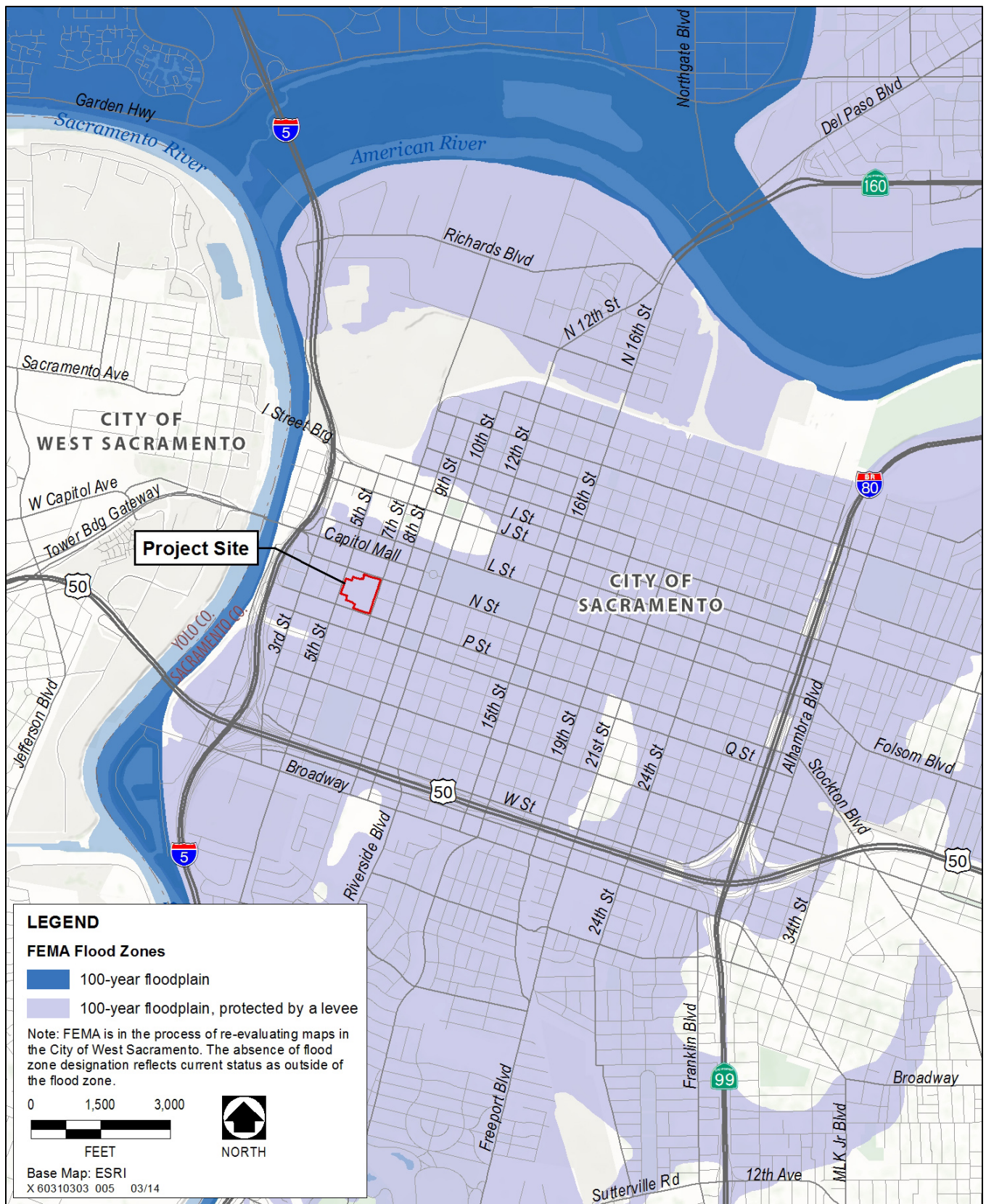
The project site is located within the Sacramento River Watershed, approximately 1.2 miles south of the confluence of the Sacramento and American Rivers and approximately 1,700 feet east of the Sacramento River. The topography on the project site is nearly flat, with elevations ranging from approximately 15 to 20 feet above mean sea level.

The American River watershed encompasses approximately 1,900 square miles and is a tributary to the Sacramento River. The river is regulated by dams, canals, and pipelines for power generation, flood control, water supply, recreation, fisheries, and wildlife management. Folsom Dam, located on the American River, is owned and operated by the U.S. Bureau of Reclamation. Folsom Lake and its afterbay, Lake Natoma, release water to the lower American River and to the Folsom South Canal.

The *2008–2010 Section 303(d) List of Impaired Waters* for California issued by the State Water Resources Control Board (SWRCB) (2011) indicates that the Sacramento River from Knights Landing to the Sacramento–San Joaquin Delta (Delta) is listed as impaired for chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, mercury, polychlorinated biphenyls (PCBs), and unknown toxicity. The Sacramento River flows into the Delta, which is listed as impaired for chlordane, DDT, dieldrin, dioxin and furan compounds, invasive species, mercury, PCBs, and selenium.

Flooding

The most recent Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), (FEMA 2012), identifies the project site as being located in an area that has 0.2% annual chance flood and an area protected by levees from the 1% annual chance flood (Figure 4.8-1). The project site is also located in the Folsom Dam failure inundation area (see Figure 11.6 in the MTP/SCS Program EIR [SACOG 2011]).



Source: FEMA 2013

Figure 4.8-1

Floodplain Mapping

High water levels commonly occur along the Sacramento and American rivers in the winter and early spring months as a result of increased flows from stormwater runoff and/or snowmelt. An extensive system of dams, levees, overflow weirs¹, drainage pumping stations, and flood control bypass channels are located on and adjacent to the Sacramento and American rivers, and their respective tributaries, to protect the area from regional flooding. Many of these facilities are maintained by the City; the U.S. Army Corps of Engineers (USACE); and/or by other federal, state, or local agencies.

The flood control network controls water flows by regulating the amount of water passing through a particular reach of the river. Urban runoff flows are directed into this system by the City via two systems: (1) conveyance to the Sacramento River and American River through sumps, pipelines, and treatment facilities; or (2) conveyance by the City's Combined Sewer Service System (CSS), along with sewage to the Sacramento Regional Wastewater Treatment Plant (SRWTP) located near Elk Grove.

Hydrologic soil groups² are factored into calculations of erosion potential when drainage plans are prepared. Group A soils generally exhibit a low runoff potential, and Group B soils exhibit a low to medium runoff potential. Group C soils exhibit a medium to high runoff potential, while Group D soils have a high runoff potential. As described in detail in Section 4.5, "Geology and Soils," the project site soils have been classified by the U.S. Natural Resources Conservation Service as "urban land," and, therefore, the soils have not been assigned to a hydrologic group (NRCS 2013). However, a site-specific *Geotechnical Feasibility Report* prepared by ENGeo in 2014, determined that the project site consists of compressible, sandy, fine-grained soil emplaced in the 1860s, to a depth of approximately 10 feet below ground surface (bgs) (ENGeo, 2014). Additional weak and compressible fine-grained soil is present to a depth of 30–45 feet bgs, underlain by loose to medium dense sand of variable thickness. In general, fine-grained and/or sandy soils have high water erosion potential if not properly stabilized. Furthermore, in general, fine-grained soils tend to impede the downward flow of water and are, therefore, of low permeability, while sandy soils have large pore spaces and are, therefore, highly permeable.

GROUNDWATER

The project site is located in the Sacramento Central Groundwater Basin (Central Basin), which is located entirely within Sacramento County and is managed by the Sacramento Central Groundwater Authority. Groundwater underlying the Central Basin is contained within a shallow aquifer (Modesto Formation) and a deep aquifer (Mehrten Formation). Monitoring well data indicate depth to groundwater in the site vicinity is approximately 10 to 15 feet bgs, with fluctuations as shallow as 7 to 8 feet (ENGeo 2014). The deep aquifer is separated from the shallow aquifer by a discontinuous clay layer that serves as a semi-confining layer. The deep aquifer typically requires treatment for iron and manganese, which may cause mineral deposits and affect the taste of water. Intensive use of groundwater over the past 60 years has resulted in a general lowering of groundwater elevations. Over time, isolated groundwater depressions have grown and coalesced into a single cone of depression that is centered in the southwestern portion of the Central Basin (Central Sacramento County Groundwater Forum, 2006:ES-3 and ES-4).

¹ Diversion structures intended to ensure that flows in the river do not exceed an identified maximum level.

² A designation developed by the U.S. National Resources Conservation Service that describes the infiltration capacity of soil. Soil associations are categorized in decreasing infiltration capacity from A to D.

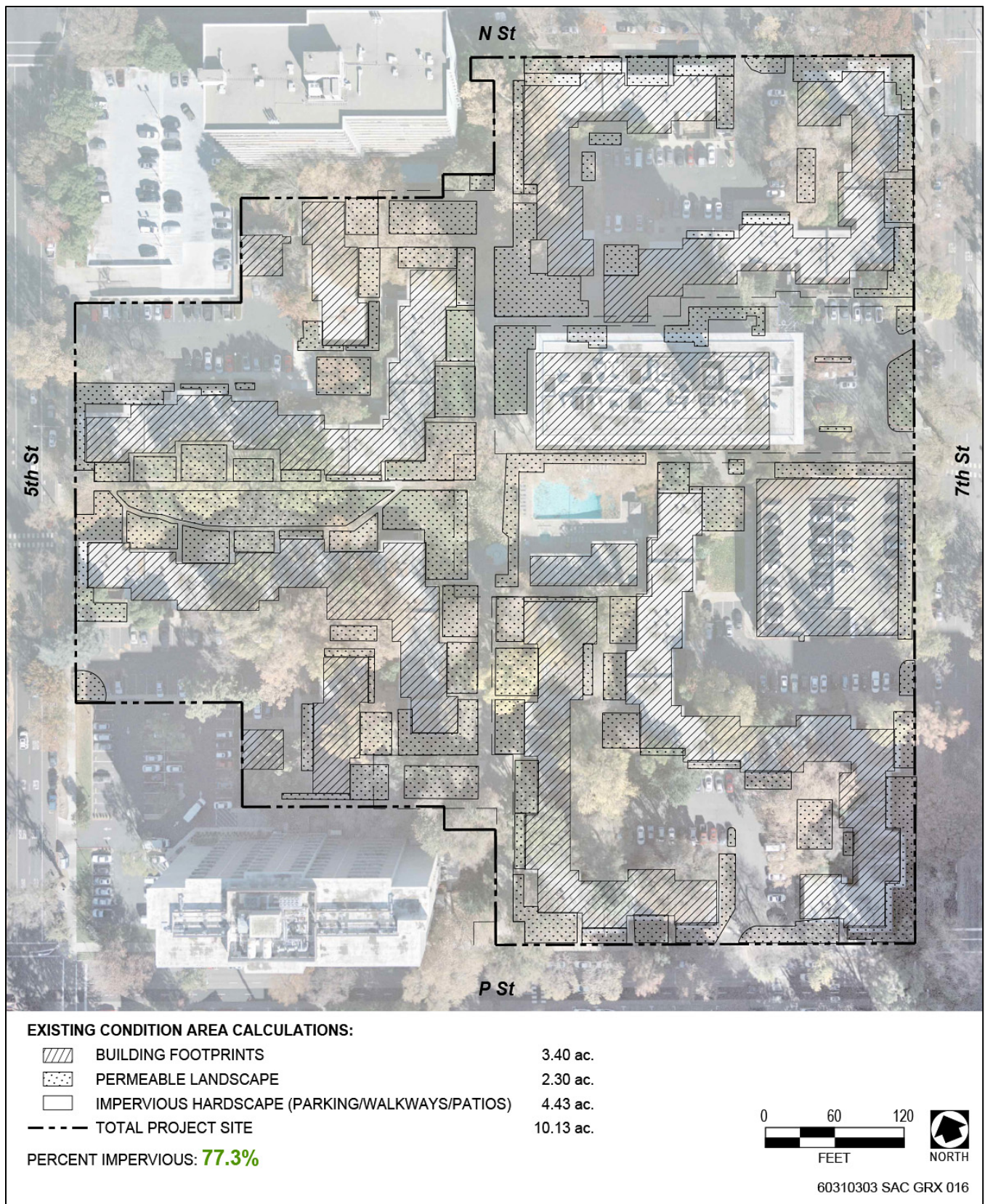
In 2012, IVI Assessment Services Inc. (IVI) performed a Phase I Environmental Site Assessment for the existing Capitol Towers and garden apartments on the project site. IVI determined that most of the project site is underlain by the south-area contaminated groundwater plume emanating from the former Union Pacific Railyards, located approximately 0.42 mile north of the project site. The South Plume is defined by the occurrence of solvents in groundwater ranging in depth between approximately 25 and 180 feet below ground surface (DTSC 2013). The groundwater generally flows southeast. It is contaminated with solvents (volatile organic compounds), metals, and petroleum hydrocarbons. Union Pacific Railroad is in the process of remediating the contaminated groundwater via a system of 12 groundwater extraction and treatment wells in the vicinity of the former Railyards area. Several monitoring wells are located in the immediate vicinity of the project site (see Figure 4.7-1 for more detail) (IVI 2012:67–68). (The potential for human health hazards associated with contaminated groundwater is evaluated in Section 4.7, “Hazards and Hazardous Materials”).

ENGEO reviewed available groundwater data compiled for the Railyards South Plume within the area adjacent to and including the project site to understand the existing conditions. The review included an August 2014 report prepared by Environmental Resource management (ERM) and data from 24 wells located within 500 feet of the site. Trace concentrations of total Volatile Organic Compounds (VOCs) were reported for 18 of the 24 wells, with concentrations ranging from 0.13 micrograms per liter (ug/L) to 20.8 ug/L (ERM 2014). The wells located within 100 feet of the project site are either non-detectable for VOCs or exhibit concentrations below the applicable remedial action objectives. Remedial objectives are established as goals for public and environmental health proposed for a remediation project. Furthermore, the noted trace groundwater concentrations are located greater than 30 feet in depth (ENGEO 2014).

The project site has a long history as a developed site with composition of soft and hardscape. The 10.13 acre project site has 7.83 acres of buildings and other hard surfaces and 2.30 acres of landscaped areas, including grassy lawn areas and trees (Figure 4.8-2).

Stormwater

The City operates two different systems for stormwater collection and conveyance. The older Central City area is primarily served by a system in which sanitary sewage and storm drainage are collected and conveyed in the same system of pipelines, referred to as the Combined Sewer System (CSS). The CCS provides both sewage and storm drainage services to more than 24,000 parcels in downtown, midtown, Land Park, and East Sacramento areas of Sacramento. Originally, the system established in the 1800s collected sewage and stormwater in the same pipe. However, storm runoff near the project site is conveyed separately, and the project site is served by the City’s CSS for sewer only (City of Sacramento 2008, p. 8-2).



Source: Wood Rodgers 2014

Figure 4.8-2

Existing Pervious and Impervious Surfaces

The CSS is regulated under its own National Pollutant Discharge Elimination System (NPDES) permit. However, while the project site is located in the Central City, it is within the City's Basin 52 storm drainage shed area. This drainage shed area separates storm runoff from the existing CSS and conveys storm drainage flows in dedicated drainage pipes. The project site includes on-site stormwater drainage and conveyance pipelines to provide connectivity with the existing conveyance pipes located in N, P, and 7th Streets. From these points, flows are conveyed to Pump Station (Sump) 52, located near the southern side of the Crocker Art Museum at 2nd and P Streets. From Sump 52, the storm drainage system allows water to be pumped into the Sacramento River. The City has a separate storm drainage system which is connected to the project site and is regulated under a different NPDES permit from the CSS system. Please refer to Section 4.12, "Utilities and Service Systems," for additional details.

4.8.2 REGULATORY SETTING

FEDERAL

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for managing water quality. The Clean Water Act (CWA) of 1972 is the primary federal law that governs and authorizes EPA and the states to implement activities to control water quality. The various elements of the CWA that address water quality and are applicable to the project are discussed below.

Water Quality Criteria and Standards

Under federal law, EPA has published water quality regulations in Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. EPA is the federal agency with primary authority for implementing regulations adopted under the CWA. EPA has delegated the State of California as the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act of 1969.

Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives after implementation of required levels of treatment by point-source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of loading that the water body can receive and still be in compliance with water quality objectives. The TMDL can also act as a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. The TMDL prepared by the state must include an allocation of allowable loadings to point and nonpoint sources, with consideration of background loadings and a margin of safety. The TMDL must also include an analysis that shows links between loading reductions and the

attainment of water quality objectives. EPA must either approve a TMDL prepared by the state or, if it disapproves the state's TMDL, issue its own. NPDES permit limits for listed pollutants must be consistent with the waste load allocation prescribed in the TMDL. After implementation of the TMDL, it is anticipated that the problems that led to placement of a given pollutant on the Section 303(d) list would be remediated.

National Pollutant Discharge Elimination System Permits

The NPDES permit system was established in the CWA to regulate municipal and industrial point discharges to surface waters of the United States. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

The CWA was amended in 1987 to require NPDES permits for nonpoint-source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of structural and nonstructural best management practices (BMPs). BMPs can include the development and implementation of various practices: educational measures (workshops informing the public of what impacts result when household chemicals are dumped into storm drains), regulatory measures (local authority for drainage facility design), public policy measures, and structural measures (bioretention planters, grass swales, and detention ponds). The NPDES permits that apply to activities in the City of Sacramento are described below in the discussion of local regulations.

Floodplain Regulations

Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations. FEMA imposes building regulations on development within flood hazard areas depending on the potential for flooding in each area. Building regulations are incorporated into the municipal code of jurisdictions participating in the National Flood Insurance Program (NFIP). Section 15.104, "Floodplain Management Regulations," of the Sacramento City Code includes requirements for compliance with the federal regulations. FEMA administers the NFIP to provide subsidized flood insurance to communities that comply with FEMA regulations in floodplains. FEMA also issues FIRMs that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection covered by the FIRMs is established by FEMA. The minimum level of flood protection for new development has been determined to be the 1-in-100 (0.01) annual exceedance probability [AEP] (i.e., the 100-year flood event). FEMA is also responsible for issuing revisions to FIRMs through the local agencies that work with the NFIP.

STATE

Surface Water Quality

In California, the State Water Resources Control Board (SWRCB) has broad authority over water-quality control in the state. The SWRCB is responsible for developing statewide water quality policy and

exercises the powers delegated to the state by the federal government under the CWA. Regional authority for planning, permitting, and enforcement is delegated to the nine regional water quality control boards (RWQCBs). The Porter-Cologne Water Quality Control Act of 1969 requires the RWQCBs to formulate and adopt basin plans for all areas in the region and establish water quality objectives in the plans. Basin plans must formulate and determine beneficial uses and water quality objectives, and must establish an implementation program for achieving water quality objectives. California water quality objectives (or “criteria” under the CWA) are found in the basin plans adopted by the SWRCB and each of the RWQCBs. The Central Valley RWQCB is responsible for the regional area in which the project site is located.

Water quality objectives for the Sacramento River are specified in the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan)* prepared by the Central Valley RWQCB (2011). The Basin Plan establishes water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Sacramento and San Joaquin River Basins. Because the City of Sacramento and the project site are located within the Sacramento River Basin, all discharges to surface water or groundwater fall under the Central Valley RWQCB’s jurisdiction and are subject to Basin Plan requirements. The requirements outlined in the NPDES permits that regulate development within the Sacramento City limits are based on the Basin Plan requirements.

Construction Dewatering

Project construction would require dewatering. Where groundwater levels tend to be shallow, dewatering is sometimes necessary during construction to keep trenches or excavations free of standing water when improvements or foundations/footings are installed. Clean or relatively pollutant-free water that poses little or no risk to water quality may be discharged directly to surface water under certain conditions and with authorization of the City’s Department of Utilities. The Central Valley RWQCB (2013) has adopted a general NPDES permit for short-term discharges of small volumes of wastewater from certain construction-related activities (General Dewatering Permit). Permit conditions for the discharge of these types of wastewater to surface waters are specified in the *General Order for Dewatering and Other Low Threat Discharges to Surface Waters* (Order No. R5-2013-0074, NPDES No. CAG995001).

Discharges may be covered by the General Dewatering Permit if (1) the average dry-weather discharge does not exceed 0.25 million gallons per day or (2) the discharge does not exceed 4 months in duration. Construction dewatering, well development water, pump/well testing, and miscellaneous dewatering/low-threat discharges are among the types of discharges that may be covered by the General Dewatering Permit. The General Dewatering Permit also specifies standards for testing, monitoring, and reporting; receiving-water limitations; and discharge prohibitions.

If dewatering activities would exceed 4 months in duration, a project-specific permit from the Central Valley RWQCB is required. Furthermore, where dewatering activities would occur in areas of contaminated groundwater or intermix with contaminated soil, the permittee is required to consult with the Central Valley RWQCB to determine the specific permit terms, disposal methods, and/or the types of treatment.

Construction Site Runoff Management

In accordance with NPDES regulations, to minimize the potential effects of construction runoff on receiving-water quality, the state requires that the project proponent for any construction activity that disturbs one acre or more of land obtains coverage from the SWRCB under the General Construction Activity Stormwater Permit (Construction General Permit), Order No. 2009-0009-DWQ, NPDES No. CAS000002, effective July 1, 2010. The applicant for a Construction General Permit must prepare and implement a storm water pollution prevention plan (SWPPP). The SWPPP must include BMPs to reduce construction effects on receiving-water quality by implementing erosion and sediment control measures and reducing or eliminating nonstormwater discharges. Examples of construction BMPs typically included in SWPPPs include using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment-control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutant discharges to drainage systems or receiving waters.

Central Valley Flood Management

The Central Valley Flood Management Planning Program was launched as part of the California Department of Water Resources' FloodSAFE California initiative in 2008 to guide, manage, and implement integrated flood management actions for the Sacramento and San Joaquin Valleys as required by Senate Bill 5, which was enacted in 2007 and later revised by SB1278 (California Water Code Sections 9600–9651). The Central Valley Flood Management Planning Program is currently supporting the planning and coordination of major implementation actions of the 2012 Central Valley Flood Protection Plan (CVFPP), including state-led basin wide feasibility studies, locally led regional flood-management planning efforts, and the Central Valley Flood System Conservation Strategy. Each of these planning efforts will be incorporated into the next update of the CVFPP, which is scheduled for adoption in 2017. Implementation of CVFPP actions has already begun and will be expanded after the 2017 update to the plan is completed.

A regional flood management plan for the Sacramento North/Delta North area is currently being prepared. Projects that would improve flood control in the region will be identified and ranked in the plan. In addition, the passage of Senate Bill 5 effectively set a higher flood protection threshold for development in urban areas by requiring a minimum of 200-year protection by 2025. The City must have a plan in place to achieve 200-year protection by July 2016, as required by the Department of Water Resources.

LOCAL

Sacramento Area Flood Control Agency

The Sacramento Area Flood Control Agency (SAFCA) was formed in 1989 to address the Sacramento area's vulnerability to catastrophic flooding. Their mission is to minimize flood risk potential while preserving the environment and enhancing floodway and floodplains. This vulnerability was exposed during the record flood of 1986 when Folsom Dam exceeded its normal flood control storage capacity

and several area levees nearly collapsed under the strain of the storm. In response, the City of Sacramento, the County of Sacramento, the County of Sutter, the American River Flood Control District and Reclamation District No. 1000 created SAFCA through a Joint Exercise of Powers Agreement to provide the Sacramento region with increased flood protection along the American and Sacramento Rivers (SAFCA 2014).

Sacramento 2030 General Plan

The following 2030 General Plan policies are related to hydrology and water quality.

Goal EC 2.1 Flood Protection. Protect life and property from flooding.

- ▶ **Policy EC 2.1.5 Floodplain Requirements.** The City shall regulate development within floodplains in accordance with State and Federal requirements and maintain the City's eligibility under the National Flood Insurance Program.
- ▶ **Policy EC 2.1.6 New Development.** The City shall require evaluation of potential flood hazards prior to approval of development projects.

Goal ER 1.1 Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American rivers, and their shorelines.

- ▶ **Policy ER 1.1.3 Stormwater Quality.** The City shall control sources of pollutants and improve and maintain urban runoff water quality through storm water protection measures consistent with the City's National Pollution Discharge Elimination System (NPDES) Permit.
- ▶ **Policy ER 1.1.4 New Development.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the City's NPDES Permit.
- ▶ **Policy ER 1.1.5 No Net Increase.** The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.
- ▶ **Policy ER 1.1.6 Post-Development Runoff.** The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.
- ▶ **Policy ER 1.1.7 Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.

Goal U 4.1 Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally sensitive, accommodate growth, and protect residents and property.

- ▶ **Policy U 4.1.1 Adequate Drainage Facilities.** The City shall ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.
- ▶ **Policy U 4.1.4 Watershed Drainage Plans.** The City shall require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City's National Pollutant Discharge Elimination System (NPDES) permit.
- ▶ **Policy U 4.1.5 New Development.** The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures to prevent on- or off-site flooding.

Goal PHS 3.1 Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

- ▶ **Policy PHS 3.1.1 Investigate Sites for Contamination.** The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.
- ▶ **Policy PHS 3.1.2 Hazardous Material Contamination Management Plan.** The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. The 2035 General Plan proposes only one new policy related to hydrology and water quality relevant to the proposed project:

- ▶ **Policy U 4.1.5 Green Stormwater Infrastructure.** The City shall encourage “green infrastructure” design and Low Impact Development (LID) techniques for stormwater facilities (i.e., using vegetation and soil to manage stormwater) to achieve multiple benefits (e.g., preserving and creating open space, improving runoff water quality).

Groundwater Management

The Sacramento Central Groundwater Authority is a joint-powers authority created to collectively manage the Sacramento Central Groundwater Basin, which includes a portion of Sacramento County from south of the American River to the Cosumnes River. The Sacramento Central Groundwater Authority adopted its most recent groundwater management plan, which was prepared by the Central Sacramento County Groundwater Forum, in 2006. The plan establishes goals, management objectives,

and the primary components needed to manage the groundwater basin. As required by the California Water Code, these components consist of:

- ▶ an inventory of water supplies and a description of water uses in a given region,
- ▶ basin management objectives that are designed to protect and enhance the groundwater basin,
- ▶ monitoring and management programs designed to ensure that the basin management objectives are being met, and
- ▶ a description of stakeholder involvement and public information plan and programs for the groundwater basin.

Sacramento County Multi-Hazard Mitigation Plan

The City is a signatory to the *Sacramento County, Local-Hazard Mitigation Plan* (LHMP). The LHMP is designed to meet the requirements of the Disaster Mitigation Act of 2000, which allows for eligibility for certain hazard mitigation (i.e., disaster loss reduction) programs under FEMA. Formulation of the LHMP was based on hazard identification and a risk assessment of potential natural hazards that could affect Sacramento County, a review of the county's capability to reduce hazards impacts, and recommendations to further reduce vulnerability to potential disasters. FEMA approved the current LHMP on November 23, 2011. The plan was adopted by the City on June 10, 2013. The LHMP includes emergency management provisions for flood hazards such as a levee breach or dam failure.

City of Sacramento Comprehensive Flood Management Plan

The City's Comprehensive Flood Management Plan (CFMP) is an implementation tool for preparing for a major flood event to reduce potential loss and significant economic loss caused by extensive property damage. A major flood event would also seriously disrupt business and services, affecting the entire region. The CFMP addresses the protection of public safety (i.e., emergency preparedness, interior drainage, risk communication, protection of critical facilities, and development guidelines), regardless of the level of flood control protection. The CFMP is intended as a plan to serve as the City's strategic plan to reduce flood risk. Each major section offers recommendations for new or modified policies, preparations, and physical structures to enhance the level of flood protection in Sacramento, as well as cost estimates for implementation. Specific guidelines applicable to the Central City for flood (stormwater) management are incorporated into the 2009 *Sacramento Central City Urban Design Guidelines* (see below).

Stormwater Quality/Urban Runoff Management

Sacramento County and the cities of Sacramento, Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Galt have a joint Municipal Separate Storm Sewer System NPDES permit (MS4 permit) (No. CAS082597) that was granted on September 11, 2008. Collectively, these jurisdictions are referred to as the Sacramento Stormwater Quality Partnership (SSQP). The MS4 permit is intended to implement the Basin Plan through the effective implementation of BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. The permittees listed in the joint permit have the

authority to develop, administer, implement, and enforce stormwater management programs within their own jurisdictions.

The MS4 permit defines “urban stormwater runoff” as including stormwater and dry-weather flows from a drainage area that reaches a receiving water body or subsurface. The permit regulates the discharge of all wet- and dry-weather urban stormwater runoff within the Sacramento City limits and requires the City to implement a stormwater management program to reduce pollutants in stormwater to the maximum extent practicable. In response, the City and the other permittees created the *Stormwater Quality Improvement Plan for the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova* (SQIP) to address the MS4 permit requirements and reduce the pollution carried by stormwater into local creeks and rivers (SSQP 2009). The program includes pollution reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations. The program also includes an extensive public education effort, strategy for reducing targeted pollutants, and monitoring program. The SQIP also outlines the priorities, key elements, strategies, and evaluation methods of the program.

The project area has been previously developed and is considered an infill site. As a result, any infill project is required to comply with the City’s “Do No Harm” policy. This policy requires infill areas to fully mitigate any potential increase in water flow that leaves the project site. This will be accomplished with on-site detention, as required to ensure that there will be no increase in storm runoff leaving the project site. The specific BMPs that are appropriate for a project to meet the requirement of reducing pollutant discharges to the maximum extent practicable are site specific. During the design process, the appropriate required post construction treatment measures and Low Impact Development (LID) strategies shall be selected and incorporated into project plans. Post construction treatment measures are engineered technologies designed to remove pollutants from site runoff. LID uses site design and stormwater management to maintain predevelopment runoff rates and volumes by employing decentralized design techniques that infiltrate, filter, store, evaporate, and detain runoff. The SSQP collaboratively published the *Stormwater Quality Design Manual for Sacramento and South Placer Regions* (SSQP 2007) to meet MS4 permit requirements, and to provide clear guidance for project applicants on how to incorporate BMPs that achieve permit compliance. The manual provides locally adapted information for the design and selection of three categories of stormwater quality control measures: source control, runoff reduction, and treatment control.³

City of Sacramento Department of Utilities Engineering Services

All groundwater discharges to the CSS or the separate drainage system are regulated by the City’s Department of Utilities pursuant to Resolution No. 92-439 adopted by the Sacramento City Council.

³ An updated version of this manual, the Sacramento Region Stormwater Quality Design Manual, was completed in May 2014. The manual provides locally-adapted information for design and selection of stormwater quality control measures and now incorporates hydromodification management and low impact development (LID) design standards. The MS4 permit identifies the need to address changes in the hydrograph, defined as hydrograph modification or hydromodification, that could result from urbanization of a watershed, and to require mitigation measures to more closely mimic the predeveloped hydrologic condition. To address hydromodification, the SSQP prepared a *Hydromodification Management Plan* (HMP), which was revised in February 2013. The HMP (chapter 3) includes applicability criteria detailing which areas of the City of Sacramento will be subject to the hydromodification requirements. Per section 3.2.2 of the Sacramento HMP, the project site is located in an area that is exempt from complying with the hydromodification requirements since the runoff from the site is conveyed via drainage pipes and pumped directly to the river. The HMP is yet to be approved by the Central Valley RWQCB. Therefore, the topic of hydromodification (i.e., changes to the hydrologic and geomorphic processes in a watershed as a result of impervious surfaces and drainage infrastructure from urbanization), is not discussed further herein.

Groundwater discharges to the City's sewer and/or separated drainage systems are defined as construction dewatering discharges, foundation or basement dewatering discharges, treated or untreated contaminated groundwater cleanup discharges, and uncontaminated groundwater discharges.

Project construction would include dewatering. In addition to the state requirements described above, the City requires that any short-term discharge be permitted, or an approved memorandum of understanding (MOU) for long-term discharges be established, between the discharger and the City. Short-term limited discharges of 7 days or less must be approved through the City's Department of Utilities by an approval letter. Long-term discharges of greater than 7 days must be approved through the City's Department of Utilities and the Director of the Department of Utilities through an MOU process. The MOU must specify the type of groundwater discharge, flow rates, and discharge system design. It also must include a City-approved contaminant assessment of the proposed groundwater discharge indicating tested levels of constituents. In addition, the MOU must provide a City-approved effluent monitoring plan to ensure that contaminant levels remain in compliance with state standards or with levels approved by the Sacramento Regional County Sanitation District and Central Valley RWQCB.

City of Sacramento Sediment Control Ordinance

The City's Grading, Erosion, and Sediment Control Ordinance (Chapter 15.88 of the Sacramento City Code) applies to projects where 50 cubic yards or more of soil is excavated and/or disposed. This ordinance requires preparation of a grading plan, erosion and sediment control plan, and post construction erosion and sediment control plan with BMPs, which must be approved by the City. In addition, the City's Stormwater Management and Discharge Control Ordinance (Chapter 13.16 of the Sacramento City Code) requires that projects take steps to minimize and contain sediment and pollutants in stormwater discharges from construction sites.

Combined Sewer System Development Fee Program

To support ongoing maintenance and upgrade efforts, the City has adopted the Combined Sewer System Development Fee Program. Projects subject to the Program are not subject to the other City Sewer Development Fee. The City enacted the Program to ensure projects requiring new sewer service connections to the combined sewer system contribute their "appropriate share of the capital costs of the City's existing and/or new combined sewer system facilities" (City Code, Section 13.08.490[A]). Consistent with the 2030 General Plan and City Code, the fee is subject to automatic annual adjustments and the City Council has the discretion to make further adjustments as necessary to ensure the program is adequately funded to maintain and improve the City's combined sewer system (City Code, sec. 13.08.490[C]). Please see Section 4.12 of this EIR, which addresses utilities, including sewer.

Sacramento Central City Urban Design Guidelines

The *Sacramento Central City Urban Design Guidelines* (Section 3, Chapter 4, Subsection B4) contain requirements for open space, landscaping, and other measures that benefit stormwater management

and water quality. The following specific provisions in the guidelines are beneficial to stormwater management:

4. Open Space

Public, Common and Private Open Space should be provided as follows:

- ▶ Public open space should include hard and soft landscaping, areas for sun and shade, benches and water features, where appropriate.

4A. Open Space – Small Public Spaces

Ecological Design. Privately owned public open spaces should provide enhanced landscaping and ecological functionality, and contribute to local stormwater management strategies. Plazas, particularly because they are open expanses of paved material, should be designed to capture, filter and recycle rainwater from adjacent buildings and streets.

4.8.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

The following impact analyses are qualitative and based on existing hydrologic and water quality information. It is assumed that all aspects of the proposed project would comply with all applicable laws, regulations, design standards, and plans. Impacts on water quality were evaluated by considering the type of pollutants the project would generate or encounter during construction and operation and whether meeting the requirements of applicable regulations would reduce potential impacts to a less-than-significant level. On-site drainage impacts were evaluated in the same manner as water quality impacts. Potential impacts related to flooding were analyzed by comparing the 100-year floodplain boundary as defined by FEMA with the location of the project site. The analysis of impacts on groundwater considers how redevelopment would influence groundwater recharge based on project-related increases in impervious surfaces and the existing and projected conditions of the groundwater basin. An analysis of impacts on water supply, sewer, and stormwater infrastructure is included in Section 4.12, "Utilities and Service Systems." An analysis of human health issues associated with water quality is included in Section 4.7, "Hazards and Hazardous Materials." In addition, an analysis of potential impacts to existing drainage patterns and related erosion and siltation is included in Section 4.5, "Geology and Soils."

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, hydrology and water quality impacts are considered significant if the project would:

- ▶ violate any water quality standards or waste discharge requirements;

- ▶ substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted);
- ▶ substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation;
- ▶ substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding;
- ▶ create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- ▶ otherwise substantially degrade water quality;
- ▶ place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- ▶ place within a 100-year flood hazard area structures that would impede or redirect flood flows;
- ▶ expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- ▶ result in inundation by seiche, tsunami, or mudflow.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An initial study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An initial study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process is often referred to as “scoping out” issues.

Certain issues were scoped out in the initial study or are not relevant to the project site. The project site is located too far from the Pacific Ocean or any other large body of water to be affected by tsunamis. Mudflows occur only in areas of steep terrain; the project site is nearly flat and is not located adjacent to or in the vicinity of any areas of steep terrain where mudslides could occur. Because the Sacramento Valley is generally not seismically active (see Section 4.5, “Geology and Soils,” for further discussion), there is a low probability for a seismic seiche to occur in the Sacramento or American Rivers in the project vicinity. In addition, the proposed project would not alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river. Therefore, these issues are all less than significant and have been addressed in the Initial Study (see Appendix B) and are not further evaluated.

Furthermore, the 2030 General Plan Master EIR determined that the City is not within an area subject to seiche, tsunami, or mudflows, therefore, no further analysis of these types of hazards was necessary in evaluating the proposed project.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT 4.8-1 The project could have short-term, construction-related effects on water quality. Based on the analysis below, the *impact is considered less than significant with mitigation.*

Project implementation would result in earthmoving activities throughout the 10.13-acre project site, except for the approximately 0.5-acre building footprint of the existing Capitol Towers building, which would remain in place. Construction activities for the project specifically, grading, staging, stockpiling, trenching, and foundation excavation—would expose soils to erosive forces and could transport sediment into the drainage system (and ultimately into the nearby Sacramento River), if not managed properly. Such sediment transport could increase turbidity, degrade water quality, and result in siltation to local waterways. The runoff could cause erosion and increased sedimentation and transport of pollutant sources to storm drain systems and water courses away from the project area. The potential exists for releases of chemicals typically present at most construction sites, including fuels, oils, paints, and solvents. Erosion and construction-related wastes (e.g., oil, gas, etc.) have the potential to temporarily degrade existing water quality and beneficial uses by altering the dissolved oxygen content, temperature, pH, suspended sediment and turbidity levels, or nutrient content, or by causing toxic effects in the aquatic environment. Therefore, if uncontrolled, project-related construction activities could violate water quality standards or result in substantial erosion or siltation. Projects in the City of Sacramento are required to comply with NPDES requirements and the City's SQIP. These requirements, described below, include implementation of a SWPPP that includes water quality, hazardous materials, and sediment control measures, and BMPs as set forth in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* (of which the City is a signatory as part of its regional NPDES permit).

Impacts associated with erosion and siltation were analyzed in Impact 6.7-1 of the 2030 General Plan Master EIR. The analysis of Impact 6.7-1 found that land-disturbing activities (e.g., grading, excavation, and trenching) associated with construction would increase the potential for soil erosion and sedimentation in runoff. In The analysis of Impact 6.7-1 determined that all projects in the City of Sacramento are required to comply with NPDES requirements and the City's SQIP. These requirements include implementation of a SWPPP that includes water quality, hazardous materials, and sediment control measures, and BMPs as set forth in the *Procedures Manual for Grading and Erosion and Sediment Control, October 2013*.

The analysis also found that implementation of 2030 General Plan Policies ER 1.1.3, ER 1.1.4, ER 1.1.5, ER 1.1.6, and ER 1.1.7 and Policies U 4.1.1, U 4.1.4, and U 4.1.5 would reduce the potential for projects to substantially degrade water quality or violate WDRs. These policies require that urban water quality, runoff water quality, erosion, sedimentation, and hydromodification from new development be controlled through compliance with the City's NPDES permit through the implementation of BMPs and LID features; that there be no net increase in post development runoff as

compared to predevelopment runoff; and that drainage plans be submitted demonstrating appropriate sizing of facilities and compliance with the SQIP requirements.

Impacts associated with erosion and siltation were analyzed in Impacts HYD-8 and HYD-2 in the MTP/SCS Program EIR. The analysis of Impact HYD-8 found that construction activities, in and of themselves, would not necessarily entail the violation of water quality standards. However, construction-related earth-moving activities would introduce the potential for increased erosion and sedimentation, with subsequent degradation of water quality and exceedance of storm drain capacity. The analysis of Impact HYD-2 of the MTP/SCS Program EIR determined that new development may increase stormwater flows, resulting in increased volume and/or velocity and thereby raising the potential for substantial erosion or siltation. However, the analysis noted that all projects must comply with the NPDES Construction General Permit, which requires development of a SWPPP with appropriate BMPs designed to control erosion and siltation. Furthermore, the SSQP has developed the *Stormwater Quality Design Manual for Sacramento and South Placer Regions* (SSQP 2007) to reduce runoff and siltation. These plans and manuals specify BMPs and additional regulations to reduce runoff, thereby reducing the likelihood of substantial erosion or siltation. The MTP/SCS EIR recommended mitigation to address this potential impact, including Mitigation Measure HYD-1, Mitigation Measure HYD-2, and Mitigation Measure HYD-3.

The project would also involve deep foundation work (drilling of piles or piers) that would extend approximately 60 to 80 feet below the existing grade and interact with groundwater. The Geotechnical Feasibility Report for the proposed project identifies four deep foundation systems for possible support of the proposed high-rise structures on the site. Driven and torque-installed steel piles do not create soil or groundwater surplus. Rather, for driven and torque-installed steel piles, the soil surrounding the pile is densified and the earth pressures cause the soil to adhere to the sides of the pile. This effectively seals the pile into the soil layer with no gaps created along the sides of the pile such that contaminated groundwater would not be expected to discharge from these pier types. Two types of piles methods involve drilling and could potentially create soil and groundwater spoils. The Geotechnical Feasibility Report also notes that other types of piles could be used. Project construction activities that do not follow proper procedures and BMPs to minimize water quality impacts on receiving water and groundwater could temporarily degrade existing water quality and beneficial uses and could violate water quality standards or waste discharge requirements. Therefore, this impact could be **potentially significant**.

Mitigation Measures

Mitigation outlined in this section is designed to implement General Plan Policies ER 1.1.3, ER 1.1.4, ER 1.1.5, ER 1.1.6, ER 1.1.7, U 4.1.1, U 4.1.4, and U 4.1.5 and MTP/SCS EIR Mitigation Measures HYD-1, HYD-2, and HYD-3, as appropriate for the project and the project site. The proposed project would protect the water quality and beneficial uses during construction by entering in an MOU with the City of Sacramento and preparing a site-specific construction dewatering plan. Coverage under SWRCB's Construction General Permit Order No. 2009-0009-DWQ and Order R5-2013-074 or an Individual NPDES Permit or waste discharge requirements would ensure that the proposed project would not violate any waste discharge requirements, exceed water quality objectives, or result in substantial erosion or siltation during construction. Furthermore, if dewatering is required, the proposed

project is required to comply with City's Engineering Services Policy No. 0001, which requires approval of a MOU for long-term (greater than one week) groundwater dewatering discharges. The MOU must cover proposed dewatering details such as flow rate, system design, and contaminant monitoring plan. Therefore, the proposed project's impact related to short-term construction related water quality impacts would be **less than significant with mitigation**.

Mitigation Measure 4.8-1: File a Notice of Intent with the Central Valley Regional Water Quality Control Board to Obtain Coverage under Order R5-2013-074 or an Individual NPDES Permit or Waste Discharge Requirement and a Memorandum of Understanding with the City of Sacramento, and Prepare a Construction Dewatering Plan

Before the start of earth-moving activities, the project applicant shall file a notice of intent with the Central Valley RWQCB to obtain coverage under Order R5-2013-074 or an Individual NPDES Permit or waste discharge requirements, and enter into an MOU with the City for construction dewatering activities. Along with the notice of intent and the MOU, the project applicant shall prepare a site-specific construction dewatering plan, which demonstrates that discharges meet the Sacramento Regional County Sanitation District- (SRCSD) and RWQCB-approved levels and shall contain the following components:

- information about the discharge location;
- a map showing the location of the site, treatment system, discharge point(s), and receiving water;
- an evaluation of reclamation options;
- narrative and schematic descriptions of the existing or proposed treatment system, including blueprints signed by a registered engineer or geologist (if applicable); and
- results of laboratory analysis for the types and amounts of pollutants listed in Attachment B to Order R5-2013-0074, additional water quality screening required by Attachment C to Order R5-2013-0074 (if applicable), and any applicable pollutants listed under Section 303(d) of the CWA for the receiving water if discharging or proposing to discharge to an impaired water body.
- identify landfills to be used for disposal, if necessary, based on results of laboratory analysis.

To be authorized by Order R5-2013-074, the project applicant must demonstrate that the discharge or proposed discharge meets the following criteria:

- Pollutant concentrations in the discharge do not cause, have a reasonable potential to cause, or contribute to an excursion above any applicable federal water quality criterion established by USEPA pursuant to CWA section 303;

- Pollutant concentrations in the discharge do not cause, have a reasonable potential to cause, or contribute to an excursion above any water quality objective adopted by the Central Valley Water Board or State Water Resources Control Board (State Water Board), including prohibitions of discharge for the receiving waters; and
- The discharge does not cause acute or chronic toxicity in the receiving water.

Additionally, discharges of more than 0.25 million gallons per day average dry-weather flow are prohibited unless the discharge is 4 months or less in duration.

IMPACT 4.8-2 The project could have long-term, operational effects on water quality. Based on the analysis below, the *impact is considered less than significant with mitigation.*

After implementation of the proposed project, the amount of impervious surfaces onsite would be similar to existing conditions on the project site (e.g., rooftops, sidewalks, driveways, streets, parking lots). As discussed further below, the amount of impervious surface area is only expected to increase by approximately 4%, from 77% to 81% based on the current Conceptual Site Plan. Impervious surfaces can hinder infiltration which can result in more runoff during rain events. Stormwater runoff can be a source of surface-water pollution that can include sediments, which, in addition to being contaminants in their own right, transport other contaminants, such as trace metals, nutrients, and hydrocarbons that adsorb suspended sediment particles. Sediment, organic contaminants, nutrients, trace metals, pathogens, and oil and grease compounds are common urban runoff pollutants.

Please see Impact 4.8-1 for a summary of how this impact was analyzed and mitigated in the 2030 General Plan Master EIR and the MTP/SCS EIR.

2030 General Plan Policies ER 1.1.3, ER 1.1.4, ER 1.1.5, ER 1.1.6, ER 1.1.7, EC 2.1.5, EC 2.1.6, and Policies U 4.1.1, U 4.1.4, and U 4.1.5 require that urban water quality, runoff water quality, erosion, and sedimentation from new development be controlled through compliance with the City’s NPDES permit through the implementation of BMPs and LID features; that there be no net increase in post-development runoff as compared to predevelopment runoff; and that drainage plans be submitted, demonstrating appropriate sizing of facilities and compliance with the SQIP requirements. Project operational activities that are implemented without proper procedures and design measures that minimize water quality impacts on receiving water and groundwater could violate water quality standards or waste discharge requirements. This impact could be **potentially significant**.

Mitigation Measures

Mitigation outlined in this section is designed to implement General Plan Policies ER 1.1.3, ER 1.1.4, ER 1.1.5, ER 1.1.6, ER 1.1.7, U 4.1.1, U 4.1.4, and U 4.1.5 and MTP/SCS EIR Mitigation Measures HYD-1, HYD-2, and HYD-3, as appropriate for the project and the project site. With mitigation outlined below, the proposed project would protect water quality and beneficial uses during operation through preparation of drainage plans and having an operational pollutant source control program in place. The existing regulatory framework requires new development to protect the quality of water bodies and natural drainage systems through site design, source controls, stormwater treatment, runoff reduction measures, BMPs and LID features that are consistent with the City’s NPDES permit, the SQIP (SSQP

2009), and the latest edition of the Sacramento Region Stormwater Quality Design Manual (SSQP 2014). Compliance with these regulatory permitting and planning requirements will be required as conditions of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored. The proposed project's impact related to long-term operational related water quality impacts is **less than significant with mitigation**.

Mitigation Measure 4.8-2: Prepare and Submit Final Drainage Plans and an Operational Pollutant Source Control Program.

Before the start of earthmoving activities, the project applicant shall submit a final drainage plan and pollutant source control program to the City demonstrating to the satisfaction of the Community Development Department that the project is in compliance with the SSQP's NPDES permit, the SQIP (SSQP 2009), and the latest edition of the Stormwater Quality Design Manual (SSQP 2014), including the requirement to cause no net increase in runoff as compared to existing conditions. Components of the final drainage plan shall include:

- calculations for the final design scenario, obtained using appropriate engineering methods, that evaluates potential changes to runoff, including increased surface runoff;
- runoff calculations for the 10-year and 100-year (0.01 AEP) storm events (and other, smaller storm events as required) based on the final design scenario and confirmation of required trunk drainage pipeline sizes based on alignments and finalized detention-facility locations;
- City flood control design requirements and measures designed to comply with them, including a demonstration to the satisfaction of the City that 100-year (0.01 AEP) flood flows would be appropriately channeled and contained, such that the risk to people or damage to structures within or down gradient of the project site would not occur;
- a list of stormwater management BMPs to be implemented at the project site that ensure no net increase in runoff. BMPs may include but are not limited to the use of LID techniques to limit increases in stormwater runoff at the point of origination. Some examples of such techniques are the use of surface swales; replacement of conventional impervious surfaces with pervious surfaces (e.g., porous pavement); disconnection of impervious surfaces; and planting of trees to intercept stormwater. These BMPs shall be designed and constructed in accordance with the latest edition of the Stormwater Quality Design Manual (SSQP 2014)); and
- a description of the proposed maintenance program for the on-site drainage system.

The project applicant shall also prepare and implement a pollutant source control program for the project's operational phase to control water quality pollutants on the project site. This program shall include components such as recycling, street sweeping, storm drain cleaning, household hazardous waste collection, waste minimization, prevention of spills, and effective management of public trash collection areas.

IMPACT 4.8-3 The project could deplete groundwater supplies or interfere substantially with groundwater recharge. *Based on the analysis below, the impact is considered less than significant.*

The addition of impervious surfaces, especially coupled with urban drainage systems (i.e. curbs, gutters, and storm drain pipes), alters the natural hydrology in a watershed by increasing the volume of stormwater runoff and reducing groundwater recharge. However, the proposed project would entail redevelopment of an existing developed site that is primarily composed of impervious surfaces. Very little groundwater recharge currently occurs at the project site due to existing impervious surfaces, and the net increase in impervious surface from the proposed project would not result in a substantial change to existing groundwater recharge conditions. Furthermore, the project would incorporate source control measures, runoff reduction measures or LID measures, such as pervious pavers, disconnected pavement, and disconnected roof drains, disconnected pavement, and interceptor trees to allow on-site infiltration to occur.

The existing and proposed development does not rely on groundwater for water supply. The proposed project is considered an infill project in an area that is currently developed with impervious surfaces with limited infiltration capacity. Impacts on groundwater recharge would be **less than significant**. (See Section 4.12, "Utilities and Service Systems," for a detailed description and analysis of water supply for the proposed project).

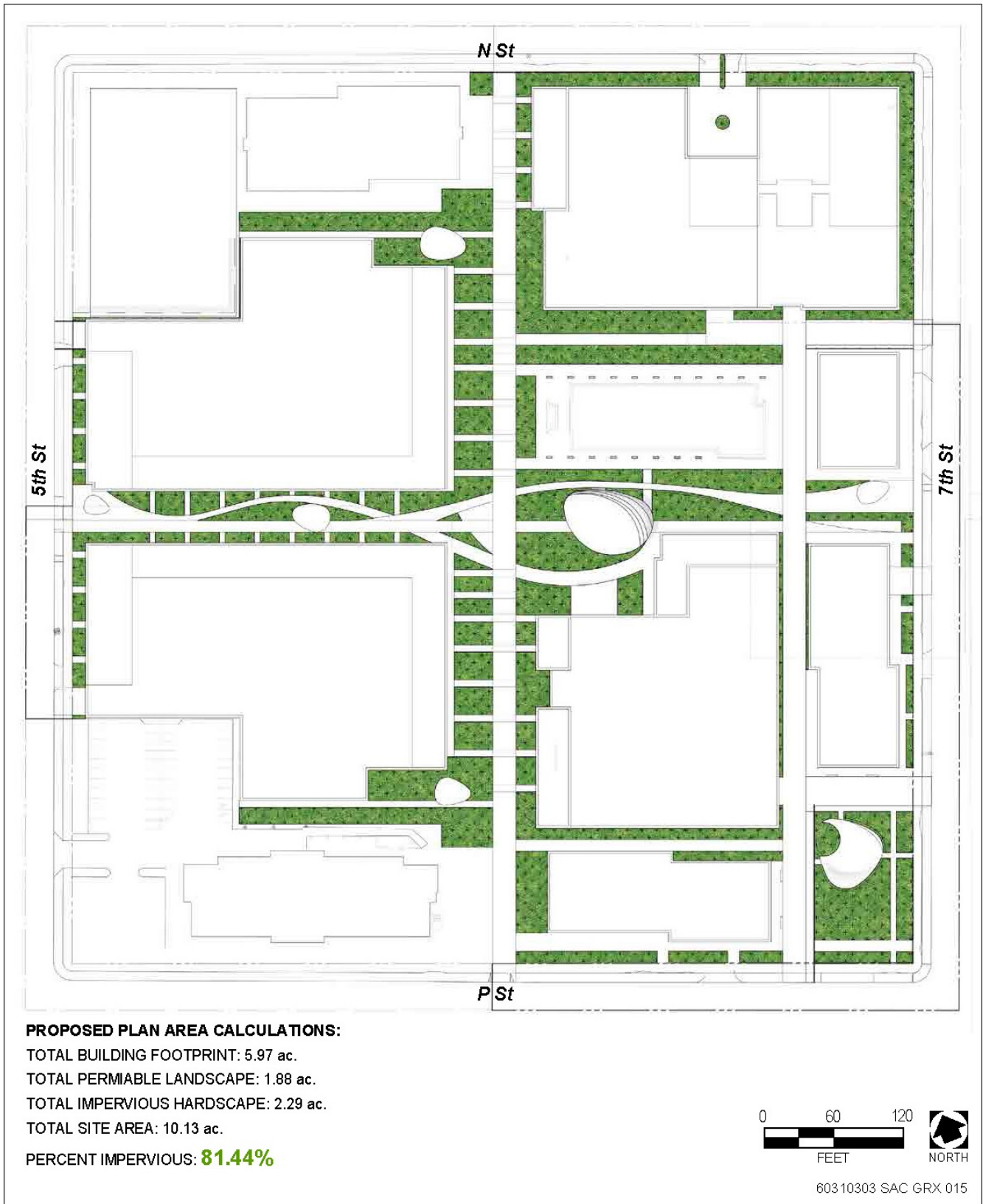
Mitigation Measures

None required.

IMPACT 4.8-4 The project could contribute to the potential increased risk of flooding or pollutant sources from stormwater runoff. *Based on the analysis below, the impact is considered less than significant with mitigation.*

The proposed project consists of redevelopment of an existing developed site with an existing network of on-site conveyance pipelines to carry the project's stormwater drainage to the City's existing separate storm drain system connections in N, P, and 7th Streets. As shown on Figure 4.8-3, the amount of impervious surface is expected to increase by approximately 4% from 77% to 81% based on the current Conceptual Site Plan for the project. However, the project would be required to incorporate LID measures to manage stormwater.

The project will incorporate run-off reduction measures to mitigate for any increase in storm runoff leaving the project site. Within the two, North-South and East-West Promenades, the project will employ runoff reduction measures, such as pervious pavement, disconnected roof drains, disconnected pavement and interceptor trees as allowed in the City's Stormwater Quality Design Manual. With LID measures, the amount of the project's surface water runoff that could carry pollutants (such as oils, grease, fuel, antifreeze, metals, nutrients from fertilizers and animal waste, sediment, pesticides, and herbicides) into receiving water bodies such as the Sacramento River would be similar to existing conditions.



Source: Melendrez 2014
 Note: calculations are approximate based on the Conceptual Site Plan.

Figure 4.8-3 Proposed Conceptual Coverage Calculations

Although impervious surface area is expected to increase slightly relative to existing conditions on-site, the proposed project is required to comply with the City's "Do No Harm" policy. This policy requires infill areas to fully mitigate any potential increase in water flows leaving the project site. The project would construct sufficient on-site detention to ensure that there would be no net increase in stormwater runoff leaving the project site.

The City operates under a Phase I municipal stormwater permit for discharges to surface waters (NPDES No. CAS082597). The permit requires the City impose water quality and watershed protection measures for all development projects. The intent of the waste discharge requirements in the permit is to attain water quality standards and protection of beneficial uses consistent with the Central Valley RWQCB's Basin Plan.

The NPDES permit prohibits dischargers from causing violations of applicable water quality standards or resulting in conditions that create a nuisance or water quality impairment in receiving waters. Implementation of the SQIP (SSQP, 2009) is also required as part of the City's NPDES permit. The SQIP contains the following stormwater pollutant control elements:

- ▶ public education and outreach,
- ▶ commercial/industrial control,
- ▶ detection and elimination of illicit discharges,
- ▶ construction stormwater control,
- ▶ postconstruction stormwater control for new development and redevelopment, and
- ▶ pollution prevention/good housekeeping for municipal operations.

The City's Land, Grading, and Erosion Control Ordinance and Stormwater Management and Discharge Control Ordinance provide additional regulation and guidance to prevent degradation of water quality.

Compliance with the SQIP also requires stormwater quality treatment and/or BMPs in project design for both construction and operation. Post-construction stormwater quality controls for new development require the use of source-control runoff reduction and treatment control measures set forth in the *Sacramento Region Stormwater Quality Design Manual* (SSQP, 2014). This includes use of treatment-control measures (e.g., swales, filter strips, media filters, and infiltration), and good housekeeping practices (e.g., spill prevention, proper storage measures, and cleanup procedures).

Implementation of 2030 General Plan Policies ER 1.1.3 through ER 1.1.7 would reduce post-construction increases in runoff rates, maintain agreements for selected on-site stormwater quality facilities through the development permit process, reduce the use of chemicals applied for landscape use, and provide recycling programs and facilities to prevent unauthorized dumping.

The proposed project would increase the demand for stormwater conveyance. However, 2030 General Plan Policy U 4.1.1 requires that all new drainage facilities be adequately sized to accommodate stormwater runoff. The City's 2030 General Plan and Master EIR analysis found that based on projected growth factors, redevelopment in the downtown area would not exceed the planned capacity of the City's storm drainage system.

The proposed project is located within a 500-year floodplain protected by levees. Projects in the City of Sacramento are required to comply with NPDES requirements and the City's SQIP. These requirements, described above, include implementation of a SWPPP that includes water quality, hazardous materials, and sediment control measures, and BMPs as set forth in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* (of which the City is a signatory as part of its regional NPDES permit). Implementation of 2030 General Plan Policies ER 1.1.3, ER 1.1.4, ER 1.1.5, ER 1.1.6, ER 1.1.7, EC 2.1.5, EC 2.1.6, and Policies U 4.1.1, U 4.1.4, and U 4.1.5 require:

- ▶ that urban water quality, runoff water quality, erosion, and sedimentation from new development be controlled through compliance with the City's NPDES permit through the implementation of BMPs and LID features
- ▶ that there be no net increase in post-development runoff as compared to predevelopment runoff
- ▶ that drainage plans be submitted demonstrating appropriate sizing of facilities and compliance with the SQIP requirements for projects proposed to be constructed within floodplains to demonstrate compliance with applicable federal, State, and local agency flood-control regulations such that drainage facilities would appropriately convey and detain project-related runoff such that stormwater runoff would be treated sufficiently to maintain stormwater quality and quantity.

The proposed project could increase the total volume and peak discharge rate of stormwater runoff. As a result, the project could result in greater potential for on- or off-site flooding and increased erosion or siltation if drainage facilities are not properly designed and maintained to appropriately convey and detain project-related runoff such that stormwater is treated sufficiently to maintain stormwater quality and quantity. This impact is **potentially significant**.

Mitigation Measures

With mitigation outlined below and described above, the proposed project would protect the quality of water bodies and natural drainage systems off-site through on-site design, source controls, stormwater treatment, runoff reduction measures, BMPs, and LID features that are consistent with the City's NPDES permit, the SQIP (SSQP 2009), and the Stormwater Quality Design Manual for the Sacramento Region (SSQP, 2014). Therefore, the proposed project's impact related to increased risk of flooding or pollutant sources from stormwater runoff is **less than significant with mitigation**.

Mitigation Measure 4.8-4: Implement Mitigation Measure 4.8-2: Prepare and Submit Final Drainage Plans and an Operational Pollutant Source Control Program

IMPACT 4.8-5 The project could expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. *Based on the analysis below, the impact is considered less than significant.*

The Sacramento Area Flood Control Agency (SAFCA) is the regional authority formed to address the Sacramento area's vulnerability to catastrophic flooding. SAFCA is working toward ensuring a minimum 100-year level of flood protection throughout the region as quickly as possible while simultaneously improving the region's flood protection infrastructure to achieve a 200-year or greater level of protection

over time. Under the Sacramento Area Flood Control Agency Act of 1990, the California Legislature has given SAFCA broad authority to finance flood control projects. Current SAFCA projects include the Folsom Dam Joint Federal Project, American River Common Features Project, Natomas Levee Improvement Program, South Sacramento Streams Project, Mayhew Levee Improvements Project, and Sacramento Bank Protection Project (SAFCA, 2014). Recent studies have shown that the levees directly protecting the project site from 100-year storm events are in good condition and not in need of repair or upgrade (SAFCA 2014). The project site is not located in the Natomas Basin, where levee flood protection has historically been a concern.

The City has adopted a comprehensive flood management plan to better protect citizens and property from major flood events for use in flood safe planning and changes in policies and ordinances to increase flood protection in the City.

The project site is located in the Folsom Dam failure inundation area (see Figure 11.6 in the MTP/SCS Program EIR [SACOG 2011]). As shown in Figure 4.8-1 of this EIR, the project site is located within a 100-year flood hazard area that is protected by levees. The project site is currently developed with existing residential and commercial uses that are covered by the *Sacramento County, Local-Hazard Mitigation Plan* (AMEC Earth & Environmental, Inc. 2004), which contains emergency procedures that would be implemented in the event of levee or dam failure. In addition, a dam evacuation plan incorporating the California Office of Emergency Services' dam evacuation requirements is part of the Local-Hazard Mitigation Plan. The City coordinates with Sacramento County, various districts, fire department and fire protection districts, school districts, and private and public organizations to update the plan. The plan is intended to minimize the threat to public safety and to minimize the response time to an impending or actual sudden release of water from dams.

Certain types of land use projects that propose relatively large concentrations of people or special needs individuals in a dam inundation area could cause adverse effects related to the implementation of emergency evacuation plans and present conflicts with multi-jurisdictional hazard mitigation plans. Successful implementation of evacuation plans depends on prompt and efficient evacuation to minimize the loss of life. Unique institutions such as hospitals, schools, and care facilities proposed within dam inundation areas are land uses that would typically be difficult to evacuate safely and expeditiously, thus impeding successful implementation of an evacuation plan. The proposed project does not include any of these unique facilities and while redevelopment would increase the number of new residences and commercial uses on-site, existing flood risks due to failure of a levee or dam would be similar to the risks under existing conditions, except that a greater number of residents would have the potential to be affected by flooding.

Although the proposed project would increase the number of people and buildings that could be exposed to dam or levee failure, the project is not located in an area where levee integrity is a concern, and the City is a signatory to the *Sacramento County, Local-Hazard Mitigation Plan*, which contains emergency procedures that would be implemented in the event of levee or dam failure. Compliance with General Plan Policies EC 2.1.5 and 2.1.6, require the project to meet City requirements that are necessary for the City to continue its eligibility under the NFIP and ensure that any flood hazards are addressed. Flood hazards are controlled through compliance with the City's NPDES permit through the implementation of BMPs and LID features, which also require that there be no net increase in post-

development runoff as compared to predevelopment runoff; and that drainage plans be submitted demonstrating appropriate sizing of facilities and compliance with the SQIP requirements for projects proposed to be constructed within floodplains to demonstrate compliance with applicable federal, State, and local agency flood-control regulations.

The proposed project would be required to submit drainage plans in compliance with flood regulations (see Mitigation Measure 4.8-2); levees directly protecting the project site from 100-year storm events are in good condition and not in need of repair or upgrade; the project does not propose any unique uses; and, the project area would continue to be managed under the County's *Local-Hazard Mitigation Plan*. The *Local-Hazard Mitigation Plan* includes an emergency evacuation plan with annual progress reports and updates that includes new developed projects that have been implemented within the City's jurisdiction. Therefore, the impact associated with flooding as a result of the failure of a levee or dam is **less than significant**.

Mitigation Measures

None required.

4.8.4 CUMULATIVE IMPACTS

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG's MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

Public Resources Code, Section 21155.2 [c] [1] provides that, "where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]" (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the cumulative discussion below.

For water quality and hydrology impacts, the geographic focus of the cumulative analysis is the Sacramento River watershed.

Exposure to flood hazards and development in area at risk to dam inundation is not an impact where past, present, and future project would cumulatively increase the level of impact. This issue is not considered further. The MTP/SCS Program EIR concludes that flooding impacts related to the failure of a levee or dam are less than significant for Sacramento Center and Corridor Communities (such as the project site)(p. 11-91).

IMPACT Cumulative impacts related to runoff that could violate water quality standards or waste discharge
4.8-6 requirements for receiving waters. *This impact is less than cumulatively considerable with mitigation.*

The City addressed cumulative impacts related to pollution runoff that could violate water quality standards or waste discharge requirements for receiving waters under Impact 6.7-5 of the 2030 General Plan Master EIR (p. 6.7-31). The Master EIR acknowledged that buildout of the 2030 General Plan, in addition to other development in the Sacramento River watershed, would increase the amount of impervious surfaces and increase runoff from urbanized land uses. Runoff could carry increased levels of sediment (during construction activities) and urban contaminants (post-construction) that could affect receiving water quality in the Sacramento River watershed and the Delta. The 2030 General Plan Master EIR considered this to be a significant cumulative impact. However, with implementation of the City's existing regulations, including post-construction BMPs in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, General Plan policies, and application of City's ordinances (including implementation of Policies ER 1.1.3, through ER 1.1.10 and U 4.1.4), the Master EIR concluded that buildout of the 2030 General Plan would have a less-than-cumulatively considerable contribution to the significant impact.

The MTP/SCS EIR addressed polluted runoff under Impact HYD-1 (p. 11-51). SACOG found that land use change anticipated under the MTP would generate additional runoff and increase non-point source pollution, but that the siting and design of new development is important to the level of this impact. Related impacts are discussed also under Impact HYD-7. The MTP/SCS EIR provides detailed description of NPDES permit requirements that would reduce this impact. In Center and Corridor Communities (such as the project site), the impact was considered less than significant (p. 11-57).

Implementation of the MTP/SCS Program EIR Mitigation Measures HYD-1, HYD-2, and HYD-3 and 2030 General Plan Policies ER 1.1.3, ER 1.1.4, ER 1.1.5, ER 1.1.6, ER 1.1.7, EC 2.1.5, EC 2.1.6, and Policies U 4.1.1, U 4.1.4, and U 4.1.5 require that urban water quality, runoff water quality, erosion, and sedimentation from new development be controlled through compliance with the City's NPDES permit through the implementation of BMPs and LID features; that there be no net increase in post-development runoff as compared to predevelopment runoff; and that drainage plans be submitted demonstrating appropriate sizing of facilities and compliance with the SQIP requirements.

Mitigation Measures

Mitigation outlined in this section is designed to implement General Plan Policies ER 1.1.3, ER 1.1.4, ER 1.1.5, ER 1.1.6, ER 1.1.7, U 4.1.1, U 4.1.4, and U 4.1.5 and MTP/SCS EIR Mitigation Measures HYD-1, HYD-2, and HYD-3, as appropriate for the project and the project site. With mitigation outlined below, the proposed project would protect water quality and beneficial uses during operation through preparation of drainage plans and having an operational pollutant source control program in place. The existing regulatory framework requires new development to protect the quality of water bodies and natural drainage systems through site design, source controls, stormwater treatment, runoff reduction measures, BMPs and LID features that are consistent with the City's NPDES permit, the SQIP (SSQP 2009), and the Sacramento Region Stormwater Quality Design Manual (SSQP 2014). Compliance with these regulatory permitting and planning requirements will be required as conditions of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is

monitored. With mitigation, the project would have a **less than cumulatively considerable** contribution to any significant cumulative impact.

Mitigation Measure 4.8-6: Implement Mitigation Measure 4.8-1: File a Notice of Intent with the Central Valley Regional Water Quality Control Board to Obtain Coverage under Order R5-2013-074 or an Individual NPDES Permit or Waste Discharge Requirement and a Memorandum of Understanding with the City of Sacramento, and Prepare a Construction Dewatering Plan and Mitigation Measure 4.8-2: Prepare and Submit Final Drainage Plans and an Operational Pollutant Source Control Program

IMPACT Cumulative impact related to flooding. *This impact is less than cumulatively considerable with*
4.8-7 *mitigation.*

The project site is developed and the proposed project would increase impervious surface by approximately 4.14% based on the current Conceptual Site Plan and would be required to incorporate LID measures to manage stormwater.

The General Plan Master EIR determined that the City's existing storm drain system has adequate conveyance for growth planned through 2030, including the proposed project. New development in the City will increase the amount of impervious surfaces and would, therefore, increase the amount of surface water runoff. However, General Plan Policy EC 2.1.6 requires new development to evaluate potential peak-flow flood hazards and prevent on- or off-site post-project flooding; Policy ER 1.1.5 requires no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event; and Policy U 4.1.5 requires proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures to prevent on- or off-site flooding. The City addressed localized flooding under Impact 6.7-3 and found that with a no net increase policy for stormwater, the impact would be less than significant (p. 6.7-29). The 2030 General Plan Master EIR identified Mitigation Measure 6.7-3 to address this issue (and this is included above under Mitigation Measure 4.8-2). The City addressed regional flooding under Impact 6.7-4 and found that compliance with Policies U 4.1.1 through U 4.1.4 and EC 2.1.2 through EC 2.1.16, the impact would be less than significant (p. 6.7-29). These policies are incorporated into Mitigation Measures 4.8-1 and 4.8-2, above. Under Impact 6.7-6, the City found less than significant cumulative impacts with the incorporation of Policies U 4.1.1 through U 4.1.4, EC 2.1.14, and ER 1.14 and under Impact 6.7-7, the City found less than significant cumulative impacts with the incorporation of Policies U 4.1.1 through U 4.1.4 and EC 2.1.1 through EC 2.1.10. These referenced policies are included, as appropriate for the project and project site, as a part of Mitigation Measures 4.8-2, above.

The MTP/SCS EIR discusses runoff impacts under HYD-1, finding that impacts associated with runoff water and capacity of stormwater drainage systems would be less than significant in Center and Corridor Communities (such as the project site)(p. 11-57). As noted in the MTP/SCS EIR, some hydrology and water quality impacts "are localized and not cumulative in nature; for example, creating or contributing to runoff, exposure to risk from failure of a levee or dam, mudflow inundation, and violations of water quality and/or discharge standards" (p. 19-23). Under Impact CUM-10, the MTP/SCS EIR concludes that there could be a significant cumulative impact related to off-site flooding and recommends that lead agencies adopt Mitigation Measures in Chapter 11, but since SACOG has no

authority to impose mitigation lead agencies, the cumulative impact was considered significant and unavoidable.

Mitigation Measures

The proposed project would be required to submit drainage plans in compliance with flood regulations that ensure consistency with City policies, including a policy requiring no net increase in runoff (see Mitigation Measure 4.8-2). With mitigation, the project's contribution to any significant cumulative impact is **less than cumulatively considerable**.

Mitigation Measure 4.8-7: Implement Mitigation Measure 4.8-2: Prepare and Submit Final Drainage Plans and an Operational Pollutant Source Control Program

IMPACT 4.8-8 Cumulative impact related to groundwater recharge. *This impact has been fully addressed by the General Plan Master EIR. There is **no cumulative impact** and pursuant to Public Resources Code section 21155.2(c)(1), this cumulative impact is **not cumulatively considerable**.*

The 2030 General Plan Master EIR identified no impacts in this category. The MTP/SCS EIR did not identify impacts related to substantial interference with groundwater recharge.

With respect to groundwater, the proposed project would entail redevelopment of an existing developed site that primarily consists of impervious surfaces. The project site's impervious surfaces currently make up approximately 77% of the 10.13-acre project site and the proposed project would only increase this by approximately 4% based on the current Conceptual Site Plan. The project would incorporate source control measures and runoff reduction measure or LID measures, such as pervious pavers, disconnected pavement, and disconnected roof drains, disconnected pavement, and interceptor trees to allow on-site infiltration to occur. Very little groundwater recharge currently occurs at the project site due to existing impervious surfaces, and the net increase in impervious surface from the proposed project with the incorporation of LID measures would not result in a substantial change to existing groundwater recharge conditions.

There is **no significant cumulative impact** and the project would not represent any cumulatively considerable contribution to any significant cumulative impact.

Mitigation Measures

None required.

4.9 NOISE AND VIBRATION

This section addresses noise on the project site and project vicinity. The analysis describes the existing environmental conditions, the methods used for assessment, and impacts associated with implementing the proposed project. Mitigation measures are proposed to address potentially significant environmental impacts of the proposed project. This section also provides a brief overview of federal, state, and local laws and regulations pertaining to noise.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to construction/demolition noise and traffic noise, each of which is addressed in this section. Copies of the NOPs and comments received in response are included in Appendix B of this EIR.

The analysis included in this section was developed based on field investigation to measure existing noise levels, guidance provided by the Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment* (FTA 2006) and the Federal Highway Administration (FHWA) Noise Prediction Model (FHWA 1978), with traffic data provided by Kittleson and Associates in support of this EIR (see Appendix H for detailed traffic information). Detailed analytical information is available for review in Appendix G of this EIR.

4.9.1 ENVIRONMENTAL SETTING

This section provides a brief description of some of the fundamentals of noise and vibration prior to describing existing noise and vibration conditions at the project site and in the vicinity. Additional information about noise fundamentals and descriptors, human response to noise, fundamental noise control options, and vibration fundamentals is provided in Appendix G.

NOISE FUNDAMENTALS AND DESCRIPTORS

Noise is generally defined as sound that is undesirable or unwanted. The perception of sound is subjective and can vary substantially from person to person. Noise can be generated by mobile (transportation) noise sources such as automobiles, trucks, and airplanes, and by stationary (non-transportation) noise sources such as construction activity, machinery, and commercial and industrial operations.

The decibel (dB) scale is a conventional unit for measuring the amplitude of sound because it accounts for the large variations in sound pressure amplitudes and reflects the way that people perceive changes in sound amplitude. Therefore, the addition of sound levels in dB is calculated using a logarithmic (energy) basis.¹ There is a strong correlation between the way humans perceive sound and A-weighted sound levels (dBA). All sound levels reported in this section are in terms of A-weighted decibels unless specifically stated otherwise. Typical A-weighted sound levels of common noise sources are shown in Table 4.9-1.

¹ A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly added. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.

**Table 4.9-1
Typical A-Weighted Sound Levels of Common Noise Sources**

Decibels	Description
120	Jet aircraft at 100 feet/Threshold of Pain
110	Riveting machine at operator's position
100	Shotgun at 200 feet
90	Bulldozer at 50 feet
80	Diesel locomotive at 300 feet
70	Commercial jet aircraft interior during flight
60	Normal conversation speech at 5–10 feet
50	Open office background level
40	Background level within a residence
30	Soft whisper at 2 feet
20	Interior of recording studio

Source: City of Sacramento 2013

Several different terms are used to describe noise levels. The noise descriptors most often used to describe environmental noise are listed and defined below.

- ▶ *L_{max}* (*maximum noise level*): The maximum instantaneous noise level during a specific period of time.
- ▶ *L_{eq}* (*equivalent noise level*): The average noise level. The *L_{eq}* represents an average of the sound energy occurring over a specified time period. The 1-hour, A-weighted equivalent sound level (*L_{eq[h]}*) is the energy average of A-weighted sound levels occurring during a 1-hour period. The *L_{eq}* shows very good correlation with community response to noise.
- ▶ *L_{dn}* (*day-night average noise level*): The 24-hour *L_{eq}* with a 10-dB “penalty” for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m. In other words, 10 dB is “added” to noise events that occur in the nighttime hours, and this generates a higher reported noise level when determining compliance with noise standards. The *L_{dn}* accounts for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.
- ▶ *CNEL* (*community noise equivalent level*): The *CNEL* is similar to the *L_{dn}* described above, but with an additional 5-dB “penalty” added to noise events that occur during the noise-sensitive hours between 7 p.m. and 10 p.m., which are typically reserved for relaxation, conversation, reading, and other activities that could be disrupted by noise. When the same 24-hour noise data are used, the reported *CNEL* is typically approximately 0.5 dB higher than the *L_{dn}*.

HUMAN RESPONSE TO NOISE

Excessive and chronic exposure to elevated noise levels can result in auditory and non-auditory effects on humans. Auditory effects of noise on people are those related to temporary or permanent hearing loss caused by loud noises. Non-auditory effects of exposure to elevated noise levels are those related

to behavioral and physiological effects. The non-auditory behavioral effects of noise on humans are associated primarily with the subjective effects of annoyance, nuisance, and dissatisfaction, which lead to interference with activities, such as communications, sleep, and learning. The non-auditory physiological health effects of noise on humans have been the subject of considerable research attempting to discover correlations between exposure to elevated noise levels and health problems, such as hypertension and cardiovascular disease. Research infers that noise-related health issues are predominantly the result of behavioral stressors and not a direct noise-induced response. The extent to which noise contributes to non-auditory health effects remains a subject of considerable research, with no definitive conclusions (The Lacent 2013).

The degree to which noise results in annoyance and interference is highly subjective and may be influenced by several non-acoustic factors. The number and effect of these non-acoustic environmental and physical factors vary depending on individual characteristics of the noise environment such as sensitivity, level of activity, location, time of day, and length of exposure. One key aspect in the prediction of human response to new noise environments is the individual level of adaptation to an existing noise environment. The greater the change in the noise levels that are attributed to a new noise source, relative to the environment an individual has become accustomed to, the less tolerable the new noise source will be to the new noise source.

With respect to how humans perceive and react to changes in noise levels, a 1-dBA increase is imperceptible, a 3-dBA increase is barely perceptible, a 6-dBA increase is clearly noticeable, and a 10-dBA increase is subjectively perceived as approximately twice as loud (Egan 1988). These subjective reactions to changes in noise levels were developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source. This research is most applicable to noise levels in the range of 50 dBA to 70 dBA, as this is the usual range of voice and interior noise levels. For these reasons, a noise level increase of 3 dBA or more is typically considered to be substantial in terms of the degradation of the existing noise environment.

Stationary point sources of noise, including mechanical equipment at commercial or industrial sites or a group of construction equipment, attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source. At greater distances from the source, environmental conditions (i.e., atmospheric conditions) can increase the attenuation, as can either vegetative or manufactured noise barriers at any distance between a source and receiver. Moving point sources, typically represented by traffic along a roadway or train operations along a rail corridor, attenuate at a rate of approximately 4.5 dB per doubling of distance from the source, with the same considerations as point sources regarding atmospheric and barrier effects. Line sources (high-volume roadways, for example) typically attenuate at a rate of approximately 3 dB per doubling of distance from the source.

Single-Event Noise and Sleep Disturbance

A single event is an individual distinct loud activity, such as a train passage, or any other brief and discrete noise-generating activity. Because noise policies are often specified in terms of 24-hour-averaged descriptors, such as L_{dn} or community noise equivalent level (CNEL), the potential for annoyance or sleep disturbance associated with individual loud events can be masked by the averaging process.

Extensive studies have been conducted regarding the effects of single-event noise on sleep disturbance, with the Sound Exposure Level (SEL) metric being a common metric used for such assessments. SEL represents the entire sound energy of a given single-event normalized into a 1-second period, regardless of event duration. As a result, the single-number SEL metric contains information pertaining to both event duration and intensity. There is currently no consensus regarding the appropriateness of SEL criteria as a supplement or replacement for cumulative noise level metrics such as L_{dn} and CNEL. Nonetheless, because SEL describes a receiver's total noise exposure from a single impulsive event, SEL is often used to characterize noise from individual brief loud events.

Due to the wide variation in test subjects' reactions to noises of various levels (some test subjects were awakened by indoor SEL values of 50 dB, whereas others slept through indoor SEL values exceeding 80 dB), no definitive consensus has been reached with respect to a universal criterion to apply to environmental noise assessments. Sleep disturbance is recognized as intrinsically undesirable and, thus, is considered an adverse noise impact. Sleep disturbance studies have developed predictive models of awakenings caused by transportation noise sources. Predicted awakening percentages, as a function of indoor SELs are shown in Table 4.9-2.

Indoor SEL (dBA)	Average Percent Awakened
45	0.8%
50	1.0%
55	1.2%
60	1.5%
65	1.8%
70	2.2%
75	2.8%
80	3.4%
85	4.2%

Note:
Average Percent Awakened = $0.58 + (4.30 \times 10^{-8}) * SEL$
Source: Finegold and Bartholomew 2001.

VIBRATION FUNDAMENTALS

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., operating factory machinery) or transient (e.g., explosions).

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. RMS is a measurement of the effective energy content in a vibration signal, expressed mathematically as the average of the squared amplitude of the signal. PPV is typically used in the

monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2006, pp. 7-1 to 7-8; Caltrans 2004, pp. 5-7). PPV and RMS vibration velocity are normally described in inches per second (in/sec).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response to vibration. The response of the human body to vibration relates well to average vibration amplitude. Therefore, vibration impacts on humans are evaluated in terms of RMS vibration velocity. Similar to airborne sound, vibration velocity can be expressed in decibel notation, as vibration decibels (VdB).²

The effects of groundborne vibration include movement of building floors, rattling of windows, shaking of items that are sitting on shelves or hanging on walls, and rumbling sounds. In extreme cases, vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and impact pile driving (occurring close to building structures) during construction. Human annoyance from groundborne vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance can be well below the damage threshold for normal buildings. General thresholds for human and structural responses to vibration levels are shown in Table 4.9-3.

Table 4.9-3 General Human and Structural Responses to Vibration Levels	
Response	Peak Vibration Threshold (in./sec. ppv)
Structural damage to commercial structures	6
Structural damage to residential structures	2
Architectural damage to structures (cracking, etc.)	1
General threshold of human annoyance	0.1
Approximate threshold of human perception	0.01

Note: in./sec. ppv = inches/second peak particle velocity
Source: Caltrans 2004.

EXISTING CONDITIONS

Sensitive Land Uses

Noise-sensitive land uses are those uses where quiet noise levels are essential to the purpose of the land use. Residential uses are of primary concern, because of the potential for increased and prolonged exposure of individuals to both interior and exterior elevated noise levels when there may be an expectation of lesser noise at certain times of day (e.g., after 10 p.m. and before 6 a.m.) and on certain days (e.g., weekends and holidays). In addition, educational uses are noise-sensitive uses, where certain limits to noise are important for learning activities.

Noise-sensitive land uses near the project site include residences in the Capitol Towers building and garden apartments that exist on-site, residences on adjacent residential properties, such as the condominiums located at 500 N Street (40 feet) to the north, senior residential uses (Pioneer House)

² Vibration levels described in VdB are referenced to 1 microinch per second.

located at 415 P Street (150 feet) to the west, and Pioneer Tower located 515 P Street (42 feet) to the south of the project site, and residences to the west at a greater distance (500 feet) located at 1451 3rd Street from the project site; and the Discovery Tree Preschool on the ground floor of the Board of Equalization building at 450 N Street (100 feet from the project site) to the west of the project site.

Older buildings are more susceptible to structural damage from vibration. The historic Heilbron House located at 704 O Street, is approximately 100 feet east of the project site. The Capitol Towers building, which was constructed in 1966, is located approximately 60 feet from the nearest construction site, as measured from the closest point.

Existing Noise Sources

The existing noise environment near the project site is influenced primarily by vehicular traffic on roadways that surround the project site: N, 7th, P, 5th, and O Streets and the light rail lines along 7th, 8th, and O Streets east of the project site, and light rail on 7th Street. Noise associated with the light rail operations near the project site consists of warning bells, wheels squealing during cornering, public address announcements, mechanical rooftop equipment, and idling.

Ambient Noise Level Surveys

Ambient noise level measurements were conducted from Tuesday through Thursday, May 20-22, 2014 to document the existing (baseline) noise environment and identify noise sources. The measurements of ambient noise levels at each survey location are summarized in Table 4.9-4. Eight receptor locations were selected to represent the noise-sensitive uses (e.g., residential uses) near the project site (Figure 4.9-1).

Twenty-four-hour noise level measurements were completed at two measurement sites, LT-01 and LT-02. Site LT-01 is located approximately 100 feet east of 5th Street, on the balcony of the 5th floor of the senior residential building located at 415 P Street. This location is facing the parking lot of the building, and would be directly exposed to construction noise associated with the proposed project. This location provides an overall assessment of existing noise exposure at the quietest (with respect to other properties in the area surrounding the building) areas outside of the project site. Site LT-02 is located at the pool area of the 500 N Street condominium tower, adjacent to the northwest boundary of the project site. This location provided an overall assessment of existing noise exposure at the noise-sensitive area that is closest to the project site.

Short-term (15-minute) monitoring was conducted on May 20, 2014 at the remaining 6 locations, ST-01 through ST-06, shown in Figure 4.9-1. Average daytime hourly noise levels documented by the short-term measurements range from 54 dBA L_{eq} (Site ST-01) to 65 dB L_{eq} (Site ST-03), with maximum noise levels between 67 and 77 dB (L_{max}). Dominant sources of noise included local traffic and natural sources (e.g., wind, birds).³

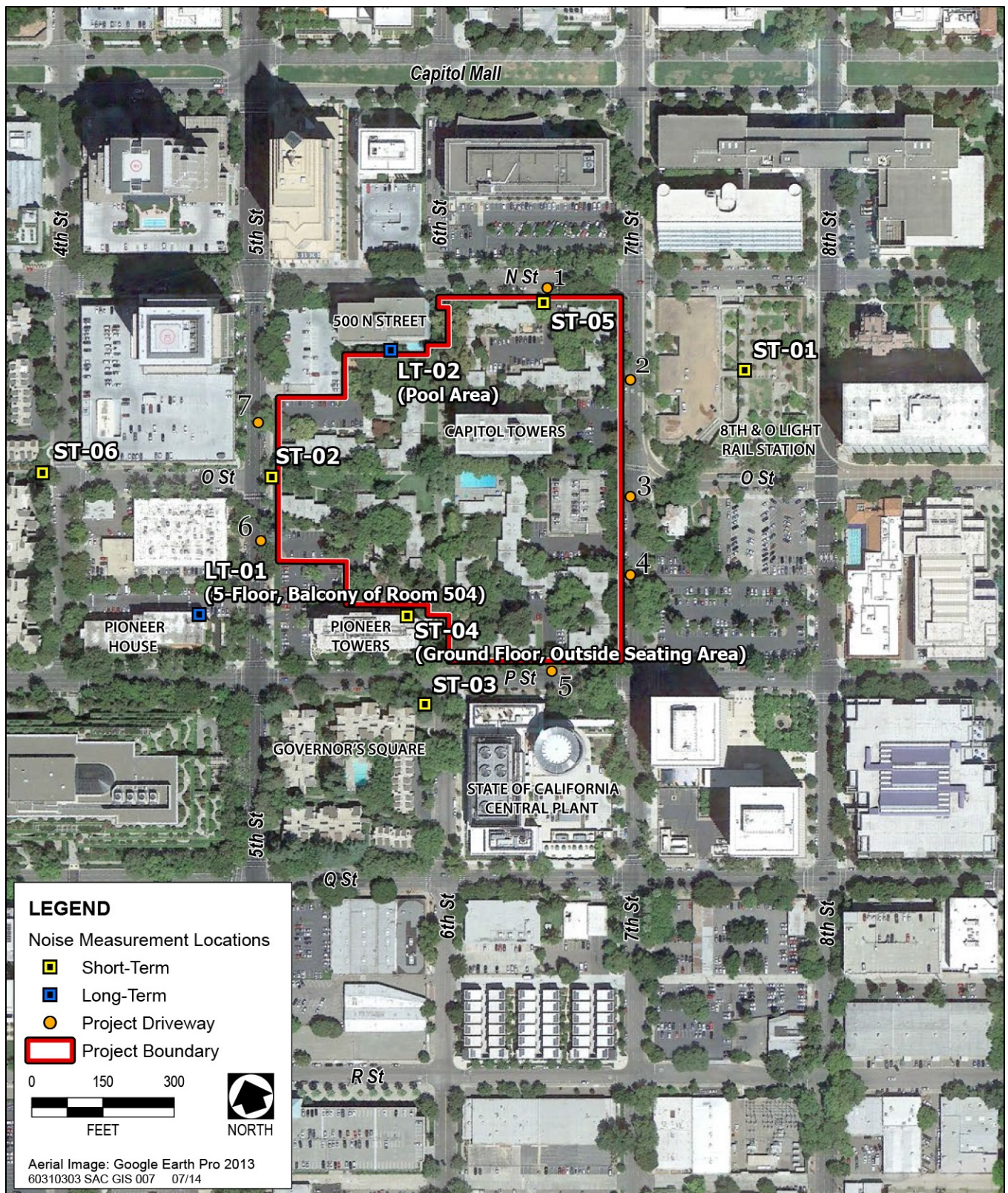
³ Short-term, 15-minute and continuous, 24-hour long-term measurements of ambient noise levels were taken in accordance with applicable ANSI standards using Larson Davis Laboratories (LDL) Models 820 and 824 precision integrating sound level meters. The sound level meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure measurement accuracy. The equipment used meets all pertinent ANSI specifications for Class 1 sound-level meters (ANSI S1.4-1983[R2006]).

**Table 4.9-4
Summary of Ambient Noise Level Survey Results—May 20–22, 2014**

Site	Noise Sources	Land Use	Date(s)	Time	L _{dn} / CNEL	Average Measured Hourly Noise Levels, dB					
						Daytime (7 a.m.–7 p.m.)		Evening (7 p.m.– 10 p.m.)		Nighttime (10 p.m.– 7 a.m.)	
						L _{eq}	L _{max}	L _{eq}	L _{max}	L _{eq}	L _{max}
ST-01	Roadway traffic along N Street, 7th Street, and O Street	Park	May 20	11:46	–	54	67	–	–	–	–
ST-02	Roadway traffic along 5th Street and O Street	Residential	May 20	13:00	–	61	77	–	–	–	–
ST-03	Roadway traffic along P Street and 6th Street	Residential	May 20	13:25	–	65	73	–	–	–	–
ST-04	Roadway traffic along P Street, 5th Street, and 6th Street	Residential	May 20	14:00	–	56	76	–	–	–	–
ST-05	Roadway traffic along N Street	Residential	May 20	14:27	–	60	68	–	–	–	–
ST-06	Roadway traffic along 4 th Street and O Street	Residential	May 20	15:09	–	58	69	–	–	–	–
LT-01	Roadway traffic along P Street, 4th Street, and 5th Street	Residential	May 20– 21	16:00 to 15:00	65	63	81	58	77	56	74
LT-02	Roadway traffic along N Street and 5th Street	Residential	May 21– 22	12:00 to 11:00	61	59	71	58	69	52	59

Notes: – = non applicable periods for short-term measurements; see note below for explanation. CNEL = community noise equivalent level; dB = A-weighted decibels; L_{dn} = day-night average noise level; L_{eq} = equivalent noise level; L_{max} = maximum instantaneous noise level during a specific period of time; LT = long term; ST = short term. Long term (LT) measurements are taken to measure noise levels continuously over a relatively long period of time (usually 24 hours) to determine the day, evening, and night (CNEL/L_{dn}) levels for the project area and the affected vicinity. Short term (ST) measurements are spot checks within the study area used to calibrate the road noise model. Short-term measurements are taken for about 10–30 minutes (depending on traffic volumes) with concurrent traffic counts (for calibration) and during the daytime, when ambient traffic noise is highest.

Source: Data compiled by AECOM in 2014



Source: Data compiled by AECOM in 2014

Figure 4.9-1

Ambient Noise Measurement Sites

Roadway Traffic

In addition to the ambient noise measurements, existing traffic noise on the roadways in the project vicinity was estimated, based on the existing traffic volumes (provided in the transportation impact assessment prepared to support this EIR, which is Appendix H of this EIR). Table 4.9-5 summarizes the modeled traffic noise levels 50 feet from the centerline of the roadways near the project site. Fifty feet is a representative distance from the roadway centerline to adjoining noise-sensitive uses, such as residences, based on the width of the public rights-of-way surrounding the project site (approximately 80 feet). Table 4.9-5 shows the modeled noise levels and estimated distances to the 70 dB L_{dn} , 65 dB L_{dn} , and 60 dB L_{dn} traffic noise contours. As shown in Table 4.9-5, the location of the 60 dB L_{dn} contour ranges from 4 to 75 feet from the centerline of the modeled roadways.⁴

Light Rail

Light rail operations in the vicinity of the project site are a source of existing noise. Using a mean SEL of 87.1 dB at 50 feet, the number of light-rail operations per day (135), and a standard reference distance (50 feet), an L_{dn} was calculated. Light-rail operations generate a noise level of 59 dB at a distance of 50 feet (EDAW 2008).⁵ Based on the distance to the nearest noise-sensitive receptor (80 feet), noise-sensitive land uses located next to the light-rail track could be exposed to light-rail noise levels of 56 dB L_{dn} at the first-floor façade. Second floor and floors above are expected to be exposed to 59 dB L_{dn} because of a +3 dB offset applied to account for building reflections.

Existing Vibration

The existing vibration environment, like the noise environment, is dominated by transportation-related vibration. Heavy truck traffic can generate groundborne vibration, which varies considerably depending on vehicle type, weight, and pavement conditions. However, groundborne vibration levels generated from vehicular traffic are not typically perceptible outside of the road right-of-way. The background vibration level in residential areas is usually 50 VdB or lower, below the 65 VdB threshold of perception for humans. The primary source of existing groundborne vibration in the vicinity of the project site would be the light rail track located just east of the project site.

⁴ The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) combined with the California Vehicle Noise (Calveno) Reference Energy Mean Emission Levels was used to predict existing traffic noise levels within the project area. The FHWA model is the traffic noise prediction model currently preferred by FHWA, the California Department of Transportation, and county and city governments for assessing traffic noise.

⁵ Single-event noise-level measurements of light-rail operations were conducted 50 feet from the light-rail track centerline at the 8th and O Street station. Noise-level measurements were taken in accordance with American National Standards Institute (ANSI) standards using a Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters (SLM) The SLMs were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure that the measurements would be accurate. The single-event noise-level measurements measured the train approach, wheel squeal, arrival, unloading, loading, and departure events. A total of 35 of the events discussed were measured. The mean SEL of individual light-rail operational events measured was calculated. Using the mean SEL (87.1 dB at 50 feet), the number of light-rail operations per day (135) and a standard reference distance (50 feet) an L_{dn} was calculated. Light-rail operations generate a noise level of 59 dB at a distance of 50 feet.

**Table 4.9-5
Traffic Noise Contours—Existing Conditions**

Roadway	Roadway Segment	dB, L _{dn} at 50 feet	Distance to Contours, feet		
			70 dB L _{dn}	65 dB L _{dn}	60 dB L _{dn}
4th Street	From O Street to N Street	55.6	5	12	25
4th Street	From O Street to P Street	55.8	6	12	26
O Street	From 5th Street to 4th Street	54.6	5	10	22
5th Street	From N Street to Capitol Mall	60.1	11	23	50
5th Street	From N Street to Project Driveway 7	61.3	13	28	61
N Street	From 5th Street to 4th Street	58.0	8	17	36
N Street	From 5th Street to Project Driveway 1	59.8	10	22	48
5th Street	From O Street to Project Driveway 7	61.3	13	28	61
5th Street	From O Street to Project Driveway 6	61.6	14	30	64
5th Street	From P Street to Project Driveway 6	60.5	11	25	53
5th Street	From P Street to Q Street	60.9	12	26	57
P Street	From 5th Street to 4th Street	62.1	15	32	68
P Street	From 5th Street to 6th Street	62.2	15	32	69
6th Street	From P Street to Q Street	49.7	2	5	10
P Street	From 6th Street to Project Driveway 5	62.0	15	31	68
6th Street	From Q Street to R Street	53.7	4	9	19
Q Street	From 6th Street to 7th Street	62.5	16	34	72
Q Street	From 6th Street to 5th Street	62.7	16	35	75
6th Street	From R Street to S Street	53.6	4	9	19
R Street	From 6th Street to 7th Street	50.9	3	6	12
R Street	From 6th Street to 5th Street	51.4	3	6	13
7th Street	From N Street to Capitol Mall	58.4	8	18	39
7th Street	From N Street to Project Driveway 2	59.0	9	20	42
N Street	From 7th Street to 8th Street	58.7	9	19	41
N Street	From 7th Street to Project Driveway 1	59.2	9	20	44
7th Street	From O Street to Project Driveway 2	58.9	9	19	42
7th Street	From O Street to Project Driveway 3	58.8	9	19	41
O Street	From 7th Street to 8th Street	43.9	1	2	4
7th Street	From P Street to Project Driveway 4	58.6	9	19	40
7th Street	From P Street to Q Street	57.7	8	16	35
P Street	From 7th Street to 8th Street	61.4	13	29	62
P Street	From 7th Street to Project Driveway 5	62.0	15	31	68
7th Street	From Q Street to R Street	57.4	7	15	33
Q Street	From 7th Street to 8th Street	62.5	16	34	73
7th Street	From R Street to S Street	55.9	6	12	27
R Street	From 7th Street to 8th Street	51.8	3	7	14
8th Street	From O Street to N Street	56.9	7	14	31
8th Street	From O Street to P Street	57.3	7	15	33
O Street	From 8th Street to 9th Street	48.0	2	4	8

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level

Source: Modeling conducted by AECOM in 2014

4.9.2 REGULATORY SETTING

FEDERAL

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. After its inception, EPA's Office of Noise Abatement and Control implemented the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In 1981, EPA administrators determined that noise would be better addressed by state and local governments. Consequently, in 1982, responsibilities for regulating noise control policies were transferred to state and local governments.⁶

The Federal Transit Administration has published a technical manual titled *Transit Noise and Vibration Impact Assessment* that provides criteria for groundborne vibration impacts with respect to building damage during construction activities (FTA 2006). According to FTA guidelines, a vibration-damage criterion of 0.20 in/sec PPV should be considered for non-engineered timber and masonry buildings. Furthermore, structures or buildings constructed of reinforced concrete, steel, or timber have a vibration-damage criterion of 0.50 in/sec PPV, pursuant to the FTA guidelines.

To address human response (annoyance) to groundborne vibration, FTA has established maximum-acceptable vibration thresholds for different land uses. These guidelines recommend 65 VdB for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities), 80 VdB for residential uses and buildings where people normally sleep, and 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices). These levels are calculated based on the measured RMS velocity amplitude relative to a reference velocity amplitude of 1 micro inch per second ($\mu\text{in}/\text{sec}$) (FTA 2006, p. 8-3).

STATE

Title 24 of the California Code of Regulations, also known as the California Building Standards Code, establishes building standards applicable to all occupancies throughout the state. The code provides acoustical regulations for both exterior-to-interior sound insulation, as well as sound and impact insulation between adjacent spaces of various occupied units. Title 24 regulations state that interior noise levels generated by exterior noise sources shall not exceed 45 dB L_{dn} , with windows closed, in any habitable room for residential uses.

The *State of California General Plan Guidelines 2003*, published by the California Governor's Office of Planning and Research (OPR), provides guidance for the compatibility of projects within areas of specific noise exposure.

⁶ However, noise control guidelines and regulations contained in EPA rulings from prior years remain in place with designated federal agencies, allowing more individualized control by designated federal, state, and local government agencies for specific issues.

LOCAL

City of Sacramento 2030 General Plan

The following goals and policies from the City of Sacramento 2030 General Plan are related to noise and vibration.

Goal EC 3.1 Noise Reduction. Minimize noise impacts on human activity to ensure the health and safety of the community.

- ▶ **Policy EC 3.1.1 Exterior Noise Standards.** The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table EC 1 [reproduced below as Table 4.9-6], to the extent feasible.

Table 4.9-6 Exterior Noise Compatibility Standards for Various Land Uses	
Land Use Type	Highest Level of Noise Exposure that is Regarded as “Normally Acceptable” ^a (L _{dn} ^b or CNEL ^c)
Residential—Low Density ^h Single Family, Duplex, Mobile Homes	60 dBA ^{d,e}
Residential—Multi-family ⁱ	65 dBA
Urban Residential Infill ^f and Mixed-Use Projects ^g	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: dBA = A-weighted decibels; L_{eq} = equivalent noise level

^a As defined in the *State of California General Plan 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.”

^b L_{dn} or day-night average level is an average 24-hour noise measurement that factors in day and night noise levels.

^c CNEL or community noise equivalent level measurements are a weighted average of sound levels gathered throughout a 24-hour period.

^d dBA or A-weighted decibel scale is a measurement of noise levels.

^e The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.

^f With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).

^g All mixed-use projects located anywhere in the City of Sacramento.

^h Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

ⁱ Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private rear yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments). These standards shall not apply to balconies or small attached patios in multistoried multi-family structures.

Source: City of Sacramento 2009a: Table EC 1; adapted by AECOM in 2014.

Table 4.9-6 presents acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards, reflecting the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. In instances where attainment of the normally acceptable exterior noise level is not possible with best available noise reduction measures, the General Plan allows an exterior noise level exceeding the acceptable L_{dn} , up to the conditionally acceptable range, provided that noise level reduction measures have been implemented and that interior noise level standards are achieved.

- **Policy EC 3.1.2 Exterior Incremental Noise Standards.** The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown in Table EC 2 [reproduced below as Table 4.9-7], to the extent feasible.

Residences and Buildings where People Normally Sleep ^a		Institutional Land Uses with Primarily Daytime and Evening Uses ^b	
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: dBA = A-weighted decibels; L_{eq} = equivalent noise level

^a This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.

^b 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: City of Sacramento 2009a; adapted by AECOM in 2014.

- **Policy 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 L_{dn} for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour) for office buildings and similar uses.
- **Policy EC 3.1.4 Interior Noise Review for Multiple, Loud Short-Term Events.** In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance, undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.

- ▶ **Policy EC 3.1.5 Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.
- ▶ **Policy EC 3.1.6 Vibration Screening Distances.** The City shall require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light rail lines to follow the FTA screening distance criteria.
- ▶ **Policy EC 3.1.7 Vibration.** The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur.
- ▶ **Policy EC 3.1.8 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.
- ▶ **Policy EC 3.1.10 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.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. The 2035 General Plan is in draft form as of the writing of this document. The 2035 General Plan proposes to delete the following policies related to noise and vibration:

- ▶ **Policy EC 3.1.5 Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.

The 2035 General Plan revised the above policy to “Policy EC 3.1.6 Effects of Vibration,” stating that the City shall consider potential effects of vibration when reviewing new residential and commercial projects that are proposed in the vicinity of rail or light rail lines. The 2030 General Plan requires a project to comply with screening distance criteria, whereas the revised 2035 General Plan language would require the City to consider potential vibration effects associated with the proximity of rail and light rail lines to new residential projects, but does not expressly require compliance with the FTA standards.

Sacramento Noise Ordinance

The City of Sacramento Noise Ordinance (Section 8.68 of the Sacramento City Code) states that it is unlawful for any person at any location within the City to create any noise that causes ambient noise levels at an affected receptor to exceed the noise standards shown in Table 4.9-8. Table 4.9-8 standards are specifically applicable to sources of noise that can be controlled at the local level. The

City’s standards do not apply to traffic, aircraft, or railroad noise exposure, since control of noise from those sources is subject to state or federal oversight, and not subject to local control.

Table 4.9-8 Noise Ordinance Standards Applicable at Exterior Spaces of Residential Uses			
Cumulative Duration of Intrusive Sound	Noise Metric	Daytime, dB	Nighttime, dB
Cumulative period of 30 minutes per hour	L ₅₀	55	50
Cumulative period of 15 minutes per hour	L ₂₅	60	55
Cumulative period of 5 minutes per hour	L ₀₈	65	60
Cumulative period of 1 minute per hour	L ₀₂	70	65
Level not to be exceeded for any time during hour	L _{max}	75	70

Source: City of Sacramento
Notes: dB = A-weighted decibels; L_{eq} = equivalent noise level. Daytime is defined as 7 a.m. to 10 p.m. and Nighttime is defined as 10 p.m. to 7 a.m. Each of the noise limits specified above shall be reduced by 5 dBA for impulsive or simple tone noise or for noises consisting of speech or music. If the existing ambient noise levels exceed that permitted in the first four noise-limit categories, the allowable limit shall be increased in 5 dB increments to encompass the ambient.

Section 8.68.080.D, Exemptions, exempts from the Noise Ordinance standards those noise sources due to the erection (including excavation), demolition, alteration, or repair of any building or structure between the hours of 7 a.m. and 6 p.m., on Monday through Saturday, and between 9 a.m. and 6 p.m. on Sunday; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers that are in good working order. The director of building inspections may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days.

Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work. The following activities are specifically exempted from the provisions of the City of Sacramento Noise Ordinance:

- E. Noise sources associated with maintenance of street trees and residential area property provided said activities take place between the hours of seven a.m. and six p.m.
- H. Tree and park maintenance activities conducted by the City Department of Parks And Community Services; provided, however, that use of portable gasoline-powered blowers within 200 feet of residential property shall comply with the requirements of Section 8.68.150 of this chapter.

4.9.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

Operational Traffic

Roadway noise levels were calculated based on information provided in the traffic analysis Section 4.11 of this EIR, “Transportation/Traffic.” Road segments selected for analysis are those that would be most

affected by project-related traffic. Traffic noise levels with and without the project were estimated using FHWA's Highway Noise Prediction Model (FHWA-RD-77-108) and traffic data (e.g., average daily traffic [ADT] volumes, vehicle speeds, and percent distribution of vehicle types).⁷ The modeled roadway noise levels assume no natural or artificial shielding; therefore, these estimates should be considered conservative (potentially overestimating impacts). Actual traffic noise exposure levels near the project site would vary depending on a combination of factors, such as variations in daily traffic volumes, shielding provided by existing and proposed structures, and meteorological conditions. See Appendix G of this EIR for complete modeling inputs and results. Table 4.9-9 summarizes modeled L_{dn} at 50 feet from the roadway centerline.

Light Rail Operations

Impacts associated with implementation of the proposed project are evaluated by assessing exposure of noise-sensitive receptors to daily noise from light rail relative to the City of Sacramento's exterior noise compatibility standard of 70 dBA L_{dn} or CNEL for urban residential infill and mixed-use projects and interior noise standard of 45 dB L_{dn} . This noise exposure assessment also takes into account the exterior to interior noise attenuation benefit associated with standard construction practices for assessment, relative to interior noise standards. An interior to exterior noise reduction of at least 10-15 dB is provided inside building façades with doors and windows open. With respect to interior noise levels, residential construction and renovated buildings (with insulated windows, door weather stripping and thresholds, and exterior wall insulation) would provide an exterior-to-interior noise level reduction of at least 20 dB with exterior doors and windows closed, and, for new construction and heavier building materials, would provide even more attenuation (FHWA 2011, Building Performance Centre 2007). Noise-sensitive receptors with exposure to exterior noise levels less than 65 dB L_{dn} would experience interior noise levels in compliance with the interior standard. To evaluate the effects of light-rail noise on the project site, the mean SEL of events measured was calculated. Using the mean SEL, the number of light-rail operations per day (135) and the distance to the nearest noise-sensitive receptor (80 feet) an L_{dn} may be calculated. Assuming a standard transportation noise source attenuation rate of 4.5 dB per doubling of distance between the source and receptor, noise-sensitive land uses located next to the light-rail track could be exposed to light-rail noise levels of 56 dB L_{dn} at the first-floor façade. The second floor, floors above the second floor, and areas at the edge of the proposed podium gathering areas are expected to be exposed to 59 dB L_{dn} because of a +3 dB offset applied to account for building reflections.

⁷ This model is based on the California vehicle noise (CALVENO) reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and ground attenuation factors. The traffic noise levels presented reflect the use of conservative traffic noise modeling methodologies that assume no natural or human-made shielding (e.g., the presence of vegetation, berms, walls, or buildings) from existing or proposed structures or topography. The proposed project's contribution to the existing and cumulative traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without project-generated traffic. Actual traffic noise exposure levels in the vicinity of the project area would vary depending on a combination of factors, such as variations in daily traffic volumes, shielding provided by existing and proposed structures, and meteorological conditions. See Appendix G of this EIR for complete modeling inputs and results.

**Table 4.9-9
Traffic Noise Contours—Existing and Existing plus Project Conditions**

Roadway	Roadway Segment	Existing No Project dB, L _{dn} at 50 Feet	Hotel / Condo / Retail Scenario dB, L _{dn} at 50 Feet	Condo / Retail Scenario dB, L _{dn} at 50 Feet
4th Street	From O Street to N Street	55.6	55.9	55.9
4th Street	From O Street to P Street	55.8	56.0	56.0
O Street	From 5th Street to 4th Street	54.6	55.0	55.1
5th Street	From N Street to Capitol Mall	60.1	60.1	60.1
5th Street	From N Street to Project Driveway 7	61.3	61.5	61.4
N Street	From 5th Street to 4th Street	58.0	58.1	58.1
N Street	From 5th Street to Project Driveway 1	59.8	60.2	60.1
5th Street	From O Street to Project Driveway 7	61.3	61.4	61.4
5th Street	From O Street to Project Driveway 6	61.6	61.6	61.7
5th Street	From P Street to Project Driveway 6	60.5	60.5	60.6
5th Street	From P Street to Q Street	60.9	60.9	60.9
P Street	From 5th Street to 4th Street	62.1	62.2	62.1
P Street	From 5th Street to 6th Street	62.2	62.3	62.3
6th Street	From P Street to Q Street	49.7	49.7	49.7
P Street	From 6th Street to Project Driveway 5	62.0	62.2	62.2
6th Street	From Q Street to R Street	53.7	53.7	53.7
Q Street	From 6th Street to 7th Street	62.5	62.5	62.5
Q Street	From 6th Street to 5th Street	62.7	62.7	62.7
6th Street	From R Street to S Street	53.6	54.1	54.2
R Street	From 6th Street to 7th Street	50.9	51.7	51.7
R Street	From 6th Street to 5th Street	51.4	51.5	51.6
7th Street	From N Street to Capitol Mall	58.4	58.8	58.8
7th Street	From N Street to Project Driveway 2	59.0	59.5	59.4
N Street	From 7th Street to 8th Street	58.7	58.9	58.9
N Street	From 7th Street to Project Driveway 1	59.2	59.6	59.5
7th Street	From O Street to Project Driveway 2	58.9	59.5	59.5
7th Street	From O Street to Project Driveway 3	58.8	59.4	59.3
O Street	From 7th Street to 8th Street	43.9	44.6	45.0
7th Street	From P Street to Project Driveway 4	58.6	59.3	59.2
7th Street	From P Street to Q Street	57.7	58.5	58.6
P Street	From 7th Street to 8th Street	61.4	61.6	61.6
P Street	From 7th Street to Project Driveway 5	62.0	62.2	62.2
7th Street	From Q Street to R Street	57.4	57.6	57.9
Q Street	From 7th Street to 8th Street	62.5	62.7	62.7
7th Street	From R Street to S Street	55.9	56.1	56.5
R Street	From 7th Street to 8th Street	51.8	51.9	51.9
8th Street	From O Street to N Street	56.9	57.0	57.0
8th Street	From O Street to P Street	57.3	57.3	57.3
O Street	From 8th Street to 9th Street	48.0	48.0	48.2

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level

Source: Modeling conducted by AECOM in 2014

Construction Equipment Noise

Construction noise levels for the project were estimated using FHWA Roadway Construction Noise Model (FHWA 2006) at nearby off-site sensitive receptors, shown in Table 4.9-10. As shown, compiled noise levels generated by various construction activities during the site grading and excavation stage would be 89 dBA L_{eq} , at the nearest sensitive receptors at the condominium tower at 500 N Street, which are 40 feet from the nearest proposed construction activities. Transmission loss of noise for common building materials range between 18 and 40 dBA, depending on the type, thickness and weight of walls (FHWA 2011). The buildings containing sensitive receptors within and adjacent to the project site, including garden apartments were built using plywood, and would be expected to provide a minimum of 20-dBA attenuation, while the 500 N St, Pioneer Towers, and Capitol Towers, all were built using concrete materials that would be expected to provide higher levels of attenuation (up to 40 dBA), depending on thickness and other specific design specifications (FHWA 2011). The mostly likely range of indoor noise levels is shown in Table 4.9-10 for noise sensitive uses near the project site. New residential construction and renovation (with insulated windows, door weather stripping and thresholds, and exterior wall insulation) would be expected to provide an exterior-to-interior noise level reduction of at least 34 dBA with doors and windows closed (FHWA 2011, Building Performance Centre 2007).

Table 4.9-10 Construction Equipment Noise Levels at nearest Noise-Sensitive Uses in the Project Vicinity					
Location	Worst-Case (Shortest) Distance Between Noise-Sensitive Uses and Proposed Construction Areas	Construction Noise Level dBA L_{eq}	Doors and Windows Open	Doors and Windows Closed	Threshold ¹ (dBA L_{eq})
Condominium Tower at 500 N Street	40 feet to the north	89	74	49-69	75
Pioneer Tower located 515 P Street	42 feet to the south	88	73	48-68	75
Capitol Tower Building	40 feet from Construction Activities	89	74	49-69	75
Garden Apartments	40 feet from Construction Activities	89	74	69	75
Discovery Tree Preschool in Board of Equalization building at 450 N Street	100 feet to the west	81	66	41-61	75
Senior residential building at 415 P Street	150 feet to the west	77	62	37-57	75
Residences at 1451 3rd Street	500 feet to the west	67	52	47	75
Notes: dB = A-weighted decibels; L_{eq} = equivalent noise level					
¹ At the interior of a residential building during the daytime hours (7 a.m. to 10 p.m.) (this threshold to protect against potential sleep disturbance and noise-induced hearing loss from prolonged noise) (NIDCD 2008).					
Source: Modeling conducted by AECOM in 2014					

Construction Traffic

Construction traffic noise levels were estimated making the assumption of a maximum of 750 daily trips. Project construction is anticipated to involve lower numbers of trips to and from the project site and the assumption of 750 trips per day was made to show conservative results. Project construction-related increases in traffic noise levels along these roadway segments would range from 0.2 to 7.5 dB using this conservative assumption of the maximum daily trips (Table 4.9-11).

**Table 4.9-11
Traffic Noise Contours—Existing and Existing plus Construction Traffic Conditions**

Roadway	Roadway Segment	Existing dB, L _{eq} at 50 Feet	Existing + Construction dB, L _{eq} at 50 Feet	Increase
4th Street	From O Street to N Street	56.0	57.2	1.2
4th Street	From O Street to P Street	56.2	57.3	1.1
O Street	From 5th Street to 4th Street	55.1	56.5	1.4
5th Street	From N Street to Capitol Mall	60.5	61.0	0.5
5th Street	From N Street to Project Driveway 7	61.7	62.1	0.4
N Street	From 5th Street to 4th Street	58.4	59.1	0.7
N Street	From 5th Street to Project Driveway 1	60.3	60.7	0.4
5th Street	From O Street to Project Driveway 7	61.8	62.1	0.3
5th Street	From O Street to Project Driveway 6	62.1	62.4	0.3
5th Street	From P Street to Project Driveway 6	60.9	61.3	0.4
5th Street	From P Street to Q Street	61.3	61.7	0.4
P Street	From 5th Street to 4th Street	62.5	62.8	0.3
P Street	From 5th Street to 6th Street	62.6	62.9	0.3
6th Street	From P Street to Q Street	50.2	53.6	3.4
P Street	From 6th Street to Project Driveway 5	62.5	62.8	0.3
6th Street	From Q Street to R Street	54.1	55.8	1.7
Q Street	From 6th Street to 7th Street	62.9	63.2	0.3
Q Street	From 6th Street to 5th Street	63.1	63.4	0.3
6th Street	From R Street to S Street	54.0	55.7	1.7
R Street	From 6th Street to 7th Street	51.4	54.1	2.7
R Street	From 6th Street to 5th Street	51.8	54.4	2.6
7th Street	From N Street to Capitol Mall	58.9	59.5	0.6
7th Street	From N Street to Project Driveway 2	59.4	60.0	0.6
N Street	From 7th Street to 8th Street	59.2	59.8	0.6
N Street	From 7th Street to Project Driveway 1	59.7	60.2	0.5
7th Street	From O Street to Project Driveway 2	59.3	59.9	0.6
7th Street	From O Street to Project Driveway 3	59.2	59.8	0.6
O Street	From 7th Street to 8th Street	44.3	51.8	7.5
7th Street	From P Street to Project Driveway 4	59.0	59.7	0.7
7th Street	From P Street to Q Street	58.2	58.9	0.7
P Street	From 7th Street to 8th Street	61.8	62.2	0.4
P Street	From 7th Street to Project Driveway 5	62.5	62.8	0.3
7th Street	From Q Street to R Street	57.8	58.6	0.8
Q Street	From 7th Street to 8th Street	63.0	63.2	0.2
7th Street	From R Street to S Street	56.4	57.5	1.1
R Street	From 7th Street to 8th Street	52.3	54.6	2.3
8th Street	From O Street to N Street	57.4	58.3	0.9
8th Street	From O Street to P Street	57.7	58.5	0.8
O Street	From 8th Street to 9th Street	48.4	52.8	4.4

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level

Source: Modeling conducted by AECOM in 2014

Construction Vibration

Construction activities could result in varying degrees of temporary, short-term ground vibration, depending on the construction equipment used. Ground vibration levels for project construction were estimated by examining various types of construction equipment that could be used on-site and vibration levels associated with such equipment published by FTA in its *Transit Noise and Vibration Impact Assessment* document, summarized in Table 4.9-12. Results are displayed for each of the closest vibration-sensitive uses and for the Capitol Towers building (which will remain during and following construction of the project).

Equipment	PPV at 25 Feet (in/sec) ¹ Approximate L _v (VdB) at 25 Feet ²		Closest Sensitive Receptors														
			North (500 N Street + Garden Apts. on project site)			South (Pioneer Tower)			East (450 N Street)			West (Pioneer House)			Capitol Towers		
			Distance (ft.)	PPV	VdB	Distance (ft.)	PPV	VdB	Distance (ft.)	PPV	VdB	Distance (ft.)	PPV	VdB	Distance (ft.)	PPV	VdB
Large bulldozer	0.089	87		0.04	81		0.04	81		0.011	69		0.006	64		0.024	76
Caisson drilling	0.089	87		0.04	81		0.04	81		0.011	69		0.006	64		0.024	76
Loaded trucks	0.076	86	40	0.04	80	42	0.04	80	100	0.01	68	150	0.005	63	60	0.020	75
Jack-hammer	0.035	79		0.02	73		0.02	73		0.004	61		0.002	56		0.009	68
Small bulldozer	0.003	58		0	52		0	52		<0.001	<40		<0.001	<40		<0.001	<40
Significance Threshold				0.5	80		0.5	80		0.2	80		0.5	80		0.2	80

Notes: in/sec = inches per second; VdB = vibration decibels ¹ Where PPV is the peak particle velocity. ² Where L_v is the root mean square velocity expressed in vibration decibels (VdB), assuming a crest factor of 4.
Source: FTA 2006

The project will require piles for building foundations. Temporary noise and vibration associated with different techniques for installing piles has been estimated for worst-case (closest noise- and vibration-sensitive uses) using guidance from the FHWA's Roadway Noise Construction Model (Table 4.9-13).

Operational Vibration

Long-term operational groundborne vibration impacts on the new sensitive uses proposed under the project are also analyzed in this EIR. Groundborne vibration levels resulting from operational activities (light rail) near the project site were estimated using data and equations published by FTA in its *Transit Noise and Vibration Impact Assessment* document.

**Table 4.9-13
Representative Noise and Vibration Levels at Sensitive Receptor Locations from Pile Installation**

Equipment	North (40')			South (42')			East (100')			West (150')			Capitol Tower		
	Vibration		Noise	Vibration		Noise	Vibration		Noise	Vibration		Noise	Vibration		Noise
	PPV	VdB	Lmax (dBA)	PPV	VdB	Leq (dBA)	PPV	VdB	Leq (dBA)	PPV	VdB	Leq (dBA)	PPV	VdB	Leq (dBA)
Pile Driver (Impact) - upper range	0.75	106	103.2	0.7	105	102.8	0.19	94	95.2	0.1	89	91.7	0.41	101	99.7
Pile Driver (Impact) - typical	0.32	98	103.2	0.3	97	102.8	0.08	86	95.2	0.04	81	91.7	0.17	93	99.7
Pile Driver (Sonic) - upper range	0.36	99	102.8	0.34	98	102.3	0.09	87	94.8	0.05	82	91.3	0.2	94	99.2
Pile Driver (Sonic) - typical	0.08	87	102.8	0.08	86	102.3	0.02	75	94.8	0.01	70	91.3	0.05	82	99.2
Caisson Drilling (represents Auger Drilling Pile Installation)	0.04	81	86.3	0.04	80	85.9	0.01	69	78.3	0.01	64	74.8	0.02	76	82.8

Notes: dBA = A-weighted decibels; in/sec = inches per second; Leq = equivalent sound level; VdB = vibration decibels
¹ Where PPV is the peak particle velocity.
² Where Lv is the root mean square velocity expressed in vibration decibels (VdB), assuming a crest factor of 4.
Source: FTA 2006, RCNM 1.1, 2008

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, noise and vibration impacts are considered significant if the project would:

- ▶ result in a substantial permanent increase in ambient exterior noise levels in the project vicinity that exceed standards in the City’s General Plan;
- ▶ result in residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to project operation;
- ▶ result in construction noise levels that violate the standards in the City of Sacramento Noise Ordinance or result in construction noise levels that exceed 75 dBA Leq at the interior of a residential building during the daytime hours (7 a.m. to 10 p.m.); (this threshold is to protect against potential sleep disturbance and noise-induced hearing loss from prolonged noise) (NIDCD 2008);
- ▶ expose existing and/or planned residential and commercial areas to vibration peak-particle velocities greater than 0.5 inch per second or vibration levels greater than 80 VdB due to project construction;
- ▶ expose adjacent residential and commercial areas to vibration peak particle velocities greater than 0.5 inch per second or vibration levels greater than 80 VdB due to operations; or

- ▶ expose historic buildings and archaeological sites to vibration-peak-particle velocities greater than 0.2 inch per second due to project construction or operations.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An Initial Study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An Initial Study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process is often referred to as “scoping out” issues.

The project was found to have no impact on noise related to location within an airport land use plan, within two miles of a public airport or public use airport, or location in the vicinity of a private airstrip. Therefore, these issues are not discussed further in this section.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT 4.9-1	The proposed project could result in a substantial permanent increase in ambient exterior noise levels in the project vicinity that exceed standards in the City’s General Plan. <i>Based on the analysis below, this impact is considered less than significant.</i>
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Traffic Noise Sources

Project operation would result in an increase in traffic volumes, and consequently, an increase in traffic noise. To assess traffic noise impacts on existing noise-sensitive uses, traffic noise levels with the project and without the project were estimated for affected roadway segments. The modeled roadway noise levels assume no natural or artificial shielding. Therefore, these estimates should be considered conservative (potentially overestimating impacts).

Table 4.9-9 summarizes modeled L_{dn} at 50 feet from the roadway centerline for affected roadway segments under existing conditions and with project implementation. As shown in Table 4.9-9, the noise level along existing roadways would not increase substantially as a result of project operational traffic. Implementation of the proposed project is estimated to result in changes in traffic noise levels relative to existing noise levels ranging from +0.0 dB to +0.8 dB under the Hotel / Condo / Retail Scenario, and from +0.0 dB to +1.1 dB under the Condo / Retail Scenario. In general, a 1-dB increase in noise level is considered imperceptible. As such, the change in noise compared to existing ambient levels under both the Hotel / Condo / Retail Scenario and the Condo / Retail Scenario would be imperceptible.

To satisfy the City’s land use/noise compatibility criteria (2030 General Plan Policy EC 3.1.1, Table 4.9-6) at proposed and existing noise-sensitive uses, where feasible, exterior noise exposure at these uses may not exceed 70 dB L_{dn} for urban residential infill and mixed-use projects, and schools. As shown in Table 4.9-9, the predicted traffic noise levels along the analyzed roadways would be below the City’s 70-dB L_{dn} General Plan standard.

Based on the noise measurements and the predicted traffic noise levels along the roadways surrounding the project site (i.e., N, P, 5th, and 7th Streets), the future proposed residential/hotel uses

would be exposed to exterior noise levels ranging from 60 dBA L_{dn} along the northern boundary (facing N Street) and eastern boundary (facing 7th Street) to 62 dBA L_{dn} along the southern boundary (facing P Street) and western boundary (facing 5th Street). Applying a +3 dB offset to account for building reflections, areas at the edge of the proposed podium gathering areas are expected to be exposed to noise ranging from 63 dBA L_{dn} to 65 dBA L_{dn} . Therefore, the exterior noise levels at the residential/hotel uses meet the City's land use/noise compatibility criteria (2030 General Plan Policy EC 3.1.1, Table 4.9-6) of 70 dB L_{dn} for urban residential infill, mixed-use projects, and schools. The impact is considered **less than significant**.

Light Rail Operations

Implementation of the proposed project would expose noise-sensitive receptors to daily noise from light rail that is within compliance of the City of Sacramento's exterior noise level standard of 60 dB L_{dn} for residential land uses, as discussed above under the heading "Existing Noise Sources." Standard construction practices provide an interior to exterior noise reduction of 10-15 dB for building façades with doors and windows open. With respect to interior noise levels, new residential construction and renovated buildings (with insulated windows, door weather stripping and thresholds, and exterior wall insulation) would provide an exterior to interior noise level reduction of at least 20 dB with exterior doors and windows closed and, in many cases, would provide even more attenuation (FHWA 2011, Building Performance Centre 2007). Therefore, noise-sensitive receptors with exposure to exterior noise levels less than 65 dB L_{dn} would experience interior noise levels in compliance with the City of Sacramento's 45 dB L_{dn} standard. Light rail noise in the vicinity is below this level. Therefore, exterior and interior noise impacts from light-rail operations are **less than significant**.

Stationary Noise Sources

Occupation of the proposed dwellings would expose adjacent residences to noise. Noise typically associated with residential development includes amplified music, voices, recreational activities, and lawn and home maintenance equipment. Activities associated with residential operations would result in only minor and intermittent temporary noise exposure, as perceived at the closest residential receptors, primarily during the day and evening hours. As required by Section 3.1.3 of the proposed PUD Guidelines, Mechanical and HVAC equipment associated with the new buildings would be roof-mounted or shielded to avoid adverse noise and aesthetic effects.

The project would result in additional activity and people on the project site – both residents and visitors. However, the character of noise generation after implementation of the project is anticipated to be similar to existing conditions since the project proposes similar land uses to those that exist on-site and in the vicinity of the project site and since noise levels are related to land use types. The project does not propose any on-site substantial sources of noise (such as outdoor manufacturing activities, long-term operation of heavy machinery, or other operational noise sources). Surface parking lots are a source of noise today and the project would convert some of the surface parking areas to parking garages. This could reduce noise exposure related to vehicle engine noise and vehicle doors closing since the parking structures would attenuate noise experienced by adjacent sensitive receptors. The 24-hour noise level measurements taken to document existing conditions are representative of a developed, urban environment, and noise sources from these long-term noise measurements were primarily traffic noise. After project implementation, traffic noise expected to continue to be the primary

source of noise in the vicinity of the project site, since the project does not propose any substantial stationary sources of noise.

The Planned Unit Development (PUD) Guidelines for the proposed project also requires that live/work units on-site not generate external noise, odor, glare, vibration or electrical interference detectable to the normal sensory perception by adjacent neighbors or cause a nuisance to the community (see Section 2.2 of the PUD Guidelines, Appendix N). Operations on-site will also be required to meet requirements of the City's Noise Ordinance, which is designed to avoid adverse noise impacts, including additional provisions for noise-sensitive uses and times of day.

Given the nature of proposed uses on-site, the proposed project would not increase traffic noise or noise from other sources that would exceed the City's General Plan noise land use compatibility standards or increase noise levels during operations by more than the allowable noise increment specified in Table 4.9-7 (EC-2). The impact is **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-2 The proposed project could result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to project operation. *Based on the analysis below, this impact is considered less than significant.*

Standard construction practices provide an interior to exterior noise reduction of 10-15 dB for building façades with doors and windows open (NANR116 2007). With respect to interior noise levels, new residential construction and renovated buildings (with insulated windows, door weather stripping and thresholds, and exterior wall insulation) would provide an exterior-to-interior noise level reduction of at least 20 dB with exterior doors and windows closed – and in many cases more attenuation than this.

Transmission loss for common building materials range between 18 to 40 dB, based on the type, thickness, and weight of walls (FHWA 2011). The sensitive uses within and near the project site, including the garden apartments, were built using plywood and provide a minimum 20-dBA attenuation, while 500 N St, Pioneer Towers, and Capitol Towers all were built using concrete materials that would provide a minimum attenuation of up to 40 dBA (FHWA 2011). Assuming the minimum 20-dB attenuation, provided by the building exterior façade, the expected maximum interior noise levels for any sensitive use within 50 feet of roadways affected by project traffic would be approximately 43 dBA L_{dn} , which would be below the City's acceptable 45 dBA L_{dn} significance threshold. Newer buildings included as a part of the proposed project would exceed this 20-dBA attenuation since newer building materials and design provide higher levels of noise attenuation compared to older construction, and since materials anticipated to be used in project construction (concrete, steel, etc.) are estimated to have higher attenuation benefits (up to 40 dBA of attenuation from outdoor to indoor) (FHWA 2011).

Occupation of the proposed dwellings would expose adjacent residences to noise. Noise typically associated with residential development includes amplified music, voices, recreational activities, and lawn and home maintenance equipment. Activities associated with residential operations would result in only minor and intermittent temporary noise exposure, as perceived at the closest residential receptors,

primarily during the day and evening hours. Although additional residents would be on-site, the character of noise generation is anticipated to be similar to existing conditions. The project does not propose substantial sources of noise. As is currently the case, traffic noise is anticipated to remain the major source of noise in the future.

The Planned Unit Development (PUD) Guidelines for the project also require that live/work units on-site not generate external noise, odor, glare, vibration or electrical interference detectable to the normal sensory perception by adjacent neighbors or cause a nuisance to the community (see Appendix N, p. 34). Operations on-site will also be required to meet requirements of the City's Noise Ordinance, which is designed to avoid adverse noise impacts, including additional provisions for noise-sensitive uses and times of day.

Since traffic will continue to be the dominant source of noise on-site, and since a minimum 20-dBA noise reduction will be provided by the building exterior façade, the expected maximum interior noise levels for any sensitive use would be approximately 43 dBA L_{dn} , which would be below the City's acceptable 45-dBA L_{dn} significance threshold. This is the worst-case, long-term noise level estimate for noise-sensitive uses located directly adjacent to City streets and would apply to the Pioneer Towers, 500 N Street condominiums, on-site garden apartments, and Capitol Towers building (which will remain during and following construction of the project), other existing noise-sensitive uses, and proposed noise-sensitive uses directly adjacent to area streets. The impact is **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-3 The proposed project could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance or result in construction noise levels that exceed 75 dBA L_{eq} at the interior of a residential building during the daytime hours (7 a.m. to 10 p.m.). *Based on the analysis below, this impact is considered less than significant with mitigation.*

Construction Traffic

Construction of the proposed project would result in additional vehicle trips on the local roadway network as workers commute and equipment and materials are transported. The exact number of daily trips required for project construction is not known at this time; however, construction activities would not be expected to include more than 750 daily one-way trips, even when intensive earth movement activities (e.g., soil import/export) are underway.

Table 4.9-11 summarizes the modeled traffic noise levels under Existing and Existing plus Construction traffic at 50 feet from the centerline of the studied roadway segments near the project site. Typically, when the ADT volume doubles on a roadway segment compared to existing conditions, the resultant increase is approximately 3 dB. Project construction-related increases in traffic noise levels along 33 of the 39 roadway segments would not exceed 2 dB, conservatively assuming a construction-related traffic volume of 750 ADT. As shown in Table 4.9-11, Existing plus Construction noise levels along the remaining two roadway segments would be approximately 48.4 dB L_{dn} (O Street from 8th Street to 9th Street) 50.2 dB L_{dn} (6th Street from P Street to Q Street), and 51.8 dB L_{dn} (O Street from 7th Street

to 8th Street). Project construction-related increases in traffic noise levels along these roadway segments would range from approximately 3.4 to 7.5 dB. However, it is very unlikely that construction truck traffic would use these two roadway segments of O Street, since this is a street often used by light rail. Roadway segment of 6 Street from P Street to Q Street is likely to be avoided by construction traffic as there is no direct access from this segment of 6th Street, to the project site. Also, the maximum noise level from construction traffic would be 63.4 (Table 4.9-11). The impact is considered **less than significant**.

Construction Equipment

The proposed project would generate construction noise from equipment operating on the project site, building demolition, and from the transport of construction workers and equipment to and from the site. Construction activity would occur in four phases, preceded by demolition. Please refer to Chapter 2 of this EIR, "Project Description," and the PUD Guidelines (Appendix N) for more detail on the anticipated approach to phasing. Phasing may change in response to market conditions. However, changes in the order of project construction phasing would not affect the conclusions discussed below because construction noise impacts are evaluated based on the closest sensitive receptors to construction activities contemplated by the proposed project. The approach used in this EIR focuses on the worst-case location regarding sensitive receptors and construction activities.

Construction activities would include building demolition, site clearing and excavation and site preparation, building construction, and renovation. Construction activity could temporarily cease between phases, depending on the schedule and timing of each phase. Operation of heavy-duty construction equipment would be intermittent throughout the day during construction. Construction would occur over the course of a number of years and construction noise levels would vary over this time. The highest noise levels would be expected to occur in association with demolition and foundation construction sub-phases. These sub-phases are expected to last for a relatively short amount of time as compared to building construction, which would generate substantially lower levels of construction noise.

Noise would be generated by equipment such as graders, backhoes, skip loaders, water trucks, pile drilling, and other miscellaneous equipment. Construction noise levels for the project were estimated using FHWA Roadway Construction Noise Model (FHWA 2006) at nearby off-site sensitive receptors, shown in Table 4.9-10. As shown, noise levels generated by various construction activities during the worst-case site preparation stage would be 89 dB L_{eq} , at the closest noise-sensitive receptors at the condominium tower at 500 N Street, which is located 40 feet from the closest proposed construction activities. Construction equipment would be used in different portions of the site, but this is the estimated worst-case temporary noise level. Assuming an exterior-to-interior noise level reduction of at least 20 dB for wooden structures (doors and windows closed) (FHWA 2011), construction equipment noise could result in a maximum temporary interior noise level of approximately 69 dBA L_{eq} at the residences at the garden apartments, located on the project site. Construction noise levels experienced at other noise-sensitive receptors both on and adjacent to the project site would be lower than this worst-case scenario, including the Capitol Towers building, which would remain on-site following completion of the project. Maximum temporary construction noise levels (doors and windows closed) are estimated to be 48-68 dBA L_{eq} at Pioneer Tower, 41-61 dBA L_{eq} at the Discovery Tree Preschool in

Board of Equalization building at 450 N Street, 37-57 dBA L_{eq} at the senior residential building at 415 P Street, and 47 dBA L_{eq} at the residences at 1451 3rd Street (assuming for 1451 3rd Street only 20 dBA attenuation). Although 20 dBA is used as the assumed minimum outdoor-to-indoor attenuation, other building materials used in project construction and in surrounding buildings (concrete, steel, etc.) have higher attenuation rates (up to 40 dBA) (FHWA 2011). The impact is **less than significant**.

Installation of Piles

Depending on the technique selected for installation of building piles, the maximum noise levels for the closest sensitive receptors could range from 86.3 dBA for the closest sensitive receptors within 40 feet of proposed construction sites, if auger drilling pile installation is used, to 103.2 dBA for the closest sensitive receptors within 40 feet of proposed construction sites for the upper range, if impact pile driving is selected (see Table 4.9-13). Foundations of the high-rise buildings proposed on-site would typically require the installation of deep piles to support the weight of the building and to protect the building against uplift that could be created by shallow groundwater that is present in the vicinity of the project site. Assuming an exterior-to-interior noise level reduction of at least 20 dB (doors and windows closed), installation of piles could result in peak noise levels of between 66.3 dBA for the closest sensitive receptors within 40 feet located north of proposed construction sites if auger drilling pile installation is used to 83.2 dBA for the closest sensitive receptors within 40 feet of proposed construction sites if impact pile driving were selected. The impact is **potentially significant**.

Noise Ordinance

Section 8.68.080 of the City's Noise Ordinance exempts certain activities, 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. These exemptions are typical of city and county noise ordinances and reflect the fact that construction-related noise is temporary, is generally acceptable when limited to daylight hours, and is expected as part of a typical urban noise environment (along with sirens, etc.). If project construction occurred outside City-allowed construction hours, this would represent a **potentially significant** impact, requiring mitigation (see Mitigation Measure 4.9-3).

Conclusion

Construction noise would be noticeable and could disturb people in the vicinity of the project site, making it difficult to concentrate, interrupting conversations, and disturbing sleep. With senior residential uses (Pioneer House) in the vicinity of the project site, it may be relatively more likely that people may be sleeping during the day, when construction activities would be anticipated to occur. With respect to interior noise levels, residential construction would provide an exterior-to-interior noise level reduction of at least 20 dB with exterior doors and windows closed – and, in many cases, provides even more attenuation (FHWA 2011, Building Performance Centre 2007). Therefore, conservatively, noise-sensitive receptors with exposure to exterior noise levels less than 95 dB L_{eq} would experience interior noise levels in compliance with the 75 dB L_{eq} threshold of significance (this threshold is to protect against potential sleep disturbance and noise-induced hearing loss from prolonged noise) (NIDCD 2008). As demonstrated above, construction noise levels are not expected to exceed this threshold, but installation of piles could exceed this threshold. If project construction occurred outside City-allowed

construction hours, this would violate the Noise Ordinance. Therefore, the impact is considered **potentially significant**, requiring mitigation.

Mitigation Measures

The City evaluated construction noise impacts under Impact 6.8-3 of the 2030 General Plan Master EIR, finding that, with conditions applied as a part of the discretionary review process (Policy EC 3.1.10) and compliance with the Noise Ordinance, 2030 General Plan impacts would be less than significant (p. 6.8-43).

The MTP/SCS EIR addressed construction noise impacts under Impact NOI-3, finding potentially significant impacts for Center and Corridor Communities (of which the project site is a part). Mitigation Measure NOI-3 in the MTP/SCS EIR identifies options for reducing construction noise, as well as suggesting that construction be limited to less noise-sensitive hours of the day (p. 13-40). However, since SACOG cannot compel lead agencies to implement these measures, the impact was considered significant and unavoidable.

The proposed project is anticipated to be completed over the course of a six-year period, resulting in exposure to local residents from pile-driving, hammers, cranes and back-up beepers during the construction period. Therefore, the following mitigation measure is recommended to implement the 2030 General Plan Policy EC 3.1.10 and Mitigation Measure NOI-3 in the MTP/SCS EIR, as well as ensure noise associated with project construction would be minimized.

There are a variety of options for installation of foundation piles, including typical impact pile driving, as well as a pre-drilled method, including either cast-in-place or auger displacement. Once the building design is finalized, it will be possible to select the method of pile installation. For the purposes of this EIR, because it is not known what type of methods would be used to install the building piles, noise associated with this activity could result in levels greater than 75 dB L_{eq} in the interior of adjacent noise-sensitive uses. If a pre-drilled method is used, the project would be able to demonstrate compliance with the 75 dB L_{eq} interior threshold, even for the worst-case location with the closest residential unit and the edge of the closest proposed pile installation area. The same pile installation techniques used in this worst-case location may not be required to achieve the 75 dB L_{eq} interior threshold for all the buildings, based on different relative locations of pile installation areas and adjacent noise-sensitive uses. The mitigation below would substantially reduce construction noise exposure and could avoid temporary significant effects. This would minimize disruption of activity at noise-sensitive receptors, consistent with the significance thresholds. The impact is considered **less than significant with mitigation**.

Mitigation Measure 4.9-3a: Minimize Construction Noise throughout Entire Construction Phase.

The project applicant and contractor/s shall implement the following measures throughout all construction phases.

- Machines or equipment shall not start up prior to 7:00 a.m., Monday through Saturday, and prior to 9 a.m. on Sunday;

- Delivery of materials and equipment shall not occur prior to 7:00 a.m. nor past 6:00 p.m., Monday through Saturday, and prior to 9:30 a.m. nor past 6 p.m. on Sunday;
- Stationary construction equipment, such as compressors, shall be placed away from nearby residential areas and shall provide acoustical shielding.
- Idling times of equipment shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes.
- The project applicant or its designee shall designate a disturbance coordinator and conspicuously post this person's number around the project site, in adjacent public spaces, and in construction notifications. The disturbance coordinator, in coordination with the City, shall be responsible for responding to any complaints about construction activities. The disturbance coordinator shall receive all public complaints about construction disturbances and, in coordination with the City, is responsible for determining the cause of the complaint and implementation of feasible measures to alleviate the problem.
- The project applicant or its designee shall provide written notice to all known occupied noise-sensitive uses (i.e., residential, educational, religious, lodging) within 400 feet of the edge of the project site boundary at least 2 weeks prior to the start of each construction phase of the construction schedule, as well as the name and contact information of the project disturbance coordinator.

Mitigation Measure 4.9-3b: Prepare and Implement a Noise and Vibration Control Plan for Pile Installation.

Prior to the issuance of any building permit for any phase of project development that proposes the use of piles for foundations, the project applicant shall develop a Noise and Vibration Control Plan, in coordination with an acoustical consultant, geotechnical engineer, and construction contractor, and submit the Plan to the City's Chief Building Official for review and approval. The Plan shall include measures demonstrated to ensure construction noise exposure for the interior of nearby residential dwellings is less than 75 dB L_{eq} and that vibration exposure for all buildings and vibration-sensitive receptors in the vicinity of the project site is less than 0.5 PPV and 80 VdB and less than 0.2 PPV for historic buildings. These performance standards shall take into account the reduction in vibration exposure that would occur through coupling loss provided by each affected building structure. Measures and controls shall be identified based on project-specific final design plans, and may include, but are not limited to, some or all of the following:

- Buffer distances, the type of equipment, and use of attenuation devices shall be designed to minimize construction noise and vibration for adjacent existing buildings and noise- and vibration-sensitive uses.
- Use of "quiet" pile driving technology (such as auger displacement installation).

IMPACT The proposed project could permit existing and/or planned residential and commercial areas to be
4.9-4 exposed to vibration peak-particle velocities greater than 0.5 inch per second or vibration levels
greater than 80 VdB due to project construction. *Based on the analysis below, this impact is considered
less than significant with mitigation.*

Construction activities have the potential to result in varying degrees of temporary and short-term ground vibration, depending on the specific construction equipment used and operations involved. In general, vibration-induced structural damage occurs only when certain types of construction activity (e.g., pile driving, and heavy earthmoving) take place very close to existing structures. Vibration-induced disruption/annoyance could occur during more common types of construction activity (e.g., heavy earthmoving equipment) at a greater distance from the activity area. Ground vibration levels associated with various types of construction equipment, as published by FTA, are summarized in Tables 4.9-12 and 4.9-13.

Groundborne noise and vibration levels at the nearest off-site building structures and sensitive uses (surrounding the project site) were predicted based on the VdB and PPV reference vibration levels at 25 feet shown above in Tables 4.9-14 and 4.9-15.

The estimated maximum vibration levels in VdB generated by the project-related construction equipment, not including installation of building piles at the nearest off-site sensitive uses to the east and west of the project site would be 0.01 PPV and 0.006 PPV, respectively. The estimated maximum vibration levels at the nearest sensitive uses to the north (the 15-story condominium tower at 500 N Street) and to the south (the 12-story Pioneer Towers senior apartments) would be 0.04 PPV (at 40 feet) not including installation of building piles. The maximum vibration levels at the garden apartments would be less than 0.04 PPV, as these sensitive uses would be located at least 50 feet from the nearest construction activity under any phases.

Depending on the technique selected for installation of building piles, the maximum vibration levels for the closest sensitive receptors could range from 0.04 PPV/81 VdB for the closest sensitive receptors within 40 feet located north of proposed construction sites if auger drilling pile installation is used to 0.75 PPV/106 VdB for the closest sensitive receptors within 40 feet located north of proposed construction sites for the upper range if impact pile driving is selected. Vibration levels inside these buildings would be reduced due to coupling loss provided by the heavy building structure. Coupling loss also known as connection loss is the loss that occurs when energy is transferred from one medium to another. Coupling loss is usually expressed in the same units—such as decibels—as in the originating medium. The general rule is the heavier the building construction, the greater the coupling loss. According to FTA, the coupling loss for a large masonry building would be approximately 10 dB.

Foundations of the high-rise buildings proposed on-site would typically require the installation of deep piles to support the weight of the building and to protect the building against uplift that could be created by shallow groundwater that is present in the vicinity of the project site. There are a variety of options for installation of foundation piles, including typical impact pile driving, as well as a pre-drilled method, including either cast-in-place or auger displacement. Once the building design is finalized, it will be possible to select the method of pile installation. For the purposes of this EIR, because it is not known what type of methods would be used to install the building piles vibration associated with this activity

could result in vibration levels greater than 80 VdB. Therefore, the impact is considered **potentially significant**, requiring mitigation.

Mitigation Measures

The 2030 General Plan Master EIR found that disruption/annoyance impacts related to construction vibration are event and location specific, but that construction near sensitive land uses could generate significant impacts (Impact 6.8-4, p. 6.8-44). The 2030 General Plan Master EIR identifies policies from the 2030 General Plan that set performance standards and criteria addressing potential vibration impacts of future development in areas within the City. Policy EC 3.1.5 requires construction projects anticipated to generate a large amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses, based on the current City or FTA criteria. However, because it is not feasible to prohibit all construction within 150 feet of all existing receptors, the potential for impacts at certain receptors was considered significant and unavoidable.

Impacts associated with the exposure of persons to, or generation of, excessive groundborne vibration was analyzed in Impact NOI-2 of the MTP/SCS Program EIR. The MTP/SCS Program EIR identified that construction of new developments could result in temporary vibration impacts from grading, paving, clearing, landscaping, staging, excavation, earthmoving, and other related construction activities. Such construction activities require the use of construction equipment (e.g., pile drivers, jackhammers) and vehicles that generate large amounts of vibration in the immediate vicinity of the source, often resulting in vibration levels substantially higher than under existing conditions.

The analysis concluded that if the implementing agency adopts MTP/SCS Program EIR Mitigation Measure NOI-3, which requires the project to predrill pile holes for placement of piles, the impact would be reduced to a less-than-significant level. However, the analysis concluded that SACOG cannot require the implementing agency to adopt the mitigation measure, and that it is ultimately the responsibility of a lead agency to determine and adopt mitigation. Therefore, the MTP/SCS Program EIR identified the impact as significant and unavoidable.

Implementation of the following mitigation measure, which implements General Plan Policy EC 3.1.5 and MTP/SCS EIR Mitigation Measure NOI-3, would reduce construction vibration exposure consistent with the performance standards outlined in the thresholds of significance used for this EIR. For locations adjacent to vibration-sensitive uses, different pile installation techniques may need to be used.

Mitigation Measures would be required to reduce vibration levels to 80 VdB or less to avoid the impact and a variety of techniques could be used to achieve this requirement as set forth in the following mitigation measures. Pre-drilled piles would substantially reduce vibration exposure and could avoid temporary significant effects. This would minimize disruption of activity at vibration-sensitive receptors, consistent with the City's significance thresholds. With mitigation, the impact is considered **less than significant**.

Mitigation Measure 4.9-4: Implement Mitigation Measure 4.9-3a: Minimize Construction Noise throughout Entire Construction Phase and Mitigation Measure 4.9-3b: Prepare and Implement a Noise and Vibration Control Plan for Pile Installation

IMPACT 4.9-5 The proposed project could permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inch per second or vibration levels greater than 80 VdB due to operations. *Based on the analysis below, this impact is considered less than significant.*

Development proposed adjacent to Regional Transit light rail lines along 7th Street has the potential to be exposed to groundborne vibration that may affect buildings (by causing structural damage) and their occupants (such as by disrupting activities or causing annoyance). In general, the potential for vibration-induced structural damage from such sources would be very rare under any circumstances since, as described in detail below, vibration from such sources would not approach levels that would be strong enough to cause damage. It is less common for at-grade and elevated rapid transit lines to create intrusive ground-borne vibration (FTA 2006, p. 9-3), but vibration-induced disruption/annoyance could occur if the uses were close enough (within 50 feet) to rail lines (FTA 2006, p. 9-4).

The closest proposed buildings at the project site would be approximately 75 feet from the existing light rail tracks on 7th Street, which are currently used by the Blue, Green, and Gold Lines. Based on FTA data, light rail vehicles operating at 50 miles per hour (mph) would generate groundborne vibration of approximately 0.013 PPV (70 VdB) at a distance of 75 feet from the track's centerline (FTA 2006, Figure 10-1). However, the existing light rail trains in this area operate at a substantially lower speed (less than 30 mph, and generally less than 15 mph when approaching 7th and O Streets) in the downtown area, which would generate lower groundborne vibration. According to the FTA, vibration generated by a train operating at 30 mph would be approximately 0.000006 PPV (4 VdB) lower than vibration from a train operating at 50 mph. Therefore, groundborne vibration generated by the existing light rail trains near the future residential and hotel/condominium buildings would be approximately 0.008 PPV (66 VdB), which is below the 0.5 PPV and 80 VdB threshold.

The project would not involve activities that would generate substantial vibration during operation and there are no known sources of existing vibration in the project vicinity to which on-site proposed vibration-sensitive uses or structures would be exposed. Therefore, the vibration impacts from the existing light rail line on the future residential uses at the project site would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-6 The proposed project could permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inch per second due to project construction or operations. *Based on the analysis below, this impact is considered less than significant with mitigation.*

For construction, groundborne noise and vibration levels at the nearest off-site building structures and sensitive uses (surrounding the project site) were predicted based on the PPV and VdB reference vibration levels shown above in Tables 4.9-12 and 4.9-13.

The historic Heilbron House located at 704 O Street is located approximately 100 feet east of the construction site. As indicated in Table 4.9-12 and Table 4.9-13, the estimated vibration levels at this

location is anticipated to be below the significance threshold of 0.2 in/sec PPV, even with the use of the worst-case approach to pile installation (impact) at the upper (not typical) range.

For the purposes of this vibration analysis, the Capitol Tower building, which was built in 1966, is treated as historic. As shown in Table 4.9-13, depending on the pile installation technique selected, the vibration level could exceed the 0.2 PPV threshold. The impact is considered **potentially significant**, requiring mitigation.

Mitigation Measures

As noted above, the 2030 General Plan Master EIR addressed construction vibration under Impact 6.8-4, recommending Policy EC 3.1.5 to address impacts, but ultimately concluding that impacts at certain receptors were considered significant and unavoidable because the City could not ensure that all impacts could be avoided, particularly in locations where sensitive uses are very close to sources of construction vibration. As also noted, the MTP/SCS EIR discussed construction vibration impacts under Impact NOI-2, recommending Mitigation Measure NOI-3, but concluding that impacts would be significant and unavoidable, if the lead agency does not adopt a project-specific mitigation measure that implements Mitigation Measure NOI-3.

Implementation of the following mitigation measure, which implements General Plan Policy EC 3.1.5 and MTP/SCS EIR Mitigation Measure NOI-3, would reduce construction vibration exposure consistent with the performance standards outlined in the thresholds of significance used for this EIR. For locations adjacent to vibration-sensitive uses, different pile installation techniques may need to be used. Pre-drilled piles would substantially reduce vibration exposure and would avoid temporary significant effects. This would ensure compliance with the City's significance thresholds, which are designed to avoid adverse effects to existing historic structures. With mitigation, the impact is considered **less than significant**.

Mitigation Measure 4.9-6: Implement Mitigation Measure 4.9-3b: Prepare and Implement a Noise and Vibration Control Plan for Pile Installation

4.9.4 CUMULATIVE IMPACTS

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG's MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.⁸

⁸ Traffic volumes for cumulative scenario were developed to reflect changes in the regional transportation network and socio-demographic land use data between present and 2035 (see Section 4.11 of this EIR for more detail). The year 2035 is the cumulative year for the traffic analysis because this is the cumulative year in the most recently updated travel demand model. This scenario also includes land use change associated with the Entertainment and Sports Center.

Public Resources Code, Section 21155.2 [c] [1] provides that, “where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]” (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the cumulative discussion below.

For noise and vibration impacts, the geographic focus of the cumulative analysis is the direct project vicinity where project-related noise and vibration could combine with existing and future sources of noise and vibration. Although the project would generate and attract trips on area and regional roadways, as well, as shown in Table 4.9-10, even on the roads most affected by project traffic, the operational traffic noise increase would be a maximum of 1.1 dB L_{dn} and therefore the project could not contribute in a meaningful way to any cumulative traffic noise impact.

IMPACT 4.9-7 Cumulative impacts related to a permanent increase in ambient exterior noise levels. *Based on the analysis below, the proposed project's contribution to this cumulative impact is not cumulatively considerable.*

Operational noise impacts associated with the exposure of persons to or generation of noise levels in excess of standards were analyzed in Impact 6.8-1 (exterior noise) of the 2030 General Plan Master EIR (p. 6.8-27). Based on noise measurements and on existing and future noise modeling, including traffic noise levels along 7th Street and P Street adjacent to the project site, the 2030 General Plan Master EIR found that noise levels exceeding City standards currently occur and would continue to occur in many residential areas and at other noise-sensitive uses throughout the City.

The 2030 General Plan includes several policies to address noise issues. For example, Policy EC 3.1.1 requires noise mitigation for all development at locations where the projected exterior noise levels exceed City standards. Policy 3.1.2 requires noise mitigation for development that increases existing noise levels by more than a specified allowable increment. Policy EC 3.1.8 requires new mixed-use, commercial, and industrial development to mitigate operational noise impacts to adjoining sensitive uses when thresholds are exceeded.

The 2030 General Plan Master EIR found that implementing the policies from the 2030 General Plan would, in most cases, reduce to a less-than-significant level the exterior noise levels and/or increments at future noise-sensitive land uses that could be developed under the 2030 General Plan. However, the 2030 General Plan Master EIR identified continuing exposure of existing noise-sensitive land uses to noise levels in excess of City standards, or to substantial noise increases as a result of future growth under the 2030 General Plan and cumulative growth in the region, to be a significant and unavoidable impact.

The operational impact associated with the exposure of persons to or generation of noise levels in excess of standards was analyzed in Impact NOI-1 of the MTP/SCS Program EIR (p. 13-13). The MTP/SCS Program EIR identified small mechanical devices (e.g., lawn mowers, leaf blowers), parks and playgrounds, restaurants and bars, commercial uses, and industrial plants as typical community noise sources. The MTP/SCS Program EIR found that the compact nature of development in Center and Corridor Communities could potentially increase noise levels to more than 70 dBA L_{dn} and cause

increases in noise levels of more than 3 dBA over baseline conditions (significance threshold from the MTP/SCS Program EIR), resulting in a potentially significant impact. The MTP/SCS Program EIR identified Mitigation Measure NOI-1 to reduce this impact. MTP/SCS Program EIR Mitigation Measure NOI-1 requires a project-level evaluation of noise impacts and implementation of feasible mitigation measures. The MTP/SCS EIR discussion concludes that if the implementing agency adopts this mitigation measure, the impact would be reduced, but not to a less-than-significant level. In addition, the analysis concluded that SACOG cannot require the implementing agency to adopt the mitigation measure, and that it is ultimately the responsibility of a lead agency to determine and adopt mitigation. Therefore, the MTP/SCS Program EIR identified Impact NOI-1 as significant and unavoidable.

Noise impacts, by their nature, are localized impacts (MTP/SCS EIR, p. 13-15). Project operation would result in an increase in traffic volumes in the vicinity of the project site. However, additional traffic noise caused by this increase would be imperceptible. The project would also result in additional activity and people on the project site – both residents and visitors. However, the character of noise generation after implementation of the project is anticipated to be similar to existing conditions since the project proposes similar land uses to those that exist on-site and in the vicinity of the project site. The project does not propose any on-site substantial sources of noise that could combine with other sources of noise to create a cumulative impact. Furthermore, this EIR complies with Mitigation Measure NOI-1 from the MTP/SCS EIR because it includes a project-level evaluation of noise impacts, which demonstrates that the proposed project will not cause a permanent increase in ambient exterior noise levels in excess of noise levels permitted by the City’s General Plan. Therefore, the proposed project’s contribution to this cumulative impact is **not cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.9-8 Cumulative impacts related to a residential interior noise levels during project operation. *Based on the analysis below, the proposed project’s contribution to this cumulative impact is not cumulatively considerable.*

Operational noise impacts associated with the exposure of persons to or generation of noise levels in excess of standards were analyzed in Impact 6.8-2 (interior noise) of the 2030 General Plan Master EIR (p. 6.8-42). Based on noise measurements and on existing and future noise modeling, the 2030 General Plan Master EIR found that noise levels exceeding City standards currently occur and would continue to occur in many residential areas and at other noise-sensitive uses throughout the City. The 2030 General Plan includes several policies to address noise issues.

Policy EC 3.1.2 requires noise mitigation that assures acceptable interior noise levels appropriate to the land use type. Policy EC 3.1.3 requires noise mitigation that assures acceptable interior noise levels appropriate to the land use type. Policy EC 3.1.4 sets forth acceptable standards for areas that are subject to frequent, high-noise events. The Master EIR found that interior noise in existing and proposed noise-sensitive areas can be remediated by relocating roadways, building sound walls, providing buffer zones, retrofitting older homes with insulation or appropriate window treatments (i.e.,

double-paned windows, interior storm windows, etc.) or choosing development sites in quiet areas, etc., it may not be feasible to do so in all cases. This impact was considered significant and unavoidable.

The operational impact associated with the exposure of persons to or generation of noise levels in excess of standards was analyzed in Impact NOI-1 of the MTP/SCS Program EIR (p. 13-13). The MTP/SCS Program EIR identified small mechanical devices (e.g., lawn mowers, leaf blowers), parks and playgrounds, restaurants and bars, commercial uses, and industrial plants as typical community noise sources. The MTP/SCS Program EIR found that the compact nature of development in Center and Corridor Communities could potentially increase noise levels to more than 70 dBA L_{dn} and cause increases in noise levels of more than 3 dBA over baseline conditions (significance threshold from the MTP/SCS Program EIR), resulting in a potentially significant impact. The MTP/SCS Program EIR identified Mitigation Measure NOI-1 to reduce this impact. MTP/SCS Program EIR Mitigation Measure NOI-1 requires a project-level evaluation of noise impacts and implementation of feasible mitigation measures. The analysis concluded that if the implementing agency adopts this mitigation measure, the impact would be reduced, but not to a less-than-significant level. In addition, the analysis concluded that SACOG cannot require the implementing agency to adopt the mitigation measure, and that it is ultimately the responsibility of a lead agency to determine and adopt mitigation. Therefore, the MTP/SCS Program EIR identified Impact NOI-1 as significant and unavoidable.

Noise impacts, by their nature, are localized impacts (MTP/SCS EIR, p. 13-15). Project operation would result in an increase in traffic volumes in the vicinity of the project site. However, additional traffic noise caused by this increase would be imperceptible. The project would also result in additional activity and people on the project site – both residents and visitors. However, the character of noise generation after implementation of the project is anticipated to be similar to existing conditions since the project proposes similar land uses to those that exist on-site and in the vicinity of the project site. The project does not propose any on-site substantial sources of noise that could combine with other sources of noise to create a cumulative impact. Furthermore, this EIR complies with Mitigation Measure NOI-1 from the MTP/SCS EIR because it includes a project-level evaluation of noise impacts, which demonstrates that the proposed project will not violate the City's General Plan standards for residential interior noise levels during project operation. Therefore, the proposed project's contribution to this cumulative impact is **not cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.9-9 Cumulative impacts related to construction noise. *Based on the analysis below, the proposed project's contribution to this cumulative impact is not cumulatively considerable.*

The construction noise impact associated with the exposure of persons to or generation of noise levels in excess of standards was analyzed in Impact 6.8-3 of the 2030 General Plan Master EIR (p. 6.8-43). The 2030 General Plan Master EIR determined that the primary source of temporary or periodic noise in the City would be construction activity and maintenance work. This involves both activity at construction sites and transport of workers and equipment to and from construction sites. The 2030 General Plan Master EIR found that construction noise is and would continue to be a major noise

source in the City. The City found that noise levels at individual construction sites would not differ substantially from the noise levels for developments of similar size and type permitted under the existing 2030 General Plan.

To address future noise from construction activities, the 2030 General Plan includes Policy EC 3.1.10, which requires all development projects subject to discretionary approval that may have construction noise generation potential to mitigate construction noise impacts on sensitive uses. This policy requires mitigation of construction noise from future development because construction noise is restricted in intensity and hours of operation by the City's Noise Ordinance contained in Title 8, Chapter 8.68 of the City Code. 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. The analysis in the 2030 General Plan Master EIR concluded that compliance with the 2030 General Plan's policies and with the City Code would reduce the severity of construction noise from development under the 2030 General Plan, resulting in a less-than-significant impact.

The construction noise impact associated with the exposure of persons to or generation of noise levels in excess of standards was analyzed in Impact NOI-3 of the MTP/SCS Program EIR (p. 13-38). The MTP/SCS Program EIR identified that construction of new developments could result in temporary noise impacts from grading, paving, clearing, landscaping, staging, excavation, earthmoving, and other related construction activities. Such construction activities require the use of construction equipment (e.g., pile drivers, jackhammers) and vehicles that generate large amounts of noise in the immediate vicinity of the source, often resulting in noise levels substantially higher than under existing conditions. Construction impacts identified in the MTP/SCS Program EIR are considered temporary and localized because they would be limited to the project's construction period and confined to areas adjacent to the construction site. All construction equipment and vehicles would be removed after completion of the proposed project. However, despite the short-term nature of the construction-related noise impacts, the analysis concluded that implementing the MTP/SCS could result in increases in noise that would result in significant impacts.

The MTP/SCS Program EIR concluded that if the implementing agency were to adopt Mitigation Measure NOI-3, which includes measures to reduce noise generated by construction, the impact would be reduced, but not to a less-than-significant level (p. 13-41). In addition, the analysis concluded that SACOG cannot require the implementing agency to adopt the mitigation measure, and that it is ultimately the responsibility of a lead agency to determine and adopt mitigation. Therefore, the MTP/SCS Program EIR identified the impact as significant and unavoidable.

Because of the nature of noise impacts (noise dissipates with distance from the source), construction associated with new development projects will have noise impacts, but such potentially significant impacts will be confined to specific geographies (MTP/SCS EIR, p. 13-38). The proposed project is anticipated to be completed over the course of a six-year period, resulting in exposure to local residents from pile-driving, hammers, cranes and back-up beepers during the construction period. Mitigation Measures 4.9-3a and 4.9-3b in this EIR implement Mitigation Measure NOI-3 in the MTP/SCS EIR and ensure project construction is conducted in a manner that is consistent with the City's General Plan.

The City is not aware of any large-scale construction project directly adjacent to the project site that would combine with project construction noise to create a cumulative impact. Noise attenuates quickly with distance and therefore construction projects even just blocks away would not combine with project construction noise to increase the impact. Therefore, the proposed project's contribution to this cumulative impact is **not cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.9-10 Cumulative impacts related to construction vibration. *Based on the analysis below, the proposed project's contribution to this cumulative impact is not cumulatively considerable.*

Construction vibration impacts associated with the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels were analyzed in Impact 6.8-4 (non-historic buildings) and Impact 6.8-6 (historic buildings) of the 2030 General Plan Master EIR (pp. 6.8-44 and 6.8-46). The 2030 General Plan Master EIR found that vibration from construction activities may affect existing buildings (by causing structural damage) and their occupants (such as by disrupting activities or causing annoyance) if they are located close enough to the construction sites.

The 2030 General Plan Master EIR identifies policies from the 2030 General Plan that set performance standards and criteria addressing potential vibration impacts of future development in areas within the City. Policy EC 3.1.5 requires construction projects anticipated to generate a large amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses, based on the current City or FTA criteria. As a result, the 2030 General Plan Master EIR found that vibration impacts on residential and commercial areas would be less than significant.

The 2030 General Plan Master EIR found that disruption/annoyance impacts related to construction vibration are event- and location-specific, and because it is not feasible to prohibit all construction within 150 feet of all existing receptors, the residual potential for disruption/annoyance impacts at certain receptors would be significant and unavoidable.

Impacts associated with the exposure of persons to, or generation of, excessive groundborne vibration was analyzed in Impact NOI-2 of the MTP/SCS Program EIR (p. 13-37). The MTP/SCS Program EIR identified that construction of new developments could result in temporary vibration impacts from grading, paving, clearing, landscaping, staging, excavation, earthmoving, and other related construction activities. Such construction activities require the use of construction equipment (e.g., pile drivers, jackhammers) and vehicles that generate large amounts of vibration in the immediate vicinity of the source, often resulting in vibration levels substantially higher than under existing conditions.

The analysis concluded that if the implementing agency adopts MTP/SCS Program EIR Mitigation Measure NOI-3, which proposes a series of potentially feasible methods to reduce noise, vibration, and groundborne noise generated by construction activities, the impact would be reduced to a less-than-significant level. However, the analysis concluded that SACOG cannot require the implementing agency to adopt the mitigation measure, and that it is ultimately the responsibility of a lead agency to

determine and adopt mitigation. Therefore, the MTP/SCS Program EIR identified the impact as significant and unavoidable.

Because of the nature of vibration impacts (vibration dissipates with distance from the source), construction associated with new development projects will have vibration impacts, but such potentially significant impacts will be confined to specific geographies (MTP/SCS EIR, p. 13-38). The proposed project is anticipated to be completed over the course of a six-year period, resulting in exposure to local residents from pile-driving during the construction period. Mitigation Measure 4.9-4 in this EIR implements Mitigation Measure NOI-3 in the MTP/SCS EIR and ensures project construction is conducted in a manner that is consistent with the City's General Plan. The City is not aware of any large-scale construction project directly adjacent to the project site that would combine with project construction vibration to create a cumulative impact. Vibration attenuates quickly with distance and therefore construction projects even just blocks away would not combine with project construction vibration to increase the impact. Therefore, the proposed project's contribution to this cumulative impact is **not cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.9-11	Cumulative impacts related to operational vibration. <i>Based on the analysis below, the proposed project's contribution to this cumulative impact is not cumulatively considerable.</i>
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Operational vibration impacts associated with the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels were analyzed in Impact 6.8-5 (non-historic buildings) and Impact 6.8-6 (historic buildings) of the 2030 General Plan Master EIR (pp. 6.8-45 and 6.8-46). The 2030 General Plan Master EIR found that development proposed for sites alongside light rail lines would have the potential to be exposed to groundborne vibration that may affect buildings (by causing structural damage) and their occupants (such as by disrupting activities or causing annoyance). In general, the potential for vibration-induced structural damage from such sources would be very rare under any circumstances, but vibration-induced disruption/annoyance to persons could occur if the uses were close enough to rail lines. Policy EC 3.1.6 requires that a screening analysis (per FTA screening distance criteria) be made for new residential development located adjacent to a light rail lines. The 2030 General Plan Master EIR only examined cumulative vibration impacts associated with highway traffic and rail operations, which are not sources that are relevant for consideration as a part of the proposed project (p. 6.8-51).

The operational vibration impact associated with the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels was analyzed in Impact NOI-2 of the MTP/SCS Program EIR (p. 13-37). The MTP/SCS Program EIR concluded that normal operation of residential, office, commercial, and mixed-use buildings would be unlikely to generate substantial vibration or groundborne noise. Similarly, project operation (for residential and hotel uses) of typical building services' mechanical equipment and vehicles would not generate excessive groundborne vibration. Therefore, the MTP/SCS Program EIR concluded that the vibration and groundborne noise impacts

related to the land use changes from implementation of the proposed MTP/SCS in Center and Corridor Communities are less than significant.

There are no heavy rail lines (freight or passenger) near the project site to create significant vibration. As analyzed above in the project-specific conclusions, the project's future residential and hotel/condominium buildings would be located near the existing light rail lines on 7th Street. However, the estimated groundborne vibration from the light rail lines to the future buildings would be below the project significance threshold and impacts would be less than significant. The project does not propose any substantial source of vibration and the proposed project's contribution to a cumulative operational vibration impact is **not cumulatively considerable**.

Mitigation Measures

None required.

4.10 PUBLIC SERVICES AND RECREATION

This section addresses public services (fire and police protection, schools, and parks) and recreation in the project vicinity, as relevant to the proposed project. The analysis describes the existing environmental conditions, the methods used for assessment, and the potential environmental impacts associated with implementing the proposed project. Mitigation measures are proposed to address potentially significant impacts of the proposed project. This section also provides a brief overview of federal, state, and local policies, laws, and regulations pertaining to public services.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to the fire and police departments; California Fire Code requirements; loss of lawn and garden areas and pedestrian walkways throughout the project site; additional fire protection and law enforcement services and facilities; fire effects on the Bridgeway and Pioneer Towers; need for fire access along fence line of Bridgeway Towers; sufficiency of fire hydrants; flammable materials brought to the site; fire access to existing Capital Villas; fire risk and access to all existing and proposed units; impacts on recreation for residents; increased demand on neighborhood parks; and the limited amount of open space in the Central City area. Copies of the NOPs and comments received in response are in Appendix B to this EIR.

Emergency access is addressed in Section 4.11 of this EIR, "Transportation/Traffic." Interference with emergency response plans is addressed in Section 4.7 of this EIR, "Hazards and Hazardous Materials."

4.10.1 ENVIRONMENTAL SETTING

FIRE PROTECTION SERVICES

The Sacramento Fire Department (SFD) provides fire protection services to the entire City, which encompasses approximately 98 square miles. In addition, SFD serves three contract areas that occupy 47 square miles immediately adjacent to the City boundaries within the unincorporated county. SFD is staffed by more than 500 firefighters and administrative staff members. On a daily basis, the SFD's equipment includes 24 fire engines, eight ladder trucks, one heavy rescue, and 13 medic units at 24 fire stations, which are divided into three battalions (SFD 2014). The SFD also has one swift-water rescue team, three rescue-boat companies, two hazardous-materials response teams, and support vehicles, such as wildland fire engines and air compressor units that are cross-staffed with fire engine/truck personnel.

According to the 2030 General Plan Master EIR, SFD's goal is for the first-responding company, which provides fire suppression and paramedic services, to arrive within a 4-minute response time 90% of the time and medic units to arrive within 8 minutes 90% of the time. In case of a fire, the goal is for the first-responding company to arrive within a 4-minute response time 90% of the time and an additional 10 responders to arrive within 8 minutes 90% of the time. Locating fire stations according to 1.5-mile-radius service areas typically allows responders to arrive on a call within these response-time goals (City of Sacramento 2009a). The Central City area, in which the project site is located, is a densely populated area of the City, with a large daytime population of more than 100,000 people (including

residents, workers, and visitors) (City of Sacramento 2014a). The 1.5-mile radius service area is a Citywide requirement and applies to the project site.

First-response service to the project site would be provided by Fire Station #1, which is located at 624 Q Street, approximately 0.2 mile south of the center of the project site. The next closest station is Fire Station #2, which is located at 1229 I Street, approximately 0.7 mile northeast of the center of the project site. Fire Station #2 has an aerial truck that could respond to the project site. The next closest station with an aerial truck is Fire Station #5, which is located at 731 Broadway, about 0.8 mile south of the center of the project site. The standard procedure for addressing a response to a call is for the closest and available station to respond; however, depending on the situation, multiple stations may respond. In addition, mutual aid agreements are in place with neighboring fire departments (West Sacramento Fire Department, Sacramento Metro Fire Department, and Cosumnes Fire Department).

POLICE PROTECTION SERVICES

The Sacramento Police Department (SPD) is principally responsible for providing police protection services within the jurisdictional limits of the City of Sacramento. In addition, the Sacramento County Sheriff's Department, California Highway Patrol, University of California Davis Medical Center Police Department, and Regional Transit Police Department support SPD to provide police protection in the greater Sacramento area. In 2013, SPD responded to approximately 626,000 calls for service (SPD 2013).

According to the 2013 Annual Report, SPD was staffed in 2013 by 880 full-time and part-time employees, of whom 606 were sworn officers (SPD 2013). The SPD uses a variety of data—geographic information system (i.e., GIS)—based data, call and crime frequency information, and records of available personnel—to rebalance its deployment on an annual basis to meet the changing demands of the City. According to the 2030 General Plan Master EIR, SPD maintains an internal goal of 2.0 to 2.5 sworn police officers per 1,000 City residents and one civilian support staff member per two sworn officers (City of Sacramento 2009a). Based on the most current information the ratio of sworn officers per 1,000 residents is 1.28 (SPD 2013, Department of Finance 2014).

The hiring of new sworn police officers was significantly reduced from the end of 2007 through 2012 due to budget cutbacks, with no new officers hired between 2009 and 2012. Staffing levels and the ratio of officers per 1,000 residents declined during this period, with retirements and attrition. However, with implementation of funding from the City of Sacramento's Measure U, SPD began a large-scale hiring initiative in January 2013. Measure U revenues are deposited into the City's General Fund and have been used to support essential public safety services, including 9-1-1 response, police officers, gang and youth violence prevention, fire protection and emergency medical response, and other essential services. The Police Department's hiring plan anticipates 724 officers by July 2015 (SPD 2013).¹

Patrol and specialized teams are deployed from three substations serving four command areas: North, Central, East, and South. The project site is within Police District 3 and is located within beat 3A (SPD 2013). First response to the project site would be provided by SPD Central Command, which serves

¹ Assuming a 2014 estimated population of 475,122, the ratio of officers to residents would be approximately 1.5 (Department of Finance 2014).

Downtown, Midtown, the Richards Boulevard corridor, and the Railyards. Central Command is located at 300 Richards Boulevard, approximately 1.4 miles north of the center of the project site.

SCHOOLS

The project site is located within the Sacramento City Unified School District (SCUSD) boundaries. The SCUSD area covers the Central City area eastward to the Sacramento City limits. SCUSD operates more than 70 schools throughout Sacramento. SCUSD includes traditional elementary, middle, and high schools, as well as charter school facilities and other programs. The 2013–2014 SCUSD enrollment was approximately 47,000 students (CDE 2014).

Based on maps showing SCUSD 2013–2014 school attendance boundaries, students at the project site would have the option to attend the following public schools:

- ▶ William Land Elementary School, 2120 12th Street, approximately 0.7 mile southeast of the center of the project site;
- ▶ Sutter Middle School, 3150 I Street, approximately 2 miles east-northeast of the center of the project site; and
- ▶ C. K. McClatchy High School, 3066 Freeport Boulevard, approximately 2 miles southeast of the center of the project site.

As shown in Table 4.10-1, William Land Elementary School, Sutter Middle School, and C. K. McClatchy High School have estimated remaining capacities of 305 students, 288 students, and 454 students, respectively. SCUSD has a policy of open enrollment and can provide families with multiple public school choices to consider sending their children to school. SCUSD attendance boundaries are subject to change to accommodate school overcrowding and changes in facility utilization.

Table 4.10-1 Sacramento City Unified School District Enrollment, 2013–2014				
School Name	Grades	Enrollment	Design Capacity	Estimated Remaining Capacity
William Land Elementary School	K–6	336	641	305
Sutter Middle School	7–8	1,115	1,403	288
C. K. McClatchy High School	9–12	2,321	2,775	454

Note: Student enrollment in the district changes daily as more students enroll and others leave; therefore, Table 4.10-1 does not necessarily reflect exact current enrollment.
Sources: CDE 2014; SCUSD 2012

There are also private schools in the vicinity of the project site, including “Discovery Tree” schools near the intersection of N Street and 4th Street, on I Street between 10th and 11th Streets, on P Street between 10th and 11th Streets, near the intersection of H Street and 13th Street, and near the intersection of Q Street and 22nd Street, and the “Phoenix Schools” private preschool at 600 I Street. There are a number of other private schools in the Central City and neighborhoods adjacent to the Central City, including Land Park, Curtis Park, and East Sacramento.

PARKS AND RECREATION

The City's Department of Parks and Recreation maintains more than 3,178 acres of parkland, including 1,716 developed acres; manages 222 parks and recreational facilities, parkways, and open space sites; maintains more than 88 miles of bike trails and 14 miles of jogging and walking paths within City-managed parks; and operates more than 17 aquatic facilities (swimming pools, play pools, and wading pools), nine dog parks, 13 skateboard parks, and 18 community centers and neighborhood centers (City of Sacramento 2009a).

The *City of Sacramento Parks and Recreation Master Plan 2005–2010* (PRMP) guides park development in the City. As identified in the PRMP, the service ratio goal for citywide/regionally serving parks is 8 acres per 1,000 residents, and the service ratio goal for neighborhood/community-serving parks is 5 acres per 1,000 residents (City of Sacramento Department of Parks and Recreation 2009).

The PRMP identifies 10 community plan areas in the City. The project site is within the *Central City Community Plan* area. The following City parks within the *Central City Community Plan* area would serve project residents (City of Sacramento Department of Parks and Recreation 2014):

- ▶ *Roosevelt Park* (2.5 acres), located at 1615 9th Street approximately 0.3 mile southeast of the center of the project site, provides picnic areas, a baseball field, and basketball court.
- ▶ *Southside Park* (19.5 acres), located at 2115 6th Street approximately 0.4 mile south of the center of the project site, includes a clubhouse; amphitheater; swimming pool; lake; jogging trail; community garden; playground; and basketball, tennis, and bocce courts.
- ▶ *Crocker Park* (3.62 acres), located adjacent to the Crocker Art Museum at 211 O Street approximately 0.25 mile west of the center of the project site, includes picnic areas.

Other publicly accessible parks and urban open spaces located near the project site include Chavez Plaza (2.5 acres); Capitol Park (40 acres), located between L, 15th, N, and 10th Streets, which is part of the California State Park system; Old Sacramento State Historic Park, and a pocket park owned by the State of California at the southwest corner of 5th and Q Streets, adjacent to the State of California Central Plant (0.1 acre). In addition, the American River Bike Trail, which extends more than 32 miles to Beal's Point at Folsom Lake and connects with several other bike trails in the region, can be accessed from the O Street Bridge, which connects to Front Street and the Riverfront Promenade less than one mile west of the project site. In addition, the Sacramento River is also a nearby amenity for fishing and boating. River access is provided at Miller Park just over a mile from the site and the Broderick Boat Ramp in West Sacramento also located within a mile of the project site.

The greater Sacramento area offers a diverse range of natural resources and provides a wide range of recreational opportunities for residents and tourists alike. These recreational opportunities range from small neighborhood parks featuring playground equipment and sports fields to vast expanses of wilderness with hiking trails, rafting, and camping. As of 2011, the region contained approximately 921,655 acres of parks, recreation, and open space areas. These lands are governed by a variety of agencies: dependent park districts, independent park districts, counties, cities, community service districts, and federal and state agencies.

In addition to the parks and recreation facilities offered by governmental agencies, many private landowners and nonprofit conservation organizations contribute to the region's open space acreage. Various types of privately owned open space areas include private parks, private nature preserves, golf courses, playing fields, animal parks, off-road-vehicle parks, private arboretums, and fallow farmland.

4.10.2 REGULATORY SETTING

FEDERAL

No federal regulations are applicable to public services for the project.

STATE

California Occupational Safety and Health Administration

In accordance with California Code of Regulations Title 8, Section 1270, "Fire Prevention," and Section 6773, "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all firefighting and emergency medical equipment.

Fire Codes and Guidelines

The California Fire Code contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The California Fire Code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards (as set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise buildings, child care facility standards, and fire suppression training.

State School Funding

California Education Code Section 17620 authorizes school districts to levy a fee, charge, dedication, or other requirement against any development project for the construction or reconstruction of school facilities, provided that the district can show justification for levying fees. California Government Code Section 65995 limits the fee to be collected to the statutory fee unless a school district conducts a school facility needs assessment (Section 65995.6) and meets certain conditions.

Senate Bill 50 (Chapter 407, Statutes of 1998) instituted a new school facility program by which school districts may apply for state construction and modernization funds. This legislation imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development. It also provided the authority for school districts to levy fees at three different levels:

- ▶ **Level I fees** are the current statutory fees allowed under Education Code Section 17620. This code section authorizes school districts to levy a fee against residential and commercial construction to fund school construction or reconstruction. These fees are adjusted every 2 years in accordance with the statewide cost index for Class B construction as determined by the State Allocation Board. As of January 2014, SCUSD's Level I fees were \$3.20 per square foot for residential construction and \$0.51 for commercial construction (SCUSD 2014).
- ▶ **Level II developer fees** are outlined in Government Code Section 65995.5. This code section allows a school district to impose a higher fee on residential construction if certain conditions are met. A facility needs assessment must demonstrate that the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next 5 years.
- ▶ **Level III developer fees** are outlined in Government Code Section 65995.7. This code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction if state funding becomes unavailable. This fee is equal to twice the amount of Level II fees.

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

LOCAL

Sacramento 2030 General Plan

The following goals and policies from the 2030 General Plan are related to public services and recreation.

Goal PHS 1.1 Crime and Law Enforcement. Work cooperatively with the community, regional law enforcement agencies, local government and other entities to provide quality police service that protects the long-term health, safety, and well-being of our city, reduce current and future criminal activity, and incorporate design strategies into new development.

- ▶ **Policy PHS 1.1.1 Police Master Plan.** The City shall maintain and implement a Police Master Plan to address staffing and facility needs, service goals, and deployment strategies.

- ▶ **Policy PHS 1.1.2 Response Time Goals.** The City shall strive to maintain appropriate and acceptable response times for all call priority levels in order to provide adequate police protection services for the safety of all city residents and visitors.
- ▶ **Policy PHS 1.1.3 Staffing Standards.** The City shall maintain optimum staffing levels for both sworn police officers and civilian support staff in order to provide quality police services to the community.
- ▶ **Policy PHS 1.1.4 Timing of Services.** The City shall ensure that police facilities and services will keep pace with all development and growth in the city.
- ▶ **Policy PHS 1.1.5 Distribution of Facilities.** The City shall expand the distribution of police substation type facilities to allow deployment from several smaller facilities located strategically throughout the city, and provide facilities in underserved and new growth areas in order to provide appropriate response to all city residents.
- ▶ **Policy PHS 1.1.7 Development Review.** The City shall continue to include the Police Department in the review of development projects to adequately address crime and safety, and promote the implementation of Crime Prevention through Environmental Design (CPTED) principles.
- ▶ **Policy PHS 1.1.8 Development Fees for Facilities and Services.** The City shall require development projects to contribute fees for police protection services and facilities.
- ▶ **Policy PHS 1.1.12 Cooperative Delivery of Services.** The City shall work with local, State, and Federal criminal justice agencies to promote regional cooperation in the delivery of services.

Goal PHS 2.1 Fire Protection and Emergency Medical Services. Provide coordinated fire protection and emergency medical services that support the needs of Sacramento residents and businesses and maintains a safe and healthy community.

- ▶ **Policy PHS 2.1.1 Fire Master Plan.** The City shall maintain and implement a Fire Department Master Plan to address staffing and facility needs and service goals.
- ▶ **Policy PHS 2.1.2 Response Time Standards.** The City shall strive to maintain appropriate emergency response times to provide optimum fire protection and emergency medical services to the community.
- ▶ **Policy PHS 2.1.3 Staffing Standards.** The City shall maintain optimum staffing levels for sworn, civilian, and support staff, in order to provide quality fire protection and emergency medical services to the community.
- ▶ **Policy PHS 2.1.4 Response Units and Facilities.** The City shall provide additional response units, staffing, and related capital improvements, including constructing new fire stations, as necessary, in areas where a company experiences call volumes exceeding 3,500 in a year to prevent compromising emergency response and ensure optimum service to the community.

- ▶ **Policy PHS 2.1.5 Timing of Services.** The City shall ensure that the development of fire facilities and delivery of services keeps pace with development and growth of the city.
- ▶ **Policy PHS 2.1.6 Locations of New Stations.** The City shall ensure that new fire station facilities are located strategically throughout the city to provide optimal response times to all areas.
- ▶ **Policy PHS 2.1.10. Regional Cooperative Delivery.** The City shall work with the various fire protection districts and other agencies in establishing inter-operability and to promote regional cooperative delivery of fire protection and emergency medical services.
- ▶ **Policy PHS 2.1.11 Development Fees for Facilities and Services.** The City shall require development projects to contribute fees for fire protection services and facilities.

Goal PHS 2.2 Fire Prevention Programs and Suppression. The City shall deliver fire prevention programs that protect the public through education, adequate inspection of existing development, and incorporation of fire safety features in new development.

- ▶ **Policy PHS 2.2.2 Development Review for New Development.** The City shall continue to include the Fire Department in the review of development proposals to ensure projects adequately address safe design and on-site fire protection and comply with applicable fire and building codes.
- ▶ **Policy PHS 2.2.3 Fire Sprinkler Systems.** The City shall promote installation of fire sprinkler systems for both commercial and residential use and in structures where sprinkler systems are not currently required by the City Municipal Code or Uniform Fire Code.
- ▶ **Policy PHS 2.2.4 Water Supplied for Fire Suppression.** The City shall ensure that adequate water supplies are available for fire-suppression throughout the city, and shall require development to construct all necessary fire suppression infrastructure and equipment.
- ▶ **Policy PHS 2.2.5 High-Rise Development.** The City shall require that high rise structures include sprinkler systems and on-site fire suppression equipment and materials, and be served by fire stations containing truck companies with specialized equipment for high-rise fire and/or emergency incidents.
- ▶ **Policy PHS 2.2.6 Fire Safety Inspections.** The City shall continue to maintain a program consistent with requirements of State law to inspect buildings not under authority of the Office of the State Fire Marshall.

Goal ERC 1.1 Efficient and Equitable Distribution of Facilities. Provide efficient and equitable distribution of quality educational facilities for life-long learning and development of a highly-skilled workforce that will strengthen Sacramento’s economic prosperity.

- ▶ **Policy ERC 1.1.3 Realignment of District Boundaries.** The City shall work with school districts to realign district boundaries to coincide with neighborhood and community boundaries.

Goal ERC 2.1 Integrated Parks and Recreation System. Provide an integrated system of parks, open space areas, and recreational facilities that are safe and connect the diverse communities of Sacramento.

- ▶ **Policy ERC 2.1.1 Complete System.** The City shall develop and maintain a complete system of parks and open space areas throughout Sacramento that provide opportunities for both passive and active recreation.
- ▶ **Policy ERC 2.1.2 Connected Network.** The City shall connect all parts of Sacramento through integration of recreation and community facilities with other public spaces and rights-of-way (e.g., buffers, medians, bikeways, sidewalks, trails, bridges, and transit routes) that are easily accessible by alternative modes of transportation.

Goal ERC 2.2 Parks, Community and Recreation Facilities and Services. Plan and develop parks, community and recreation facilities, and services that enhance community livability; improve public health and safety; are equitably distributed throughout the city; and are responsive to the needs and interests of residents, employees, and visitors.

- ▶ **Policy ERC 2.2.1 Parks and Recreation Master Plan.** The City shall maintain and implement a Parks and Recreation Master Plan to carry out the goals and policies of this General Plan. All new development will be consistent with the applicable provisions of the Parks and Recreation Master Plan.
- ▶ **Policy ERC 2.2.2 Timing of Services.** The City shall ensure that the development of parks and community and recreation facilities and services keeps pace with development and growth within the city.
- ▶ **Policy ERC 2.2.3 Service Level Goals.** The City shall develop and maintain parks and recreational facilities in accordance with the goals in Table ERC 1 [labeled here as Table 4.10-2].
- ▶ **Policy ERC 2.2.4 Meeting Service Level Goals.** The City shall require new residential development to dedicate land, pay in-lieu fees, or otherwise contribute a fair share to the acquisition and development of parks or recreation facilities to meet the service level goals in Table ERC 1. For development in urban infill areas where land dedication is not feasible, the City shall explore creative solutions in providing park and recreation facilities that reflect the unique character of the area it serves.
- ▶ **Policy ERC 2.2.8 High-Density High-Rise.** The City shall require all large, high-density, high-rise residential projects (e.g., land use designations that include Central Business District, Urban Centers, Urban Corridors, and Urban Neighborhoods) to mitigate for the lack of private yards and access to nature through land dedication or payment of in-lieu fees for parkland and/or recreational facilities.
- ▶ **Policy ERC 2.2.9 Small Public Places for New Development.** The City shall allow new development to provide small plazas, pocket parks, civic spaces, and other gathering places that are available to the public, particularly in infill areas, to help meet recreational demands.

Table 4.10-2 (General Plan Table ERC 1)	
Parks, Community Facility, and Recreation Facility Service Level Goals	
Park Types	Acres per 1,000 Residents
Neighborhood-Serving: Urban Plazas, Pocket Parks, and/or Neighborhood Parks	2.5
Community-Serving: Community Parks	2.5
Citywide/Regionally Serving: Regional Parks, Parkways, and/or Open Space	8.0
Linear Parks/Parkways and Trails/Bikeways	0.5 linear mile
Community Facilities	Number of Units
Neighborhood Centers (Clubhouses)	1 per neighborhood
Multi-Use Recreation Complexes (including Community Centers)	1 per 30,000 residents
Recreation Facilities	Number of Units per Resident
Aquatic Facilities:	1 per 15,000
Play Pool/Water Spray Feature	1 per 30,000
Outdoor Complex: Swimming and Wading Pool	
Off-Leash Dog Parks (Neighborhood/Community)	1 per 60,000
Picnic Areas (Large Group/Class I)	1 per 30,000
Playgrounds: Tot Lots, Adventure Play Areas	1 per 2,500
Skateboard Parks (Neighborhood/Community)	1 per 35,000
Community Gardens	1 per 50,000
Nature Interpretation Centers	2 total (one north and one south of the American River)
Fields	
Softball, including: Adult, Youth Lighted	1 per 7,500 (total) 1 per 45,000
Baseball, including: Adult, Youth (Little League) Lighted	1 per 7,500 (total) 1 per 45,000
Soccer, including: Bantam, Full Size Lighted	1 per 7,500 (total) 1 per 30,000
Courts	
Volleyball	1 per 10,000
Basketball, including Youth, High School	1 per 5,000
Tennis	1 per 10,000
Source: City of Sacramento 2009b, Table ERC 1	

- ▶ **Policy ERC 2.2.11 On-Site Facilities.** The City shall promote and provide incentives such as density bonuses or increases in building height for large-scale development projects to provide on-site recreational amenities and gathering places that are available to the public.
- ▶ **Policy ERC 2.2.18 Private Commercial Recreational Facilities.** The City shall encourage the development of private commercial recreational facilities to help meet recreational interests of Sacramento's residents, workforce, and visitors.

Goal ERC 2.5 Funding. Secure adequate and reliable funding for the acquisition, development, rehabilitation, programming, and maintenance of parks, community facilities, recreation facilities, trails, parkways, and open space areas.

- ▶ **Policy ERC 2.5.1 Multiple Tools.** The City shall use a broad range of funding and economic development tools to ensure high-quality development, maintenance, and programming of the City parks and recreation system.
- ▶ **Policy ERC 2.5.4 Capital Funding.** The City shall fund the costs of acquisition and development of City neighborhood and community parks, and community and recreation facilities through land dedication, in lieu fees, and/or development impact fees.

Sacramento 2035 General Plan

The proposed project was initiated while the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. As of the writing of this document, the 2035 General Plan is in draft form. While the proposed project may be considered for approval prior to the date of adoption of a new general plan, the applicable new or revised policies from the draft 2035 General Plan are provided for informational purposes.

- ▶ **Policy ERC 2.2.4 Park Acreage Service Level Goal.** The City shall strive to develop and maintain 5 acres of neighborhood and community parks and other recreational facilities/sites per 1,000 population.
- ▶ **Policy ERC 2.2.5 Meeting Service Level Goal.** The City shall require new residential development to meet their fair share portion of the park acreage service goal level by either dedicating land for new parks and/or paying a fair share of the costs for new parks and recreation facilities or rehabilitation or renovation of existing parks and recreation facilities. For new development in urban areas where land dedication is not reasonably feasible (e.g., the Central City), new development can either construct improvements or pay fees for existing park and recreation facility enhancements to address increased use. Additionally, the City shall pursue creative park development opportunities, such as joint use, regional park partnerships, private open space and acquisition of parkland with grant funding.
- ▶ **Policy ERC 2.2.6 Urban Park Facility Improvements.** In urban areas where land dedication is not reasonably feasible (e.g., the Central City), the City shall explore creative solutions to provide neighborhood park and recreation facilities (e.g., provision of community-serving recreational facilities in regional parks) that reflect the unique character of the area.
- ▶ **Policy PHS 2.2.3 Fire Sprinkler Systems.** The City shall promote installation of fire sprinkler systems in new commercial and residential development, and shall encourage the installation of sprinklers in existing structures when it is reasonable and not cost prohibitive.

Parks and Recreation Master Plan

The City maintains a Park and Recreation Master Plan (PRMP) and a summary of relevant policies from this Plan are presented below. According to the PRMP, the preamble to each policy statement is “The City of Sacramento will...” (City of Sacramento 2009c, Policy-1).

The Master Plan acknowledges that Citywide park and recreation standards should consider users and different neighborhood needs (Policies 12.51, 12.54, 12.55, and 12.56, listed below, for example). Furthermore, implementation strategies 12.14 through 16 recognize that small public places (in contrast to suburban-style parks) in highly urban environments, such as the Central City, are critical to provide adequate park services in these areas. A summary of policies from the PRMP relevant to the proposed project is included below:

- 3.1 Plan, develop, and provide parks, recreational facilities, and special events as destination attractions to promote tourism and public use.
- 3.5 Encourage integration of park and recreational amenities into the design of commercial, infill, employment, redevelopment, and transit oriented development.
- 5.1 Develop financing strategies to meet Department Service Level Goals for capital, programming, staffing, operational, safety, acquisition, development, rehabilitation, and maintenance needs of parks, community facilities, recreational facilities, trails, parkways, and open space areas.
- 5.2 Establish and achieve at least baseline Service Level Goals for Department Core Services funded by the City General Fund; adjust Service Level Goals (baseline or higher) as the availability of General Fund support changes.
- 5.11 Coordinate with private developers to establish a funding mechanism to ensure funding for the higher costs and service levels associated with Small Public Places for land acquisition, design, construction, on-going maintenance, security, and programming.
- 6.3 Use a broad range of funding and economic development tools to ensure high quality development, maintenance, and programming of the City Parks and Recreation system.
- 8.2 Assess the physical condition of all key City park and recreation system infrastructure elements.
- 10.13 Acquire land for additional public green space in underserved neighborhoods and infill development target areas.
- 12.1 Achieve Park Acreage Service Level Goals to provide public recreational opportunities within a reasonable distance of all residences and work places as follows (See Tables 7 and 8, Assessment Chapter):
 - a) 5.0 acres per 1,000 population consisting of two park categories:

- (1) Neighborhood Serving: 2.5 acres per 1,000 population with a service area guideline of ½ mile.
 - (2) Community Serving: 2.5 acres per 1,000 population with a service area guideline of three miles, portions of which may also serve neighborhood needs.
 - b) Citywide/Regionally Serving: 8.0 acres per 1,000 population, portions of which may also serve either neighborhood or community needs.
 - c) Linear Parks/Parkways and Trails/Bikeways: 0.5 linear miles/1,000 population of trails/bikeways implemented per adopted City Bikeway and Pedestrian Master Plans.
- 12.2 Recognize that the parks and recreation facilities of other public jurisdictions within and in proximity to the City which help to fulfill the park and recreation needs of the City residents.
- 12.5 Focus on acquisition of land in existing neighborhoods and infill target areas where there is a current and projected need for additional acreage occurs.
- 12.6 Identify through the City's long range planning efforts for Community, Specific, and General Plans; policies, requirements, and potential park and community facility sites in order to meet Service Level Goals for parks, recreation, and community facilities. Final size, siting, and development of individual sites will be determined through the development review or acquisition process.
- 12.8 Encourage developers to enter into credit and reimbursement (turnkey) agreements to design and build parks.
- 12.10 Through the development conditioning process, encourage provision of private open space and recreation facilities in high density residential projects, mixed use projects, and employment centers in the vicinity of transit corridors to meet a portion of the open space and recreational needs of residents, employees, and visitors that will be generated by that development.
- 12.19 Site parks in areas with the highest concentration of residential units unless the highest density area is adequately served by private recreation facilities.
- 12.24 Site different types of parks as follows:
- a) Small Public Places: where easily accessible and visible on a case-by-case basis according to park purpose and type;
 - b) Neighborhood Parks: on secondary streets within a residential area;
 - c) Community Parks: on primary collector streets;

- d) Regional Parks: on or adjacent to major transportation corridors and public transportation;
 - e) Parkways: corridors for pedestrian and bicyclists, linking residential areas to schools, parks, and trail systems; and
 - f) Open Space: within and between urban growth areas.
- 12.39 Set park dedication or impact fee funding levels to enable development of “primary” park design elements which, in total, provide a complete park experience for all ages and activities in each park category. (See Table 22, Implementation Chapter).
- 12.51 Target Areas: Apply Small Public Places Policies citywide on a case-by-case basis, primarily in infill areas, transit oriented development, and park deficient neighborhoods with no large undeveloped parcels. Where larger plots of land are proposed for development, larger parks shall be sought to take advantage of the economy of scale in development and ongoing maintenance costs, and to provide a variety of park sizes (and amenities) within the City’s park system.
- 12.54 Meeting Park Need with Small Public Places: Continue to provide a total of five acres per 1,000 population of park land; 2.5 acres in neighborhood parks and 2.5 acres in community parks. Meeting the City’s Quimby obligation is typically fulfilled through on-site land dedication, and/or payment of an in-lieu fee, in accordance with Sacramento City Code Chapter 16.64.
- a) On-Site Park Acreage Requirement: Private residential development projects shall provide a minimum of 2.5 acres / 1,000 population of park land through on-site land dedication within the project area.
 - b) Range of Sizes: The City will determine and provide the appropriate mix of various-sized neighborhood parks (less than 10 acres) and community parks (10 to 60 acres) to meet the needs of the residents within the development project area.
- 12.55 Siting: Locate Small Public Place as follows:
- a) Where easily accessible and visible to the public;
 - b) With consideration to safety and security (providing “eyes on” the park);
 - c) At a strategic location for maximum benefit to the general public and the neighborhood;
 - d) In consideration to the park’s purpose; and
 - e) In areas owned or otherwise controlled in perpetuity by the City of Sacramento.

- 12.56 Conduct studies periodically to identify new and emerging trends in recreation facility planning, including evaluation of changes to existing space for better utilization; take into account user and neighborhood needs.
- 12.57 Conduct ongoing demand/deficiency analysis and planning by neighborhoods or other subregions within Community Planning Areas, reflected in part in the development and implementation of the PRPG.
- 12.58 Ensure parks and recreational facility development keeps pace with development and growth in the City.

Sacramento City Code

Fire Safety (Title 15)

The Sacramento City Code outlines fire prevention requirements to be incorporated into new high-rise development (Title 15, Chapter 15.100). These requirements identify specifications for access arrangements, fire suppression equipment, smoke detection and removal systems, fire pumps, fire alarm and communications systems, standby power systems, and plan submittal requirements.

Section 8.100.540 of the Sacramento City Code requires fire resistive construction consistent with the California Building Code, in consideration of the occupancy, type of construction, and location on property or in fire zone, along with appropriate fire-extinguishing systems or equipment.

Chapter 15.36 includes codes for inspection and general enforcement of the City of Sacramento fire code; control of emergency scenes; permits; general provisions for safety, fire department access, equipment, and protection systems; and many standards for fire alarm systems, fire extinguisher systems, commercial cooking operations, combustible materials, heat producing appliances, exit illumination, emergency plans and procedures, and related topics.

Parks and Recreational Facilities (Title 16, Chapter 16.64)

The Sacramento City Code provides standards and formulas for the dedication of parkland and in-lieu fees (Title 16, Chapter 16.64). This chapter provides that 5 acres of property for each 1,000 persons residing within the City must be devoted to local recreation and park purposes (Section 16.62.020). Where a recreational or park facility has been designated in the General Plan or a specific plan, and is to be located wholly or in part within a proposed subdivision to serve the immediate and future needs of the subdivision's residents, the subdivider must dedicate land for a local recreation or park facility sufficient in size and topography to serve the residents. The amount of land to be provided is determined based on the appropriate standards and formula contained in the chapter. Under the appropriate circumstances, the subdivider must, in lieu of dedicating land, pay a fee equal to the value of the land prescribed for dedication to be used for park and recreational facilities that will serve the residents of the area being subdivided.

Park Development Impact Fee (Title 18, Chapter 18.44)

The Sacramento City Code imposes a park development impact fee on residential and nonresidential development in the City (Title 18, Chapter 18.44). This fee is used primarily to finance the construction of park facilities. The park fee is assessed on landowners who develop property to provide funds for neighborhood or community parks required to meet the needs of, and address impacts caused by, the additional persons residing or employed on the property as a result of the development.

In 2004 the City adopted a resolution to adjust park development fees and to explore other impact fee modifications for specified infill development areas, including residential projects in the Central City (Resolution No. 2004-820). Pursuant to the resolution, park development fees for qualifying urban residential, mixed-use, and small commercial projects are subject to a reduced Park Development Impact Fee.

Sacramento Central City Urban Design Guidelines

The project site is located in the Urban Core area of the Central City and is governed by specific open space requirements of the *Sacramento Central City Urban Design Guidelines*. The *Sacramento Central City Urban Design Guidelines* (CCUDG) includes additional requirements to implement the 2030 General Plan and the PRMP for small public spaces. As noted above, the City's PRMP recognizes that urban places, such as the Central City, may have different park, recreation, and open space needs than other City neighborhoods. As with the PRMP, the CCUDG also emphasize the importance of small public places in meeting park, recreation, and open space requirements for high-density urban areas of the City. Applicable requirements are summarized below.

Section 3, Chapter 4, Part B[4]—Open Space

Section 3, Chapter 4, Part B(4), "Open Space," states that new development should provide a range of open space types for its users and visitors, on-site, that:

- ▶ are open to the street or public right-of-way and accessible to all citizens;
- ▶ can be dedicated as either a courtyard or plaza;
- ▶ include hard and soft landscaping, areas for sun and shade, benches, and water features where appropriate; and
- ▶ meet Americans with Disabilities Act requirements.

Common/Private Open Space belongs to the residents and is in the form of either a secure garden or roof deck above the base of the building, or private balconies attached to each unit. Open space amounts should comply with the City Parks Department's Quimby Act requirements.

Section 3, Chapter 4, Part B[4.a]—Open Space—Small Public Places

According to Section 3, Chapter 4, Part B(4.a), "Open Space—Small Public Places," new Small Public Places and parks should be designed around a "purpose," such as education, socializing, exercise, and relaxation. These spaces should not be limited to addressing the needs of office workers and patrons of

downtown commercial buildings; rather, they should permit other kinds of space that meet a demonstrable need, such as children’s playgrounds, workout space for tai chi, and active sports facilities. Part B(4.a) includes the following specific requirements:

- ▶ Layout should include seating areas and central design features. Flexible seating arrangements are encouraged. The design should have adequate access to sunlight, and combine hard and soft landscape.
- ▶ There is no minimum size for a Small Public Place, although established guidelines should be followed for a minimum size dependent upon the purpose of the park.
- ▶ Privately owned public open spaces should provide enhanced landscaping and ecological functionality, and contribute to local stormwater management strategies. Plazas, particularly because they are open expanses of paved material, should be designed to capture, filter, and recycle rainwater from adjacent buildings and streets.
- ▶ Small Public Places shall be designed to be accessible to the highest possible amount of users. They should be accessible from a public sidewalk and be inviting to the public.
- ▶ Signage of adequate size and location to inform the public should be provided. The sign should include the name of the owner of the building; the name, address, and phone number of the person designated to maintain the open space; and a statement that complaints regarding the open space may be addressed to named City agencies.

Section 4, Chapter 3, Part A[3]—Residential Private Open Space

According to Section 4, Chapter 3, Part A(3), “Residential Private Open Space,” residential projects should include usable outdoor open spaces designed for the exclusive use of the dwelling unit or in the form of a porch for upper-story dwellings. Private outdoor spaces should have a minimum of 75 square feet of space, have a maximum 6-foot-high opaque enclosure, and have landscaping designed to enhance privacy. In addition, the guidelines state that private outdoor spaces facing public or semi-public common spaces or streets should have a hedge, fence-like enclosure, or porch railing, each between 18 and 42 inches high on all sides.

Section 4, Chapter 3, Part A[4]—Public and Semi-Public Open Space

Section 4, Chapter 3, Part A(4), “Public and Semi-Public Open Space,” states that new residential developments with 12 units or more are recommended to have a common outdoor open space of 100 square feet per dwelling unit to a maximum of 5,000 square feet. This open space should be at grade or on a podium over parking, and may be occupied by a swimming pool or other recreational amenities. A substantial portion of the open space should be planted landscape. In addition, courtyards and other common open space, internal to buildings or groups of buildings, should be as visible as possible to and from the street, and provide a “place transition” between the street and private areas near the building or courtyard.

4.10.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

Fire and Police Services

This EIR reviews impacts related to fire protection and police services by analyzing the location of the project relative to existing facilities and services, through a review of relevant policies and regulatory requirements that will be incorporated into the proposed project, and through communication with the City Police and Fire Departments regarding the proposed project’s demand and availability for public services and facilities. Please see Section 4.11 of this EIR, “Traffic/Transportation,” which addresses NOP comments related to fire access.

Schools

To determine the proposed project’s impact related to school facilities, student generation rates were obtained from the SCUSD to estimate the number of students for each school type. Student generation was compared to school capacity for schools that could serve the project site and relevant regulatory requirements for school funding were considered. Based on these generation rates and the number of proposed dwelling units, this analysis estimates that the Hotel / Condo / Retail Scenario would generate approximately 261 total elementary school students (net increase of 183), 41 middle school students (net increase of 29), and 55 high school students (net increase of 39). Implementation of the Condo / Retail Scenario would generate approximately 279 total elementary school students (net increase of 202), 44 middle school students (net increase of 32), and 59 high school students (net increase of 42) (Table 4.10-3).

The California Legislature has declared that the school impact fee is adequate mitigation under CEQA (California Government Code Section 65996).

Grade Level	Multi-family (Students per Dwelling Unit)	Total Students under the Hotel / Condo / Retail Scenario ¹	Net Increase in Students under Hotel / Condo / Retail Scenario	Total Students under the Condo / Retail Scenario ²	Net Increase in Students under Condo / Retail Scenario
Elementary (K–6)	0.19	261	183	279	202
Middle (7–8)	0.03	41	29	44	32
High (9–12)	0.04	<u>55</u>	<u>39</u>	<u>59</u>	<u>42</u>
Total Students	–	357	251	382	276

Notes:
¹ Total number of students based on 1,374 total units and net increase of 965 units under Hotel / Condo / Retail Scenario.
² Total number of students based on 1,470 total units and net increase of 1,061 units under Condo / Retail Scenario.
 Source: SCUSD 2012:7

Parks

To determine potential impacts to parks and recreational facilities, this EIR considers relevant regulatory requirements of the City Code and General Plan for parkland requirements, parkland dedication requirements, and in-lieu fee requirements, based on the number of new dwelling units and residents that could be accommodated by implementation of the proposed project.

Potential public services and recreation impacts are assessed, in part, based on estimates of the additional population that would be added to the project site with implementation of the proposed project and on differences in park, recreation, and open space needs in the Central City compared to other neighborhoods in the City (as acknowledged in the PRMP and CCUDG). The additional project demand was compared to City policies for parkland provision and recreational facilities, including those identified in Table 4.10-2, as well as applicable policy and regulatory requirements related to park dedication and in-lieu fees. The City's Parks Department uses a rate of 2.1 persons per multi-family household for the purposes of calculating the demand for park acreage.² Using the rate 2.1 persons per multi-family household, the proposed project would increase the resident population of the project site by approximately 2,026 to 2,228 people.

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the State CEQA Guidelines, and the City of Sacramento Environmental Checklist, a public service or recreation impact is considered significant if the project would:

- ▶ require, or result in, the construction of new, or the expansion of existing facilities related to the provision of fire protection, the construction of which could cause significant environmental impacts;
- ▶ require, or result in, the construction of new, or the expansion of existing facilities related to the provision of police protection, the construction of which could cause significant environmental impacts;
- ▶ generate students that would exceed the design capacity of existing or planned schools that would result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts;
- ▶ cause or accelerate a substantial physical deterioration of existing area parks or recreational facilities or create a need for construction or expansion of recreational facilities beyond what was anticipated in the General and/or Community Plans.

² The City's Parkland Dedication Requirement (City Code Chapter 16.64) is based on 2010 census data, which establishes that, on average, multi-family residential units within the City include 2.1 persons per household. As discussed in Chapter 3 (Land Use Planning, Population, and Housing) 2010 census data demonstrates that the average household size within the Central City is 1.8 persons per dwelling unit (and 1.36 for rental housing units in the census tract in which the project site is located), which is less than the citywide average of 2.1 persons per multi-family household.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An Initial Study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An Initial Study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process is often referred to as “scoping out” issues.

No public services or recreation issues were scoped out of the Initial Study.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT The proposed project could increase demand for fire protection services requiring the need to
4.10-1 construct new facilities or expand existing facilities. *Based on the analysis below, the impact is less than significant with mitigation.*

The proposed project would increase the resident population by between approximately 1,700 to 1,900 new residents, as well as potential hotel guests and add new structures to the project site that may increase local demand for fire protection services.³ During project construction, the proposed project would require the use of equipment and machinery and the storage, use, and handling of combustible and flammable materials such as diesel fuel, lubricants, and gas. This could result in a potential increase in calls for fire services beyond what is currently experienced at the project site.

The project applicant would be required to incorporate California Fire Code requirements into the design of the proposed project to address access-road length, road dimensions, turning radii, and finished surfaces for firefighting equipment; fire hydrant placement and sufficiency of fire hydrants; and fire flow availability. In addition, the Sacramento City Code outlines fire prevention requirements to be incorporated into new high-rise development (Title 15, Chapter 15.100) that specify access arrangements, fire suppression equipment, smoke detection and removal systems, fire pumps, fire alarm and communications systems, standby power systems, and plan submittals for approvals. These requirements are designed to improve fire safety and ensure emergency access to accommodate new development.

Additionally, the SFD reviews all project plans to ensure each project has been designed to incorporate all relevant aspects of the California Fire Code and City fire requirements. This includes ensuring the project provides adequate vehicle access, road width and turning radii for large fire trucks and other fire equipment and does not block or hinder access to any adjacent buildings. The SFD has reviewed the proposed project and has identified conditions, which would be incorporated into the project, related to adequate turning radii, fire access, signage for emergency access, road design to support fire apparatus loads, and the provision of fire hydrants (K.Tunson, Fire Department, Pers. Comm., 2014).

³ The project’s net addition of housing units would be between 965 and 1,061, depending on whether the Hotel / Condo / Retail or Condo / Retail Scenario is developed. The net additional population would be approximately 1,700 to 1,900 at buildout assuming 1.8 persons per household (pph). Please see Chapter 3 of this EIR for more detail.

The project would be required to comply with relevant sections of the California Fire Code, which are specifically designed to reduce fire risk for people and structures, including specific provisions for high-rise buildings.

The proposed project site is located within the City limits and is currently served by the SFD. First-response service to the project site would be provided by Fire Station #1, which is located at 624 Q Street, approximately 0.2 mile south of the center of the project site. If necessary, additional fire services are available from stations within one mile of the project site and the City has mutual aid agreements in place with neighboring fire departments, as well. All fire and emergency service providers in the County of Sacramento have entered into an agreement (JPA) in favor of a unified service area dispatch system. Under the JPA, all emergency calls are routed through a central dispatch center. The closest station to the emergency call location would provide services to that call, depending on capacity and availability.

According to the SFD, existing facilities and equipment, including extension ladders are adequate to serve the proposed project and would not result in the need for new fire stations or the expansion of existing stations and would not require new equipment, including equipment required to fight fires in high-rise buildings (K. Tunson, pers. comm., 2014). The proposed project design allows for a greater number of residents to be consolidated in a smaller area; therefore, the response time is anticipated to be relatively short and several fire stations are located within a mile of the project site. According to the 2009 SFD Annual Report, the response time in the vicinity of the proposed project site was between 2 to 3 minutes, which is less than the City's goal for its first-responding company to arrive within a 4-minute response time 90% of the time and medic units to arrive within 8 minutes 90% of the time. Citywide dispatched SFD medic units arrived within 8 minutes 83% of the time for all 9-1-1 calls in 2009 (Sacramento Fire Department 2009).

Development within the project area would increase the demand for higher levels of fire protection and emergency services, including additional staffing and vehicles, but would not necessitate the construction of a new facility or expansion of an existing facility. As noted elsewhere, the SFD measures the level of adequate service by the response time and not by the number or ratio of firefighters per 1,000 persons.

The proposed project would be served by existing facilities during both project construction activities and operation and would not require additional fire protection facilities or equipment. The proposed project would not require the construction or expansion of fire protection facilities and would not generate significant adverse physical environmental effects. If the project does not provide appropriate emergency access, this could represent a **potentially significant** impact.

Mitigation Measures

The mitigation below is provided to document consistency of the project with SFD recommendations. This mitigation measure will ensure the project provides adequate vehicle access, road width and turning radii for large fire trucks and other fire equipment and does not block or hinder access to any adjacent buildings. The impact is considered **less than significant with mitigation**.

Mitigation Measure 4.10-1: Ensure Adequate Emergency Access.

The improvement plans for the proposed project shall incorporate emergency access measures consistent with the 2013 California Fire Code, as modified by the Sacramento City Code, and the Fire Chief. The improvement plans shall implement emergency access measures outlined below or those determined by the Saramento Fire Department to be equally effective in ensuring adequate on-site access to accommodate emergency vehicles. The project applicant shall provide the improvement plans to the Fire Chief for review and approval prior to implementation:

- All turning radii for fire access should be designed as 35' inside and 55' outside.
- Roads used for Fire Department access should have an unobstructed width of not less than 20' and unobstructed vertical clearance of 13'6" or more.
- "No Parking Fire Lane" markings should be applied on the emergency access roads. However, due to the pedestrian nature of the open spaces between the proposed project's buildings, that striping and signage would be limited.
- Clearly define on-site pedestrian routes.
- Landscaping and shrubbery should be placed and maintained in a way that it would not grow to obstruct pathways.

IMPACT 4.10-2 The proposed project could increase demand for police protection services requiring the need to construct new facilities or expand existing facilities. *Based on the analysis below, the project's short-term construction impact would be less than significant with mitigation, while the project's operational impact would be less than significant.*

Implementation of the proposed project would result in increased demand for police protection facilities and services. During project construction there could be a temporary increase in demand for police protection services due to construction equipment stored on site that could be attractive for theft and vandalism. The proposed project would have a total of 1,374 units, with a net increase of 965 units under the Hotel / Condo / Retail Scenario and a total of 1,470 units, with a net increase of 1,061 units under the Condo / Retail Scenario. The proposed project would increase the resident population by approximately 1,700 to 1,900 people, along with hotel guests and retail patrons that may require police protection services.

First response to the project site would be provided by SPD Central Command, located approximately 2.0 miles north of the project site. Using SPD's internal goal of 2.0 to 2.5 sworn police officers per 1,000 residents and one civilian support staff member per two sworn officers, the proposed project could potentially require up to 5 officers and 3 civilian support staff members to serve this additional population in the Central City at project completion. Consistent with SPD's standard practice, the SPD will adjust staffing levels as appropriate in order to ensure adequate service is provided to the project site. Additionally, according to the SPD, these officers and support staff could be accommodated at

SPD Central Command and would not require construction or expansion of new police protection facilities (Sgt. Wann, pers. comm. 2014). Not only does SPD have staffing practices and facilities sufficient to service the project site, but the proposed project would also generate revenues, including property taxes and sales taxes paid by new residents purchasing goods and services in the City, which would contribute to funding for future SPD facilities and services.

The project would not require additional police protection facilities and services beyond that assumed under the 2030 General Plan. The proposed project would not require the construction or expansion of police protection facilities that would generate significant adverse physical environmental effects. Therefore, the project's operational impact is considered **less than significant**. However, during project construction activities, equipment stored onsite that could attract theft and vandalism, may result in the need for more police services, resulting in a **potentially significant** impact.

Mitigation Measures

Compliance with Mitigation Measure 4.10-2 would ensure the site is protected from theft and vandalism during project construction and would reduce the need for additional police services. This would reduce the impact to **less than significant level with mitigation**.

Mitigation Measure 4.10-2: Implement Construction Security Measures.

- The project applicant shall surround areas of active construction and where equipment is stored with a secure chain link fence and shall hire a security service to monitor the site after hours to deter vandalism and theft.

IMPACT 4.10-3 The proposed project could increase demand for school services, requiring the need to construct new facilities or expand existing facilities. *Based on the analysis below, the impact is less than significant.*

The proposed project would increase the number of school-age children that may attend a SCUSD school. The Hotel / Condo / Retail Scenario would generate approximately 261 total elementary school students (net increase of 183), 41 middle school students (net increase of 29), and 55 high school students (net increase of 39). Implementation of the Condo / Retail Scenario would generate approximately 279 total elementary school students (net increase of 202), 44 middle school students (net increase of 32), and 59 high school students (net increase of 42), as shown in Table 4.10-3 above.

Students at the project site would have the option to attend one of the public schools, including William Land Elementary School, Sutter Middle School, and C. K. McClatchy High School. In addition, there are also private schools in and around the Central City area, and it is possible future residents of the proposed project would attend these schools.

As shown in Table 4.10-1, all three public schools are currently operating below capacity and the addition of new students generated by the project could be accommodated if the project were constructed today.

As required by SB 50, the project applicant would pay applicable state-mandated school impact fees to SCUSD. As of January 2014, SCUSD's Level I fees are \$3.20 per square foot for residential construction and \$0.51 for commercial construction (SCUSD 2014). The applicable fee levels may change over time through implementation of the project. The California Legislature has declared that the school impact fee is adequate mitigation under CEQA (California Government Code Section 65996). This impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT The proposed project could increase demand for parks and recreation services, requiring the need
4.10-4 to construct new facilities or expand existing facilities, or causing or accelerating physical
 deterioration of existing facilities. *Based on the analysis below, the impact is less than significant.*

Implementation of the proposed project would result in increased demand for parks and recreational facilities. The proposed project would build 1,170 new units for a total of 1,374 units (a net increase of 965 units under the Hotel / Condo / Retail Scenario) and build 1,267 units for a total of 1,470 units (a net increase of 1,061 units) under the Condo / Retail Scenario. Based on the citywide average of 2.1 persons per multi-family household, the proposed project would increase the resident population of the project site by approximately 2,026 to 2,228 people, along with hotel guests and retail patrons that may use parks and recreational facilities and services. "The Central City is located in close proximity to a host of recreational amenities" (Draft Master EIR for the 2035 General Plan, p. 4.9-8).

The proposed project is located within ½-mile radius of both neighborhood and community parks. As discussed in the Environmental Setting above (Section 4.10.1), the closest public parks include Roosevelt (0.3 mile), Southside (0.4 mile), and Crocker (0.25 mile) parks, described on pages 4.10-4 and 4.10-5.

In addition, the American River Parkway as well as "...Sacramento River, Old Sacramento Historic State Park, Sutter's Fort, Capitol Park, and the short walk over the Tower Bridge to Raley's Field are evidence of accessibility to additional recreational opportunities... [in the Central City that] provide opportunities for recreation that may differ from those in more suburban areas, but are meaningful..." (City of Sacramento, Draft Master EIR for the 2035 General Plan, p. 4.9-8). Including just City park facilities, the City currently provides 3.4 acres of neighborhood and community parkland on a citywide basis (City of Sacramento 2014d, p. 3).

To address parkland impacts caused by projects that generate additional resident and employee populations within the City, the Sacramento City Code provides standards and formulas for the dedication of parkland and payment of in-lieu fees (Title 16, Chapter 16.64), and imposes a park development impact fee on new projects within the City (Title 18, Chapter 18.44) for both residential and non-residential development.

Pursuant to Chapter 16.64 of the City Code, the City's current Parkland Dedication Requirement requires proposed projects to dedicate land, provide in-lieu fees, or a combination thereof to provide the

equivalent of five acres of parkland property for each one thousand (1,000) residents (City Code, § 16.64.020.)

The proposed project will comply with its Parkland Dedication Requirement through the provision of private recreation facilities and the payment of in-lieu fees. Within the Central City, the total in-lieu fee is \$250,000 per acre of parkland required, plus 20 percent for infrastructure, pursuant to the City's Parkland Dedication Requirement. In-lieu fees collected pursuant to Chapter 16.64 may be used by the City to acquire parkland or renovate or rehabilitate existing parks that will serve the proposed project for which the fee is paid (City Code, § 16.64.040).

In addition to the City's Parkland Dedication Requirement, the City requires developers to comply with the City's Park Development Impact Fee requirements to finance the construction of park and recreational facilities. Pursuant to Chapter 18.44 of the City Code, the standard Park Development Impact Fee for new multi-family units developed within the City is \$3,426 per residential unit and \$0.41 per square feet of retail / commercial space. In recognition of the fact that "the impacts, financial challenges and related benefits of infill development warrant different service levels requirements" relating to park development impacts, in 2004 the City Council adopted Resolution No. 2004-820, which adjusted the Park Development Impact Fee (Sacramento City Code Chapter 18.44) for qualifying infill development projects within specified infill areas within the City. For qualifying multi-family infill residential units, the Park Development Impact Fee is \$1,595 per unit (approximately a 54% reduction as compared to the standard multi-family Park Development Impact Fee of \$3,426 per unit). Additionally, for qualifying retail / commercial space infill developments, the Park Development Impact Fee is \$0.19 per square foot (approximately a 54% reduction as compared to the standard retail / commercial services Park Development Impact Fee of \$0.41 per square foot). The Central City (excluding the Railyards) is a specified infill area, pursuant to Resolution No. 2004-820. Qualifying infill projects within the Central City area include residential projects, small commercial and office projects of 20,000 square feet or less, and mixed use projects consisting of at least two residential units and 20,000 square feet or less of commercial or office development.

Together, the City's Parkland Dedication in-lieu fee requirements and Park Development Impact Fee requirements provide a level of funding to acquire, design, construct and install park facilities to meet the needs of, and address the impacts caused by, new residential and commercial development within the City.

Small public places incorporated into the design of the proposed project could meet a portion of the proposed project's Parkland Dedication Requirement. The *Sacramento Central City Urban Design Guidelines* includes requirements to implement the 2030 General Plan and PRMP for small public spaces. According to the guidelines, new development should provide a range of open space types for its users and visitors, that are open to the street or public right-of-way and accessible to all citizens; and include hard and soft landscaping, areas for sun and shade, benches, and water features, where appropriate.

The proposed project provides a number of private recreation opportunities including pool areas for project residents and guests. Specifically, the residential buildings proposed on Parcels 1, 2A, 2B, and 3 will each include a podium or rooftop level pool area, and the parking garage included in Parcel 1 will

also include a rooftop pool area (see Figure 2-4b, Conceptual Podium Level Landscape Plan). In total, the podium and rooftop level community space, fitness center and pool areas include approximately 1.7 acres of private recreation space. Additionally, each of the proposed buildings will have access to a fitness center and similar indoor recreation spaces. These indoor areas include approximately 0.20 acres of private recreation space.

The proposed project will also include a substantial amount of private recreational facilities that will provide additional recreational opportunities to project residents, as well as the general public. Specifically, the corner of P and 7th Streets would be occupied by a community plaza of approximately 0.29 acres, accommodating pedestrians beneath a tree canopy (see Figure 2-4a, Conceptual Ground Level Landscape Plan).

The proposed project also includes an East-West Promenade, North-South Promenade, and a central plaza, which provides a balance of hardscape paving lined with existing mature (Heritage) trees and new trees and open lawn and landscape in adjacent areas. The proposed promenades and central plaza also incorporate hardscape pedestrian paths, water features, seating areas, small café tables, public art, and softscape in the form of landscaping, such as shade and ornamental trees open lawn areas, and other landscape features. In total, the East-West Promenade, North-South Promenade, central plaza, and associated pedestrian paths cover 1.83 acres of the project site.

During the four phases of project construction, existing walkways on the project site and, once developed, the proposed East-West Promenade, North-South Promenade, central plaza, and community plaza, may be temporarily impacted by construction activities. The PUD Guidelines require that clearly marked alternative pedestrian and bicycle access through or around the project site be provided during all phases of project construction. Moreover, the project site currently includes no City-designated park facilities and construction impacts to existing walkways and proposed promenades and plazas would be temporary. Therefore, project construction would result in a **less than significant** parkland impact.

As discussed above, the proposed project includes a variety of private facilities providing on-site recreational amenities (including the East-West Promenade, North-South Promenade, central plaza, and community plaza) covering over 2.11 acres that will be available to residents, guests, and the general public as well as recreational facilities (including pools and fitness facilities) covering approximately 1.77 acres available to project residents and their guests. In addition to these recreational amenities, that would address the operational impacts of the proposed project, the development would be required to meet the City's Parkland Dedication and Park Development Impact Fee requirements based on the dedication requirement and fee schedule in place when a final map is recorded and/or building permits are obtained (J. Combs, Parks and Recreation Department, Pers. Comm., February 2015).

The City does not anticipate that the proposed project would cause or accelerate the physical deterioration of existing park facilities or require the expansion of existing parks in the area. In addition to providing a variety of onsite recreational and parkland amenities available to residents, guests, and the general public, the proposed project would provide its fair-share contribution to meet the City's

Parkland Dedication and Park Development Impact Fee requirements and therefore the impact is considered **less than significant**.

Mitigation Measures

None required.

4.10.4 CUMULATIVE IMPACT DISCUSSION

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analysis does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the project are considered with impacts of buildout conditions described in the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) Program EIR and the Sacramento 2030 General Plan Master Environmental Impact Report (2030 General Plan Master EIR) (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

“Where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]” (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the remainder of the cumulative discussion below, as well.

For public services and recreation, the geographic scope for the cumulative analysis for the provision of fire protection services is the service boundary of the SFD, which encompasses 144 square miles of the City of Sacramento and the fire districts of Pacific-Fruitridge and Natomas. For provision of police protection services, the geographic scope for the cumulative analysis is the service boundary of the SPD, which coincides with the City’s Policy Area, as depicted in the General Plan. The geographic scope for schools, parks, and recreation is buildout of the City’s Policy Area, as depicted in the 2030 General Plan land use map (General Plan p. 2-33).

IMPACT 4.10-5 Cumulative impacts related to fire protection services and facilities. *This impact has been fully addressed by the General Plan Master EIR. There is **no cumulative impact**.*

Buildout of the MTP/SCS and the City’s General Plan, including implementation of the proposed project, may require new or expanded fire protection facilities and services. These impacts were addressed at the regional level under Impact PS-2 in the MTP/SCS Program EIR and found to be less than significant (p. 15-33). The increase in the demand for fire protection services and facilities has been evaluated in the 2030 General Plan Master EIR. Impact 6.10-2 of the General Plan Master EIR found that that cumulative impacts to fire protection services and facilities would be less than significant with implementation of City goals and policies and that there is no significant cumulative impact (p. 6.10-23).

The City of Sacramento finds that the proposed project would not contribute to any existing cumulative impact so the project would have **no cumulative impact** on fire services and facilities.

Mitigation Measures

None required.

IMPACT 4.10-6 Cumulative impacts related to police services and facilities. *This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact.*

Buildout of the MTP/SCS and the City's General Plan, including implementation of the proposed project, may require new or expanded police facilities and services. These impacts were addressed at the regional level under Impact PS-2 in the MTP/SCS Program EIR and found to be less than significant (p. 15-33). The increase in the demand for police services and facilities has been evaluated in the 2030 General Plan Master EIR. Impact 6.10-1 of the General Plan Master EIR found that implementation of the General Plan would have less-than-significant impacts related to police protection without the need for mitigation and that there is no significant cumulative impact (p. 6.10-11). According to the General Plan Master EIR, there are no other projects within the Policy Area that when combined, together along with the General Plan, would compound or increase environmental effects on police services or facilities and the cumulative impact was determined to be less than significant.

The City of Sacramento finds that the proposed project would not contribute to any existing cumulative impact so the project would have **no cumulative impact** on police services and facilities.

IMPACT 4.10-7 Cumulative impacts related to school services and facilities. *This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact.*

Buildout of the MTP/SCS and the City's General Plan, including implementation of the proposed project, may require new or expanded school facilities and services. These impacts were addressed at the regional level under Impact PS-2 in the MTP/SCS Program EIR and found to be less than significant (p. 15-33). The increase in the demand for school facilities and services has been evaluated in the 2030 General Plan Master EIR. Impact 6.10-5 found that implementation of the 2030 General Plan combined with other development within the seven public school districts that extend outside the Policy Area would generate additional elementary, middle, and high school students but that the impact would be less than significant and not cumulatively considerable (p. 6.10-44). Impact 6.10-6 found that implementation of the 2030 General Plan, combined with other development outside of the Policy Area, would generate additional higher education students, but that the cumulative impact would be less than significant (p. 6.10-45).

The City of Sacramento finds that the proposed project would not contribute to any existing cumulative impact so the project would have **no cumulative impact** on schools.

Mitigation Measures

None required.

IMPACT Cumulative impacts related to parks and recreation services and facilities. *This impact has been fully*
4.10-8 *addressed by the General Plan Master EIR. There is **no cumulative impact**.*

Buildout of the MTP/SCS and the City's General Plan, including implementation of the project, may require new or expanded parks and recreation facilities and services. These impacts were addressed at the regional level under Impact PS-2 in the MTP/SCS Program EIR and found to be less than significant (p. 15-33). The increase in the demand for parks and recreation facilities and services has been evaluated in the 2030 General Plan Master EIR. Impacts 6.9-1 (p. 6.9-19) and 6.9-2 (p. 6.9-20) of the 2030 General Plan Master EIR found that implementation of the General Plan would have less-than-significant impacts related to parks and recreation services and facilities without the need for mitigation and that there is no significant cumulative impact.

The proposed project will provide its fair-share contribution toward new, expanded, or improved parks and recreation facilities and services. The City of Sacramento finds that the proposed project would not contribute to any existing cumulative impact so the project would have **no cumulative impact** on parks and recreation.

Mitigation Measures

None required.

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4.11 TRANSPORTATION/TRAFFIC

4.11.1 INTRODUCTION

This section discusses potential transportation and traffic impacts for the proposed project based on the data and analysis in Kittelson & Associates, Inc. Traffic Analysis for Sacramento Commons and the Trip Generation Comparison and Site Plan Review Memorandum (Appendix H). Within the analysis of Project-Specific and Cumulative Impacts and Mitigation (Sections 4.11.3 and 4.11.4) below, traffic and transportation impact conclusions are reached for the proposed project. The transportation and circulation analysis addresses the following impact categories:

- ▶ Intersections
- ▶ Transit
- ▶ Bicycle facilities
- ▶ Pedestrian circulation
- ▶ Construction-related traffic impacts

This traffic impact analysis was conducted in accordance with the following documents:

- ▶ The *Interim Traffic Impact Analysis Guidelines* published by the City of Sacramento in February 1996. This document is hereinafter referred to as the “TIA Guidelines”
- ▶ The City of Sacramento’s *2030 General Plan: Mobility Element* (2009). In addition, the *Central City Community Plan*, a component of the General Plan’s Part III
- ▶ The 2010 Sacramento City/County Bicycle Master Plan (*Amended April 2011*)
- ▶ The City of Sacramento’s *Pedestrian Master Plan* (2006)

Weekday AM and PM peak-hour intersection turning movements at 13 study intersections and 7 driveways were analyzed for the proposed project. The traffic analysis addressed the change in traffic conditions in the immediate vicinity of the site due to trips generated by the proposed project. An analysis of site access and vehicular circulation was also conducted.

The transportation analysis was conducted for the following conditions:

- ▶ Existing Conditions
- ▶ Existing Plus Project
- ▶ Cumulative 2035 No Project Conditions
- ▶ Cumulative 2035 Plus Project

The analysis was prepared for two development scenarios: the “Hotel / Condo / Retail Scenario” and the “Condo / Retail Scenario.”¹

¹ The Hotel / Condo / Retail Scenario and Condo / Retail Scenario represent reduced density variations of the Hotel Scenario and No Hotel Scenario analyzed in the “TRAFFIC ANALYSIS FOR SACRAMENTO COMMONS” by Kittelson & Associates, Inc. dated July 2014 and included in Appendix H.

The Existing Conditions scenario represents the year 2014. The Cumulative 2035 No Project Conditions are defined as the future year consistent with the regional forecasts from the Sacramento Regional Travel Demand Model (SACMET model). The Cumulative 2035 No Project Conditions scenario include the most recent planned land uses and transportation projects within the City of Sacramento, including the Entertainment and Sports Center (ESC).²

4.11.2 PROJECT DESCRIPTION

Refer to Chapter 2, “Project Description,” for further discussion regarding the details of the proposed project. The information in this chapter focuses on details related to transportation and circulation for two proposed project scenarios. As proposed in October of 2014 to respond to comments received on the Notice of Preparation and the project’s scoping meeting, the Hotel / Condo / Retail Scenario consists of a mixed-use commercial and residential infill development project with 1,171 residential new units, a 300 room hotel, and 70,000 square feet of neighborhood support/retail services, and the Condo / Retail Scenario consists of 1,267 new residential units and 52,000 square feet of neighborhood support/retail services. Both scenarios have the potential to include an approximately 15,000 square foot specialty market, which is included in the neighborhood support/retail services square footage for each scenario.

The Kittelson & Associates, Inc. Traffic Analysis for Sacramento Commons conservatively assumed buildout of the Hotel / Condo / Retail Scenario would include 1,219 residential units, a 320 room hotel and 65,000 square feet of retail and support services for the Hotel / Condo / Retail Scenario and 1,319 residential units and 61,000 square feet of retail and support services for the Condo / Retail Scenario. The residential density and land uses assumed in the Kittelson & Associates, Inc. Traffic Analysis would generate a higher number of vehicle trips, as compared to the proposed project scenarios as revised in October of 2014. Therefore, the Kittelson & Associates, Inc. Traffic Analysis provides a conservative approach in determining traffic impacts (Appendix H).³ A comparison of trip generation estimates for the project buildout assumptions in the traffic analysis and the proposed project as revised in October of 2014 is provided in Table 4.11-8 in the Trip Generation methodology section below.

As noted throughout this EIR, the project proposes to remove 206 existing garden apartment units on-site regardless of the project scenario that is selected.

NOTICE OF PREPARATION AND RESPONSES

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified the following concerns related to traffic and transportation issues:

- ▶ incorporation of transportation-related mitigation and performance standards;
- ▶ temporary construction-related disruptions to transportation operations;

² See below under the heading “Land Use and Transportation System Assumptions” for more detail.

³ See Kittelson & Associates, Inc. Memorandum dated December 19, 2014 in Appendix H for trip generation comparison of different land use scenarios.

- ▶ parking oversupply and undersupply;
- ▶ traffic congestion related to the project and cumulative projects;
- ▶ bicycle safety;
- ▶ provision of a neighborhood market to further discourage driving;
- ▶ pedestrian access and demand on nearby sidewalks;
- ▶ number and placement of bicycle racks/secure bicycle parking;
- ▶ public transit demand;
- ▶ passenger loading and unloading for the hotel element;
- ▶ bicycle access and on-site bikeway pavement delineation throughout the project site; and
- ▶ installation of protected bike lanes along 5th and N Streets

Copies of the NOPs and comments received are included in Appendix B.

The comment related to a neighborhood market to discourage driving is addressed in Chapter 2, which describes the potential for a specialty market to cater to the needs of the residents and office workers in the vicinity of the project site. The July 2014 “Traffic Analysis for Sacramento Commons” (Appendix H) includes details on the design for hotel loading and unloading areas in Section 5, “Other Considerations” of Appendix H. The “Other Considerations” discussion has also been included at the end of this Chapter. Construction effects, parking, passenger loading and unloading, and bicycle parking requirements are addressed by existing City regulations, as discussed further below in the “Regulatory Setting,” and, as relevant, in the impact analysis in this section.

In addition, with respect to parking, Public Resources Code Section 21099(d)(1) provides that parking impacts of mixed-use residential projects, like the proposed project, located “on an infill site within a transit priority area shall not be considered significant impacts on the environment” (please see Chapter 4 of this EIR for more detail on Public Resources Code Section 21099 criteria vis-à-vis the project).

4.11.3 ENVIRONMENTAL SETTING

This section describes the environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The Existing Conditions scenario’s roadway, transit, bicycle, and pedestrian transportation systems within the study area are described below.

STUDY AREA

The project site is located in the City of Sacramento’s Central Business District and is generally bounded by 5th, 7th, N, and P Streets. The project site includes most, but not all of this four-block area, as detailed in Chapter 2 and throughout this EIR.

The project site is located within the boundaries of the *Central City Community Plan Area* (City of Sacramento 2009).

A mix of residential and office complexes are located in the immediate vicinity of the project site. Surrounding land uses include federal and state offices to the north, west, and east. Two multi-family properties (Governor's Square and Pioneer House) are located at the southeast and northwest corners of 5th and P Streets, respectively.

Pursuant to SACOG's Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS), the proposed project is located in a Center and Corridor⁴ in Sacramento's Transit Priority Area⁵ (TPA). Under California Senate Bill 375, projects that are determined to be consistent with SACOG's MTP/SCS and meet the definition of a Transit Priority Project (TPP)⁶ are granted certain CEQA streamlining benefits. On December 8th, 2014, based on the MTP/SCS Consistency Determination Worksheet prepared by City staff, SACOG submitted a letter concluding the proposed project is consistent with the SCS (see Appendix A). The proposed project also qualifies as a TPP pursuant to Public Resource Code section 21155(b) and, therefore, qualifies for CEQA streamlining benefits established by Senate Bill 375 and other recent legislation (see Section 4.0 of this EIR for further discussion of TPP criteria and applicable streamlining benefits).

Public Resources Code Section 21159.28 establishes that impacts to the regional transportation network are not required in CEQA documents for qualifying residential or mixed-use residential projects. "Regional transportation network" is defined as all existing and proposed transportation system improvements, including the state transportation system, that were included in the transportation and air quality conformity modeling, including congestion modeling, for the final regional transportation plan adopted by the metropolitan planning organization, but not including local streets and roads. All the roads surrounding the project site were included in the transportation and air quality conformity modeling prepared by SACOG for its MTP/SCS. The City's 2030 General Plan includes the following definition of a "local" street: "Local: A two-lane street that provides direct access to abutting land uses. Local streets serve the interior of a neighborhood. These streets carry low vehicular movement, low-to-heavy pedestrian movement, and low-to-moderate bicycle movement" (p. 2-197). Figure M 2B from the General Plan identifies the categories for downtown streets. The following are not "local" roads: N Street, P Street, Q Street, 5th Street, 7th Street (from Q to the north), and 8th Street (from Q to the north). Pursuant to 21159.28, these roads are part of the regional transportation network. The City is not required to analyze project specific or cumulative impacts on these streets from cars and light-duty truck trips generated by the project. Nevertheless, this section evaluates potential traffic and transportation impacts associated with all roads identified in the preliminary assessment of the project's traffic discussed below including roads adjacent to the project site that are part of the regional transportation network.

⁴ Pursuant to SACOG's MTP/SCS, a Center and Corridor is an area identified in local plans as an historic downtown, main street, commercial corridor, rail station area, central business district, town center, or other high density destination. (MTP/SCS, p. 32.)

⁵ Pursuant to SACOG's MTP/SCS, a TPA is an area of the region within one-half mile of a major transit stop (existing or planned light rail, street car, or train station) or an existing or planned high-quality transit corridor included in the MTP/SCS. (MTP/SCS, p. xii.)

⁶ A TPP is a project that: (1) contains at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75; (2) provide a minimum net density of at least 20 dwelling units per acre; and (3) is located within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan (Public Resources Code Section 21155[b]).

A preliminary assessment of the proposed project’s traffic volume—hereinafter referred to as “project traffic”—was performed to define the scope of the transportation impact study. In summary, study intersections were selected based on anticipated volume of project traffic, the distributional patterns of project traffic, and the facilities susceptible to being impacted by the proposed project. Table 4.11-1 provides a list of study intersections and a summary of the type of intersection traffic control present. Figure 4.11-1 illustrates the locations of the study intersection relative to the project site.

ROADWAY NETWORK

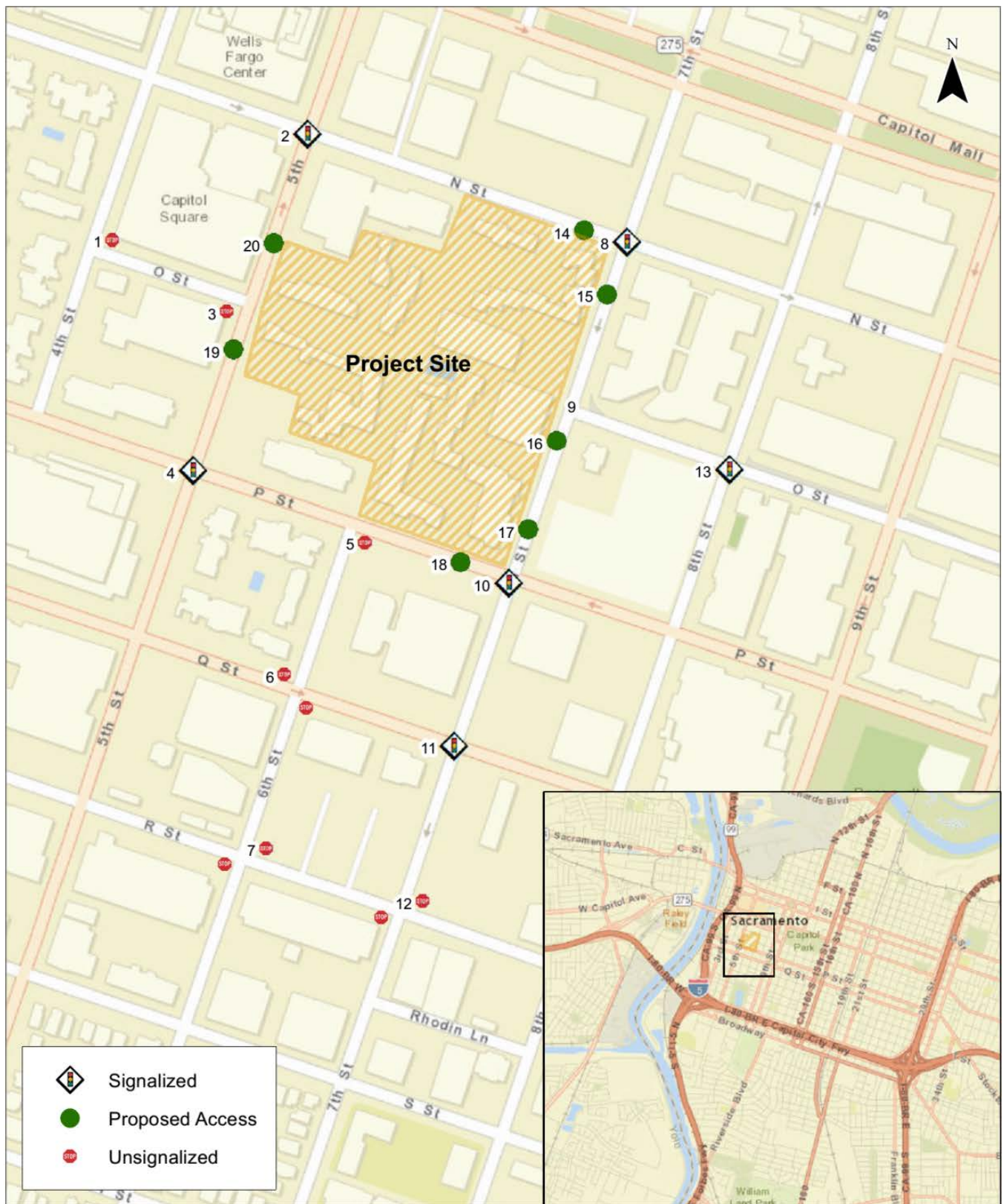
Table 4.11-2 shows characteristics of the existing roadway network for the primary roads providing access to the project site. These roads are all located in the downtown area of Sacramento and primarily provide access to residential and office buildings. They also provide access to nearby freeway facilities, including Interstate 5 and State Route 99 (SR 99). The information presented in this table is based on aerial photography, Google Street View, and a field review performed by Kittleson & Associates on April 24, 2014.

Parking

Most of the neighborhood streets surrounding the project site provide on-street parking. The on-street parking surrounding the site is generally restricted on weekdays to no parking, one hour, or two-hours, unless the vehicle has a resident parking permit. The project site is located within the existing “H” permit residential parking permit area. Figure 4.11-2 shows the parking inventory within the project vicinity prepared by the City of Sacramento.⁷ As shown in this figure, there are approximately 411 on-street parking spaces located within 1/8th mile of the center of the project site and about 3,356 located within a 1/4th mile of the project site.

Public Resources Code Section 21099(d)(1) provides that parking impacts of mixed-use residential projects, like the proposed project, located “on an infill site within a transit priority area shall not be considered significant impacts on the environment. Therefore, parking impacts associated with the proposed project are not considered significant impacts on the environment under CEQA.

⁷ GIS layer downloaded from: <http://www.cityofsacramento.org/gis/data.html>



Source: Kittelson & Associates, Inc. 2014

Figure 4.11-1

Study Intersections and Project Vicinity Map

Table 4.11-1 List of Study Intersections			
#	Street Name		Control
	North-South	East-West	
1	4th St	O St	TWSC
2	5th St	N St	Signalized
3	5th St	O St	TWSC
4	5th St	P St	Signalized
5	6th St	P St	TWSC
6	6th St	Q St	TWSC
7	6th St	R St	TWSC
8	7th St	N St	Signalized
9	7th St	O St	Uncontrolled
10	7th St	P St	Signalized
11	7th St	Q St	Signalized
12	7th St	R St	TWSC
13	8th St	O St	Signalized
14	Driveway 1	N St	TWSC
15	7th St	Driveway 2	TWSC
16	7th St	Driveway 3	TWSC
17	7th St	Driveway 4	TWSC
18	Driveway 5	P St	TWSC
19	5th St	Driveway 6	TWSC
20	5th St	Driveway 7	TWSC

Notes: TWSC = two-way stop-controlled. All study intersections are under the jurisdiction of the City of Sacramento. Gray-shaded cells indicate intersections that would be present only under Plus Project conditions.
Source: Kittelson & Associates Inc. 2014a

Table 4.11-2 Roadway Network near the Project Site					
Facility	Functional Classification ¹	Street Direction	Speed Limit (mph)	Number of Lanes	
				NB/EB	SB/WB
Capitol Mall	Arterial	EB/WB	30	2	2
N Street	Arterial	EB Only	25	3	0
O Street	Local	EB/WB	25	1	0 ²
P Street	Arterial	WB Only	25	0	3
Q Street	Arterial	EB Only	25	3	0
R Street	Local	EB/WB	25	1	1
4th Street	Local	NB/SB	25	1	1
5th Street	Arterial	NB Only	30	2	0
6th Street	Local	NB/SB	25	1	1
7th Street	Collector	SB Only	30	0	3
8th Street	Collector	NB Only	25	3	0

Notes: EB = eastbound; mph = miles per hour NB = northbound; SB = southbound; WB = westbound
¹ Functional classification is based on the 2030 General Plan's Mobility Element, Figure M 2B
² O Street is one-way eastbound from 7th Street to 9th Street, a transit-only segment between 9th Street and 10th Street, and a one-way westbound street from 10th Street to 11th Street
Source: Kittelson & Associates, Inc. 2014

TRANSIT SERVICE

The Sacramento Regional Transit District (RT) provides several routes adjacent to, and in the vicinity of the project site, including bus and light rail service. The nearest light rail station is located 1 block east of the project site at 8th Street and O Street and is served by all three light rail lines (Blue, Gold, and Green). Located in downtown Sacramento, the site is also served by many of the downtown RT bus routes. Table 4.11-3 provides an overview of transit provided near the project site. A total of approximately 26 bus stops and four light rail stops are located within ¼ mile of the center of the project site. RT bus routes with service intervals no longer than 15 minutes during peak commute hours with bus stop within ½ mile of the project site include routes 3, 30, 51, 86 and 88. Including all transit providers serving the project area, approximately 11 bus lines with stops within ¼ mile of the project have headways of 15 minutes during commute periods (Table 4.1-3). Approximately 14 bus stops within ¼ mile of the project site, including stops that serve routes 3, 30, 51, 86, and 88 are served by two or more bus routes (Table 4.11-3). Additionally, the Sacramento Amtrak station located at 5th and I Street, about 6 blocks north of the project site, provides access to longer regional trips. Figure 4.11-3 provides a graphical overview of the existing transit facilities located near the project site.

PEDESTRIAN AND BICYCLE INFRASTRUCTURE AND VOLUMES

Table 4.11-4 provides an overview of existing pedestrian and bicycle activity at the project study intersections. These volumes represent the total number of pedestrians and bicyclists using the intersections during the AM and PM peak hours.

Existing and proposed bicycle and pedestrian facilities within the vicinity of the project site, as documented in the 2010 City/County Bikeway Master Plan, are shown in Figure 4.11-4 (County and City of Sacramento 2011). The labels on Figure 4.11-4 correspond to the project name associated with each pedestrian or bicycle facility.⁸

According to the 2010 Master Plan, N Street will provide a primary east-west bicycle and pedestrian connection between the Sacramento River and the California State Capitol Building with wide sidewalks. Similarly, the Capitol Mall provides an east-west connection for bicycles via a Class II bicycle lane. North-south bicycle access is provided via a Class II bicycle lane on 5th Street (northbound) and 9th Street (southbound).

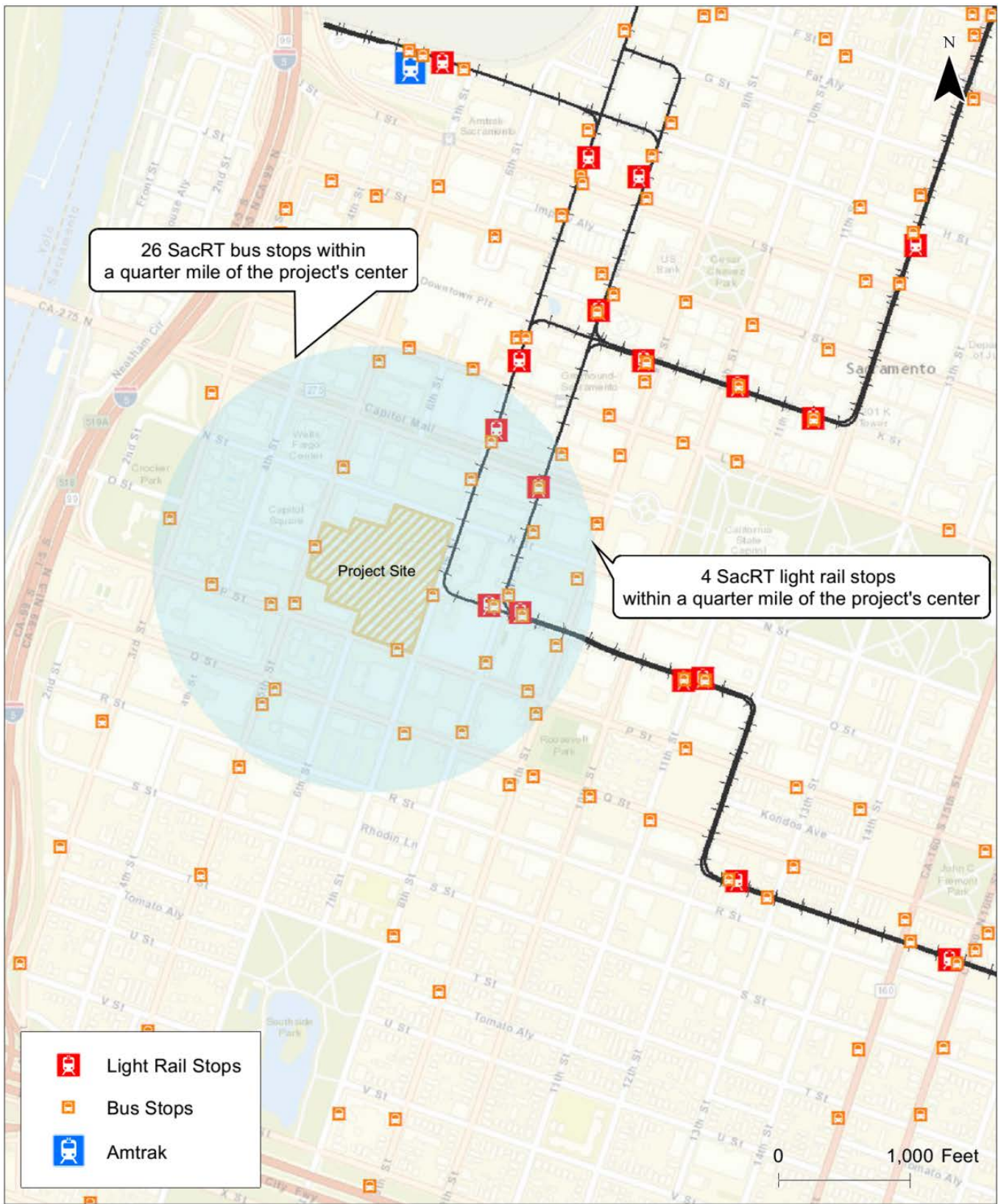
⁸ The referenced figure identifies Class III Bike Route/Sharrow facilities. The slash is used to indicate that these two terms are interchangeable – Class III bike route and sharrow. A sharrow is a route that has signage or pavement markings indicating that it is a bike route, without having a separate bike lane (like a Class II facility).



Source: Kittelson & Associates, Inc. 2014

Figure 4.11-2

Parking Inventory



Source: Kittelson & Associates, Inc. 2014

Figure 4.11-3

Existing Transit Service

**Table 4.11-3
List of Regional Transit Service Routes and Stops near the Project Site**

Route	Name	Description	Frequency*
2	Riverside	Riverside Boulevard - Downtown	1
3	Riverside Express	Picket Area - Downtown	4
6	Land Park	Rush River - South Land Park - Downtown	1
7	Pocket Express	Rush River - Downtown	3
15	Rio Linda Blvd. - O Street	Watt/I-80 - Downtown	2
29	Arden - California Ave	Fair Oaks - Arden - Downtown	2
30	J Street	CSUS - Downtown	4
34	McKinley	University/65th - CSUS - McKinley - Downtown	1
38	P/Q Streets	University/65th - Downtown - River Oaks	1
51	Broadway - Stockton	Florin Mall - Downtown	5
109	Hazel Express	Orangevale - Downtown	2
Blue	Light Rail Blue Line	Watt I-80 - Downtown - Meadowview	4
Gold	Light Rail Gold Line	Downtown - Folsom	4
Green	Light Rail Green Line	13th Street - 7th Street & Richards/Township 9	2

Bus Stops and Routes by Any Transit Provider near Project Site

Bus Stops	Bus Routes by Any Transit Provider	Total Routes
Q and 5th	3,7,38,39,43r,52,53,66	8
Q and 7th	2,6,43r,51,52,53,57,59,60,66,109	11
Q and 8th	2,3,7,15,34,51,52,53,59,60,66	11
P and 4th	170,171,172,173	4
P and 5th	3,7,52,53,66,70,99,170,171,172,173	12
P and 8th	2,3,6,7,15,34,51,52,53,57,59,60,66	13
O and 3rd	38,39	2
O and 5th	38	2
O and 7th	2,3,6,7,15,29,34,51,52,53,57,59,60,66,90,	15
N and 5th	38	1
Capitol and 7th	2,3,6,7,15,29,34,51,52,53,57,58,59,60,66,	15
N and 8th	2,3,6,7,15,29,34,40,41,51,52,57,	12
L and 5th	30,38	2
L and 5th	39,40,41,42a,42b,43,43r,44,45,230,231,232,240,241,340,340a	16
L and 6th	1,39,40,41,42a,42b,43,43r,44,45,230,231,232,240,241,340,340a	14

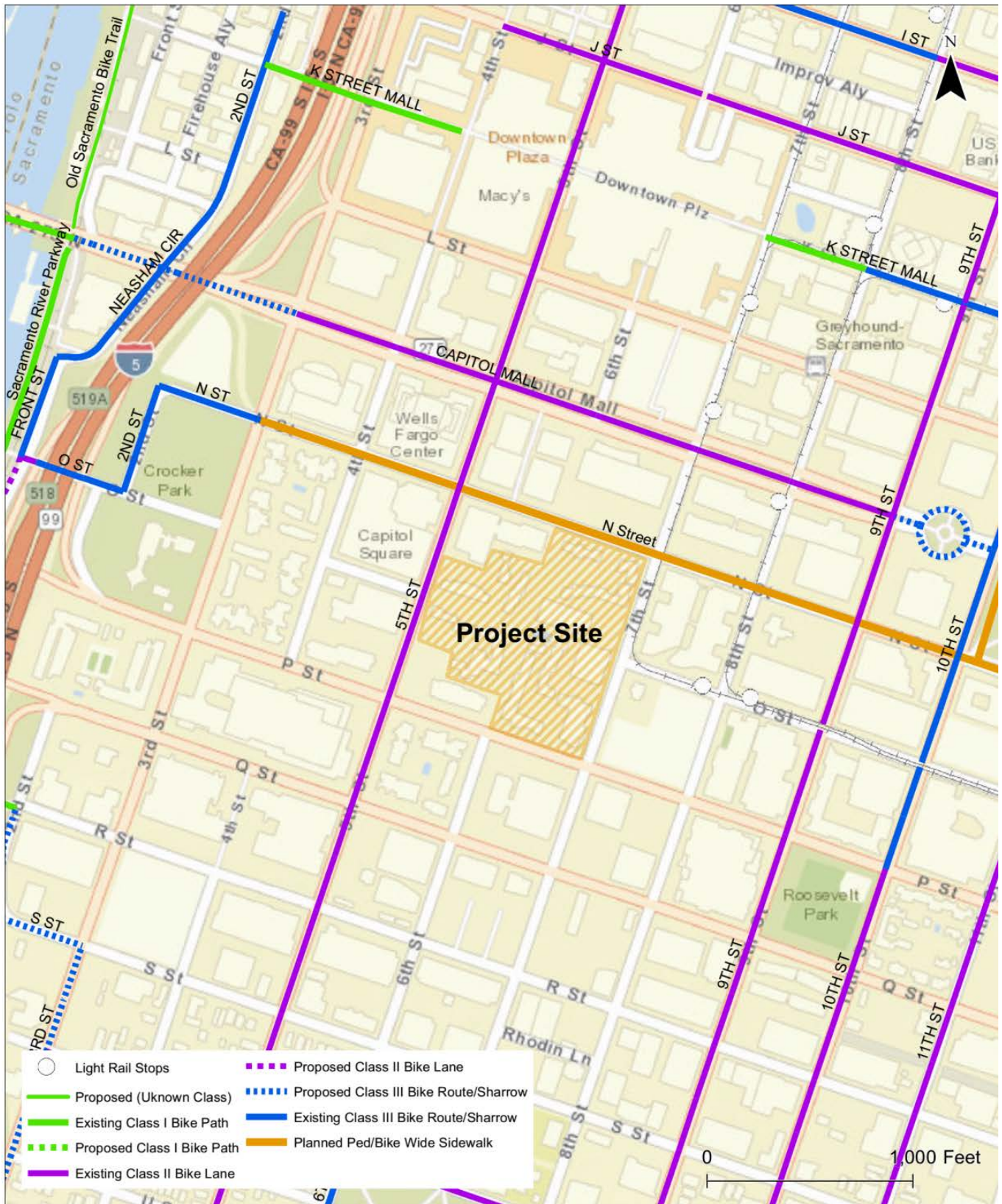
Bus Routes Any Transit Provider with 15-Minute Headways during Commute Periods

Bus Route	Transit Provider	15 Min
52	E-Tran	Yes
53	E-Tran	Yes
60	E-Tran	Yes
3	Regional Transit	Yes
30	Regional Transit	Yes
51	Regional Transit	Yes
230	Yolo Bus	Yes
340	Yolo Bus	Yes
43	Yolo Bus	Yes
45	Yolo Bus	Yes
99	Yuba Sutter Transit	Yes

Notes: CSUS = California State University, Sacramento; I-80 = Interstate 80

* Frequency represents the number of transit vehicles traveling in one route direction per hour in the peak hour.

Source: Kittelson & Associates, Inc. 2014a (using <http://www.sacrt.com/>) and <http://www.e-tran.org/e-tran-routes-schedules-stops.asp#r52>, <http://www.yolobus.com/index.php>, <https://www.google.com/maps/search/bus+stops+downtown+sacramento/@38.5758864,-121.49587,16z>, <http://amadortransit.com/site/pages/home.cgi>, <http://www.yubasuttertransit.com/>.



Source: Kittelson & Associates, Inc. 2014

Figure 4.11-4

Pedestrian and Bicycle Infrastructure

**Table 4.11-4
Pedestrian and Bicycle Volume at the Study Intersections**

Intersection Numbers	North-South Cross Street	East-West Cross Street	Control	AM Peak Hour		PM Peak Hour	
				Pedestrian Activity*	Bicycle Activity*	Pedestrian Activity*	Bicycle Activity*
1	4th St	O St	TWSC	80	2	86	7
2	5th St	N St	Signalized	302	25	413	23
3	5th St	O St	TWSC	168	21	199	17
4	5th St	P St	Signalized	236	19**	248	17
5	6th St	P St	TWSC	86	16	96	5
6	6th St	Q St	TWSC	61	5	72	12
7	6th St	R St	TWSC	51	31	57	41
8	7th St	N St	Signalized	347	13	360	35
9	7th St	O St	None	260	8	220	20
10	7th St	P St	Signalized	146	26	191	34
11	7th St	Q St	Signalized	136	4	139	27
12	7th St	R St	TWSC	70	21	64	54
13	8th St	O St	Signalized	519	29	537	14

Notes: TWSC = two-way stop-controlled

* Pedestrian and bicycle activity represent total number using the intersection during the peak hour.

**Count estimated from nearby intersections

Intersection turn movement counts collected in May 2013 and April 2014

Source: Kittelson & Associates, Inc. 2014a

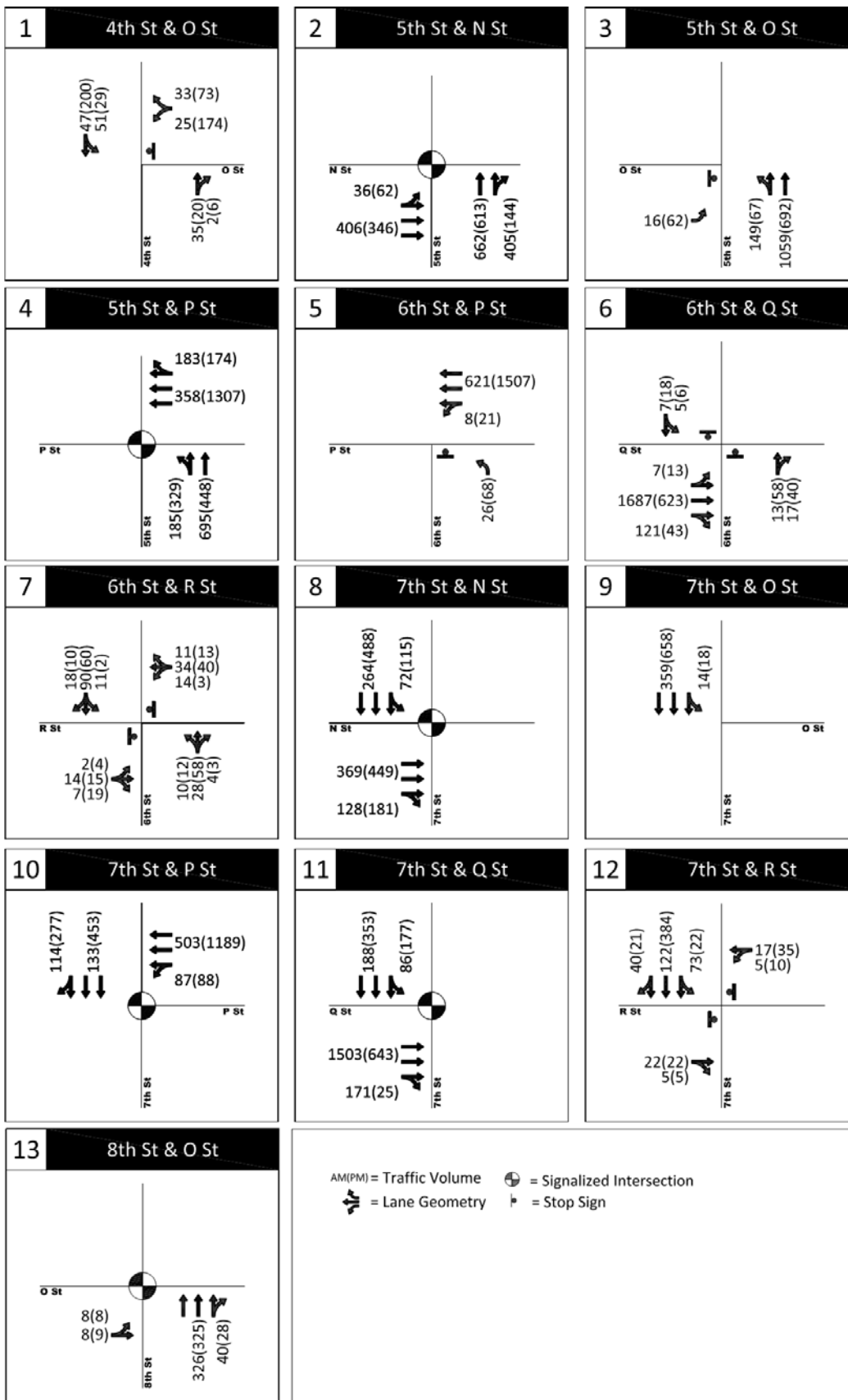
AUTOMOBILE VOLUMES

Vehicle volumes at 11 of the 13 study intersections were collected on Tuesday, April 8, 2014.⁹ The P Street intersections with 5th Street and 7th Street were obtained from Sacramento Entertainment and Sports Center & Related Development Draft EIR.¹⁰ Most counts for this prior Draft EIR were collected in May of 2013. The City has determined that there was no traffic growth between May 2013 and April 2014. Therefore, the Draft EIR turn movement counts are still applicable.

Figure 4.11-5 illustrates the vehicle volumes, lane configurations, and intersection control types for 13 study intersections under Existing Conditions. The remaining seven study intersections are project-specific intersections (access driveways) and were analyzed under the Existing Plus Project scenarios.

⁹ Please see Appendix H of this EIR, which itself has technical appendices, including Appendix A, which details the field-collected counts.

¹⁰ Sacramento Entertainment and Sports Center & Related Development Draft Environmental Impact Report, December 2013. Report states: "traffic counts were collected at the majority of the study intersections in May 2013. At some locations during the AM peak hour, counts taken in 2011 were used."



Source: Kittelson & Associates, Inc. 2014; adapted by AECOM in 2014

Figure 4.11-5 Existing Conditions—Volume, Lane Configuration, and Intersection Control

Based on existing vehicle volumes, lane configurations, and intersection control types, a Highway Capacity Manual (HCM) 2010 analysis was performed. This type of analysis is based on the concept of level of service (LOS) and delay to motorists at intersections. Table 4.11-5 shows the intersection LOS criteria for signalized and unsignalized intersection according to the HCM 2010.

Table 4.11-5 Intersection Levels of Service Criteria from the Highway Capacity Manual 2010			
LOS	Average Delay (sec/veh)		Description
	Signalized	Unsignalized	
A	≤ 10.0	≤ 10.0	Very Low Delay: This occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all.
B	>10.0 & ≤20.0	>10.0 & ≤15.0	Minimal Delays: This generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	>20.0 & ≤35.0	>15.0 & ≤25.0	Acceptable Delay: Delay increases due to only fair progression, longer cycle lengths, or both. Individual cycle failures (<i>to service all waiting vehicles</i>) may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	>35.0 & ≤55.0	>25.0 & ≤35.0	Approaching Unstable/Tolerable Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	>55.0 & ≤80.0	>35.0 & ≤50.0	Unstable Operation/Significant Delays: These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
F	>80.0	>50.0	Excessive Delays: This level, considered to be unacceptable to most drivers, often occurs with oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.
Notes: LOS = level of service; sec/veh = seconds per vehicle; v/c = volume-to-capacity Source: <i>Highway Capacity Manual</i> , Transportation Research Board, Washington D.C, 2010			

Levels of service under Existing Conditions are shown in Table 4.11-6. Analysis worksheets are included in Appendix H of this EIR. As this table shows, each of the study intersections has an overall level-of-service (LOS) of LOS B or better. The LOS for the worst approach was found to be LOS C or better for the unsignalized intersections. For the analysis purposes, the overall LOS (rather than worst approach) determines the project impacts.

Table 4.11-6 Levels of Service for Existing Conditions							
#	North-South Cross Street	East-West Cross Street	Control	Existing A.M.		Existing P.M.	
				Delay	LOS	Delay	LOS
1	4th St	O St	TWSC	4.9 (9.7)	A (A)	6.7 (12.7)	A (B)
2	5th St	N St	Signalized	19.2	B	14.7	B
3	5th St	O St	TWSC	1.9 (24.9)	A (C)	2 (15.2)	A (C)
4	5th St	P St	Signalized	14.7	B	18.7	B
5	6th St	P St	TWSC	0.5 (10.6)	A (B)	1 (16.6)	A (C)
6	6th St	Q St	TWSC	0.4 (22.3)	A (C)	1.6 (13.0)	A (B)
7	6th St	R St	TWSC	4.2 (10.5)	A (B)	4.5 (10.6)	A (B)
8	7th St	N St	Signalized	7.2	A	7.5	A
9	7th St	O St	None	0.0*	A*	0.0*	A*
10	7th St	P St	Signalized	9.7	A	12.3	B
11	7th St	Q St	Signalized	15.9	B	12.3	B
12	7th St	R St	TWSC	0.9 (9.8)	A (A)	0.6 (10.7)	A (B)
13	8th St	O St	Signalized	5.1	A	4.9	A

Notes: LOS = level of service; TWSC = two-way stop-controlled
Highway Capacity Manual 2010 Methodology
Control delays for two-way stop controlled (TWSC) intersections are presented as follows: Average (Worst Approach)
* O Street between 7th and 9th Streets is one-way eastbound, therefore, there is no intersection delay at 7th Street and O Street.
Source: Kittelson & Associates, Inc. 2014a

4.11.4 REGULATORY SETTING

FEDERAL

There are no federal transportation or traffic regulations that apply to the project.

STATE

Under California Senate Bill 375, projects that are determined to be consistent with the Sustainable Communities Strategy (SCS) and meet the definition of a Transit Priority Project (TPP) are granted certain CEQA streamlining benefits.¹¹ On December 8th, 2014, based on the MTP/SCS Consistency Determination Worksheet prepared by City staff, SACOG submitted a letter concluding the proposed project is consistent with the SCS (see Appendix A). As a TPP (see Section 4.0 of this EIR for discussion of TPP criteria) consistent with the SCS, this EIR is not required to discuss growth-inducing impacts, or any project-specific or cumulative impacts from cars and light-duty truck trips on global warming, or on the regional transportation network (Public Resources Code Section 21159.28[a]). In

¹¹ A TPP is a project that: (1) contains at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75; (2) provide a minimum net density of at least 20 dwelling units per acre; and (3) is located within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan (Public Resources Code Section 21155[b]).

this context, the “regional transportation network” means roadways that are of importance at a state level.¹²

In SACOG’s MTP/SCS, there are different “community types” that share certain land use, urban design, and transportation characteristics. The project site is located in a “Center and Corridor” Community Type, according to the MTP/SCS. According to SACOG, the project has benefits related to transportation that are a product of the location of the project site. Namely:

“Sacramento Commons project location has two locational attributes which are beneficial in terms of land use/transportation interactions, and achieving regional goals of reducing vehicle miles traveled (VMT), passenger vehicle greenhouse gases (GHG), and increasing the utilization and productivity of transit services:

- The project site is located in a “Center/Corridor” community type
- The project site is located in close proximity to the Sacramento Central Business District employment center.

Center/Corridor community areas are characterized by higher intensity development, greater accessibility to employment and services, and in general, better transit service and pedestrian/bike amenities than other community types (see pp.76-79 and Tables 5A.1 and 5A.2 in the 2012 MTP/SCS report). Because of these characteristics, residents of Center/Corridor community areas:

- Generate 29 percent less [vehicle miles traveled] VMT per capita than average; and
- Are more than twice as many person trips by transit, walk, or bicycle modes than average.

The Sacramento Commons project site is located within the downtown Sacramento employment center. This employment center is both the largest, and most imbalanced, employment center in the region. The 2012 MTP/SCS envisioned a development pattern that would improve the jobs/housing balance in the downtown Sacramento employment center, in large measure by adding new residences either within or in close proximity to the center. Table 3.12 of the 2012 MTP/SCS shows that the Downtown Sacramento employment center goes from a jobs/housing ratio of 2.25 to 2.00, moving significantly toward a balanced ratio of 1.2. By adding housing in this location, the proposed project will provide housing options, which allow for shorter commutes, and more commutes by biking, walking and transit” (SACOG 2014).

¹² Specifically, Public Resources Code section 21159.28(c) defines the “regional transportation network” to include “all existing and proposed transportation system improvements, including the state transportation system, that were included in the transportation and air quality conformity modeling, including congestion modeling, for the final regional transportation plan adopted by the metropolitan planning organization, but shall not include local streets and roads.” (See also 2030 General Plan, Figure M 2B [identifying street classifications in Sacramento’s Core Area]; California Dept. of Transportation, California Road System Maps, Maps 6J35, 7J21, and 7J31 [identifying street classifications recognized by the State in the Downtown Sacramento area]). Please refer to Section 4.0 of this EIR, which provides extensive detail on the project and project site characteristics relative to TPP criteria.

LOCAL

Sacramento 2030 General Plan

The *Mobility Element* of the City of Sacramento's *2030 General Plan* outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following policies are relevant to this study:

- ▶ **Policy M 1.2.2 LOS Standard.** The City shall allow for flexible Level of Service (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.
 - a. Core Area Level of Service Exemption—LOS F conditions are acceptable during peak hours in the Core Area bounded by C Street, the Sacramento River, 30th Street, and X Street. If a Traffic Study is prepared and identifies a LOS impact that would otherwise be considered significant to a roadway or intersection that is in the Core Area as described above, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to road segments in order to conform to the General Plan. This exemption does not affect the implementation of previously approved roadway and intersection improvements identified for the Railyards or River District planning areas.

The *Mobility Element of the City of Sacramento's 2030 General Plan* also includes the following policies related to connectivity, walking, biking, transit, and parking that are relevant to this study:

- ▶ **Policy M 2.1.1 Pedestrian Master Plan.** The City shall maintain and implement a Pedestrian Master Plan that carries out the goals and policies of the General Plan and defines: the type and location of pedestrian-oriented streets and pathways; standards for sidewalk width, improvements, amenities, and street crossings; the schedule for public improvements; and developer responsibilities. All new development shall be consistent with the provisions of the Pedestrian Master Plan.
- ▶ **Policy M 2.1.5 Continuous Network.** The City shall provide a continuous pedestrian network in existing and new neighborhoods that facilitates convenient pedestrian travel free of major impediments and obstacles.
- ▶ **Policy M 2.1.6. Building Design.** The City shall ensure that new buildings are designed to engage the street and encourage walking through design features such as placing the building with entrances facing the street and providing connections to sidewalks.

- ▶ **Policy M 2.1.7 Parking Facility Design.** The City shall ensure that new automobile parking facilities are designed to facilitate safe and convenient pedestrian access, including clearly defined corridors and walkways connecting parking areas with buildings.
- ▶ **Policy M 3.1.1 Transit for All.** The City shall support a well-designed transit system that meets the transportation needs of Sacramento residents and visitors including seniors, the disabled, and transit-dependent persons. The City shall enhance bicycle and pedestrian access to stations.
- ▶ **Policy M 4.3.1 Neighborhood Traffic Management.** The City shall continue wherever possible to design streets and improve development applications in such a manner as to reduce high traffic flows and parking problems within residential neighborhoods.
- ▶ **Policy M 5.1.1 Bikeway Master Plan.** All proposed bikeway facilities shall be consistent with the applicable provisions of the Bikeway Master Plan.
- ▶ **Policy M 5.1.2 Appropriate Bikeway Facilities.** All proposed bikeway facilities are appropriate to the street classifications and types, traffic volume, and speed on applicable rights-of-way.
- ▶ **Policy M 5.1.4 Motorists, Bicyclists, and Pedestrian Conflicts.** The proposed project shall not result in conflicts between bicyclists and motor vehicles on streets, and bicyclists and pedestrians on multi-use trails and sidewalks.
- ▶ **Policy M 6.1.1 Appropriate Parking.** The City shall ensure that appropriate parking is provided, considering access to existing and funded transit, shared parking opportunities for mixed-use development, and implementation of Transportation Demand Management plans.

Sacramento 2035 General Plan

The proposed project was initiated when the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan Update sometime in early 2015. As of the writing of this document, the 2035 General Plan is in draft form. The City has identified the following relevant new Mobility Element policies to be added to the 2035 General Plan (City of Sacramento 2014):

- ▶ **Policy M 3.1.20 City Defined Transit Infrastructure and Services.** The City shall work with transit operators toward delivery of public transit facilities and services that are aligned with the City's priorities consistent with the goals and policies of the General Plan.
- ▶ **Policy M 4.4.2 Transportation Performance Metrics.** The City shall apply appropriate transportation performance metrics and thresholds in a manner consistent with State law and the community values expressed in the goals and policies of this general plan when measuring transportation system impacts for subsequent projects, making General Plan consistency determinations, and developing transportation financing programs.
- ▶ **Policy M 5.1.3 Continuous Bikeway Network.** The City shall provide a continuous bikeway network consisting of bike-friendly facilities connecting residential neighborhoods with key

destinations and activity centers (e.g., transit facilities, shopping areas, education institutions, employment centers).

- ▶ **Policy M 9.1.5 Fair Share for Transportation Infrastructure Improvements.** The City shall require all new development to dedicate right-of-way, construct facilities, or pay its fair share for needed transportation infrastructure improvements that support all travel modes, including pedestrian, bicycle, and transit facilities, roadway improvements, and transportation demand management (TDM) programs and services.

In addition to the above described changes, Policy M 1.2.2 has been changed to allow LOS F in the “Core Area” (identified in the text as the Central City Community Plan Area) and the “Priority Investment Area” (identified in Figure M1 as “Tier 1 Priority Investment Area”). Both of these areas include the project site. The revised LOS policy does not require improvements to other parts of the citywide transportation system. Relevant portions of this policy are included below.

- ▶ **Policy M 1.2.2 Level of Service (LOS) Standard.** The City shall implement a flexible context sensitive Level of Service (LOS) standard, and will measure traffic operations against the vehicle LOS thresholds established in this policy. The City will measure Vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City’s specific vehicle LOS thresholds have been defined based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints. As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City’s diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday AM and PM peak hour conditions with the following exceptions described below and mapped on Figure M-1.
 - A. Core Area (Central City Community Plan Area) - LOS F allowed
 - B. Priority Investment Areas – LOS F allowed

Pedestrian Master Plan

The City’s *Pedestrian Master Plan* (2006) provides a comprehensive vision for improving pedestrian conditions. The purpose is to make Sacramento a model pedestrian-friendly city—the “Walking Capital.” The goals of the plan fall into the following three categories:

- ▶ Create a walkable pedestrian environment throughout the city;
- ▶ Improve awareness of the pedestrian mode through education; and
- ▶ Increase pedestrian safety.

The 2010 Sacramento City/County Bikeway Master Plan

The *2010 Sacramento City/County Bicycle Master Plan* is a joint document between Sacramento County and the City of Sacramento (County and City of Sacramento 2011). It identifies existing and proposed bicycle facilities and improvements, as well as goals and policies related to bicycling. The overarching purpose of the improvements, policies and programs identified in the document is to

enhance the safety, comfort, convenience and experience of bicycling for the full range of potential bicyclists. The goals and supporting policies are organized into the following categories:

- ▶ Increase bicycle use;
- ▶ Reduce bicycle collisions and injuries;
- ▶ Increase the total number of bicycle facilities; and
- ▶ Ensure proportionate funding for bicycle facilities and improvements.

Sacramento City Code Sections 12.20.020 and 12.020.030

Section 12.20.020 of the Sacramento City Code requires preparation and approval of a traffic control plan if any nonemergency work would obstruct vehicular or pedestrian traffic. The requirements for the plan's contents are detailed in Section 12.20.030 and include a diagram of the work area, the locations of public right-of-way obstructions, the time periods of traffic controls, and a statement of compliance with the City's noise ordinance.

City of Sacramento Design Standards

The City maintains standard specifications for construction of streets which are required to be adhered to for projects within the City limits and designed, in part, to protect the public safety in the context of new improvements (City of Sacramento 2007, 2012). The City's *Pedestrian Friendly Street Standards* (adopted in 2004) are included in the City's Design and Procedure Manual, Section 15- Street Design Standards (July 2009).

Sacramento Regional Transit

Sacramento Regional Transit (RT) maintains transit plans that address operations, finance, service expansions, and other topics. As addressed in the 2014 Short Range Transit Plan, RT plans to provide streetcar service that would benefit residents, employees, and visitors of the vicinity of the project site (Sacramento Regional Transit 2014). The Sacramento Area Council of Governments (SACOG) has partnered with the City of Sacramento, the City of West Sacramento, Yolo County Transportation District, RT, and the California Department of Transportation to plan and develop the Downtown / Riverfront Corridor streetcar project connecting West Sacramento and Sacramento. The proposed 3.3-mile streetcar alignment would extend from the West Sacramento Civic Center to the Midtown entertainment and retail district in the City of Sacramento. The route would use West Capitol Avenue in West Sacramento, the Tower Bridge, and 3rd, H, 7th, K, J, 19th, and L Streets in downtown and midtown Sacramento. A Streetcar Assessment District is being proposed to assist in funding construction and operation of the streetcar project. The project site is located in Zone 3 of the proposed Streetcar Assessment District due to the proximity of the project site to the proposed streetcar project and anticipated streetcar ridership generated by residents of, and guests visiting, the project site.

4.11.5 IMPACTS AND MITIGATION

The potential transportation-related impacts of the proposed project are based on applicable significance criteria. Mitigation measures necessary to reduce the significant impacts are also identified. Impact analysis was performed for the Existing Plus Project conditions for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario and compared to Existing Conditions. Similarly, an impact

analysis was performed for the Cumulative Plus Project for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario by comparing the results from those scenarios to the Cumulative 2035 No Project Conditions.

METHODS OF ANALYSIS

Intersections

The most recent version of the Highway Capacity Manual (2010), as implemented by the Synchro 8 traffic analysis software, was used to determine automobile delay and level of service (LOS) at the study intersections. For unsignalized intersections both the average and worst approach delay and LOS are reported.

For Existing Conditions (2014) analyses, current signal timings are used in conjunction with field-collected pedestrian volumes, and field-collected bicycle volumes. For Cumulative 2035 No Project Conditions and Cumulative 2035 Plus Project analyses, current signal timings are assumed to still be in use.

The most recent California version of the Manual for Uniform Traffic Control Devices (CA MUTCD 2012) was used to determine whether unsignalized intersections meet the peak-hour signal warrant. Non-signalized intersections shown to trigger the peak hour (Warrant 3) MUTCD signal warrant are highlighted in this analysis for discussion purposes. However, the decision to install a traffic signal should not be based solely upon a single warrant. Delay, congestion, driver confusion, future land use or other evidence for right-of-way assignment beyond that provided by stop controls must be demonstrated.

Warrant 3 addresses peak-hour traffic volume levels above which a traffic signal may be warranted. The satisfaction of a traffic signal warrant shall not in itself require the installation of a traffic control signal according to the California MUTCD. If installed, traffic signals tend to reduce the potential for right-angle type collisions but also tend to increase the potential for less severe rear-end collisions. Signal warrant peak-hour volumes represent the threshold point at which the potential for more rear-end collisions is offset by the potential for fewer more severe right-angle collisions. The data needed to perform these warrant analyses were the peak hour traffic counts, described in Appendix H.

Trip Generation

Trip generation for Sacramento Commons is based on information compiled by the Institute of Transportation Engineers (*Trip Generation Manual, 9th Edition, 2012* and *Trip Generation Manual User's Guide and Handbook, 9th Edition, 2012*), the travel mode shares from the travel survey at the existing Capitol Towers apartment building (conducted in February 2008 and March 2008 at the site), and the *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG House Travel Survey* (DKS, 2001).

Travel Behavior at Existing Capitol Towers Apartments

The February/March 2008 Capitol Towers Travel Survey was a voluntary survey in which residents of Capitol Towers participated. The survey asked participants to record all trips they took on the most

recent weekday between 6:00 to 9:00 AM and 4:00 to 6:00 PM. Forms were filled out for each member of the household. Trip characteristics that were recorded include information such as departure and arrival times, mode of transportation (e.g., walk, walk to transit, car, bike), trip purpose, destination, and number of times the trip is typically made during the work week (i.e., Monday through Friday). From this information, the transit and walk shares for the Capitol Towers were calculated for the weekday a.m. and p.m. peak periods. This travel survey is still valid today because the downtown area within the project vicinity still has a similar set of land uses and the transit options remain unchanged. Appendix H contains a summary of the travel survey. Appendix H contains a summary of the travel survey.

2000 SACOG Household Travel Survey

The 2000 SACOG Household Survey was a detailed survey conducted in Spring 2000 of the entire Sacramento region (see <http://www.sacog.org/publications/travelsurvey.pdf> for more detail). The trip generation memorandum submitted by Kittelson & Associates, Inc. to the City of Sacramento as part of this study details how the SACOG Household Travel Survey was used to calculate adjustments for non-auto mode choice to the trip generation. The trip generation memorandum is included in Appendix H.

ITE Trip Generation and Land Use Assumptions

Kittelson & Associates calculated trip generation estimates for two proposed land use scenarios, as noted above: the Hotel / Condo / Retail Scenario and the Condo / Retail Scenario. Both scenarios include replacing the 206 low-rise garden apartments, while maintaining the existing Capitol Towers building that consists of 203 high-rise apartments and 4,122 square feet of neighborhood convenience retail space. The following summarizes the land uses used from the ITE Trip Generation Manual to estimate the automobile trips for the proposed project.

- ▶ **Neighborhood Support / Retail (Parcel 1, 2A, 2B, 3 and 4A – see Figure 2-3):** ITE Trip Generation Land Use 820 for a shopping center; it is a conservative estimate given that specific types of retail is not known at this time (Kittelson 2014b).¹³
- ▶ **High-Rise Apartments (Parcel 1 and Parcel 3 – see Figure 2-3):** ITE Trip Generation Land Use 222, which is applicable to apartments in buildings with more than 10 levels.
- ▶ **Mid-Rise Apartments (Parcel 2A, 2B and 4B – see Figure 2-3):** ITE Trip Generation Land Use 223, which is applicable to apartments in buildings that have between 3 and 10 levels. The ITE Trip Generation Manual does not include a weekday daily trip estimate for mid-rise apartments; therefore, to estimate the daily trips for the mid-rise apartments, ITE Trip Generation Land Use 221 for low-rise apartments was used. The low-rise apartment land use provides a more conservative estimate for daily trips than the high-rise apartment land use.

¹³ As described in Chapter 2 of this EIR, the project proposes neighborhood support space as a part of the total non-residential square footage. Neighborhood support space would consist of amenities for residents and their guests and may include uses such as, a gym, spa, meeting spaces, active room, and other similar uses. Neighborhood support uses would account for a minimum of 30% of the total proposed neighborhood support / retail area and since these uses would be for residents of the project site, there would be no associated trip generation. However, the trip generation analysis for this EIR section uses the total new non-residential square footage, and assumes all of this building square footage is for "shopping center" use, as characterized in ITE Manual. Therefore, the findings are conservative.

- ▶ **Live-Work Units (Parcel 1, 2A, 2B, 3, and 4B – see Figure 2-3):** Live-work units were included as part of the residential trip generation numbers. These units are expected to house artists or incubator businesses where the decrease in trips due to residents working at home is expected to be similar to the number of clients visiting the unit. Therefore, trip generation for these units can be accounted for using the residential land use category.
- ▶ **Hotel (Parcel 3 in Figure 2-3 for the Hotel Scenario):** ITE Trip Generation Land Use 310 directly applicable to hotels providing sleeping accommodations and supporting facilities (e.g., restaurants, retail, service shops).

The total automobile trip generation estimates for the proposed project were calculated as the automobile trips generated by the proposed project minus the existing trips generated by the existing land uses to be replaced at the project site. The following section discusses the trip generation adjustments made to account for transit use, walking, biking and internal trips.

Trip Generation Adjustments

Adjustments were applied to the ITE trip generation rates to account for:

- ▶ High transit ridership;
- ▶ High levels of walking and bicycle use within the highly urbanized project setting; and
- ▶ The interaction of travel among the mixture of land uses within the project.

Details on these adjustments can be found in the Capitol Towers resident survey data included as Appendix H and the trip generation memorandum included as Appendix H. The rest of this section provides only an overview of the adjustment process.

Adjustments for Transit Trips

The transit trip reduction for the retail component of the proposed project was assumed to be 2.2 percent of the total number of trips based on transit shares from the *Pre-Census Travel Behavior Report* for downtown and Sacramento for work-trips and non-work trips, assuming 7% percent of retail trips would be employees making a work trip on transit.

The transit trip reduction for the residential component of the proposed project was assumed to be 4.9% of the total number of daily trips, 4.2% for a.m. peak hour, and 5.3% for the p.m. peak hour. As described in the section above, these are based on the transit shares from the Capitol Towers Travel Survey (see Appendix H).

Trip Adjustments for Walk, Bike, and Other Non-Auto Travel

A similar process was used to develop adjustments for higher use of walk, bike, and other non-auto travel (hereinafter referred to as “walk trips”). The walk trip reduction for the retail component of the proposed project was assumed to be 11.6% of the total number of trips, based on data from the *Pre-Census Travel Behavior Report*.

The walk trip reduction for the residential component of the proposed project was assumed to be 38.9% of the total number of daily trips (the walk trip reduction was 40% during the a.m. peak hour and 38.8% during the p.m. peak hour). These adjustments to residential trips were based on the differences between walk shares from the survey of Capitol Towers residents and the walk shares from the *Pre-Census Travel Behavior Report*. The walk share of total daily trips from the Capitol Towers Travel Survey was assumed to be 44.5% (the average of the 45% AM walk share and the 44% PM peak-hour walk share).

Internal Trip Adjustments

After the adjustments were made for transit, walk, bike, and other non-auto travel, an adjustment was made to account for internal trips between different types of land uses within each parcel within the proposed project. The internal trip adjustments were performed using procedures recommended by the Institute of Transportation Engineers for multi-use developments (*Trip Generation Handbook*, 2012). Internal trips are trips that would occur between different land uses within the same site without accessing the street system. The worksheets in Appendix H titled “*Trips Among All Parcels*” summarize these trip calculations.

The project is expected to have a minimal amount of vehicle pass-by trips.¹⁴ Given the small number of these trip types, no pass-by trips were assumed for retail uses in the analysis in order to provide a more conservative analysis.

Table 4.11-7A and Table 4.11-7B summarize the automobile trip generation results for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario, respectively. Detailed, parcel-by-parcel summary and worksheet calculations are contained in Appendix H. As discussed in the December 19, 2014 Memorandum by Kittleson & Associates, Inc., the traffic analysis assumed build-out of 1,219 residential units, a 320 room hotel and 65,000 square feet of retail and support services for the Hotel / Condo / Retail Scenario and 1,319 residential units and 61,000 square feet of retail and support services for the Condo / Retail Scenario (Kittleson & Associates 2014b, pp. 1-11). The residential density and land uses assumed in the Kittleson & Associates, Inc. Traffic Analysis would generate a higher number of vehicle trips as compared to the proposed project scenarios as revised in October of 2014. Therefore, the Kittleson & Associates, Inc. Traffic Analysis provides a conservative approach in determining traffic impacts (Appendix H). Table 4.11-8 compares the project land use as analyzed in the traffic analysis and the proposed project. For more details about the information provided in in Table 4.11-8, please see Tables 1 through 4 in Appendix H.

¹⁴ A pass-by trip is a project trip that is already on the streets adjacent to the project prior to construction. These trips will visit the project site but will only impact project driveways and not nearby intersections since they are already accounted for in traffic data collected for existing conditions.

Land Use	Size	Units	Weekday	A.M. Peak Hour			P.M. Peak Hour		
				In	Out	Total	In	Out	Total
Retail (Shopping Center, ITE 820)	65.0	KSF	7,734	118	73	191	316	343	659
Hotel (ITE 310)	320	Rooms	2,491	100	70	170	98	94	192
Mid-rise Apartment (Includes Live/Work, ITE 223 and 221)	533	Units	3,891	55	124	179	128	94	222
High-rise Apartment (Includes Live/Work, ITE 222)	686	Units	3,000	52	155	207	149	95	244
Total Project Trips			17,116	325	422	747	691	626	1317
Transit Adjustments (-3.7%) ¹			-629	-13	-16	-29	-26	-25	-51
Walk, Bike & Other Non-Auto Travel Adjustments (-26.6%) ¹			-4,548	-97	-149	-246	-180	-151	-331
Internal Trips Within This Site (-7.8%) ¹			-1,334	-17	-17	-34	-60	-60	-120
Total External Automobile Trips for New Project			10,605	198	240	438	425	390	815
External Automobile Trips for Existing Land Uses			-1,358	-28	-100	-128	-98	-52	-150
Net New External Automobile Trips²			9,247	170	140	310	327	338	665

Notes: ITE = Institute of Transportation Engineers; KSF = thousand square feet.
¹ The percentages shown are calculated as the sum of the transit, walk or internal trips per parcel divided by the total project trips for the parcels.
² Net New External Automobile Trips is the Total External Automobile Trips for the New Project minus (or plus the negative value of) the External Automobile for the Existing Land Uses to be replaced by the Proposed Project.
Source: Kittelson & Associates 2014a

Land Use	Size	Units	Weekday	A.M. Peak Hour			P.M. Peak Hour		
				In	Out	Total	In	Out	Total
Retail (Shopping Center, ITE 820)	61.0	KSF	7,465	115	70	185	304	331	635
Mid-rise Apartment (Includes Live/Work, ITE 223 and 221)	533	Units	3,891	55	124	179	128	94	222
High-rise Apartment (Includes Live/Work, ITE 222)	786	Units	3,422	59	178	237	168	108	276
Total Project Trips			14,778	229	372	601	600	533	1,133
Transit Adjustments (-3.6%) ¹			-522	-9	-14	-23	-22	-20	-42
Walk, Bike & Other Non-Auto Travel Adjustments (-25.9%) ¹			-3,712	-59	-130	-189	-149	-118	-267
Internal Trips Within This Site (-8.2%) ¹			-1,286	-17	-17	-34	-54	-54	-108
Total External Automobile Trips for New Project			9,258	144	211	355	371	337	708
External Automobile Trips for Existing Land Uses			-1,358	-28	-100	-128	-98	-52	-150
Net New External Automobile Trips²			7,900	116	111	227	273	285	558

Notes: ITE = Institute of Transportation Engineers; KSF = thousand square feet.
¹ The percentages shown are calculated as the sum of the transit, walk, or internal trips per parcel divided by the total project trips for the parcels.
² Net New External Automobile Trips is a sum of the Total External Automobile Trips for New Project and the External Automobile Trips for Existing Land Uses to be replaced by the proposed project.
Source: Kittelson & Associates 2014

Table 4.11-8 Project Land Use and Trip Generation Analyzed in the Traffic Study Compared to Proposed Project							
Analyzed Project				Proposed Project			
Land Use	Size	Units	Weekday ADT	Land Use	Size	Units	Weekday ADT
Hotel Scenario				Hotel / Condo / Retail Scenario			
Retail	65	KSF	7,734	Retail	70	KSF	8,055
Hotel	320	Rooms	2,491	Hotel	300	rooms	2,312
Mid-Rise Apartments	533	Units	3,891	Mid-Rise Apartments	495	Units	3,697
High-Rise Apartments	686	Units	3,000	High-Rise Apartments	676	Units	2,955
Total Project Trips			17,116	Total Project Trips			17,019
Net New External Trips	(Removing walk, bike, other non-auto, internal trips)		9,247	Total Trips	(Removing walk, bike, other non-auto, internal trips)		9,236
No Hotel Scenario				Condo / Retail Scenario			
Retail	61	KSF	7,465	Retail	52	KSF	6,803
Mid-Rise Apartments	533	Units	3,891	Mid-Rise Apartments	495	Units	3,697
High-Rise Apartments	786	Units	3,422	High-Rise Apartments	772	Units	3,365
Total Project Trips			14,778	Total Project Trips			13,895
Net New External Trips	(Removing walk, bike, other non-auto, internal trips)		7,900	Net New External Trips	(Removing walk, bike, other non-auto, internal trips)		7,301
Note: ADT: Average Daily Traffic (vehicles per Day) Source: Kittleson & Associates 2014a and 2014b.							

Table 4.11-9 and Table 4.11-10 present the net new transit trip generation for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario, respectively. See Appendix H.

Trip Distribution and Assignment

The expected distribution of vehicle trips associated with the proposed project in the study area was derived from the SACMET travel demand model, the layout of the proposed site, and the proposed driveway access locations. The land use for the traffic model zones, within which the project site is located, was altered to better define the proposed project's land use. Figure 4.11-6 and Figure 4.11-7 show the project only volumes at the study intersections for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario, respectively.

Table 4.11-9 Net New Transit Trip Generation Summary for Proposed Project, Hotel / Condo / Retail Scenario							
City Block	New Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Parcel 1							
Proposed Project Transit Trips – Accounts for base increase and downtown location increase	198	3	7	10	10	8	18
Existing Transit Trips of Land Uses to be Removed	-25	0	-2	-2	-1	-1	-2
Net New Transit Trips for Parcel 1	173	3	5	8	9	7	16
Parcel 2A							
Proposed Project Transit Trips – Accounts for base increase and downtown location increase	113	2	3	5	4	4	8
Existing Transit Trips of Land Uses to be Removed	-12	0	-1	-1	-1	0	-1
Net New Transit Trips for Parcel 2A	101	2	2	4	3	4	7
Parcel 2B							
Proposed Project Transit Trips – Accounts for base increase and downtown location increase	113	2	3	5	4	4	8
Existing Transit Trips of Land Uses to be Removed	-12	0	-1	-1	-1	0	-1
Net New Transit Trips for Parcel 2B	101	2	2	4	3	4	7
Parcel 3, 4A, and 4B							
Proposed Project Transit Trips – Accounts for base increase and downtown location increase	294	7	6	13	11	11	22
Existing Transit Trips of Land Uses to be Removed	-25	0	-2	-2	-1	-1	-2
Net New Transit Trips for Parcel 3, 4A, and 4B	269	7	4	11	10	10	20
Entire Site Net New Transit Trips	644	14	13	27	25	25	50
See Appendix H (Appendix C & D for the transit trip calculations methodology). See also the Kittelson & Associates, Inc. December 2014 Trip Generation Comparison and Site Plan Review Memorandum for further discussion of trip generation and distribution characteristics for the Hotel / Condo / Retail Scenario as revised in October of 2014 (Appendix H).							
Source: Kittelson & Associates, Inc. 2014a							

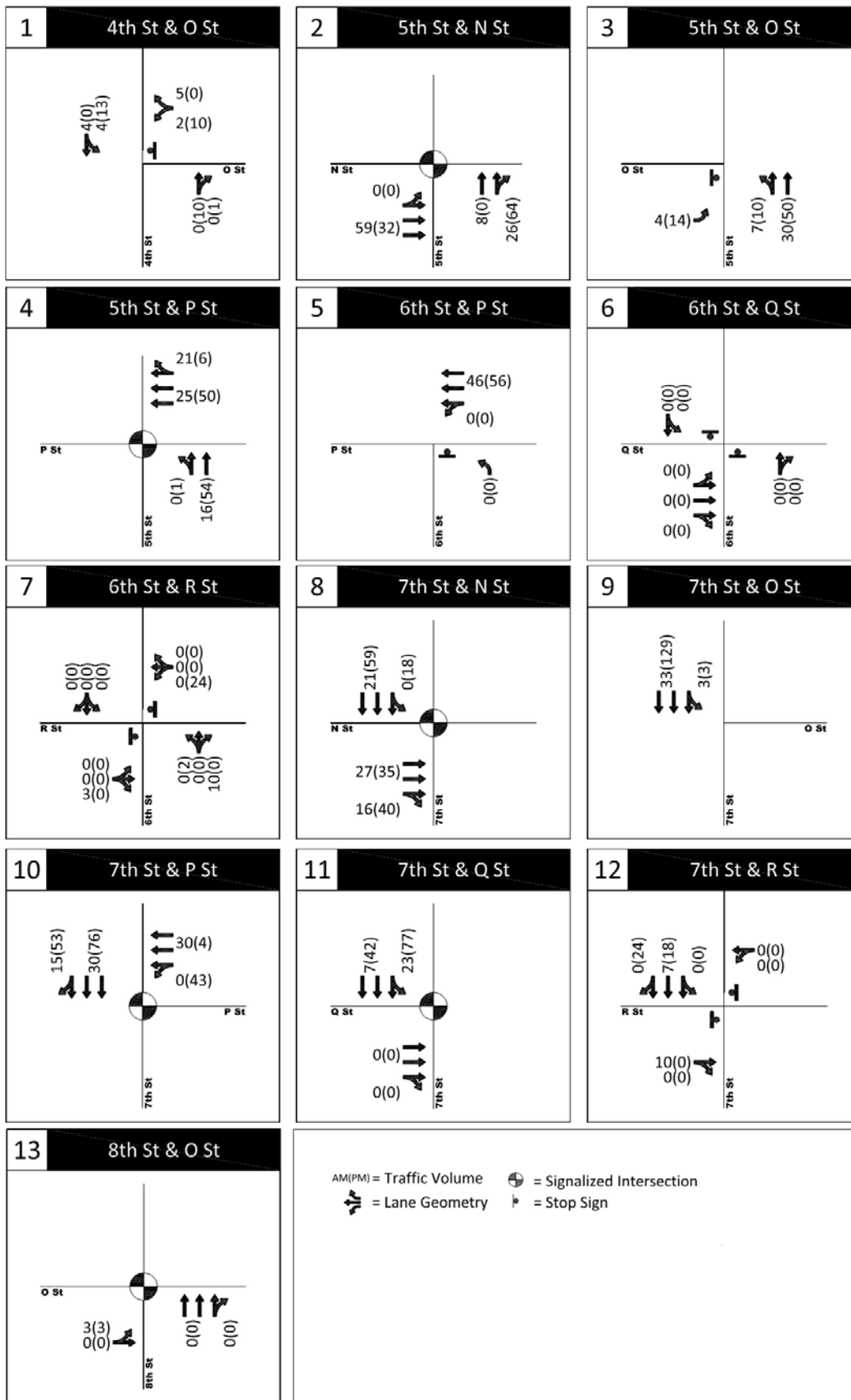
The trip distribution for the proposed project as revised in October of 2014 would remain the same as analyzed in the Kittelson & Associates, Inc. Traffic Analysis because the land use types included in the proposed project remain the same and the proposed project includes no new changes to the vehicle circulation system. Figure 4.11-8 shows the AM and PM peak-hour trip distribution percentages for project trips within the City of Sacramento. Trip distribution percentages for both the Hotel / Condo / Retail and Condo / Retail scenarios were found to be similar. This is due in part to the one-way street network in downtown Sacramento that limits the number of different routes from which motorists can choose. In addition, the proposed project is not anticipated to change the distribution of traffic within the existing network. Therefore, Figure 4.11-9 is representative of both scenarios.

The plus project volumes (shown in Figure 4.11-10, Figure 4.11-11, Figure 4.11-12, and Figure 4.11-13) do consider changes in background traffic, as well as the project trips obtained from the distribution of the trip generation results.

Raw model plots for trip distribution/assignment are contained in Appendix H.

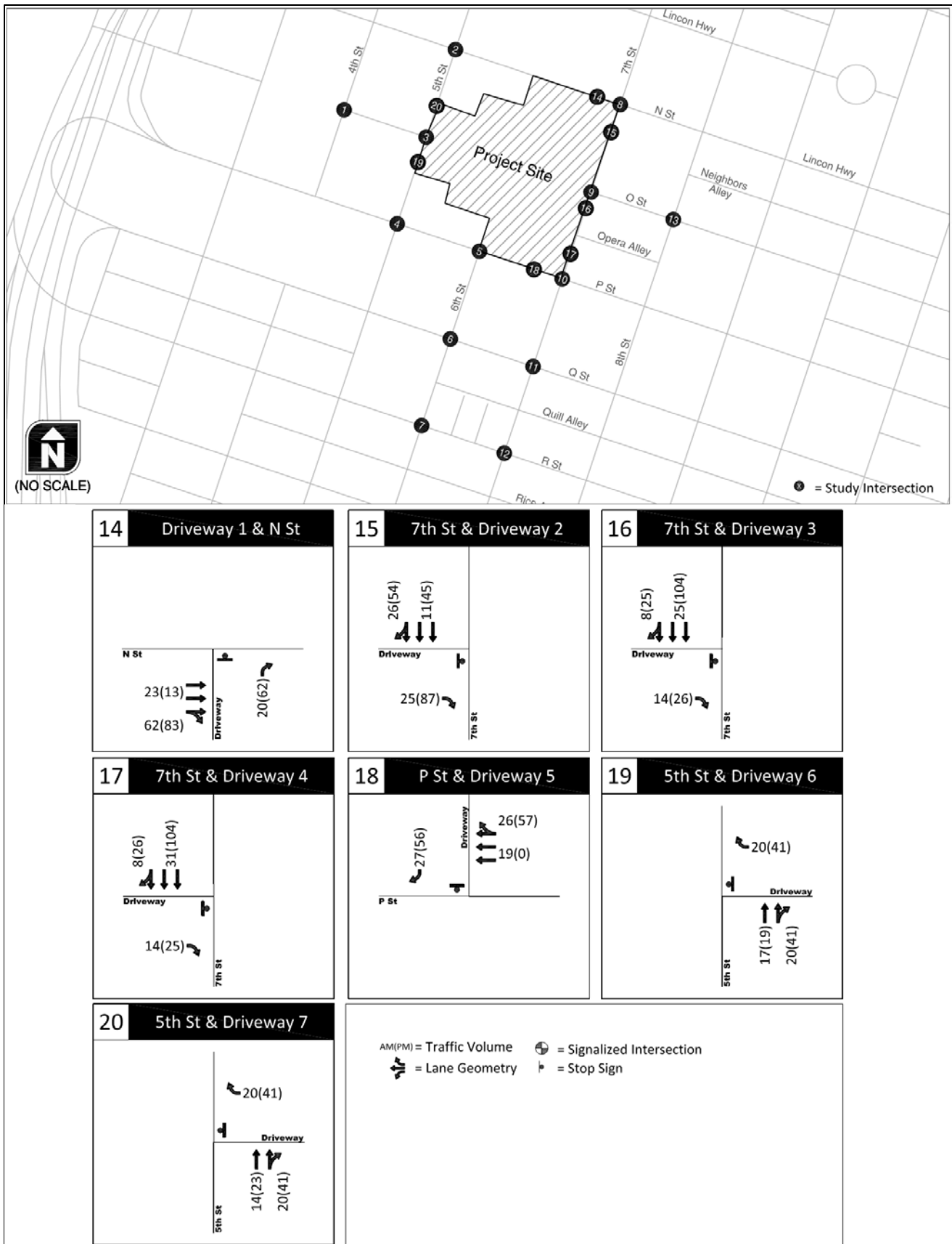
**Table 4.11-10
Net New Transit Trip Generation Summary for Proposed Project, Condo / Retail Scenario**

City Block	New Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Parcel 1							
Proposed Project Transit Trips – Accounts for base increase and downtown location increase	198	3	7	10	10	8	18
Existing Transit Trips of Land Uses to be Removed	-25	0	-2	-2	-1	-1	-2
Net New Transit Trips for Parcel 1	173	3	5	8	9	7	16
Parcel 2A							
Proposed Project Transit Trips – Accounts for base increase and downtown location increase	113	2	3	5	4	4	8
Existing Transit Trips of Land Uses to be Removed	-12	0	-1	-1	-1	0	-1
Net New Transit Trips for Parcel 2A	101	2	2	4	3	4	7
Parcel 2B							
Proposed Project Transit Trips – Accounts for base increase and downtown location increase	113	2	3	5	4	4	8
Existing Transit Trips of Land Uses to be Removed	-12	0	-1	-1	-1	0	-1
Net New Transit Trips for Parcel 2B	101	2	2	4	3	4	7
Parcel 3, 4A, and 4B							
Proposed Project Transit Trips – Accounts for base increase and downtown location increase	173	2	4	6	7	6	13
Existing Transit Trips of Land Uses to be Removed	-25	0	-2	-2	-1	-1	-2
Net New Transit Trips for Parcel 3, 4A, and 4B	148	2	2	4	6	5	11
Entire Site Net New Transit Trips	523	9	11	20	21	20	41
See Appendix H (Appendix C & D for the transit trip calculations methodology). See also the Kittelson & Associates, Inc. December 2014 Trip Generation Comparison and Site Plan Review Memorandum for further discussion of trip generation and distribution characteristics for the Condo / Retail Scenario as revised in October of 2014 (Appendix H).							
Source: Kittelson & Associates, Inc. 2014a							



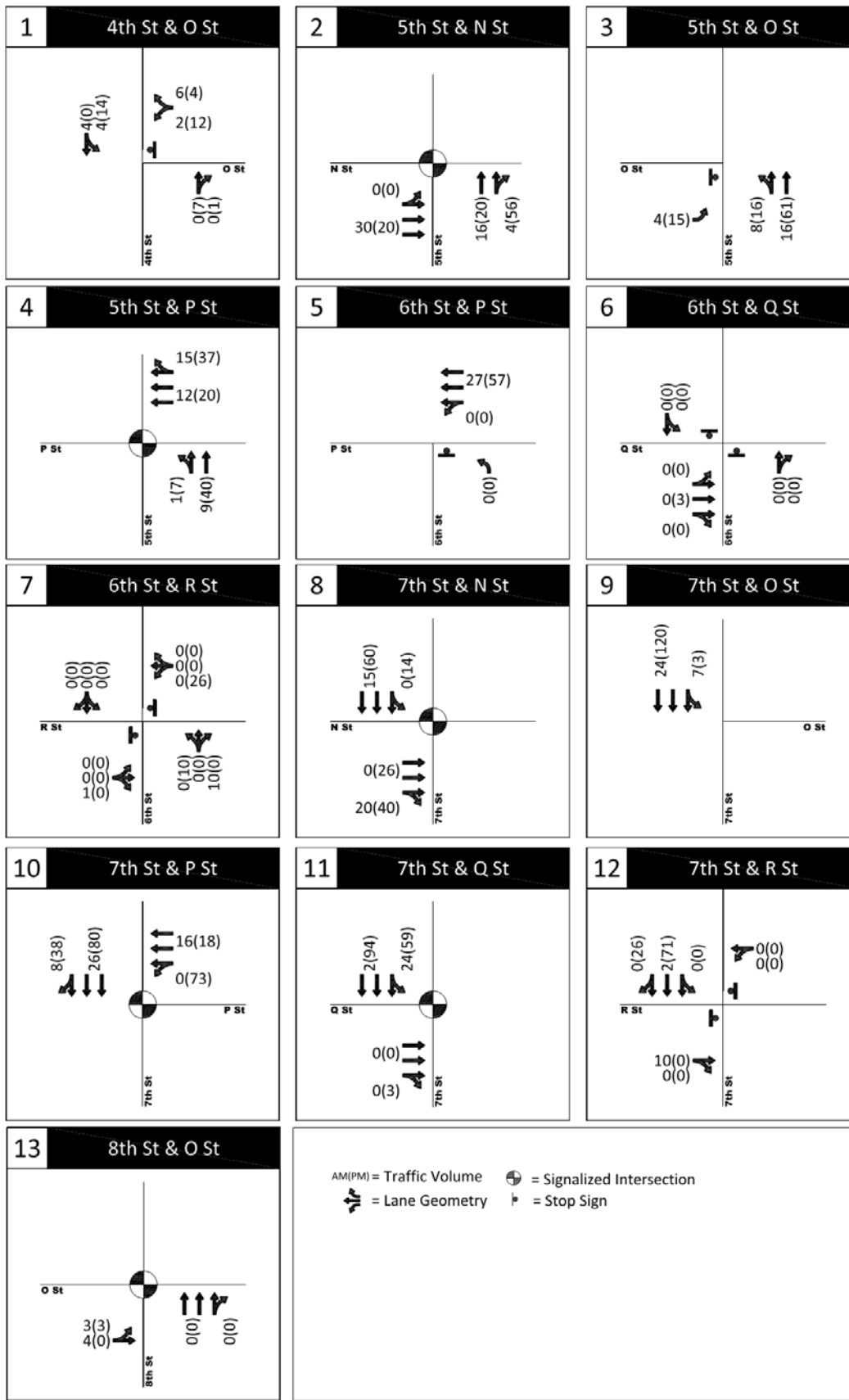
Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-6a Change in Peak-Hour Trips due to the Proposed Project Hotel / Condo / Retail Scenario



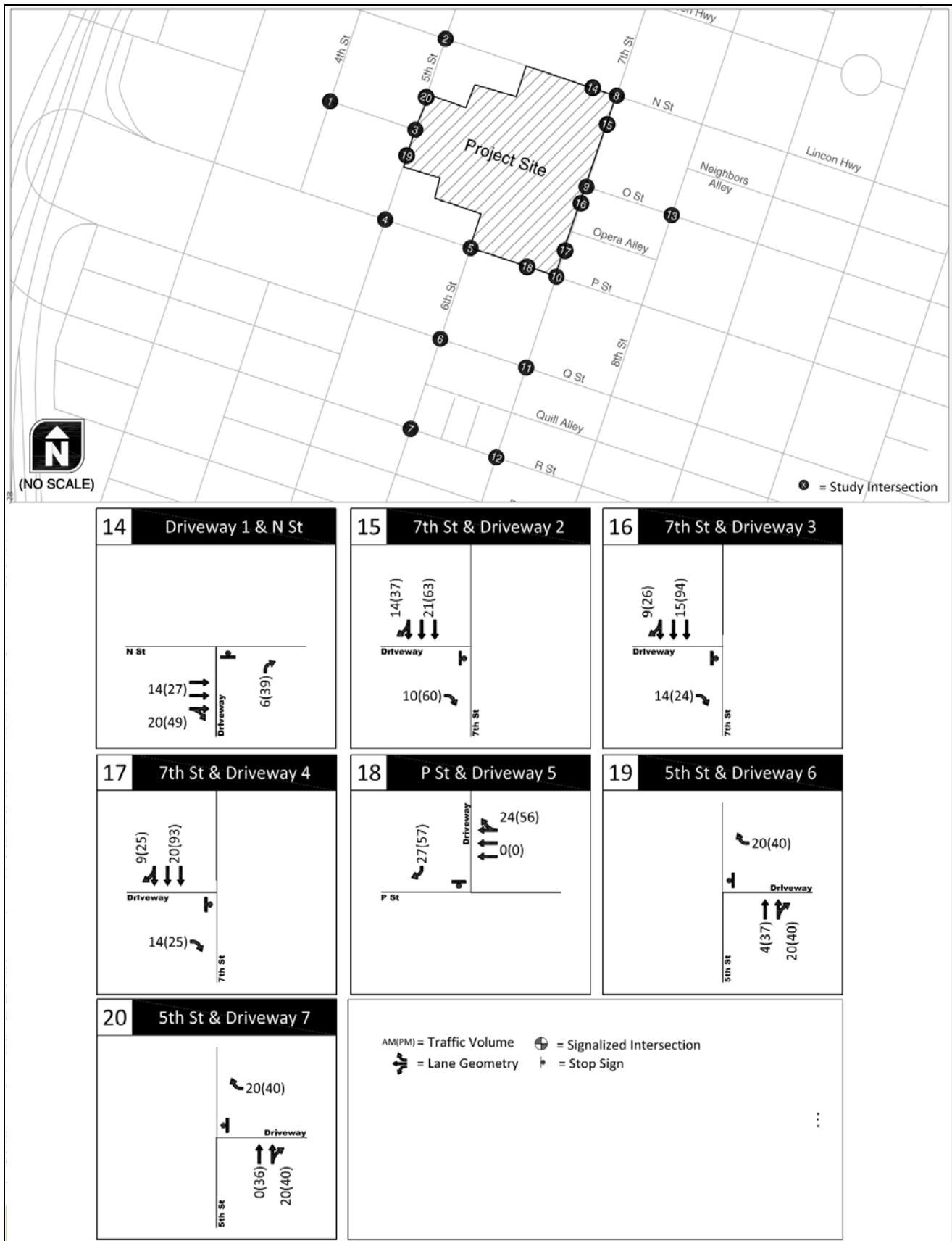
Source: Kittelson & Associates, Inc. 2014

Figure 4.11-6b Change in Peak-Hour Trips due to the Proposed Project Hotel / Condo / Retail Scenario



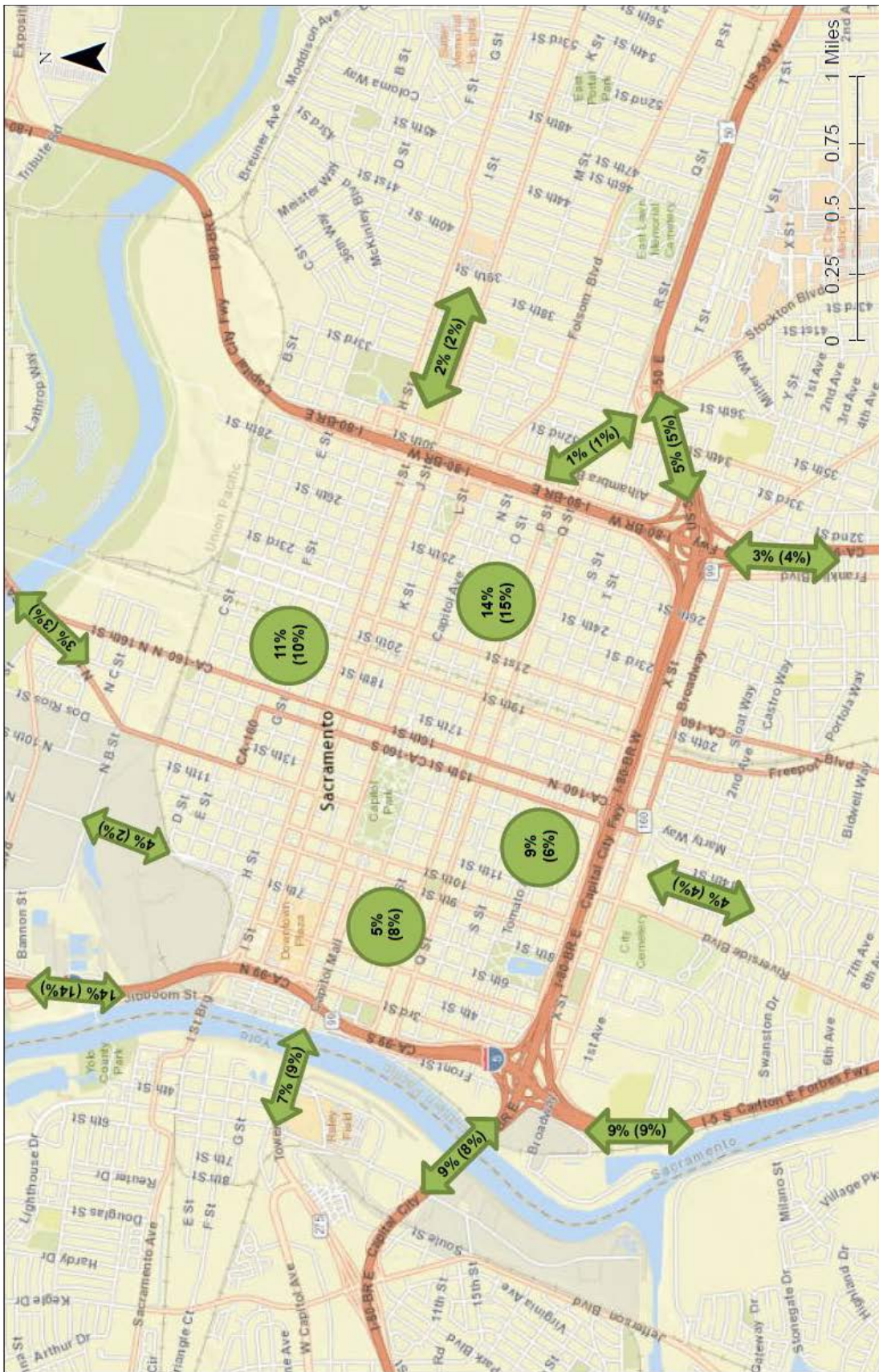
Source: Kittelson & Associates, Inc. 2014

Figure 4.11-7a Change in Peak-Hour Trips due to the Proposed Project Condo / Retail Scenario



Source: Kittelson & Associates, Inc. 2014a

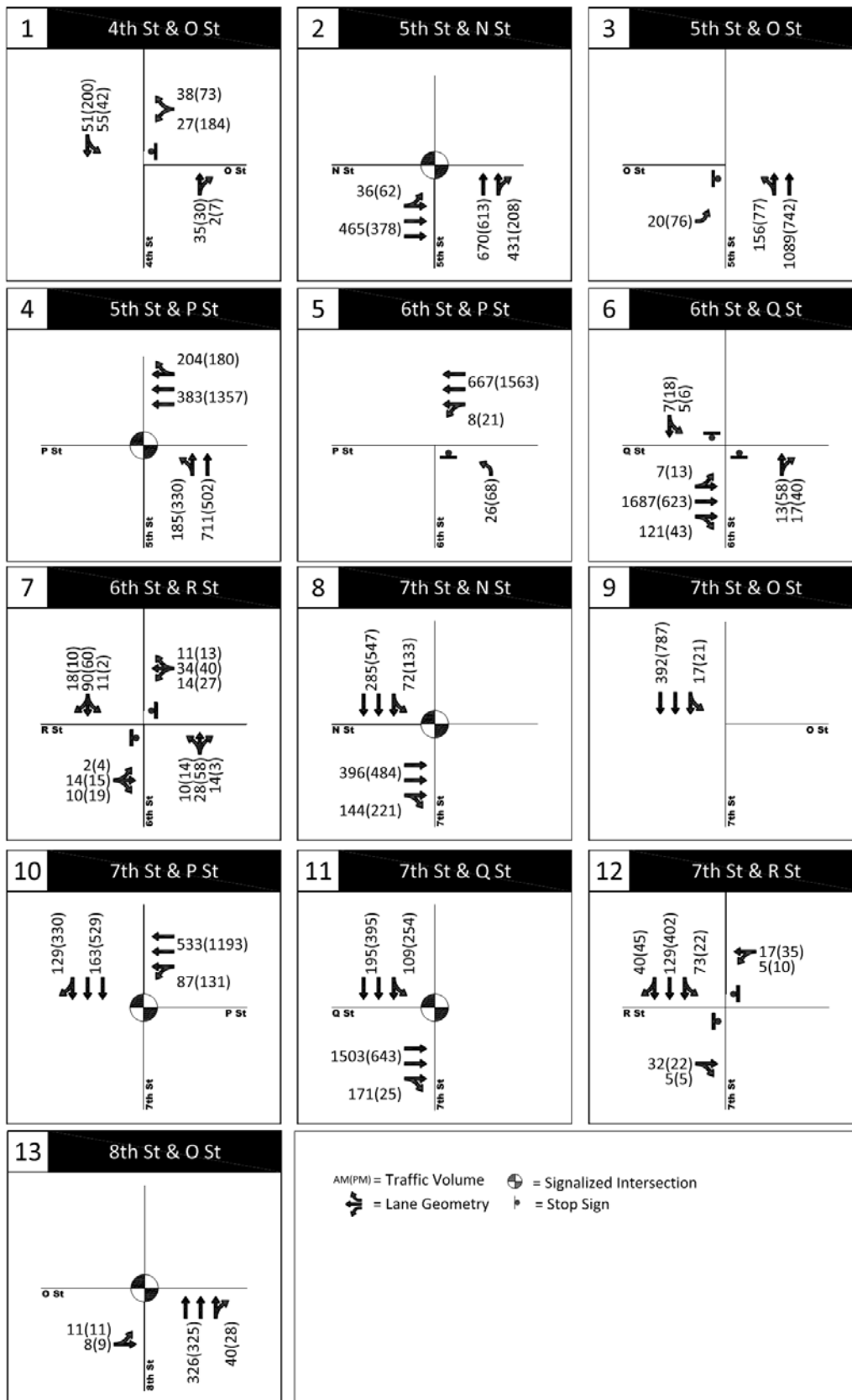
Figure 4.11-7b Change in Peak-Hour Trips due to the Proposed Project Condo / Retail Scenario



Source: Kittelson & Associates, Inc. 2014a

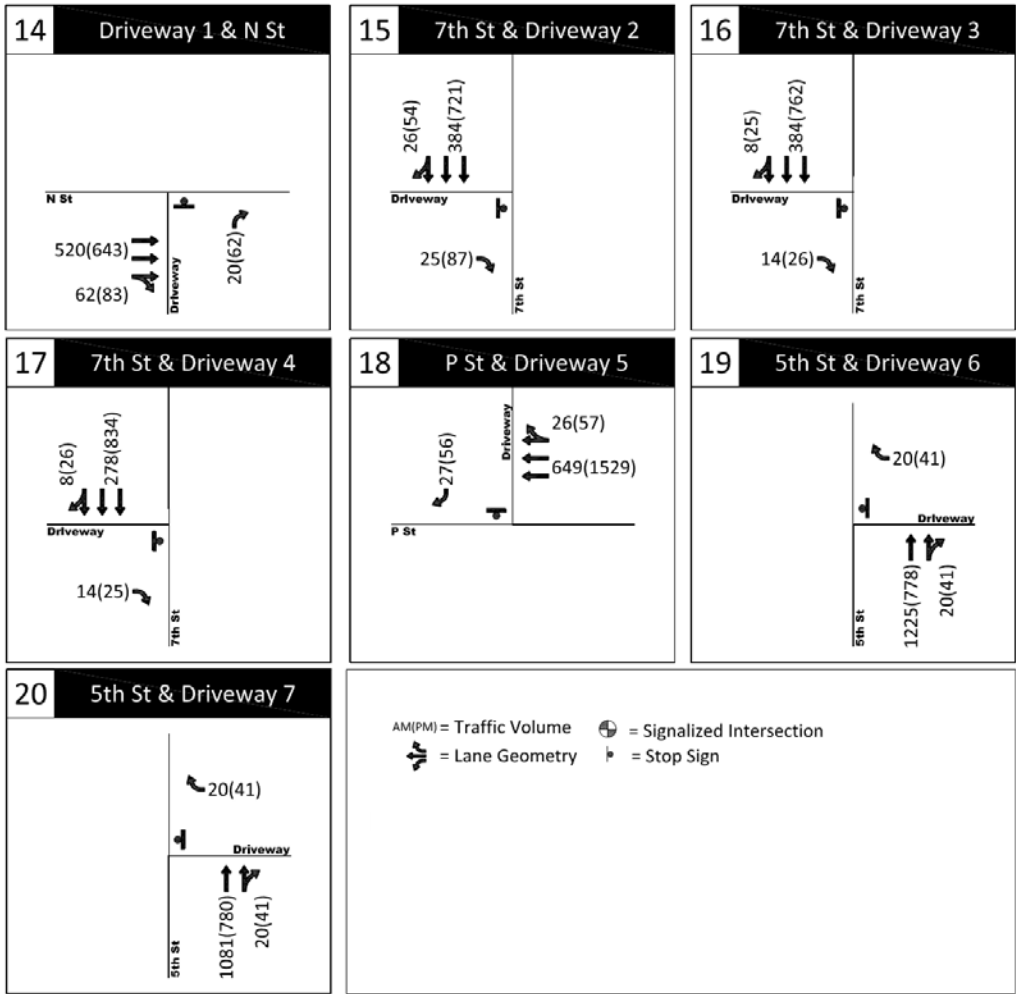
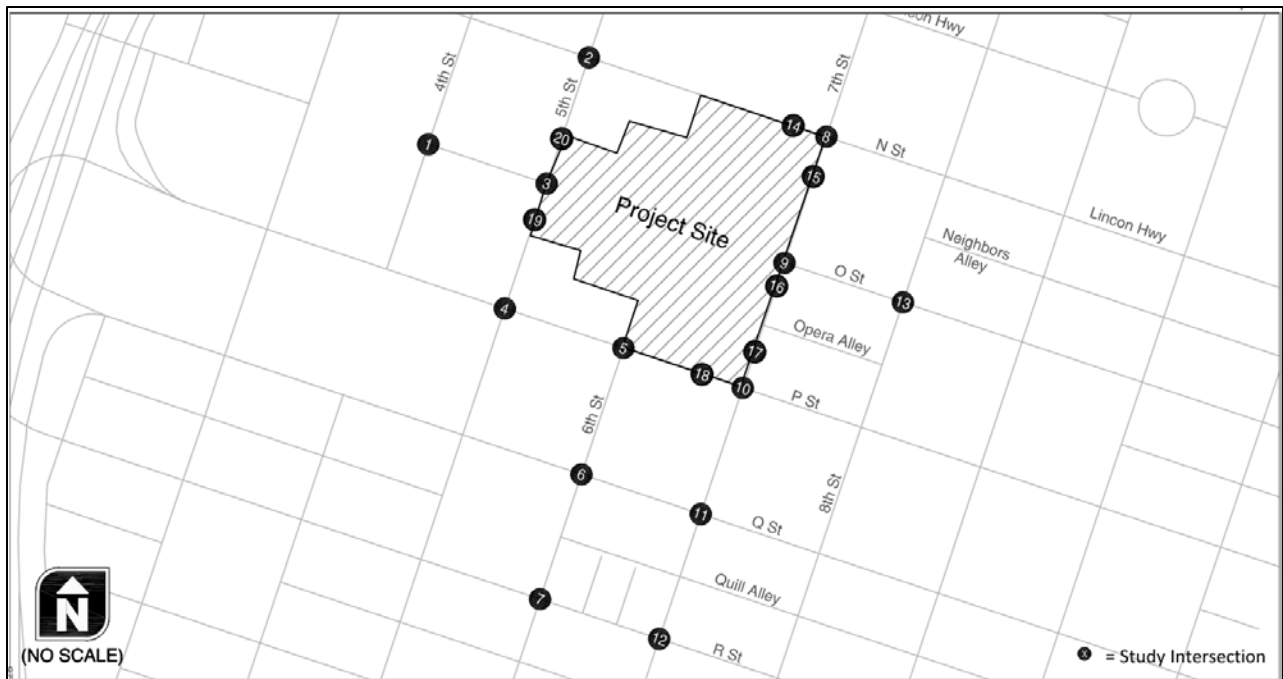
Figure 4.11-8

Proposed Project Trip Distribution AM and PM Peak Hours



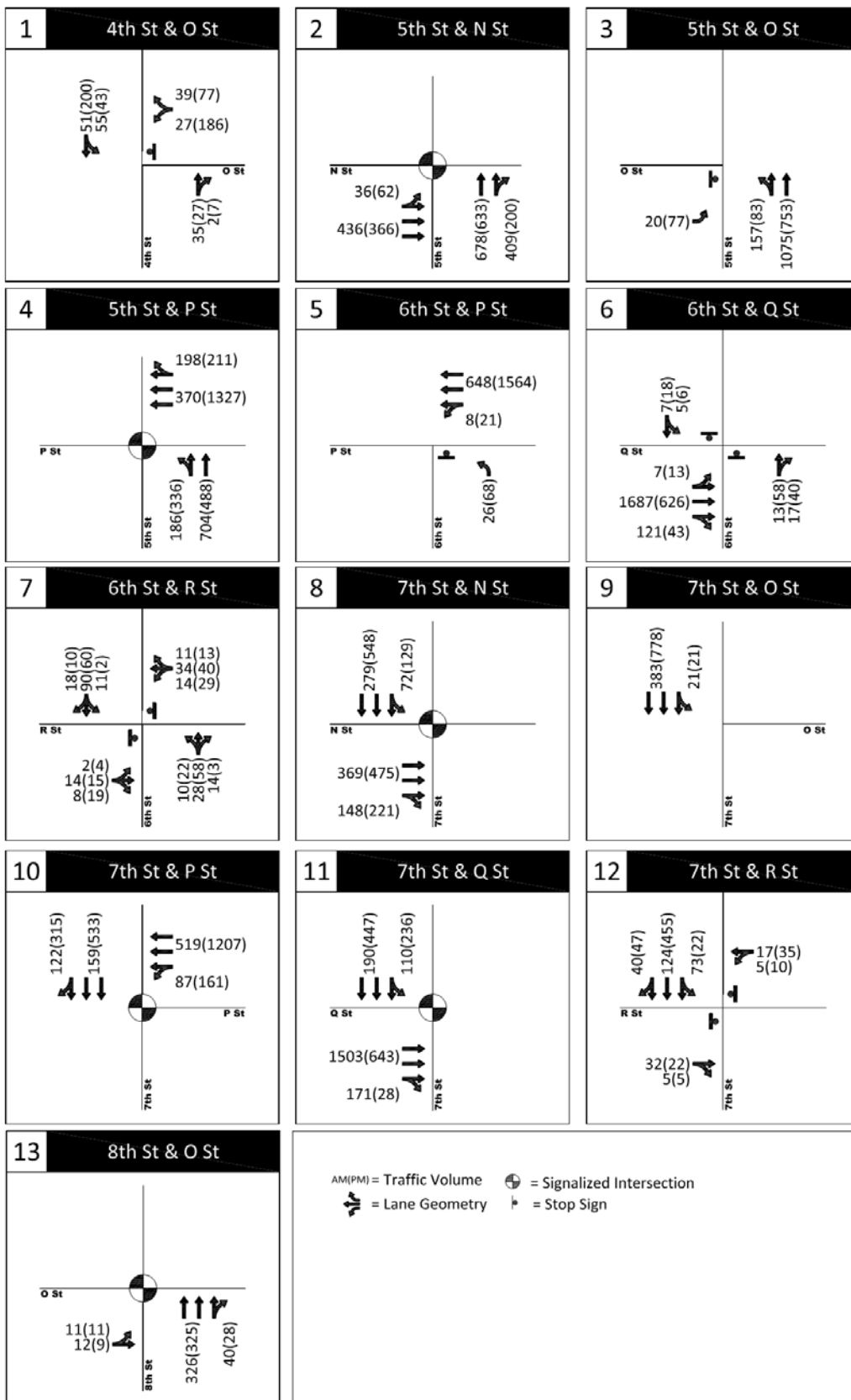
Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-9a Existing Plus Project (Hotel / Condo / Retail Scenario) Volumes, Lane Configuration, and Intersection Control



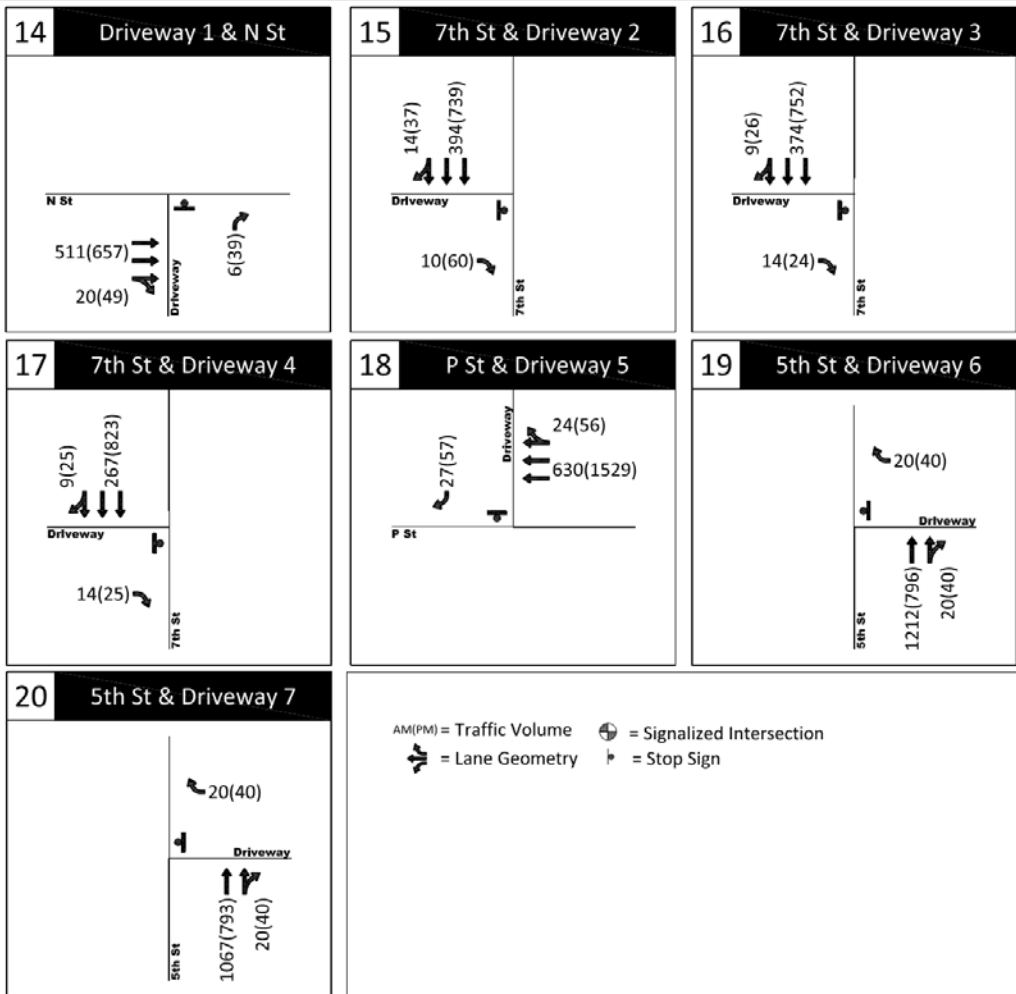
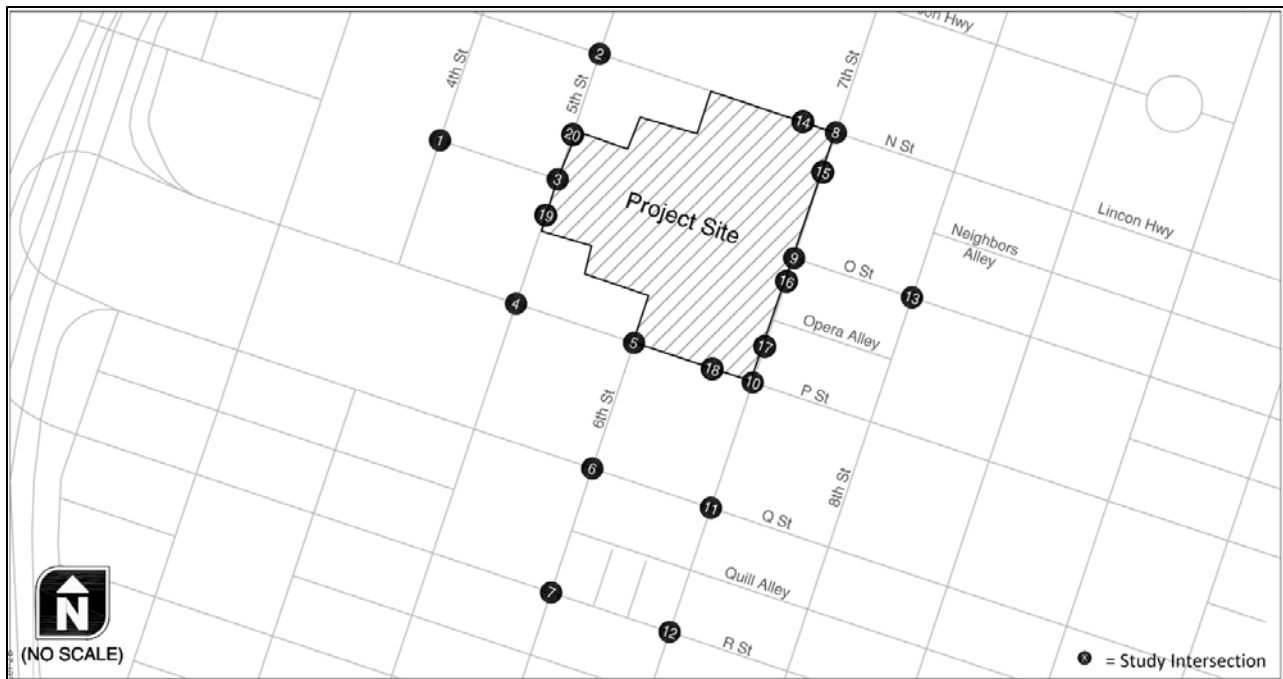
Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-9b Existing Plus Project (Hotel / Condo / Retail Scenario) Volumes, Lane Configuration, and Intersection Control



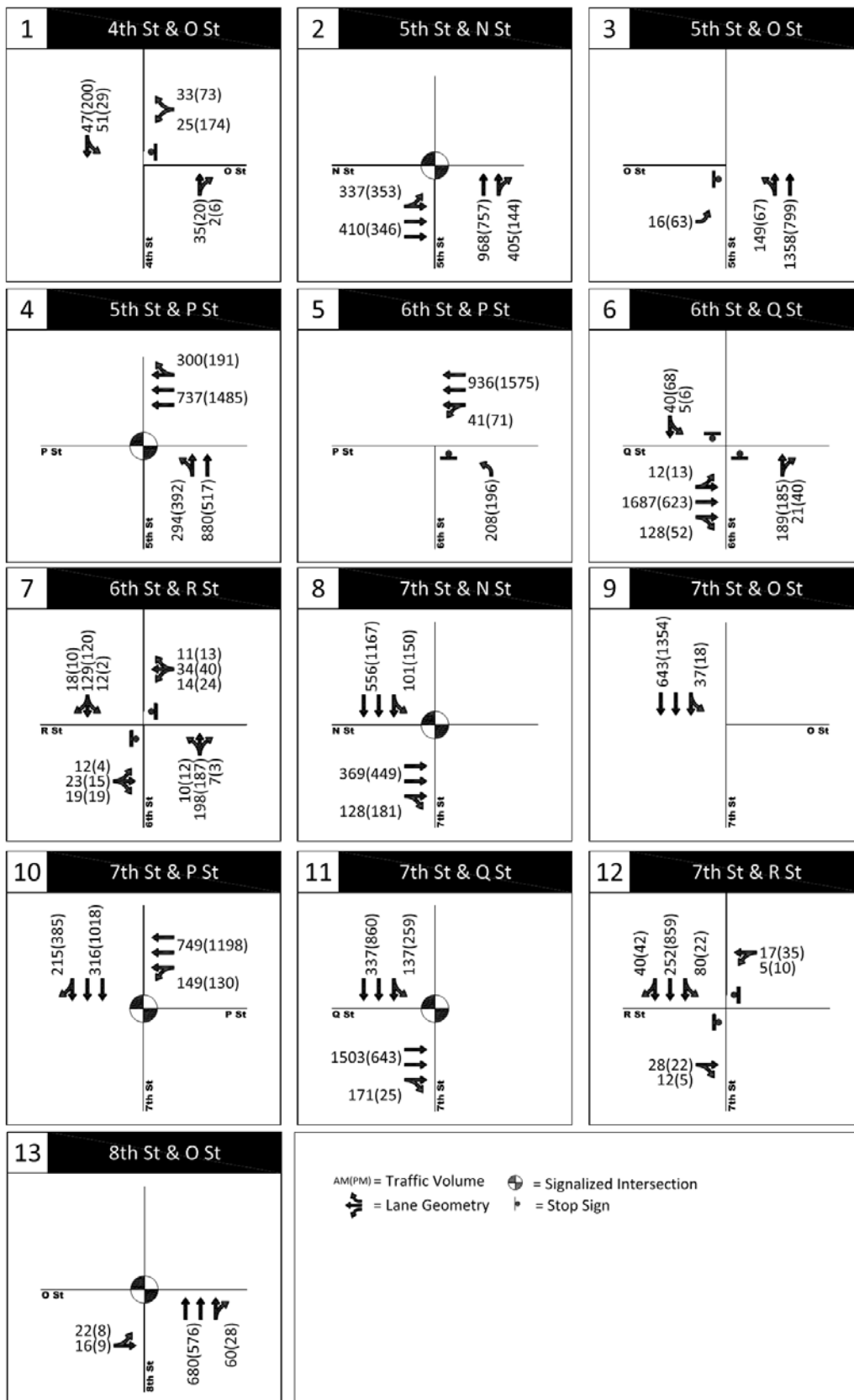
Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-10a Existing Plus Project (Condo / Retail Scenario) Volumes, Lane Configuration, and Intersection Control



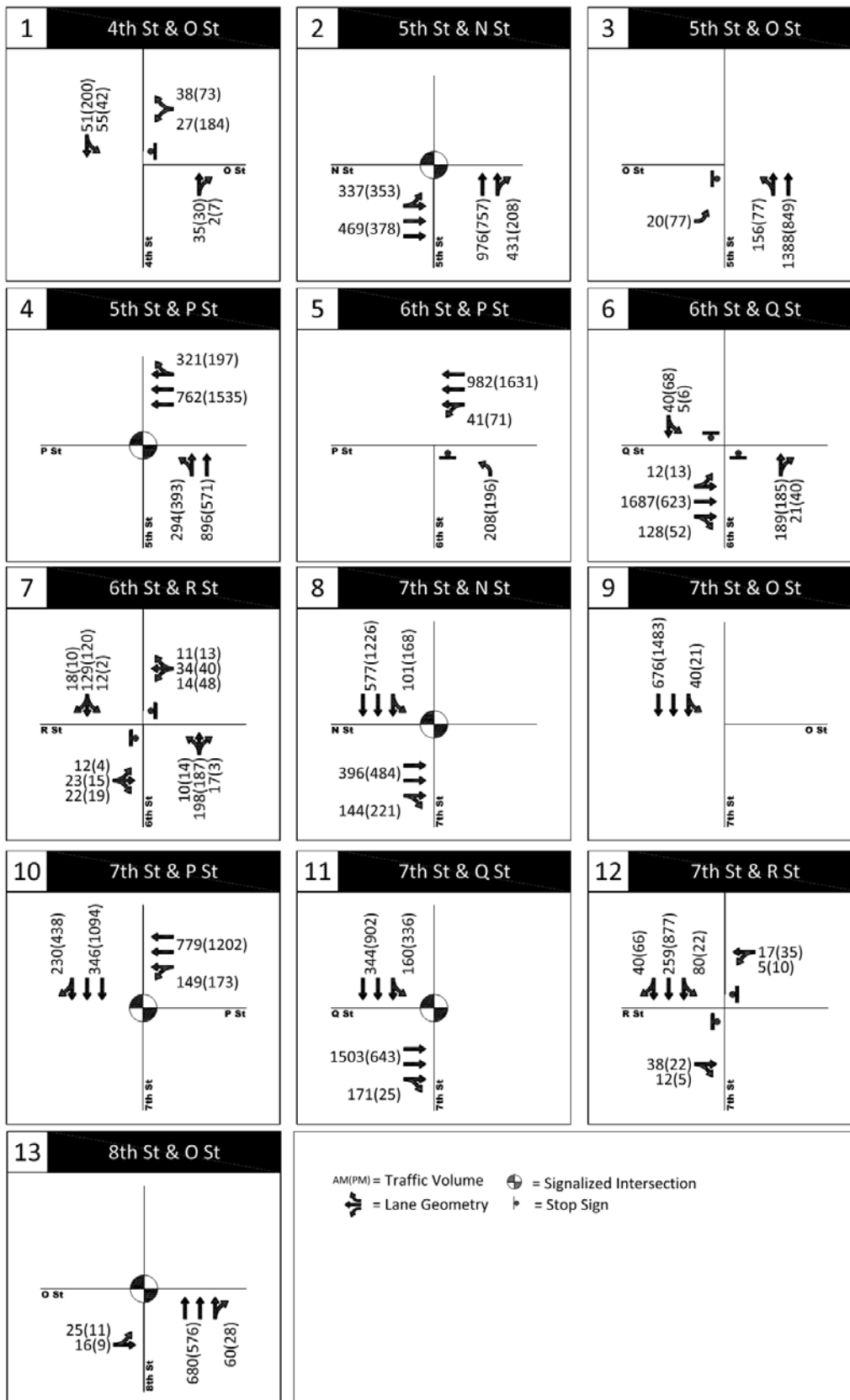
Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-10b Existing Plus Project (Condo / Retail Scenario) Volumes, Lane Configuration, and Intersection Control



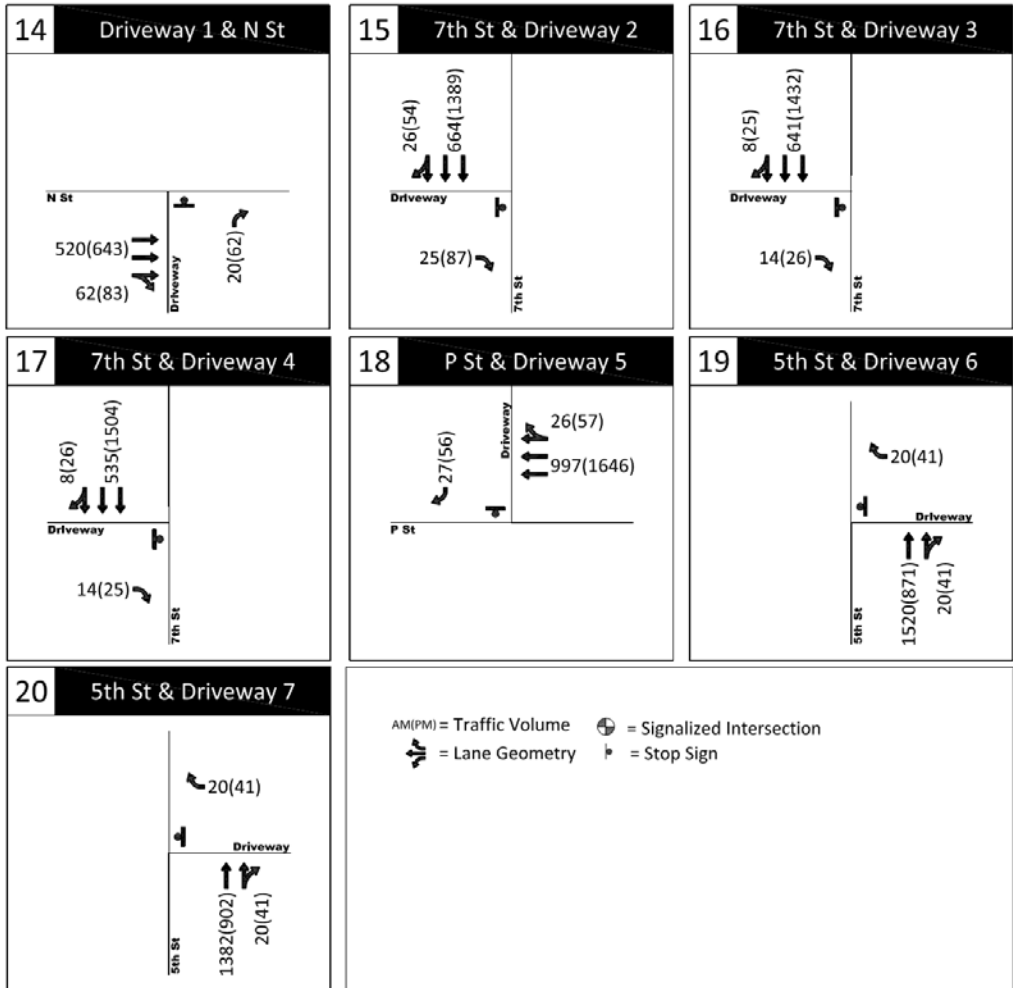
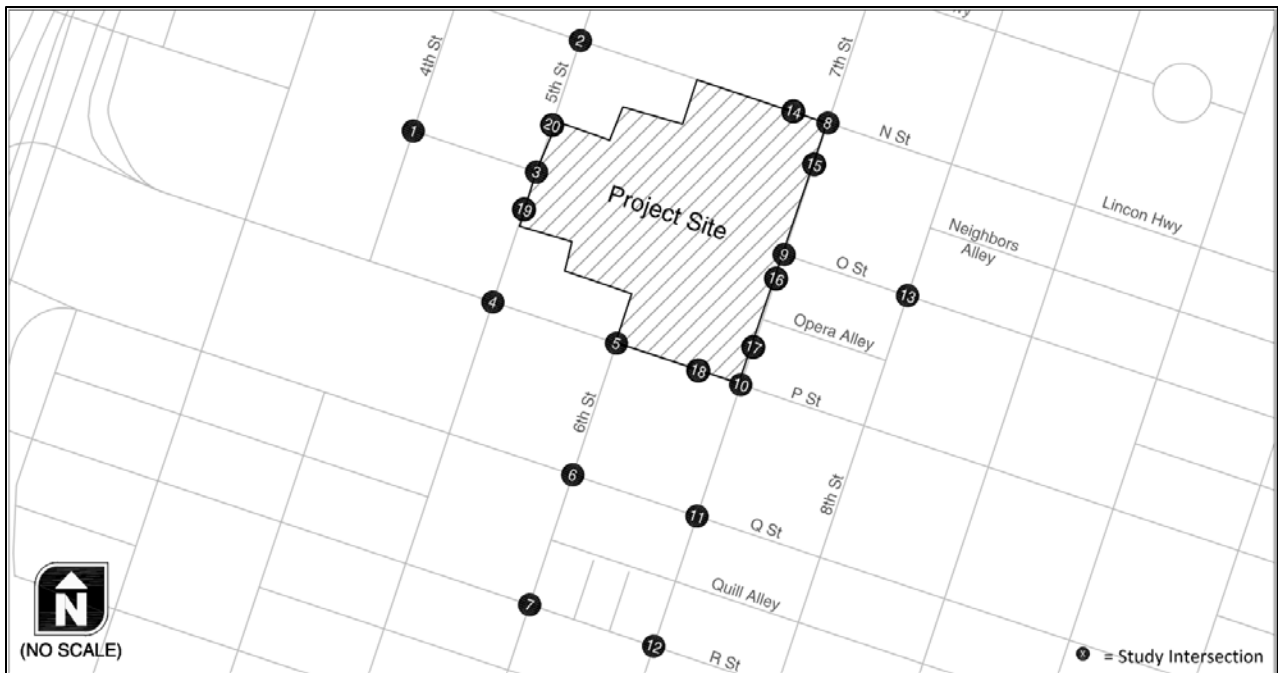
Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-11 Cumulative 2035 No Project Conditions Volumes, Lane Configuration, and Intersection Control



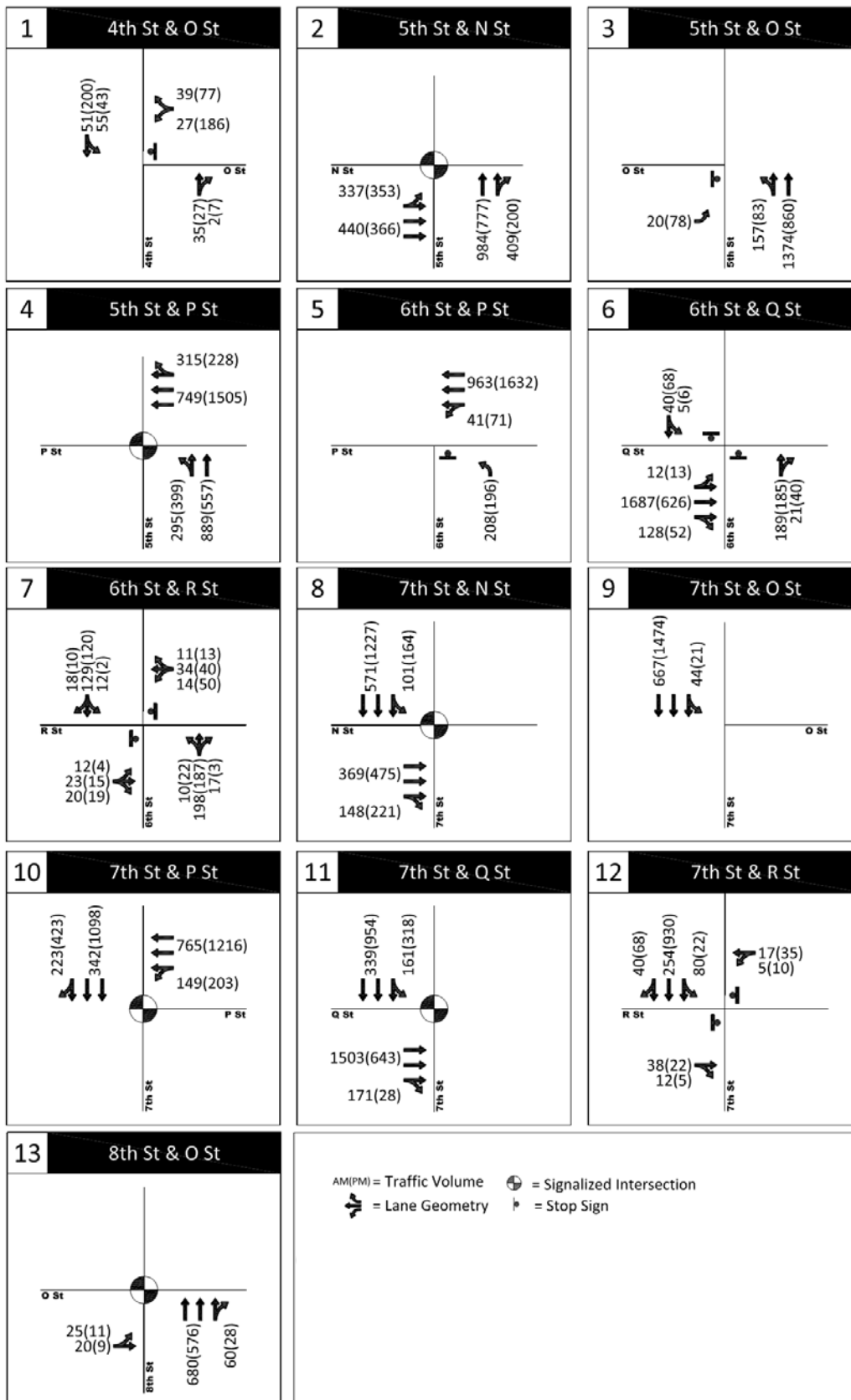
Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-12a Cumulative 2035 Plus Project (Hotel / Condo / Retail Scenario) Volumes, Lane Configuration, and Intersection Control



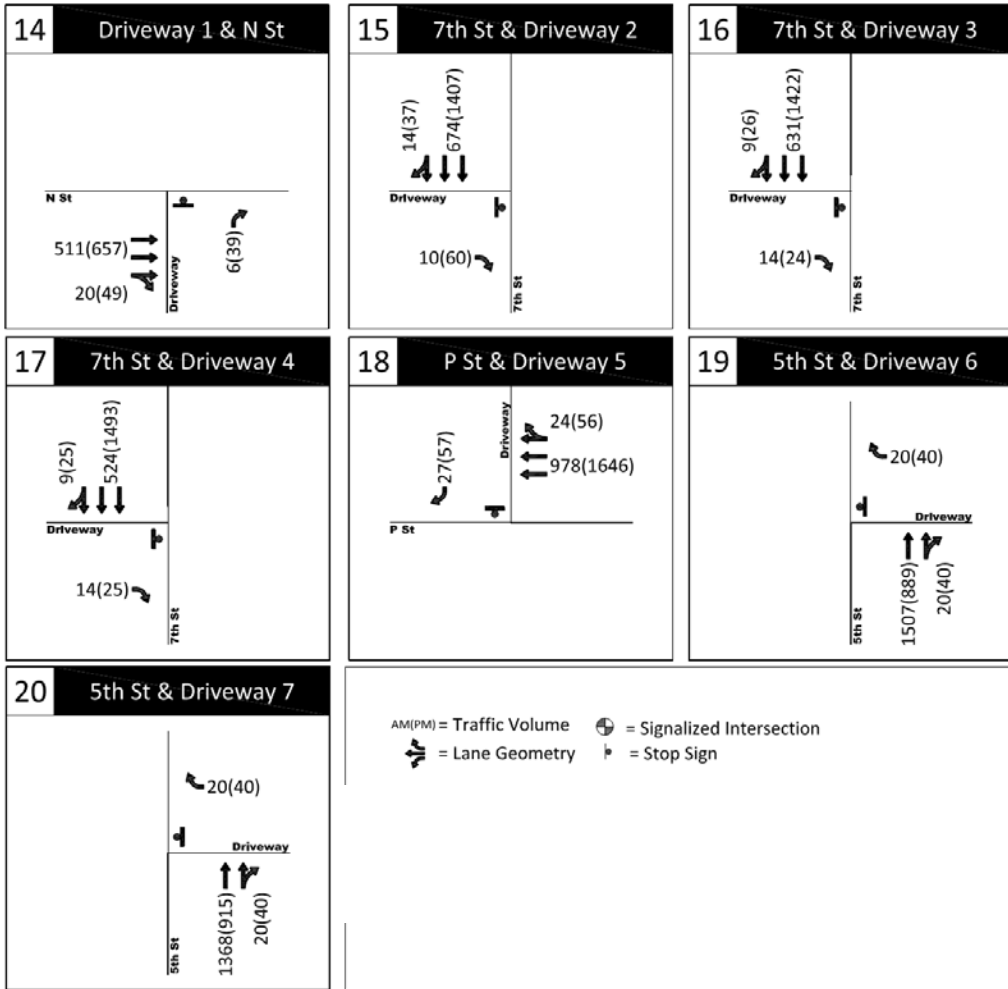
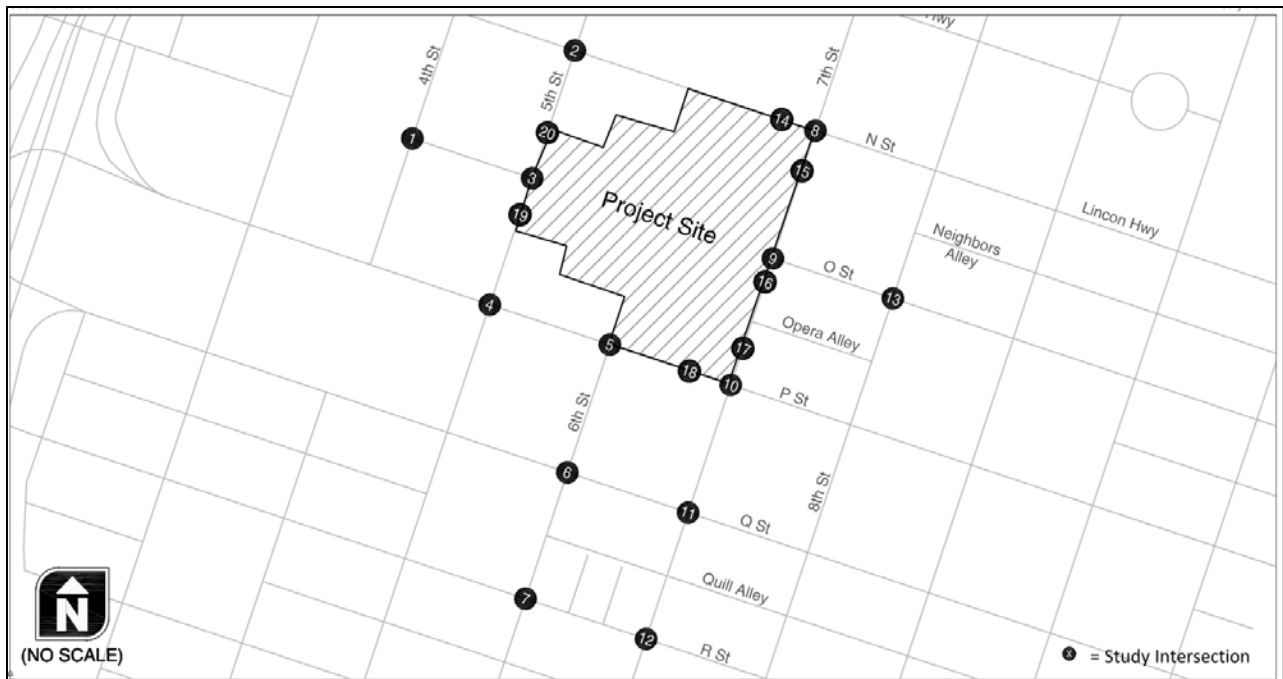
Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-12b Cumulative 2035 Plus Project (Hotel / Condo / Retail Scenario) Volumes, Lane Configuration, and Intersection Control



Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-13a Cumulative 2035 Plus Project (Condo / Retail Scenario) Volumes, Lane Configuration, and Intersection Control



Source: Kittelson & Associates, Inc. 2014a

Figure 4.11-13b Cumulative 2035 Plus Project (Condo / Retail Scenario) Volumes, Lane Configuration, and Intersection Control

Existing Plus Project

The Existing Plus Project condition analyzes the impact of adding project traffic to the Existing Conditions. The traffic analysis results for the Existing Plus Project condition are compared with the Existing Conditions. Since the proposed project will generate fewer daily trips than the project buildout analyzed in the Kittelson & Associates, Inc. Traffic Analysis and result in a similar trip distribution, the Existing Plus Project analysis from the Traffic Analysis is used to determine if the proposed project has no impact, less than significant impact, significant but avoidable impact with mitigation, or significant and unavoidable proposed project impacts.

Intersections

The Existing Plus Project traffic analysis indicates how the study area's transportation system will operate with the traffic generated by the proposed project. The AM and PM project trips (shown in Figure 4.11-6 and Figure 4.11-7 for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario, respectively) were added to the Existing Conditions volumes. The total traffic volumes for the Existing Plus Project condition are shown in Figure 4.11-9 and Figure 4.11-10 for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario, respectively.

Level-of-service results for Existing Plus Project scenarios are shown in Table 4.11-11 and Table 4.11-12 for the AM and PM peak hours, respectively. As shown in these tables, each study area intersection would continue to operate at overall LOS C or better with the addition of project traffic to the study intersections. Analysis worksheets for these scenarios are included in Appendix H.

In addition to an LOS analysis, each unsignalized study intersection were assessed in the Existing Conditions and Existing Plus Project conditions to determine if they met the peak-hour signal warrant as described in the 2012 California MUTCD. None of the unsignalized study intersections meet the peak-hour signal warrant under Existing Conditions or the Existing Plus Project scenarios in the AM or PM peak hour, as shown in Table 4.11-13. Full documentation of these findings is provided in Appendix H.

Transit Operations

According to the traffic analysis, the anticipated transit trips that the proposed project will generate for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario are shown in Table 4.11-9 and Table 4.11-10, respectively. As these tables show, the project will generate between 20 and 30 transit trips in the AM peak hour and 40 to 50 transit trips in the PM peak hour. With 14 transit lines near the project site, each running multiple transit vehicles in the peak hours, the project site adequately provides access to transit. A total of 26 bus stops and four light rail stops are located within a quarter mile of the center of the project site. The proposed project, as described in Chapter 2 of this EIR, "Project Description," is anticipated to generate between 19 and 26 transit trips in the AM peak hour and between 39 to 51 transit trips in the PM peak hour (see Tables 7 and 8 in Appendix H; Kittelson 2014).

**Table 4.11-11
LOS for Existing Conditions and Existing Plus Project in the AM Peak Hour**

#	North-South Cross Street	East-West Cross Street	Control	Existing Conditions		Existing Plus Project (Hotel / Condo / Retail Scenario)		Existing Plus Project (Condo / Retail Scenario)	
				Delay	LOS	Delay	LOS	Delay	LOS
1	4th St	O St	TWSC	4.9 (9.7)	A (A)	5.1 (9.8)	A (A)	5.1 (9.8)	A (A)
2	5th St	N St	Signalized	19.2	B	19.8	B	19.5	B
3	5th St	O St	TWSC	1.9 (24.9)	A (C)	2.1 (27.1)	A (D)	2.1 (26.8)	A (D)
4	5th St	P St	Signalized	14.7	B	15.0	B	14.9	B
5	6th St	P St	TWSC	0.5 (10.6)	A (B)	0.5 (10.8)	A (B)	0.5 (10.7)	A (B)
6	6th St	Q St	TWSC	0.4 (22.3)	A (C)	0.4 (22.3)	A (C)	0.4 (22.3)	A (C)
7	6th St	R St	TWSC	4.2 (10.5)	A (B)	4.1 (10.6)	A (B)	4 (10.5)	A (B)
8	7th St	N St	Signalized	7.2	A	7.3	A	7.2	A
9	7th St	O St	None	0.0*	A*	0.0*	A*	0.0*	A*
10	7th St	P St	Signalized	9.7	A	9.8	A	9.7	A
11	7th St	Q St	Signalized	15.9	B	15.8	B	15.8	B
12	7th St	R St	TWSC	0.9 (9.8)	A (A)	1.2 (9.9)	A (A)	1.2 (9.8)	A (A)
13	8th St	O St	Signalized	5.1	A	5.1	A	5.2	A
14	Driveway 1	N St	TWSC	N/A	N/A	0.4 (11.1)	A (B)	0.1 (10.8)	A (B)
15	7th St	Driveway 2	TWSC	N/A	N/A	0.6 (10.4)	A (B)	0.2 (10.3)	A (B)
16	7th St	Driveway 3	TWSC	N/A	N/A	0.4 (10.3)	A (B)	0.4 (10.2)	A (B)
17	7th St	Driveway 4	TWSC	N/A	N/A	0.5 (9.9)	A (A)	0.5 (9.8)	A (A)
18	Driveway 5	P St	TWSC	N/A	N/A	0.5 (11.7)	A (B)	0.5 (11.6)	A (B)
19	5th St	Driveway 6	TWSC	N/A	N/A	0.2 (13.7)	A (B)	0.2 (13.6)	A (B)
20	5th St	Driveway 7	TWSC	N/A	N/A	0.2 (12.8)	A (B)	0.2 (12.7)	A (B)

Notes: LOS = level of service; TWSC = two-way stop-controlled. As described in detail in the introduction to this section (4.11.1) and in Appendix H of this EIR, this data constitutes a conservative analysis for the proposed project as revised in October of 2014.

Highway Capacity Manual 2010 Methodology

Control delays for unsignalized (TWSC) intersections are presented as follows: Average (Worst Approach)

Gray-shaded cells indicate intersections that are only present in Plus Project conditions.

* O Street between 7th and 9th Streets is one-way eastbound, therefore, there is no intersection delay at 7th Street and O Street.

Source: Kittelson & Associates, 2014a

**Table 4.11-12
LOS for Existing Conditions and Existing Plus Proposed Project in the PM Peak Hour**

#	North-South Cross Street	East-West Cross Street	Control	Existing Conditions		Existing Plus Project (Hotel / Condo / Retail Scenario)		Existing Plus Project (Condo / Retail Scenario)	
				Delay	LOS	Delay	LOS	Delay	LOS
1	4th St	O St	TWSC	6.7 (12.7)	A (B)	7.1 (13.6)	A (B)	7.2 (13.6)	A (B)
2	5th St	N St	Signalized	14.7	B	15.4	B	15.5	B
3	5th St	O St	TWSC	2 (15.2)	A (C)	2.3 (16.7)	A (C)	2.4 (17.3)	A (C)
4	5th St	P St	Signalized	18.7	B	19.3	B	19.4	B
5	6th St	P St	TWSC	1 (16.6)	A (C)	1 (17.3)	A (C)	1 (17.3)	A (C)
6	6th St	Q St	TWSC	1.6 (13.0)	A (B)	1.6 (13.0)	A (B)	1.6 (13.0)	A (B)
7	6th St	R St	TWSC	4.5 (10.6)	A (B)	5.2 (10.9)	A (B)	5.3 (11.1)	A (B)
8	7th St	N St	Signalized	7.5	A	7.7	A	7.7	A
9	7th St	O St	None	0.0*	A*	0.0*	A*	0.0*	A*
10	7th St	P St	Signalized	12.3	B	12.8	B	13.0	B
11	7th St	Q St	Signalized	12.3	B	13.0	B	13.2	B
12	7th St	R St	TWSC	0.6 (10.7)	A (B)	0.5 (10.8)	A (B)	0.5 (11.1)	A (B)
13	8th St	O St	Signalized	4.9	A	5.0	A	5.0	A
14	Driveway 1	N St	TWSC	N/A	N/A	1 (12.4)	A (B)	0.6 (12.0)	A (B)
15	7th St	Driveway 2	TWSC	N/A	N/A	1.3 (13.2)	A (B)	0.9 (12.7)	A (B)
16	7th St	Driveway 3	TWSC	N/A	N/A	0.4 (12.3)	A (B)	0.4 (12.2)	A (B)
17	7th St	Driveway 4	TWSC	N/A	N/A	0.4 (12.7)	A (B)	0.4 (12.6)	A (B)
18	Driveway 5	P St	TWSC	N/A	N/A	0.7 (20.5)	A (C)	0.7 (20.6)	A (C)
19	5th St	Driveway 6	TWSC	N/A	N/A	0.5 (11.5)	A (B)	0.5 (11.5)	A (B)
20	5th St	Driveway 7	TWSC	N/A	N/A	0.5 (11.5)	A (B)	0.5 (11.5)	A (B)

Notes: LOS = level of service; TWSC = two-way stop-controlled. As described in detail in the introduction to this section (4.11.1) and in Appendix H of this EIR, this data constitutes a conservative analysis for the proposed project as revised in October of 2014.

Highway Capacity Manual 2010 Methodology

Control delays for unsignalized (TWSC) intersections are presented as follows: Average (Worst Approach)

Gray-shaded cells indicate intersections that are only present in Plus Project conditions.

* O Street between 7th and 9th Streets is one-way eastbound, therefore, there is no intersection delay at 7th Street and O Street.

Source: Kittelson & Associates, 2014a

**Table 4.11-13
Existing Signal Warrant Analysis Summary**

#	Intersection	AM			PM		
		Existing Conditions	Existing Plus Project (Hotel / Condo / Retail Scenario)	Existing Plus Project (Condo / Retail Scenario)	Existing Conditions	Existing Plus Project (Hotel / Condo / Retail Scenario)	Existing Plus Project (Condo / Retail Scenario)
1	4th St & O St	No	No	No	No	No	No
3	5th St & O St	No	No	No	No	No	No
5	6th St & P St	No	No	No	No	No	No
6	6th St & Q St	No	No	No	No	No	No
7	6th St & R St	No	No	No	No	No	No
12	7th St & R St	No	No	No	No	No	No
14	Driveway 1 & N St	No	No	No	No	No	No
15	7th St & Driveway 2	No	No	No	No	No	No
16	7th St & Driveway 3	No	No	No	No	No	No
17	7th St & Driveway 4	No	No	No	No	No	No
18	Driveway 5 & P St	No	No	No	No	No	No
19	5th St & Driveway 6	No	No	No	No	No	No
20	5th St & Driveway 7	No	No	No	No	No	No

Note: As described in detail in the introduction to this section (4.11.1) and in Appendix H of this EIR, this data constitutes a conservative analysis for the proposed project as revised in October of 2014.

Source: Kittelson & Associates, Inc. 2014a

Bicycle and Pedestrians

The proposed project, as described in Chapter 2, is anticipated to generate between approximately 3,800 and 4,400 walking, biking, and other non-vehicular daily trips (see Tables 3 and 4 in Appendix H; Kittelson 2014b). This increase in trips has the potential to increase the number of pedestrian/bicycle, pedestrian/motor vehicle, and bicycle/motor vehicle conflicts.

The site plan design and overall proposed project is intended to be pedestrian friendly and oriented. As such, it is supportive of the policies and goals in the 2006 Pedestrian Master Plan that identifies this area as a pedestrian street corridor with a wide sidewalk/bike lane present on N Street adjacent to the project site.

Cumulative 2035 No Project Conditions

Traffic volumes for the Cumulative 2035 No Project Conditions scenario were developed to reflect changes in the regional transportation network and socio-demographic land use data between the Existing Conditions year (2014) and the Cumulative 2035 No Project Conditions year (2035), as presented below. Figure 4.11-11 shows the Cumulative 2035 No Project Conditions AM- and PM peak-hour vehicle trips developed by the model. The year 2035 is the cumulative year for the traffic analysis because this is the cumulative year in the most recently updated travel demand model. This scenario also includes land use change associated with the Entertainment and Sports Center, as described in more detail below.

Land Use and Transportation System Assumptions

The cumulative version of the SACMET model accounts for planned land use growth within the City of Sacramento according to the City's General Plan, as well as growth in the surrounding region.

The SACMET model also accounts for planned improvements to the surrounding transportation system, and incorporates the current Sustainable Communities Strategy (SCS) and Metropolitan Transportation Plan (MTP) for the Sacramento region. The version of the model used to develop the Cumulative 2035 No Project Conditions scenario was modified by Fehr & Peers in 2013 to include the most recent planned land uses and transportation projects within the City of Sacramento, including the Entertainment and Sports Center (ESC). Table 4.11-14 presents a summary of the ESC increase in land uses (by type) over the SACMET base year land uses.

Table 4.11-14 SACMET Base Year and ESC Land Uses				
Land Use Type	Units	2012-2013 Occupied Land Uses ¹	ESC Land Uses ²	Net Increase
Office	sq. ft.	103,751	475,000	371,249
Inline Retail	sq. ft.	141,998	150,000	8,002
Restaurant	sq. ft.	19,155	100,000	80,845
Macys East J	sq. ft.	114,000	0	-114,000
Macys West	sq. ft.	332,500	332,500	0
Fitness Center	sq. ft.	50,848	50,000	-848
Cinema	sq. ft.	42,370	50,000	7,630
Residential	units	0	550	550
Hotel	rooms	0	250	250
Total		804,622 sq. ft.	1,157,500 sq. ft. 550 residential units 250 hotel rooms	352,878 sq. ft. 550 residential Units 250 hotel rooms
Notes: ESC = Entertainment and Sports Center; sq. ft. = square feet				
¹ Based on data provided by JMA Ventures				
² Based on ESC project description				
Source: Fehr & Peers 2013				

The cumulative analysis also assumes a variety of reasonably foreseeable planned roadway improvements included in the MTP in the vicinity of the project site including:

- ▶ The reduction of the Tower Bridge from four to two lanes to accommodate a streetcar;
- ▶ I Street Bridge Replacement over the Sacramento River to new location slightly to the north;
- ▶ South Market Crossing Bridge (south of Pioneer Bridge) over the Sacramento River;
- ▶ Truxel Road Bridge over the American River;
- ▶ Carpool high occupancy vehicle (HOV) lanes on I-5 from the US 50/Capital City Freeway to I-80;

- ▶ 3rd Street Conversion Project - converts 3rd Street to two-way operations between Capitol Mall and L Street;
- ▶ I-5 Riverfront Reconnection Project (consisting of removal of the slip ramp from L Street/3rd Street to westbound Capitol Mall/Tower Bridge, and a new at-grade signalized intersection on Capitol Mall at Front Street/2nd Street);
- ▶ Extensions of 5th Street and 6th Street, Railyards Boulevard, and Bercut Drive into the Railyards Specific Plan area; and
- ▶ Sutter's Land Parkway interchange on the Capital City Freeway, including its extension to SR 160/Richards Boulevard/16th Street.

Various off-model adjustments were performed to modify the City's travel model output to be suitable for operational analysis.

The City's General Plan calls for an increase in residential housing density from approximately 40 units per acre to at least 61 units per acre in the vicinity of the project site by 2035. This growth is accounted for in the Cumulative 2035 SACMET model but the exact location of where the growth will occur is unknown. Therefore, the Cumulative Plus Project scenario assumed all growth would occur outside of the project site. This is a more conservative analysis since it is likely some of project growth was already accounted for in the City's General Plan.

Traffic volumes for the Plus Project scenarios were obtained by using five new traffic analysis zones (TAZs) to reflect the Project's parcels. The peak-hour trips exiting and entering these TAZs were factored to match the adjusted ITE trip rates presented in Table 4.11-7 and Table 4.11-8. Finally, the project-only turning movements at the study intersections were added to the Existing Conditions and Cumulative 2035 No Project Conditions volumes to produce Existing Plus Project and Cumulative 2035 Plus Project scenarios, respectively. The process described above was performed separately for each of the proposed project scenarios.

The Cumulative 2035 No Project Conditions volumes were analyzed using the Synchro traffic analysis program to determine LOS in the AM and PM peak hours. The results of the Cumulative 2035 No Project Conditions LOS analysis are documented in Table 4.11-15. Analysis worksheets are presented in Appendix H.

As Table 4.11-15 shows, all intersections would operate at overall LOS C or better in the Cumulative 2035 No Project Conditions scenario. Two intersections, 6th Street/P Street & 6th Street/Q Street, meet the peak-hour signal warrant in the Cumulative 2035 No Project Conditions scenario (this is shown further below in Table 4.11-16).

#	North-South Cross Street	East-West Cross Street	Control	AM		PM	
				Delay	LOS	Delay	LOS
1	4th St	O St	TWSC	4.9 (9.7)	A (A)	6.7 (12.7)	A (B)
2	5th St	N St	Signalized	30.6	C	16.4	B
3	5th St	O St	TWSC	2.4 (36.8)	A (E)	1.9 (16.3)	A (C)
4	5th St	P St	Signalized	20.0	C	20.9	C
5	6th St	P St	TWSC	3.4 (17.6)	A (C)	9.2 (77.3)	A (F)
6	6th St	Q St	TWSC	8.2 (81.5)	A (F)	3.7 (16.2)	A (C)
7	6th St	R St	TWSC	3.3 (13.1)	A (B)	3.3 (12.8)	A (B)
8	7th St	N St	Signalized	7.4	A	9.2	A
9	7th St	O St	None	0.0*	A*	0.0*	A*
10	7th St	P St	Signalized	10.8	B	14.2	B
11	7th St	Q St	Signalized	16.6	B	15.7	B
12	7th St	R St	TWSC	0.9 (10.3)	A (B)	0.4 (13.3)	A (B)
13	8th St	O St	Signalized	6.1	A	5.4	A

Notes: LOS = level of service; TWSC = two-way stop-controlled
Highway Capacity Manual 2010 Methodology
Control delays for unsignalized (TWSC) intersections are presented as follows: Average (Worst Approach)
* O Street between 7th and 9th Streets is one-way eastbound, therefore, there is no intersection delay at 7th Street and O Street.
Source: Kittelson & Associates, Inc. 2014a

Cumulative 2035 Plus Project Scenarios

Under Cumulative 2035 Plus Project scenarios, the SACMET model land use at the project site was replaced with the proposed project's land use to analyze the impact of project traffic on Cumulative 2035 No Project Conditions. The traffic analysis results for the Cumulative 2035 Plus Project scenarios are compared with the Cumulative 2035 No Project Conditions to determine if the proposed project results in any significant impacts.

Intersections

The Cumulative 2035 Plus Project scenarios analysis allows a determination of how the study area's transportation system will operate with the traffic generated by the proposed project. The AM and PM project trips (shown in Figure 4.11-6 and Figure 4.11-7 for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario, respectively) were added to the Cumulative 2035 No Project Conditions volumes to arrive at the total traffic volumes. The total traffic volumes for the Cumulative 2035 Plus Project condition are shown in Figure 4.11-12 and Figure 4.11-13 for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario, respectively.

Level-of-service results for Cumulative 2035 Plus Project in the AM and PM peak hours based on these volumes are shown in Table 4.11-16 and Table 4.11-17, respectively. Analysis worksheets are included as Appendix H.

**Table 4.11-16
LOS for Cumulative 2035 Plus Project Scenarios in the AM Peak Hour**

#	North-South Cross Street	East-West Cross Street	Control	Cumulative 2035 No Project Conditions		Cumulative 2035 Plus Project (Hotel / Condo / Retail Scenario)		Cumulative 2035 Plus Project (Condo / Retail Scenario)	
				Delay	LOS	Delay	LOS	Delay	LOS
1	4th St	O St	TWSC	4.9 (9.7)	A (A)	5.1 (9.8)	A (A)	5.1 (9.8)	A (A)
2	5th St	N St	Signalized	30.6	C	33.5	C	32.0	C
3	5th St	O St	TWSC	2.4 (36.8)	A (E)	2.6 (44.0)	A (E)	2.6 (42.8)	A (E)
4	5th St	P St	Signalized	20.0	C	20.5	C	20.3	C
5	6th St	P St	TWSC	3.4 (17.6)	A (C)	3.4 (18.2)	A (C)	3.4 (17.9)	A (C)
6	6th St	Q St	TWSC	8.2 (81.5)	A (F)	8.2 (81.5)	A (F)	8.2 (81.5)	A (F)
7	6th St	R St	TWSC	3.3 (13.1)	A (B)	3.3 (13.2)	A (B)	3.2 (13.1)	A (B)
8	7th St	N St	Signalized	7.4	A	7.5	A	7.4	A
9	7th St	O St	None	0.0*	A*	0.0*	A*	0.0*	A*
10	7th St	P St	Signalized	10.8	B	10.9	B	10.8	B
11	7th St	Q St	Signalized	16.6	B	16.6	B	16.6	B
12	7th St	R St	TWSC	0.9 (10.3)	A (B)	1.2 (10.4)	A (B)	1.2 (10.4)	A (B)
13	8th St	O St	Signalized	6.1	A	6.2	A	6.2	A
14	Driveway 1	N St	TWSC	N/A	N/A	0.4 (11.1)	A (B)	0.1 (10.8)	A (B)
15	7th St	Driveway 2	TWSC	N/A	N/A	0.4 (11.7)	A (B)	0.2 (11.5)	A (B)
16	7th St	Driveway 3	TWSC	N/A	N/A	0.2 (11.4)	A (B)	0.2 (11.3)	A (B)
17	7th St	Driveway 4	TWSC	N/A	N/A	0.3 (10.9)	A (B)	0.3 (10.9)	A (B)
18	Driveway 5	P St	TWSC	N/A	N/A	0.4 (13.7)	A (B)	0.4 (13.6)	A (B)
19	5th St	Driveway 6	TWSC	N/A	N/A	0.2 (16.0)	A (C)	0.2 (15.9)	A (C)
20	5th St	Driveway 7	TWSC	N/A	N/A	0.2 (14.8)	A (B)	0.2 (14.7)	A (B)

Notes: LOS = level of service; TWSC = two-way stop-controlled. As described in detail in the introduction to this section (4.11.1) and in Appendix H of this EIR, this data constitutes a conservative analysis for the proposed project as revised in October of 2014.

Highway Capacity Manual 2010 Methodology

Control delays for unsignalized (TWSC) intersections are presented as follows: Average (Worst Approach)

Gray-shaded cells indicate intersections that are only present in Plus Project conditions.

* O Street between 7th and 9th Streets is one-way eastbound, therefore, there is no intersection delay at 7th Street and O Street.

Source: Kittelson & Associates, Inc. 2014a

As Table 4.11-16 and Table 4.11-17 shows, all intersections are expected to operate at overall LOS C or better in the Cumulative Plus Project scenarios.

In addition to LOS analysis, each unsignalized intersection was assessed in the Cumulative 2035 No Project Conditions and Cumulative 2035 Plus Project scenarios for whether the peak-hour signal warrant is met, as described in the 2012 California MUTCD. As Table 4.11-18 shows, the intersection of 6th Street & Q Street meets the peak-hour signal warrant in the AM peak hour for all cumulative scenarios. The 6th Street and P Street intersection also meets the peak-hour signal warrant in the PM peak hour for all cumulative scenarios. Full documentation of these signal warrant findings is provided in Appendix H.

**Table 4.11-17
LOS for Cumulative 2035 Plus Project Scenarios in the PM Peak Hour**

#	North-South Cross Street	East-West Cross Street	Control	Cumulative 2035 No Project Conditions		Cumulative 2035 Plus Project (Hotel / Condo / Retail Scenario)		Cumulative 2035 Plus Project (Condo / Retail Scenario)	
				Delay	LOS	Delay	LOS	Delay	LOS
1	4th St	O St	TWSC	6.7 (12.7)	A (B)	7.1 (13.6)	A (B)	7.2 (13.6)	A (B)
2	5th St	N St	Signalized	16.4	B	17.2	B	17.3	B
3	5th St	O St	TWSC	1.9 (16.3)	A (C)	2.2 (18.1)	A (C)	2.4 (18.7)	A (C)
4	5th St	P St	Signalized	20.9	C	21.8	C	21.9	C
5	6th St	P St	TWSC	9.2 (77.3)	A (F)	17.3 (155.4)	C (F)	17.6 (157.9)	C (F)
6	6th St	Q St	TWSC	3.7 (16.2)	A (C)	3.7 (16.2)	A (C)	3.7 (16.2)	A (C)
7	6th St	R St	TWSC	3.3 (12.8)	A (B)	4 (13.5)	A (B)	4.2 (13.8)	A (B)
8	7th St	N St	Signalized	9.2	A	9.7	A	9.7	A
9	7th St	O St	None	0.0*	A*	0.0*	A*	0.0*	A*
10	7th St	P St	Signalized	14.2	B	15.3	B	15.4	B
11	7th St	Q St	Signalized	15.7	B	16.7	B	16.9	B
12	7th St	R St	TWSC	0.4 (13.3)	A (B)	0.4 (13.6)	A (B)	0.3 (13.9)	A (B)
13	8th St	O St	Signalized	5.4	A	5.4	A	5.4	A
14	Driveway 1	N St	TWSC	N/A	N/A	1 (12.4)	A (B)	0.6 (12.0)	A (B)
15	7th St	Driveway 2	TWSC	N/A	N/A	1.2 (20.3)	A (C)	0.8 (18.8)	A (C)
16	7th St	Driveway 3	TWSC	N/A	N/A	0.3 (17.3)	A (C)	0.3 (17.2)	A (C)
17	7th St	Driveway 4	TWSC	N/A	N/A	0.3 (18.0)	A (C)	0.3 (17.9)	A (C)
18	Driveway 5	P St	TWSC	N/A	N/A	0.7 (22.3)	A (C)	0.7 (22.4)	A (C)
19	5th St	Driveway 6	TWSC	N/A	N/A	0.5 (12.0)	A (B)	0.5 (12.1)	A (B)
20	5th St	Driveway 7	TWSC	N/A	N/A	0.5 (12.1)	A (B)	0.5 (12.2)	A (B)

Notes: LOS = level of service; TWSC = two-way stop-controlled. As described in detail in the introduction to this section (4.11.1) and in Appendix H of this EIR, this data constitutes a conservative analysis for the proposed project as revised in October of 2014.

Highway Capacity Manual 2010 Methodology

Control delays for unsignalized (TWSC) intersections are presented as follows: Average (Worst Approach)

Gray-shaded cells indicate intersections that are only present in Plus Project conditions.

* O Street between 7th and 9th Streets is one-way eastbound, therefore, there is no intersection delay at 7th Street and O Street.

Source: Kittelson & Associates, Inc. 2014a

Transit Operations

The anticipated transit trips that the proposed project will generate for both the Hotel / Condo / Retail Scenario and Condo / Retail Scenario are shown in Table 4.11-9 and Table 4.11-10, respectively. As these tables show, the project will generate between 20 and 30 transit trips in the AM peak hour and 40 to 50 transit trips in the PM peak hour. A total of 26 bus stops and four light rail stops are located within a quarter mile of the center of the project site. With 14 transit lines near the project site, each running multiple transit vehicles in the peak hours, the project site adequately provides access to transit.

**Table 4.11-18
Cumulative 2035 Signal Warrant Analysis Summary**

#	Intersection	AM			PM		
		Cumulative 2035 No Project Conditions	Cumulative 2035 Plus Project (Hotel / Condo / Retail Scenario)	Cumulative 2035 Plus Project (Condo / Retail Scenario)	Cumulative 2035 No Project Conditions	Cumulative 2035 Plus Project (Hotel / Condo / Retail Scenario)	Cumulative 2035 Plus Project (Condo / Retail Scenario)
1	4th St & O St	No	No	No	No	No	No
3	5th St & O St	No	No	No	No	No	No
5	6th St & P St	No	No	No	Yes	Yes	Yes
6	6th St & Q St	Yes	Yes	Yes	No	No	No
7	6th St & R St	No	No	No	No	No	No
12	7th St & R St	No	No	No	No	No	No
14	Driveway 1 & N St	No	No	No	No	No	No
15	7th St & Driveway 2	No	No	No	No	No	No
16	7th St & Driveway 3	No	No	No	No	No	No
17	7th St & Driveway 4	No	No	No	No	No	No
18	Driveway 5 & P St	No	No	No	No	No	No
19	5th St & Driveway 6	No	No	No	No	No	No
20	5th St & Driveway 7	No	No	No	No	No	No

Notes: As described in detail in the introduction to this section (4.11.1) and in Appendix H of this EIR, this data constitutes a conservative analysis for the proposed project as revised in October of 2014.

Shading indicates that the peak hour signal warrant was met

Source: Kittelson & Associates, Inc. 2014a

Bicycle and Pedestrians

The proposed project, as described in Chapter 2 of this EIR, is anticipated to generate between approximately 3,800 and 4,400 walking, biking, and other non-vehicular daily trips (see Tables 3 and 4 in Appendix H; Kittelson 2014b). This increase in trips has the potential to increase the number of pedestrian/bicycle, pedestrian/motor vehicle, and bicycle/motor vehicle conflicts.

The site plan design and overall proposed project is intended to be pedestrian friendly and oriented. As such, it is supportive of the policies and goals in the 2006 Pedestrian Master Plan that identifies this area as a pedestrian street corridor with a wide sidewalk/bike lane present on N Street adjacent to the project site.

Potential for Change in Air Traffic Patterns

The project site is not located adjacent to any airports and is not within any established air traffic patterns. The project site is located 4 miles from the nearest public airport or private airstrip, and Federal Aviation Administration (FAA) review plans for buildings exceeding 200 feet in height and their regulations dictate the types of warning lights and beacons that must be placed on high-rise buildings. Because the project site is not located adjacent to an airport and lies outside established air traffic patterns, this is not considered further in this EIR.

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, adopted LOS policies of the 2030 General Plan, guidance from the City's 1996 TIA Guidelines, and Appendix G of the CEQA Guidelines, an impact is considered significant if the proposed project would have the effects described below.

Intersections

General Plan Mobility Element Policy M 1.2.2 sets the definitions for what is considered an acceptable level of service. The Core Area LOS Exemption is appropriate for the proposed project since it is located within the core area, as defined in the 2030 General Plan M 1.2.2 section. Therefore, LOS F is acceptable during the peak hours, provided that the project provides improvements to other citywide transportation systems within the project vicinity. Thus, if the project was to worsen operations at an intersection operating at LOS F or worsens an intersection to LOS F, this conclusion is noted and then a supplemental evaluation of whether the project provides improvements to other parts of the citywide transportation system is initiated.

As reference, the criteria used to determine impacts outside of the core area are as follows:

- ▶ The traffic generated by the project degrades peak-hour level of service (LOS) from an acceptable LOS without the project to an unacceptable LOS with the project, or
- ▶ The LOS (without project) is unacceptable and project generated traffic increases the peak-hour vehicle delay by five (5) seconds or more.

The overall intersection LOS is based on the average intersection delay for signalized and all-way stop controlled intersections and for side-street stop-controlled intersections per the City of Sacramento TIA Guidelines.

Transit Service

Impacts to the transit system are considered significant if the project would:

- ▶ Fail to adequately provide access to transit; or
- ▶ Adversely affect public transit operations.

Bicycle Facilities

Impacts to bicycle facilities are considered significant if the project would:

- ▶ Adversely affect existing or planned bicycle facilities; or
- ▶ Fail to adequately provide for access by bicycle.

Pedestrian Circulation

Impacts to pedestrian circulation are considered significant if the project would:

- ▶ Adversely affect existing or planned pedestrian facilities; or
- ▶ Fail to adequately provide for access by pedestrians.

Construction-Related Impacts

The project would have a temporarily significant impact during construction if it would:

- ▶ Degrade an intersection or roadway to an unacceptable level;
- ▶ Cause inconveniences to motorists due to prolonged road closures; or
- ▶ Result in increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

Emergency Access

The project would have a temporarily significant impact during construction if it would:

- ▶ Result in inadequate emergency access.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An initial study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An initial study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and therefore would not require additional analysis in the EIR. This process is often referred to as “scoping out” issues.

No traffic/transportation issues were scoped out in the initial study.

As noted above, because the project site is not located adjacent to an airport and lies outside established air traffic patterns, this is not considered further in this EIR. Public Resources Code Section 21159.28 establishes that impacts to the regional transportation network are not required in CEQA documents for qualifying residential or mixed-use residential projects. In the vicinity of the project site, N Street, P Street, Q Street, 5th Street, 7th Street (from Q to the north), and 8th Street (from Q to the north) are part of the regional transportation network. The City is not required to analyze project specific or cumulative impacts on these streets from cars and light-duty truck trips generated by the project. Information on these segments is provided in this EIR for informational purposes.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

This section describes the transportation impacts of the project for the Hotel / Condo / Retail Scenario and Condo / Retail Scenario. As described in detail in the introduction to this section (4.11.1) and in Appendix H of this EIR, the residential density and land uses assumed in the Kittelson & Associates, Inc. Traffic Analysis would generate a higher number of vehicle trips as compared to the proposed project scenarios revised in October of 2014. Therefore, the Kittelson & Associates, Inc. Traffic Analysis provides a conservative approach in determining traffic impacts for the proposed project. Mitigation

measures are identified for significant impacts. These measures are applicable to the project, can be feasibly implemented, and are hereby incorporated into this traffic impact analysis as a requirement of the project.

IMPACT 4.11-1 Under Existing Conditions, project buildout could cause potentially significant impacts to study intersections. *Based on the analysis below, the impact would be less than significant.*

According to the significance criteria and intersection LOS results (shown in Table 4.11-5 and Table 4.11-6), all study intersections would continue to operate at an acceptable level of service under Existing Plus Project conditions for both the Hotel / Condo / Retail and Condo / Retail scenarios in the AM and PM peak hour. As a result, all study intersections would continue to operate at an acceptable level of service under Existing Plus Project conditions for both scenarios under the proposed project. Therefore, this is considered a **less-than-significant** impact.

Mitigation Measures

None required.

IMPACT 4.11-2 Under Existing Conditions, project buildout could cause potentially significant impacts to transit service and facilities. *Based on the analysis below, the impact would be less than significant.*

The proposed project's residents, visitors, and patrons would be provided adequate walking facilities to access transit services.

The proposed project would generate 20–27 transit trips in the a.m. peak hour and 41–50 transit trips in the p.m. peak hour (Tables 4.11-9 and 4.11-10). A total of 26 bus stops and four light rail stops are located within one-quarter mile of the center of the project site.

The proposed project would facilitate transit use by virtue of its location, mix of uses, and density levels. The proposed project would serve to reduce resident-generated vehicle travel and increase the use of public transit due to its location within the Central Business District (a major employment center); along several bus routes near two light rail stations; near several Central City parks and other recreational amenities; and within close proximity of cultural facilities, shopping, and services.

The reduction in VMT associated with the location of the project site has been demonstrated through the travel demand analysis that SACOG performed to support the MTP/SCS. The regional VMT per capita in 2008 was estimated to be 24.8 miles per day. For the traffic analysis zone that includes the project site, the average per-capita VMT in 2008 is approximately 9 miles per day. In 2035, forecast regional average per-capita VMT is 24 miles per day, whereas the project site and vicinity would have an average of approximately 5 miles per day (SACOG 2011, Chapter 5B, p. 84). The 2008 travel demand per capita in the project vicinity was approximately 65% lower than the regional average and the forecast 2035 travel demand per capita in the project vicinity is approximately 79% lower than the regional average.

The proposed project would not generate peak or daily transit trips at a level that would exceed the capacity of existing public transit lines or in other ways adversely affect public transit. Transit service

within the study area currently has adequate capacity, and per RT's Transit Master Plan (i.e., Transit Action Plan), ridership is periodically monitored to determine the need for additional service.

The proposed project would maintain existing connectivity provided by the existing downtown street grid and multi-modal transportation network to public transit and will improve access through the project site to adjacent transit resources. Therefore, the impact of the proposed project on the transit system is considered **less than significant**.

Mitigation Measures

None required.

IMPACT Under Existing Conditions, project buildout could cause potentially significant impacts to bicycle
4.11-3 access and facilities. *Based on the analysis below, the impact would be less than significant.*

The proposed project would result in an increase in vehicle and bicycle trips in the study area by residents and retail patrons. The proposed project is anticipated to generate between approximately 3,800 and 4,400 walking, biking, and other non-vehicular daily trips (see Tables 3 and 4 in Appendix H; Kittleson 2014b). This increase in trips has the potential to increase the number of pedestrian/bicycle and bicycle/motor vehicle conflicts. The proposed project driveways would also increase the number of potential conflict points between vehicles and bicyclists, especially along 5th Street where an existing Class II bike lane exists.

The proposed project will be conditioned to design the project frontage and all access points within the proposed site in accordance to the City's driveway standards, subject to review and approval of City Department of Public Works. The City's design standards for driveways require appropriate sight distances, widths, geometries, and other elements be provided to ensure safety to pedestrians and bicyclists is provided.

Furthermore, the proposed project is not anticipated to hinder or eliminate the existing bikeways or interfere with the implementation of the planned bikeways in the study area. The proposed project's Planned Unit Development (PUD) Guidelines (see Appendix N) ensure that the project would include pedestrian and bicycle connections on-site to connect and integrate into the City's existing multi-modal transportation network. Please see Section 3.1.2 of the PUD Guidelines, "Public Realm Design," for more detail.

The PUD Guidelines (and Figures 2-3, 2-4a, and 2-4b in Chapter 2 of this EIR) illustrate proposed East-West and North-South Promenades that provide easy pedestrian flow internally and to nearby transit stops and the surrounding downtown area activities and destinations.

The proposed project's PUD Guidelines provide for bicycle parking in the project's plazas and open space areas (see Appendix N under the heading "Landscape and Open Space Concepts" and "Bicycle Parking Standards"). As detailed in this document, the proposed project will include both long-term and short-term bicycle parking spaces and conform to applicable bicycle parking standards for the Central Business District in City Code Chapter 17.608. In addition, the proposed project will comply with CalGreen standards for non-residential uses (including spaces for hotel and neighborhood support /

retail uses) that require short-term bicycle parking be provided in permanently anchored bicycle racks within 100 feet of a visitor entrance, visible to passersby for 5% of the visitor vehicle parking capacity. Currently there is only one bike rack on-site that serves the existing developments. Therefore, the proposed project will result in a substantial increase in short- and long-term bicycle parking on-site.

As described above, the proposed project would increase bicycle travel in the vicinity of the project site and would improve bicycle access into and through the project site. By increasing available bicycle parking and improving bicycle access into and through the project site, the proposed project would improve conditions on the project site for bicycle travel and better link the project site to the existing bicycle network in downtown Sacramento. Therefore, the impact of the proposed project is considered **less than significant**.

Mitigation Measures

None required.

IMPACT Under Existing Conditions, project buildout could cause potentially significant impacts to
4.11-4 pedestrian access and facilities. *Based on the analysis below, the impact would be less than significant.*

The proposed project would result in an increase in vehicle, bicycle, and pedestrian trips in the study area by residents and retail patrons, which may lead to the increased potential for pedestrian/bicycle or pedestrian/motor vehicle conflicts. The proposed project is anticipated to generate between approximately 3,800 and 4,400 walking, biking, and other non-vehicular daily trips (see Tables 3 and 4 in Appendix H; Kittelson 2014b).

As noted, the PUD Guidelines for the project illustrate proposed East-West and North-South Promenades that continue the grid of the City and allow easy pedestrian flow internally to nearby transit stops and the surrounding downtown area activities and destinations. To ensure the safety of pedestrians, the proposed project will be conditioned to design the project frontage and all access points within the proposed site in accordance to the City's "Pedestrian Friendly Street Standards," subject to review and approval of City Department of Public Works.

The proposed project's PUD Guidelines ensure that the project would include pedestrian connections on-site to connect and integrate into the City's existing multi-modal transportation network. Please refer to Appendix N for more detail on the proposed project's planned pedestrian improvements.

The proposed project's residents, visitors, and patrons would be provided adequate walking facilities to access transit services and nearby destinations. The project site is located in the Central City, which contains sidewalks, short blocks, an urban tree canopy, and other features that encourage pedestrians to walk to nearby destinations. The existing City sidewalk network is adequate and can accommodate increased pedestrian activity related to the proposed project.

As described above, the proposed project would increase pedestrian travel in the vicinity of the project site and would improve pedestrian travel through the project site to surrounding transit resources and job centers. Therefore, the impact of the proposed project is considered **less than significant**.

Mitigation Measures

None required.

IMPACT 4.11-5 Under Existing Conditions, project buildout could cause potentially significant impacts due to construction-related activities. *Based on the analysis below, the impact would be less than significant with mitigation.*

During project construction, it may be necessary to restrict or redirect vehicular movements around the site to accommodate demolition, material hauling, construction, staging, and modifications to existing infrastructure. Such restrictions could include lane closures, lane narrowing, and detours, which would be temporary. Lane restrictions, closures, and/or detours could cause an increase in traffic volumes and delays on adjacent roadways. In addition, during different phases of project construction (e.g., building demolition and site clearing) there would be an increase in truck trips and construction equipment accessing local roadways.

It is conservatively assumed that a maximum of 750 trips per day could be generated during project construction (including worker trips, trucks, equipment, etc.). The effects of demolition/construction and related traffic could adversely affect existing motorists, bicycle, pedestrian, or transit facilities. Construction activities could also result in safety hazards from detours, bottlenecks, or disruption of bicycle and pedestrian facilities. Therefore, the impacts would be considered **potentially significant**.

Mitigation Measure

During construction, the City requires development projects prepare traffic management plans for construction activities, as required by Section 12.20.020 of the Sacramento City Code. The City requires that the traffic control plan illustrate the location of the proposed work area; provide a diagram showing the location of areas where the public right-of-way would be closed or obstructed and the placement of traffic control devices necessary to perform the work; show the proposed phases of traffic control; and identify the time periods when traffic control would be in effect and the time periods when work would prohibit access to private property from a public right-of-way. The plan may be modified by the City at any time in order to eliminate or avoid traffic conditions that are hazardous to the safety of the public. Compliance would minimize construction impacts related to interference with emergency response. With incorporation of mitigation identified below, the impact is **less than significant**.

Mitigation Measure 4.11-5: Prepare and Implement Construction Traffic Management Plan

Before issuance of demolition permit and beginning of construction for the project site, the project applicant shall prepare a Traffic Management Plan consistent with the requirements of sections 12.20.020 and 12.20.030 of the Sacramento Municipal Code that will be subject to review and approval by the City Department of Public Works, in consultation with Caltrans, affected transit providers, 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. In consideration of the number and type of trucks proposed to be used during construction, the proposed location of staging areas,

and potential need for street closures as identified in the Traffic Management Plan, at a minimum, the plan shall:

- Require the installation of temporary traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones.
- Require construction truck trips to occur outside of peak morning and evening commute hours.
- Limit the number of lane closures associated with project construction during peak hours.
- Establish construction truck routes that limit truck traffic on local roadways as defined and identified on Figure M 2B in the City's 2030 General Plan.
- Establish pedestrian, bicycle, and vehicular (including transit and emergency vehicle) detour routes where necessary to avoid conflicts with construction zone operations and traffic.
- Provide safe driveway access during construction for pedestrian, bicycle, and vehicles (including transit and emergency vehicle) through the use of steel plates, signage, and similar measures.
- Require temporary directional signage along all construction zone detour routes.

A copy of the Traffic Management Plan as approved by City Department of Public Works shall be submitted to local emergency response agencies and these agencies shall be notified at least 30 days before the commencement of construction that would partially or fully obstruct roadways. In addition, construction activities are not to interfere with transit service and pedestrian access to transit stops and light rail.

IMPACT Under Existing Conditions, project buildout could result in inadequate emergency access. *Based on*
4.11-6 *the analysis below, the impact would be less than significant with mitigation.*

Emergency vehicles would be able to access the project site from all perimeter roads (5th, N, 7th, and P Streets). The project proposes to retain existing access points at the extension of O Street and 6th Street and add new access points to the site from N Street between 6th and 7th, from 7th Street between N Street and O Street.

The project site is within Police District 3 and first response to the project site would be provided by the Sacramento Police Department Central Command, which is approximately 1.4 miles north of the center of the project site. The project site is located near existing police services and is located in the downtown grid, with access from various directions. The project site is developed and, as discussed below, the project proposes to improve emergency access into and through the project site.

First-response fire service to the project site would be provided by Fire Station #1, which is located at 624 Q Street, approximately 0.2 mile south of the center of the project site. The next closest station is

Fire Station #2, which is located at 1229 I Street, approximately 0.7 mile northeast of the center of the project site. Fire Station #2 has an aerial truck that could respond in the event of a fire. The next closest station with an aerial truck is Fire Station #5, which is located at 731 Broadway, about 0.8 mile south of the center of the project site.

As shown on the project's landscape plan, a minimum 20-foot wide fire lane is provided along the extension of 6th Street and a minimum 15 to 20-foot wide fire lane, allowing access from the west and from the east along the extension of O Street through the project site (see Figure 4.2-a). The SFD has reviewed the proposed project and has identified conditions, to be incorporated into the project, related to adequate turning radii, fire access, signage for emergency access, road design to support fire apparatus loads, and the provision of fire hydrants (Tunson 2014).

The project applicant would be required to incorporate California Fire Code requirements into the design of the proposed project to address access-road length, road dimensions, and finished surfaces for firefighting equipment; fire hydrant placement; and fire flow availability. These requirements are designed to improve fire safety and ensure emergency access is available throughout the project site in the event of an emergency. The City's existing regulations and review process require the project to demonstrate adequate emergency access, including the width of proposed accessways, as well as the design of accessways to support the loads of fire apparatus and shall be surfaced to provide all-weather driving capabilities. Based on the City's existing regulations, during review and approval of the final maps, the City will verify that applicable requirements of the California Fire Code and Sacramento City Code are incorporated into project designs. Please refer also to Section 4.10 of this EIR, which addresses fire protection access.

The project site is developed with existing residential and commercial uses and implementation of the proposed project would not eliminate any emergency vehicle access. Emergency access would be maintained and improved to serve the proposed new development. The proposed project's PUD Guidelines require internal vehicular ways to serve fire access (see Appendix N). If the project does not provide appropriate emergency access, this could represent a **potentially significant** impact.

Mitigation Measures

The mitigation below is provided to document consistency of the project with Sacramento Fire Department recommendations. This mitigation measure will ensure the project provides adequate vehicle access, road width and turning radii for large fire trucks and other fire equipment and does not block or hinder access to any adjacent buildings. The impact is considered **less than significant with mitigation**.

Mitigation Measure 4.11-6: Implement Mitigation Measure 4.10-1: Ensure Adequate Emergency Access.

4.11.6 CUMULATIVE IMPACTS

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals

in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG's MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Public Resources Code, Section 21155.2 [c] [1] provides that, "where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]" (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the cumulative discussion below. Cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.¹⁵

For traffic/transportation impacts, the geographic focus of the cumulative analysis is the City's Policy Area, as contemplated for development under the City's General Plan. Land use and travel demand modeling data was updated for the purposes of this cumulative traffic analysis, based on the most recent travel demand model and cumulative scenario (which uses the year 2035 and includes the ESC, as noted previously).

IMPACT Under Cumulative 2035 scenarios, the proposed project could cause potentially significant impacts
4.11-7 to study intersections. *Based on the analysis below, the impact would be less than cumulatively considerable.*

Cumulative transportation/traffic impacts were analyzed under Impacts 6.12-8, 6.12-9, 6.12-10, and 6.12-11 in the 2030 General Plan Master EIR. The 2030 General Plan Master EIR based its analysis of cumulative transportation impacts on future traffic volumes for the 2030 No Project and 2030 General Plan scenarios, which were projected by using the regional travel model and incorporating all of the regional model data and projects on the regional system within and outside of the Sacramento City limits. This included traffic from neighboring jurisdictions. These projections included all reasonably foreseeable and probable future projects in the region. Cumulative impacts were identified by comparing existing conditions to 2030 General Plan conditions. The impact was considered cumulatively significant if the change exceeded the thresholds identified in the standards of significance.

The analysis of Impact 6.12-8 (p. 6.12-90) determined that implementation of the 2030 General Plan would adversely affect roadways in the City. The analysis determined that full buildout of the 2030 General Plan would exceed the City's LOS C threshold. The analysis concluded that although policies included in the 2030 General Plan would reduce impacts, the significance of the impacts could not be reduced. Therefore, the contribution of the 2030 General Plan to the cumulative impact was determined to be significant and unavoidable.

The analysis of Impact 6.12-9 (p. 6.12-90) determined that implementing the 2030 General Plan would result in a cumulative traffic increase in adjacent jurisdictions. The analysis concluded that although policies would help reduce impacts, the City did not have control over implementation of mitigation in adjacent jurisdictions, and the cumulative impact was determined to be significant and unavoidable.

¹⁵ The year 2035 is the cumulative year for the traffic analysis because this is the cumulative year in the most recently updated travel demand model and this model takes into account traffic associated with the City's Entertainment and Sports Complex. .

The analysis of Impact 6.12-10 (p. 6.12-91) determined that implementing the 2030 General Plan would result in a cumulative increase in traffic that could exceed LOS along some freeway segments. The analysis concluded that although policies would help reduce impacts, the contribution of the 2030 General Plan to the significant cumulative impact would be significant and unavoidable.

The MTP/SCS addressed impacts under Impact TRN-1 (p. 16-35), which found that that the MTP/SCS land use and transportation changes in Center and Corridor Communities would reduce the need to travel frequently or over long distances using single-occupancy vehicles, by putting people closer to jobs and other destinations and increasing opportunities to bicycle, walk, or ride transit. The analysis determined that implementing the MTP/SCS would reduce household-generated VMT per capita in Center and Corridor Communities by 12.2% (p. 16-37), and would reduce household-generated VMT per capita in Sacramento County transit priority areas (TPAs) by 4.8% (p. 16-40). The analysis concluded that VMT per-capita impacts would be less than significant and no mitigation was required.

The analysis of Impact TRN-2 (p. 16-41) determined that the MTP/SCS land use and transportation changes in Center and Corridor Communities would result in a 2.1% (p. 16-43) increase in congested vehicle miles traveled (VMT) per capita. However, congested VMT per capita in Center and Corridor Communities is forecast to be approximately 19% below the regional average in 2035 (Table 16.15 on p. 16-42 and Table 16.16 on p. 16-43). The analysis determined that implementing the MTP/SCS would result in a 4.9% (p. 16-47) increase in congested VMT per capita in Sacramento County TPAs. However, congested VMT in Sacramento TPAs is forecast to be 24% below the regional average in 2035 (Table 16.15 on p. 16-42 and Table 16.21 on p. 16-47). The analysis concluded that although congested VMT would increase for both the Center and Corridor Communities and Sacramento County TPAs, the overall congested VMT with the increases would still be well below the baseline regional averages. As a result, the analysis concluded that the impact would be less than significant and no mitigation was required.

Cumulative transportation/traffic impacts were analyzed in Impact CUM-15 of the MTP/SCS Program EIR (p. 19-27). The analysis of Impact CUM-15 determined that at the regional level, all transportation and traffic impacts associated with implementing the MTP/SCS were less than significant. The analysis found that this conclusion reflected the success of the MTP in decreasing per-capita VMT; increasing person-trips by bicycle, walking, and transit; improving infrastructure and connectivity for pedestrians, bicycles, and transit; and minimizing impacts on the movement of goods and agriculture. Therefore, the MTP/SCS Program EIR concluded that implementing the MTP/SCS would result in a less-than-significant contribution to cumulative transportation/traffic impacts.

Furthermore, according to the significance criteria and results in Table 4.11-16 and Table 4.11-17, all study intersections would continue to operate at an acceptable level of service under Cumulative 2035 Plus Project conditions for both the Hotel / Condo / Retail and Condo / Retail scenarios in the AM and PM peak hour.

Under the 2030 General Plan, Policy M 1.2.2, for a project in the Core Area, LOS F is considered acceptable to the City if the project improves the citywide transportation system by improving transportation-system-wide roadway capacity, making intersection improvements, or enhancing non-auto travel modes in furtherance of the General Plan goals. The proposed project enhances non-auto

travel modes by improving bicycle access through the project site and by increasing residential densities within close proximity to light rail and other transit resources. See also Appendix H for further discussion of transportation system improvements provided by the proposed project. Additionally, as discussed in the MTP/SCS Program EIR, development consistent with the MTP/SCS is anticipated to contribute towards a decrease in per-capita VMT; increase in person-trips by bicycle, walking, and transit; improve infrastructure and connectivity for pedestrians, bicycles, and transit; and minimize impacts on the movement of goods and agriculture. Therefore, the proposed project's contribution to the cumulative impact identified in the 2030 General Plan Master EIR is **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.11-8	Under Cumulative 2035 scenarios, project buildout could cause potentially significant impacts to transit service and facilities. <i>This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact.</i>
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The 2030 General Plan Master EIR discussed transit impacts under Impact 6.12-4, finding that buildout of the General Plan would result in an increase in the number of citywide transit trips by approximately 49 percent (p. 6.12-86). General Plan impacts were found to be less than significant. The 2030 General Plan Master EIR discussed the impact on transit facilities associated with implementation of the proposed 2030 General Plan under cumulative conditions. Under Impact 6.12-11, the City determined that the General Plan's contribution to the increase in transit usage would not be considerable because of the plan's goal of increasing the availability of transit services throughout the City (p. 6.12-92).

The analysis of 2030 General Plan Master EIR Impact 6.12-4 concluded that compliance with General Plan policies would ensure that implementation of the 2030 General Plan would not adversely affect transit facilities, and no mitigation was required.

The analysis of Impact TRN-3 (p. 16-49) in the MTP/SCS Program EIR determined that the MTP/SCS land use and transportation changes in Center and Corridor Communities would result in a 37.8% increase in per-capita trips by bicycle, walking, or transit. These trips are 183% above the regional baseline average. In Sacramento County TPAs, there would be a 27.0% increase in per-capita trips by bicycle, walking, or transit. These trips are 118% above the regional baseline average. The analysis concluded that impacts related to bicycle, walking, or transit trips would be less than significant, and no mitigation was required.

The analysis of Impact TRN-4 (p. 16-55) determined that implementing the MTP/SCS would significantly increase transit productivity in all counties and the region as a whole. The analysis anticipated that those transit productivity improvements would extend to the Center and Corridor Communities by increasing high-quality local and commuter transit service and transit-supportive land uses. The analysis determined that in addition to compact development, complementary, mixed-use development supports shorter vehicle trips and higher rates of non-motorized travel in the Sacramento County TPAs. The analysis also determined that implementing the MTP/SCS would result in a 43%

increase in passenger boardings per service hour relative to the baseline. Therefore, the analysis determined that impacts related to transit passenger boardings per service hour would be less than significant, and no mitigation was required.

The proposed project's residents, visitors, and patrons would be provided adequate walking facilities to access transit services. Additionally, the proposed project would not adversely affect public transit operations.

The City of Sacramento finds that the cumulative impact of the proposed project related to transit has been fully addressed by the 2030 General Plan Master EIR. Therefore, there is **no cumulative** impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does **not have the potential to result in a cumulatively considerable impact** related to transit.

Mitigation Measures

None required.

IMPACT 4.11-9 Under Cumulative 2035 scenarios, project buildout could cause potentially significant impacts to bicycle access and facilities. *This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact.*

The analysis of Impact 6.12-6 of the 2030 General Plan Master EIR determined that implementing the 2030 General Plan would increase citywide bicycle trips by approximately 22% compared to the 2030 No Project scenario (p. 6.12-88). The Mobility Element of the 2030 General Plan includes policies (M 1.1.3, M 1.2.1 through M 1.2.3, M 1.3.5, M 5.1.1 through M 5.1.13, M 4.2.1 through M 4.2.6, and M 9.1.1) that specifically address providing a safe, comprehensive, and integrated bikeway system throughout the City. These policies are enumerated above (under Impact 4.11-7). In addition, policies in the Land Use and Urban Design Element (LU 1.1.1, 1.1.4, 2.1.3, 2.5.1, 2.5.2, 2.6.4, 4.1.4, and 4.2.1) support increased bicycling. These policies are enumerated above (under Impact 4.11-8).

The analysis presented in the 2030 General Plan Master EIR concluded that these policies would ensure that implementing the 2030 General Plan would not adversely affect bicycle facilities, and no mitigation was required. The 2030 General Plan Master EIR indicates that cumulative impacts related to bicycle facilities and access is captured in the project impact discussion under Impact 6.12-6 of the 2030 General Plan Master EIR.

The MTP/SCS EIR discusses impacts to existing or planned pedestrian or bicycle facilities under Impact TRN-5, finding less than significant impacts in Center and Corridor Communities (such as the vicinity of the project site) (p. 16-62).

The proposed project would result in an increase in vehicle and bicycle trips in the study area by residents and retail patrons. The proposed project driveways would also increase the number of potential conflict points between vehicles and bicyclists, especially along 5th Street where an existing Class II bike lane exists. The project is not anticipated to hinder or eliminate the existing bikeways or interfere with the implementation of the planned bikeways in the study area.

The proposed project would be conditioned to design the project frontage and all access points within the proposed site in accordance with the City's driveway standards, subject to review and approval of the City Department of Public Works. The proposed project would be conditioned to design the project frontage and all access points within the proposed site in accordance with the City's "Pedestrian Friendly Street Standards" and subject to review and approval of the City Department of Public Works.

The City of Sacramento finds that the cumulative impact of the proposed project related to bicycle facilities and access has been fully addressed by the 2030 General Plan Master EIR. Therefore, there is **no cumulative** impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does **not have the potential to result in a cumulatively considerable impact** related to bicycle facilities and access.

Mitigation Measures

None required.

IMPACT 4.11-10 Under Cumulative 2035 scenarios, project buildout could cause potentially significant impacts to pedestrian access and facilities. *This impact has been fully addressed by the General Plan Master EIR. There is no cumulative impact*

The 2030 General Plan Master EIR discussed pedestrian impacts under Impact 6.12-5, finding that buildout of the General Plan would result in an increase in the number of citywide pedestrian trips by approximately 35 percent (p. 6.12-87). General Plan impacts were found to be less than significant. The Mobility Element of the 2030 General Plan includes policies that specifically address providing a universally accessible, safe, convenient, and integrated pedestrian system throughout the City and policies in the Land Use and Urban Design Element support increased walking. These sets of policies are enumerated above (under Impact 4.11-8).

The analysis of Impact 6.12-5 in the 2030 General Plan Master EIR concluded that the City's mobility and land use policies would ensure that implementing the 2030 General Plan would not adversely affect pedestrian facilities and no mitigation was required. The General Plan Master EIR indicates that cumulative impacts related to pedestrian facilities and access is captured in the project impact discussion under Impact 6.12-5 of the 2030 General Plan Master EIR.

The MTP/SCS EIR discusses impacts to existing or planned pedestrian or bicycle facilities under Impact TRN-5, finding less than significant impacts in Center and Corridor Communities (such as the vicinity of the project site) (p. 16-62).

The proposed project would result in an increase in pedestrian trips in the study area by residents and retail patrons, which may lead to the increased potential for pedestrian/bicycle or pedestrian/motor vehicle conflicts.

The proposed project would be conditioned to design the project frontage and all access points within the proposed site in accordance with the City's "Pedestrian Friendly Street Standards" and subject to review and approval of the City Department of Public Works.

The City of Sacramento finds that the cumulative impact of the proposed project related to pedestrian facilities and access has been fully addressed by the 2030 General Plan Master EIR. Therefore, there is **no cumulative** impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does **not have the potential to result in a cumulatively considerable impact** related to pedestrian facilities and access.

Mitigation Measures

None required.

IMPACT Cumulative impacts related to emergency access. *This impact has been fully addressed by the General*
4.11-11 *Plan Master EIR. There is no cumulative impact.*

Cumulative impacts from interference with emergency access were analyzed in Impact 6.6-1 (p. 6.6-20) of the 2030 General Plan Master EIR. The analysis of Impact 6.6-1 determined that although lane restrictions and road closures may be necessary during construction activities, Sections 12.20.020 and 12.20.030 of the Sacramento City Code require all development projects to prepare traffic control plans for construction activities. The 2030 General Plan Master EIR concluded that compliance with the Sacramento City Code Sections 12.20.020 and 12.20.030 would ensure that the impact related to construction-related interference with emergency response vehicles would be less than significant. The EIR did not identify any operational impacts related to emergency vehicle access. The 2030 General Plan Master EIR did not provide a separate cumulative analysis of this impact to take into account projects located outside the City's Policy Area.

Impacts associated with interference with emergency access were analyzed in Impacts HAZ-7 and HAZ-9 of the MTP/SCS Program EIR (pp. 10-58 and 10-71). The analyses of Impacts HAZ-7 and HAZ-9 found that future construction and operation of projects in the Center and Corridor Communities would consist primarily of infill in already developed areas where emergency evacuation routes are already established. Emergency response and emergency evacuation plans are designed by the Office of Emergency Services for each county in the region to respond to a possible emergency situation (e.g., fires, floods, earthquakes). These plans provide a process for evacuating people from danger, and preventing or minimizing loss of life and property. The MTP/SCS Program EIR also determined that although weekday congested VMT per capita (household-generated) would increase slightly from 0.82 to 0.84, the Center and Corridor Communities would have the lowest congested VMT per capita among the various community types. This could result in quicker response times for emergency services. Therefore, given the emergency plans and programs that are in place on a countywide basis, the project-level review required for all individual projects, and the likely improved response times in the Center and Corridor Communities, the MTP/SCS Program EIR found that this impact would be less than significant.

The City of Sacramento finds that the cumulative impact of the proposed project related to emergency access has been fully addressed by the 2030 General Plan Master EIR. Therefore, there is **no cumulative** impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does **not have the potential to result in a cumulatively considerable impact** related to emergency access.

Mitigation Measures

None required.

IMPACT Cumulative impacts related to construction. *This impact has been fully addressed by the General Plan*
4.11-12 *Master EIR. Based on the analysis below, the impact would be less than cumulatively considerable.*

The 2030 General Plan Master EIR concluded that compliance with the Sacramento City Code would ensure that impacts related to construction-related interference with emergency response vehicles would be less than significant.

Construction impacts associated with design features or incompatible uses were analyzed in Impact TRN-7 of the MTP/SCS Program EIR. The analysis of Impact TRN-7 determined that construction activities to implement the land use and transportation changes would have the potential to interfere with the normal operations of the localized transportation system. Interference with local transportation systems could occur where activities disrupt traffic in one or more travel lanes, sidewalks, or bicycle routes by causing detours or bottlenecks. Also, certain large construction projects may increase travel on local roads not designated for heavier traffic volumes as workers and supplies travel to and from the sites. Despite the inclusion of MTP/SCS Program EIR Mitigation Measure TRN-3, "Apply Best Practice Strategies to Reduce the Localized Impact from Construction Activities on the Transportation System," the MTP/SCS EIR concluded that it could not be known whether the strategies in the mitigation measure would reduce the impact to a less-than-significant level, since SACOG does not have the ability to impose mitigation on many projects considered within the umbrella of the MTP/SCS. The MTP/SCS Program EIR concluded that the impact would be significant and unavoidable since SACOG cannot require mitigation for development projects.

Mitigation Measures

For the proposed project, consistent with the existing City Code and Mitigation Measure TRN-3 from the MTP/SCS EIR, a traffic management plan would be required. To avoid impacts related to construction activities, the City requires development projects prepare traffic management plans for construction activities, as required by Section 12.20.020 of the Sacramento City Code. The City requires that the traffic control plan illustrate the location of the proposed work area; provide a diagram showing the location of areas where the public right-of-way would be closed or obstructed and the placement of traffic control devices necessary to perform the work; show the proposed phases of traffic control; and identify the time periods when traffic control would be in effect and the time periods when work would prohibit access to private property from a public right-of-way. The plan may be modified by the City at any time in order to eliminate or avoid traffic conditions that are hazardous to the safety of the public. Compliance would minimize construction impacts related to interference with emergency response. Approval of the plan is required prior to issuance of a demolition permit. Preparing and implementing a construction traffic management plan consistent with the requirements of Mitigation Measure 4.11-5 would ensure a **less than cumulatively considerable** impact.

4.11.7 OTHER CONSIDERATIONS

The following discussion is related to transportation planning for the project, including on-site circulation and intersection queuing. The discussion provides additional background information supporting the analysis and conclusions in this section.

PROPOSED PROJECT ACCESS EVALUATION AND ON-SITE CIRCULATION

Internal circulation was qualitatively evaluated to consider the on-site circulation for pedestrian movements and motorized traffic. Figure 4.11-13 illustrates access to the project site.

Vehicle access to the proposed development is mostly via one-way streets at seven right-in/right-out driveway access points. This includes one driveway on N Street, three driveways on 7th Street, one driveway on P Street, and two driveways on 5th Street. Given the right-in/right-out configuration of all driveways and the LOS A traffic operations at the driveway intersections through the Cumulative 2035 Plus Project scenarios, the assumption that driveways are controlled by stop signs on the driveway approaches (i.e., minor-street stop control) is justified.

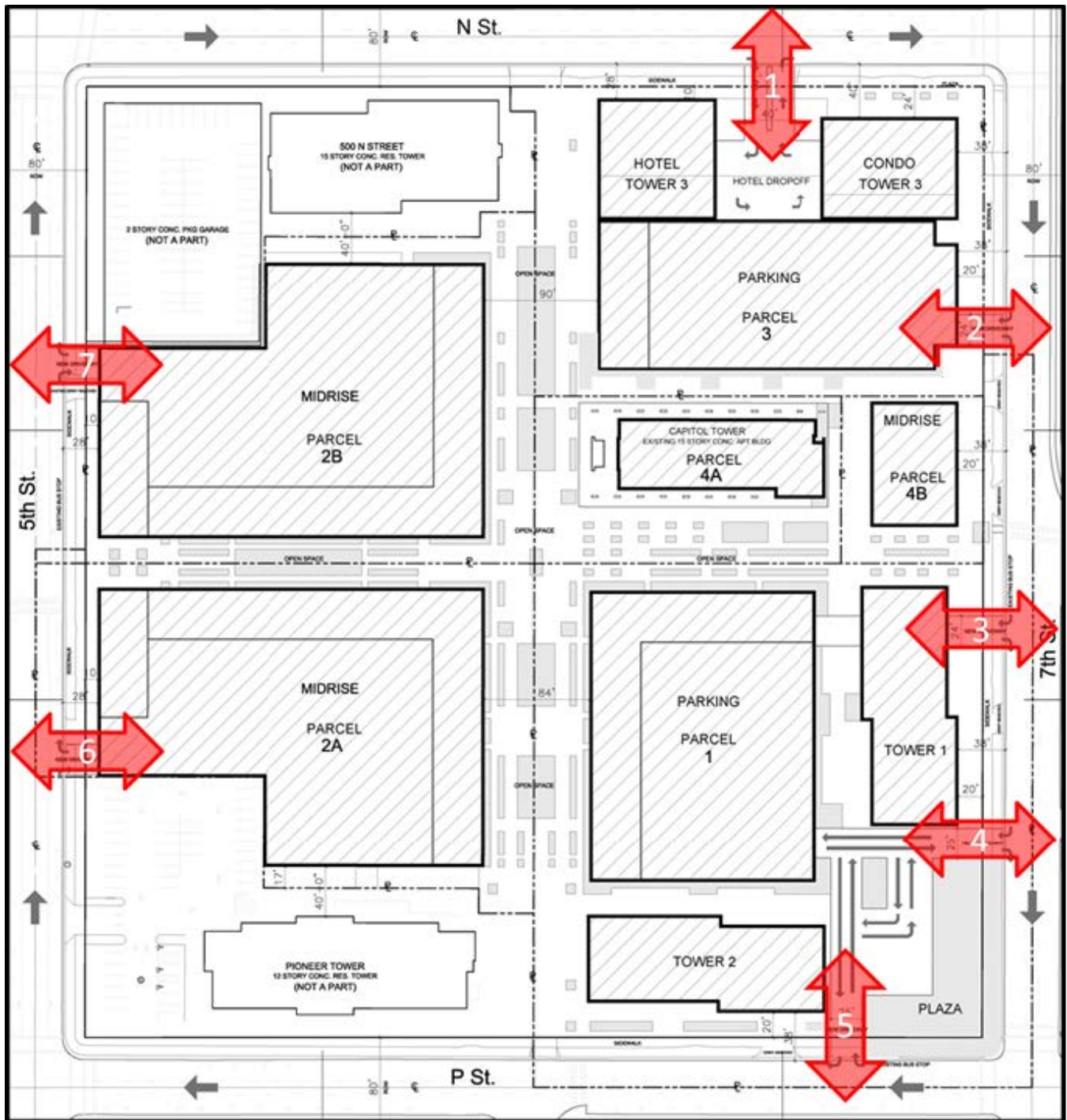
Most of the proposed development's driveways provide direct access to parking garages. Vehicle circulation on the project site outside of the garages is limited to the hotel drop off accessed via driveway 1, access to driveway 2, and the southeast corner of the proposed project served by driveways 4 and 5. The following observations should be considered when refining the design of these two areas:

- ▶ Shrubbery and landscaping near the internal intersections and site access points should be maintained to ensure adequate sight distance; and
- ▶ Appropriate turning templates to accommodate vehicles expected to use the areas.

On-site circulation is similar to Existing Conditions scenario where there are open spaces that bisect the project site. These open spaces essentially provide a non-vehicular extension of O Street in the east-west direction and 6th Street in the north-south direction.

Considerations to improve on-site access for all modes, as well as to accommodate emergency vehicles, are listed below:

- ▶ All turning radii for fire access should be designed as 35' inside and 55' outside.
- ▶ Roads used for Fire Department access should have an unobstructed width of not less than 20' and unobstructed vertical clearance of 13'6" or more.
- ▶ "No Parking Fire Lane" markings should be applied on the emergency access roads. However, due to the pedestrian nature of the open spaces between the proposed project's buildings, that striping and signage would be limited.



Source: Van Tilberg, Banvard & Soderbergh 2014

Figure 4.11-13

Site Access

- ▶ Clearly define pedestrian on-site routes.
- ▶ Landscaping and shrubbery should be placed and maintained in a way that it would not grow to obstruct pathways.

All of these recommendations will be subject to review and approval by the City Public Works Department at the time of improvement plans review.

INTERSECTION QUEUING

A review of 95th percentile queues was conducted for all Cumulative 2035 Plus Project scenarios. The PM scenarios had considerably more queuing than the AM scenarios. Under the PM scenarios, the following calculated queues extended to or beyond the upstream intersection which may restrict movements at the upstream intersection.

- Northbound approach to the 5th Street & N Street intersection (#2). The 95th percentile queue is expected to reach the Driveway 7 intersection (#20).
- Northbound approach to the 6th Street & P Street intersection (#5). The 95th percentile queue is expected to reach the 6th Street & Q Street intersection (#6).
- Eastbound approach to the 7th Street & N Street intersection (#8). The 95th percentile queue is expected to reach the Driveway 1 intersection (#14).
- Southbound approach to the 7th Street & P Street intersection (#10). The 95th percentile queue is expected to reach the Driveway 4 intersection (#17).

Figure 4.11-14 presents a diagram highlighting the 95th percentile queue lengths in the PM peak hour for the Cumulative 2035 Plus Project Condo / Retail Scenario. Queue lengths were similar, although slightly shorter, for the Hotel / Condo / Retail Scenario. Therefore, Figure 4.11-14 represents the maximum queue length expected between the two scenarios. None of these queues were found to affect upstream intersections other than those specifically mentioned above. Therefore, the driveways are expected to operate satisfactorily at the locations specified in the proposed project’s site plan and under minor-street stop control.

Table 4.11-19 shows the number of parking spaces in each garage. A final design of the driveways’ throat depth and the set back of the gates will be subject to review and approval by the department of Public Works.

Garage	Serving	Hotel / Condo / Retail Option	Condo / Retail Option
1	Parcel 1	610	610
2	Parcel 2A	249	249
3	Parcel 2B	249	249
4	Parcel 3, 4A, & 4B	670	577
Total		1,778	1,685

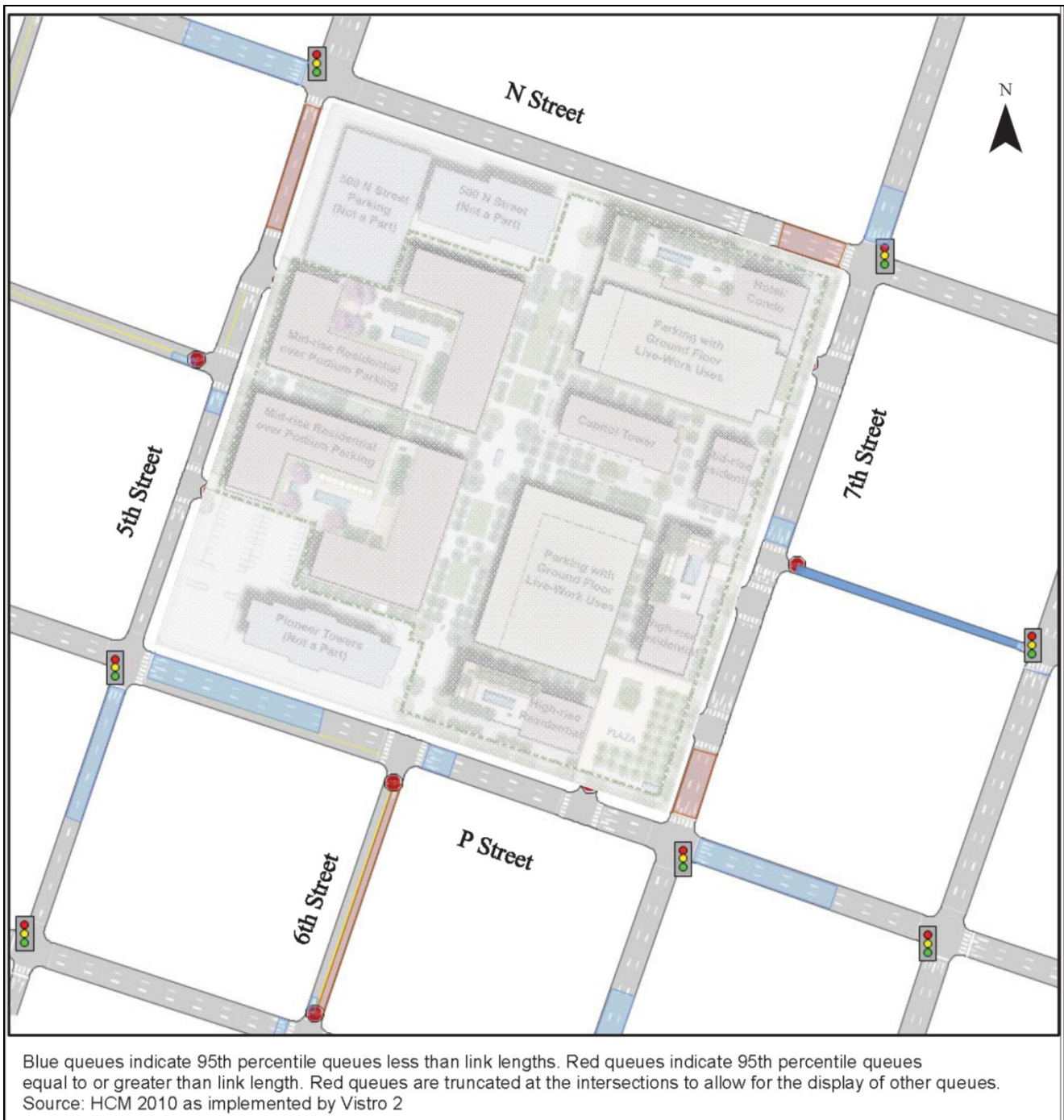


Figure 4.11-14 Cumulative 2035 Plus Project Condo / Retail PM 95th Percentile Queues

It is recommended that the throat depth (i.e., queue storage) at the driveways be designed to accommodate the 95th percentile queues on the driveway approaches. The length of outbound queues is a function of outbound vehicular volume and traffic operations on the major roadway. The length of inbound queues is dictated by inbound vehicular volume and the garage gate opening time (if any is installed).

Outbound traffic queues were calculated¹⁶ based on the outbound vehicular volume and traffic operations on the major roadway. The following summarizes the calculated maximum outbound queues:

- ▶ The maximum 95th percentile queue on Driveway 2 is estimated at 64 feet or about 3 vehicles.
- ▶ The maximum 95th percentile queue on Driveway 5 is estimated at 53 feet or about 2 vehicles.
- ▶ All other driveways are expected to have outbound queue lengths less than one car length.

Regarding inbound queues due to gated entries, previous studies and field observations performed for the City of Sacramento suggest gate service times¹⁷ of approximately seven to nine seconds to serve one vehicle, which is taken here as a deterministic (i.e., fixed) value.

To estimate the 95th percentile length of the inbound queues, the hourly inbound rates at the driveways were adjusted upward using the same 95th Percentile Arrival Rate formula used by Synchro 8.¹⁸ The adjustments ranged from 5.1 times to 8.3 times the hourly rates, corresponding to rare situations in which 42 percent to 69 percent of the hourly volume would arrive in the same five-minute span.

Using the highest inbound rates—generally those under the Hotel / Condo / Retail Scenario, PM peak hour—and the relationship between arrival rate, queue length, and waiting times (i.e., Little's Law), the following findings were derived:

- ▶ The inbound queue length at Driveway 1 under the Hotel / Condo / Retail scenario depends primarily on the dwell time of vehicles at the hotel loading zone. Based on a site plan review, nine vehicles can be accommodated without queue spillback onto N Street. If more vehicles are anticipated, alternate loading options need to be provided. For example, the hotel may consider offering valet services to quickly move vehicles to a parking garage.
- ▶ Driveway 2 (Intersection #15, off 7th Street) and Driveway 5 (Intersection #18, off P Street) would result in about two vehicles queued at the driveways. Using a typical 25-foot vehicle length, two vehicles would occupy 50 feet.
- ▶ All other proposed project driveways are expected to have single-vehicle queues waiting for the gate to open. Using the standard vehicle length assumption, the inbound queues would be 25 feet long.

In summary, the location of the access gate at the parking garage would depend on the inbound traffic and the service time at each gate which is assumed to be less than nine seconds. The following points summarize the recommendations from this analysis.

- ▶ The Driveway 2 throat to and from the proposed Parcel 3 parking garage accommodates more than two vehicles (50 feet) inbound queue length estimated to occupy the driveway. The Driveway 2 has sufficient throat depth.

¹⁶ Calculations performed using the Vistro 2 software

¹⁷ Gate service time includes time spent swiping a card, waving an electronic fob, typing a code, or any other activity required for the gate to open.

¹⁸ *Synchro Studio 8 User Guide*. Trafficware (2014), page 14-72.

- ▶ According to the current site plan, the Driveway 5 access from and to P Street has sufficient throat depth to accommodate the 53-foot 95th percentile outbound queue length.
- ▶ The rest of the proposed project driveways shall be constructed in conformance with the City's driveway standards, Standard Construction Specifications, special instructions of the driveway inspector, and the design plans as approved by City of Sacramento Transportation Engineer so that no cars will be backing into the adjacent streets and blocking sidewalks.

4.12 UTILITIES AND SERVICE SYSTEMS

This section addresses public utilities (water, wastewater, stormwater and solid waste) that would serve the proposed project, along with a brief overview of federal, state, and local laws and regulations pertaining to utilities. The analysis describes the existing environmental conditions, the methods used for assessment, and the impacts of implementing the proposed project. Mitigation measures are proposed to address potentially significant impacts associated with implementation of the proposed project.

In response to the Notices of Preparation (NOP) for both the Sustainable Communities Environmental Assessment (SCEA) and this EIR, commenters identified concerns related to sewer service demand, water supply, and the provision of adequate utilities, such as stormwater drainage, each of which is addressed in this section. Information pertaining to the project's demand for electricity and natural gas is addressed in Section 4.6, "Greenhouse Gas Emissions and Energy." Copies of the NOPs and comments received in response are included in Appendix B. A copy of the Water Supply Assessment (WSA) prepared for the project is included in Appendix I.

4.12.1 ENVIRONMENTAL SETTING

WATER SUPPLY

Water Availability and Demands

The City of Sacramento is the water purveyor for the proposed project. The City's water supply is obtained from three sources:

- ▶ surface water from the American River,
- ▶ surface water from the Sacramento River, and
- ▶ groundwater from the North American and South American Subbasins.

Under its current permits to divert water from the Sacramento River, the City may divert up to 225 cubic feet per second (cfs), or an annual limit of 81,800 acre-feet per year (afy) (City of Sacramento 2011, p. 4-3). In addition, the City has four water rights permits authorizing diversions of up to 589,000 afy of American River water. In 1957, the City entered into a water rights settlement agreement with the U.S. Bureau of Reclamation regarding diversions from the American River (City of Sacramento 2011, p. 4-4). Under the settlement agreement, the City agreed to limit its diversions from the American River and scale up to the maximum diversion of 245,000 afy by the year 2030 (City of Sacramento 2011, p. 4-5). Table 4.12-1 shows the settlement contract's maximum diversion schedule from 2010 to 2035. The City had a total of 227,500 afy of potable water supplies in 2010; this total is anticipated to increase to 326,800 afy by 2035.

Most of the City's water supply is surface water. The balance is obtained from groundwater extracted from the North American and South American Subbasins of the Sacramento Valley Groundwater Basin (see Section 4.8, "Hydrology and Water Quality," for further discussion). The City operates 25 municipal supply wells and five irrigation supply wells north of the American River, and two municipal supply wells and nine irrigation supply wells south of the American River (City of Sacramento 2011, p. 4-8).

Table 4.12-1 Maximum Diversion Schedule, 2010–2035, in the Settlement Contract						
Source	Diversions (afy)					
	2010	2015	2020	2025	2030	2035
Maximum Diversion from the American River ¹	170,500	189,000	208,500	228,000	245,000	245,000
Maximum Diversion from the Sacramento River ²	81,800	81,800	81,800	81,800	81,800	81,800
Maximum Combined Diversion Total³	227,500	252,000	278,000	304,000	326,800	326,800

Note: afy = acre-feet per year

¹ The City may divert up to the maximum diversion from the American River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the maximum combined diversion total.

² The City may divert up to 81,800 afy from the Sacramento River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the maximum combined diversion total.

³ Represents the City's total maximum combined diversion from both the American River and Sacramento River.

Source: City of Sacramento 2011, p. 4-6

Total well pumping capacity is 16,010 gallons per minute, or 23.1 million gallons per day (mgd) (City of Sacramento 2011, p. 4-10). Although the City maintains pumps in both the North American and South American Subbasins, approximately 95% of the amount pumped by the City is from the North American Subbasin (City of Sacramento 2011, p. 4-8). In 2010, the City pumped 17,772 afy from the North American Subbasin and 665 afy from the South American Subbasin (City of Sacramento 2011, p. 4-8). The annual amount projected to be pumped from both subbasins totals approximately 22,300 afy (City of Sacramento 2011, p. 4-16).

The City's Urban Water Management Plan (UWMP), which was adopted in October 2011, addresses water supply and demand issues, water supply reliability, water conservation, water shortage contingencies, and recycled-water usage for the locations within its service area. In accordance with Senate Bill (SB) x7-7 (see California Water Code Section 10608.12[b][1]), the City's UWMP estimated water demands are based on an estimated gallons per capita per day target chosen by the City (City of Sacramento 2011, p. 3-4).

Future water demands for the City were calculated based on projected water demands associated with all development projected and analyzed in the 2030 General Plan and the 2030 General Plan Master EIR (City of Sacramento 2011, p. 2-11). Table 4.12-2 identifies water supply and demand within the Sacramento City limits over the UWMP's 20-year planning period (i.e., 2015–2035) in normal, single-dry, and multiple dry years. As shown, the City's water supply is expected to exceed water demand through 2035 in all water years.

Table 4.12-2 Comparison of Water Supply and Demand in the City of Sacramento, 2015–2035					
Total Water Supplies and Demand ^{1, 2}	Projected Demands (afy) ¹				
	2015	2020	2025	2030	2035
Normal Year					
Total Supply	290,800	310,300	329,800	346,800	346,800
Total Demand	172,589	185,788	217,886	249,984	260,984
Difference (Supply minus Demand)	118,211	124,512	111,914	96,816	85,816
Single-Dry Year					
Total Supply	290,800	310,300	329,800	346,800	346,800
Total Demand	172,589	185,788	217,886	249,984	260,984
Difference (Supply minus Demand)	118,211	124,512	111,914	96,816	85,816
Multiple-Dry Year 1					
Total Supply	290,800	310,300	329,800	346,800	346,800
Total Demand	172,589	185,788	217,886	249,984	260,984
Difference (Supply minus Demand)	118,211	124,512	111,914	96,816	85,816
Multiple-Dry Year 2					
Total Supply	290,800	310,300	329,800	346,800	346,800
Total Demand	172,589	185,788	217,886	249,984	260,984
Difference (Supply minus Demand)	118,211	124,512	111,914	96,816	85,816
Multiple-Dry Year 3					
Total Supply	290,800	310,300	329,800	346,800	346,800
Total Demand	172,589	185,788	217,886	249,984	260,984
Difference (Supply minus Demand)	118,211	124,512	111,914	96,816	85,816
Notes: afy = acre-feet per year					
¹ It is assumed that total supplies in all water years include maximum settlement contract diversions from the American and Sacramento Rivers as shown in Table 4.12-1 and the use of maximum groundwater entitlements (assumed to be up to 20,000 afy of groundwater).					
² Total demand includes all retail and maximum wholesale/wheeling deliveries and the Urban Water Management Plan assumes that maximum demands would be the same in all water years.					
³ Total demand does not account for implementation of water conservation measures.					
Sources: City of Sacramento 2011: Table 4.4-13; data compiled by AECOM in 2014					

The City is committed to reducing the demand for potable water through conservation. This is done through implementation of the UWMP's 14 Demand Management Measures, such as retrofitting residential plumbing, conducting water system audits, implementing large landscape conservation programs and incentives, and providing public information and school education programs (City of Sacramento 2011). In addition, the City participates in the Sacramento Water Forum, which includes conformance with the Water Forum Agreement; implements best management practices (described by the California Urban Water Conservation Council); and, participates in the Regional Water Authority, which includes participation in the Water Efficiency Program (City of Sacramento 2014a). As of 2009, the City is also required by Senate Bill x7-7 to set water conservation goals to help achieve a 20% reduction in urban per capita water use in California by the year 2020.

Table 4.12-3 shows the existing water usage on the project site associated with the 409 existing residential units (206 garden apartments and 203 units in the Capitol Towers building), as well as existing retail uses.

Table 4.12-3 Existing Water Demand		
Land Use	Generation Rate (afy)	Total Demand (afy)
Residential - 409 units	0.15/unit	61.35
Nonresidential ¹ - 4,122 sf	0.02 per employee	0.26
Landscaping ² - 2.3 acres	0.075 per thousand square feet of planted area	7.5
Total		69.11
Notes:		
¹ Assumes 325 sf per employee or 13 employees.		
² Irrigation demand provided by Melendrez Landscape architects.		

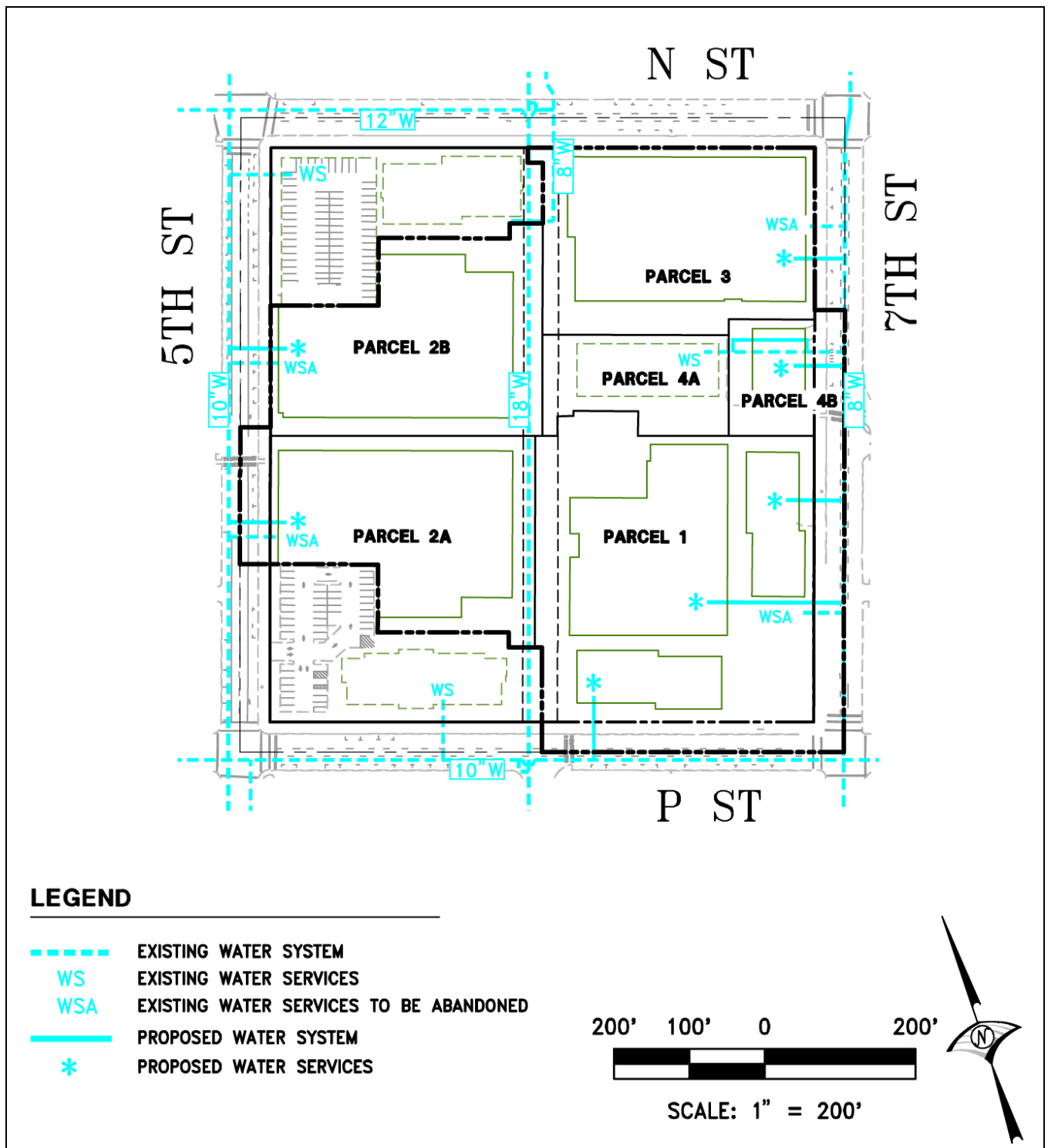
Water Conveyance and Treatment Facilities

The City's water distribution system is a pipeline network in which surface water and groundwater are mixed. The City's Department of Utilities operates and maintains the City's two water treatment plants; Fairbairn Water Treatment Plant (FWTP) and the Sacramento Water Treatment Plant (SRWTP). Water diverted from the Sacramento River is treated at the SRWTP, located along the Sacramento River just downstream of its confluence with the American River. The capacity of the SRWTP is 135 mgd. Design is under way for a project to rehabilitate the older facilities at the SRWTP to bring the capacity back to the original design capacity of 160 mgd by 2016 (City of Sacramento 2011, p. 2-4).

Water diverted from the American River is treated at the FWTP, located along the American River approximately 7 miles upstream of the confluence of the Sacramento and American rivers. The design capacity of the FWTP is 200 mgd, but the current permitted capacity at the FWTP is 160 mgd and the City is restricted to diversions up to 100 mgd under certain river flow conditions (City of Sacramento 2011, p. 2-4). In 2011-2012, the FWTP treated an average of 42 mgd of water, while the SRWTP treated an average of approximately 64 mgd (City of Sacramento 2014a).

The City maintains 16 water storage facilities, including 11 storage tanks located throughout the City and 5 clear wells located at the SRWTP and FWTP (City of Sacramento 2011, p. 2-6). The City's transmission and distribution system includes more than 1,760 miles of system mains ranging in size from 4 to 60 inches in diameter (City of Sacramento 2011, p. 2-6). The downtown Sacramento area is supplied by several transmission lines that range up to 42 inches in diameter, and by distribution mains that range in size from 6 inches to 12 inches in diameter. Water from the SRWTP is piped into a 42-inch line that extends from the intersection of 5th and I Streets to the east along I Street.

The project site is served by a system of looped water mains surrounding the site. An 18-inch water transmission main crosses the project site in a north-south direction (along the old 6th Street alignment), paralleling the existing sewer main. There is a 10-inch main in 5th Street, an 8-inch main in 7th Street, a 12-inch main in N Street, a 10-inch main in P Street, and a 12-inch main in N Street, west of the proposed North-South promenade. Individual parcels within the project site are served by extensions of these mains. Figure 4.12-1 shows existing and planned water improvements.



Source: Wood Rodgers 2014

Figure 4.12-1

Existing and Proposed Water System

WASTEWATER

Wastewater Collection and Conveyance Facilities

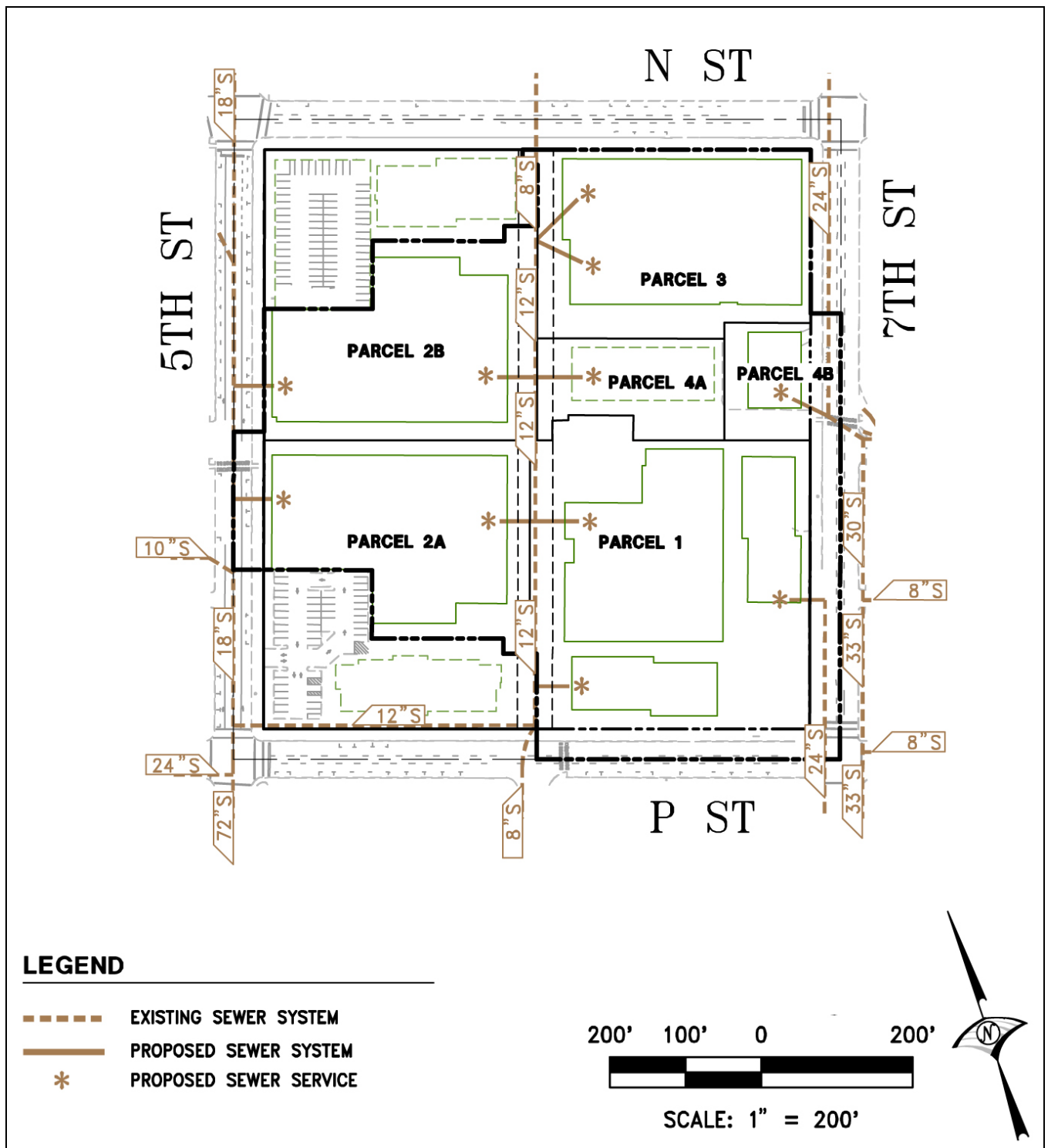
The City's Department of Utilities provides wastewater collection services in Sacramento. The City originally used a combined sewer system (CSS) that provided both sewage and storm drainage services to more than 24,000 parcels in downtown, midtown, Land Park, and East Sacramento. The system, established in the 1800s, collected sewage and stormwater in the same pipe. However, storm runoff near the project site is conveyed separately, and the project site is served by the City's CSS for sewer only (City of Sacramento 2008, p. 8-2). Utility exhibits prepared for the project illustrate existing and planned drainage, wastewater, and water, with drainage facilities shown separately from wastewater (Wood Rodgers 2014). The wastewater collection system that serves the site includes an existing 12-inch sanitary sewer main that passes through the site from N Street to P Street (along the old 6th Street alignment). This line serves the existing buildings throughout the project site. The 12-inch line flows westward in P Street and connects to an existing 18-inch line in 5th Street. This 5th Street line serves the westerly portion of the project site. The two lines collect to a 24-inch sanitary sewer main that flows southward in 5th Street. The easterly portion of the project site connects to an existing 24-inch sewer main located in 7th Street. According to the City, the existing sewer infrastructure serving the project area was originally designed to convey the combined sewer and storm water flows and now conveys only sewer flows, thus the system is oversized for managing sewer flows generated in this area.

This project site is within the City's CS352 Basin. This basin uses the existing combined system for sewer flows only. The sewer mains that front the project site go into Sump 1, which is then pumped into Pioneer Reservoir. Wastewater flows are then transported to Sacramento Regional County Sanitation District (SRCSD) regional conveyance facilities for treatment. SRCSD is responsible for collection by interceptors (sanitary sewers that are designed to carry flows in excess of 10 mgd) and for wastewater treatment in Sacramento County. SRCSD owns, operates, and is responsible for 177 miles of collection, trunk, and interceptor sewer systems and nine pump stations throughout Sacramento County, as well as the Sacramento Regional Wastewater Treatment Plant (SRWWTP).

Figure 4.12-2 shows the existing and planned wastewater conveyance infrastructure within and in the vicinity of the project site. An existing 8 and 12-inch sanitary sewer main passes through the site from N Street to P Street along the old 6th Street alignment (8 inches in the northern portion of the site and 12 inches through the rest of the site). This line serves the existing buildings throughout the project site. The 12-inch line flows westward in P Street and connects to an existing 18-inch line in 5th Street. The 5th Street line serves the westerly portion of the project site. The two lines collect to a 24-inch sanitary sewer main that flows southward in 5th Street. The easterly portion of the project site connects to an existing 24-inch sewer main located in 7th Street.

The City's proposed 2014–2019 Capital Improvement Program includes funding to complete a network of CSS interceptors in the downtown area, in 7th Street from P to K Street, in L Street from 7th to 9th Street, and in 9th Street from L to G Street.

Table 4.12-4 shows the existing residential and retail uses generate approximately 0.069 mgd or 25 mg annually.



Source: Wood Rodgers 2014

Figure 4.12-2

Existing and Proposed Sewer System

Table 4.12-4 Existing Wastewater Demand		
Land Use	Generation Rate	Total Demand (mgd)
Residential - 409units ¹	170 gpd/unit	0.069
Nonresidential - 4,122 sf	62 gpd/1,000 sf	0.00026
Total		0.069 mgd
Note: The project is proposing to remove 206 units and leave 203 existing units in place after completion of the project.		

Wastewater Treatment Facilities

Wastewater flows collected from SRCSD interceptors are ultimately transported to the SRWWTP for treatment and discharge. The SRWWTP is located in Elk Grove and is owned and managed by SRCSD. Currently, the SRWWTP has a National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Quality Control Board (RWQCB) for discharge of up to 181 mgd of treated effluent into the Sacramento River. As of 2013, the SRWTP receives and treats an average of 119 mgd and the SRWWTP discharge constituents are below permitted discharge limits specified in the NPDES permit (SRCSD 2013).

SRCSD is upgrading the SRWWTP. The upgrade, known as the EchoWater Project, must be built by 2021–2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of SRCSD’s 2010 discharge permit. The requirements are designed primarily to help protect the Sacramento–San Joaquin Delta ecosystem downstream by removing most of the ammonia and nitrates and improving the removal of pathogens from wastewater discharge. The upgrade will include deployment of new treatment technologies and facilities, and will increase the quality of effluent discharged into the Sacramento River and ensure that the SRWWTP discharge constituents are below permitted discharge limits specified in the NPDES permit. The upgrade will not, however, result in a net increase in permitted capacity of the SRWWTP (SRCSD 2013).

Flows to the SRWWTP have decreased as a result of water conservation efforts over the last 10 years and recent legislation related to water conservation is anticipated to further reduce demand (California Water Conservation Act, SBx7-7, and 2013 California Green Building Standards Code, for example). In addition, SRCSD has prioritized its goals to increase water recycling in the region as an element to support the comprehensive effort to promote water supply reliability and Sacramento–San Joaquin Delta sustainability. Therefore, SRCSD has determined that the SRWWTP can provide capacity to future development beyond what was originally anticipated. If substantial population growth or new development occurs during the planning horizon of the SRWWTP’s 2020 Master Plan, SRCSD will reevaluate expansion needs and phase treatment plant expansion to provide for sufficient long-term capacity (SRCSD 2010).

STORMWATER

The City’s Department of Utilities maintains the City’s storm drainage facilities. The project site is within the City’s Basin 52 drainage shed. As noted previously, this drainage shed area separates storm runoff from the existing CSS and conveys storm drainage flows in dedicated drainage pipes. The system flows to Sump 52, located near the south side of the Crocker Art Museum at 2nd and P Streets. From

this location it pumps storm drainage to the Sacramento River. (See Section 4.8, “Hydrology and Water Quality,” for further discussion.)

The storm drainage for the project site is collected and directed to various connection points in N, P, and 7th Streets (Figure 4.12-3). Within the downtown project site and vicinity, the CSS is composed of pipes that range from approximately 4 inches to 120 inches in diameter. However, most collection system pipes range in size from 8 inches to 12 inches, and are located in alleyways and streets. Sewer and stormwater within the system generally flows from north to south. Pipeline composition reflects both historic installations and upgrades, and includes brick, polyvinyl chloride (i.e., PVC), reinforced concrete pipe, and vitrified clay pipe.

SOLID WASTE

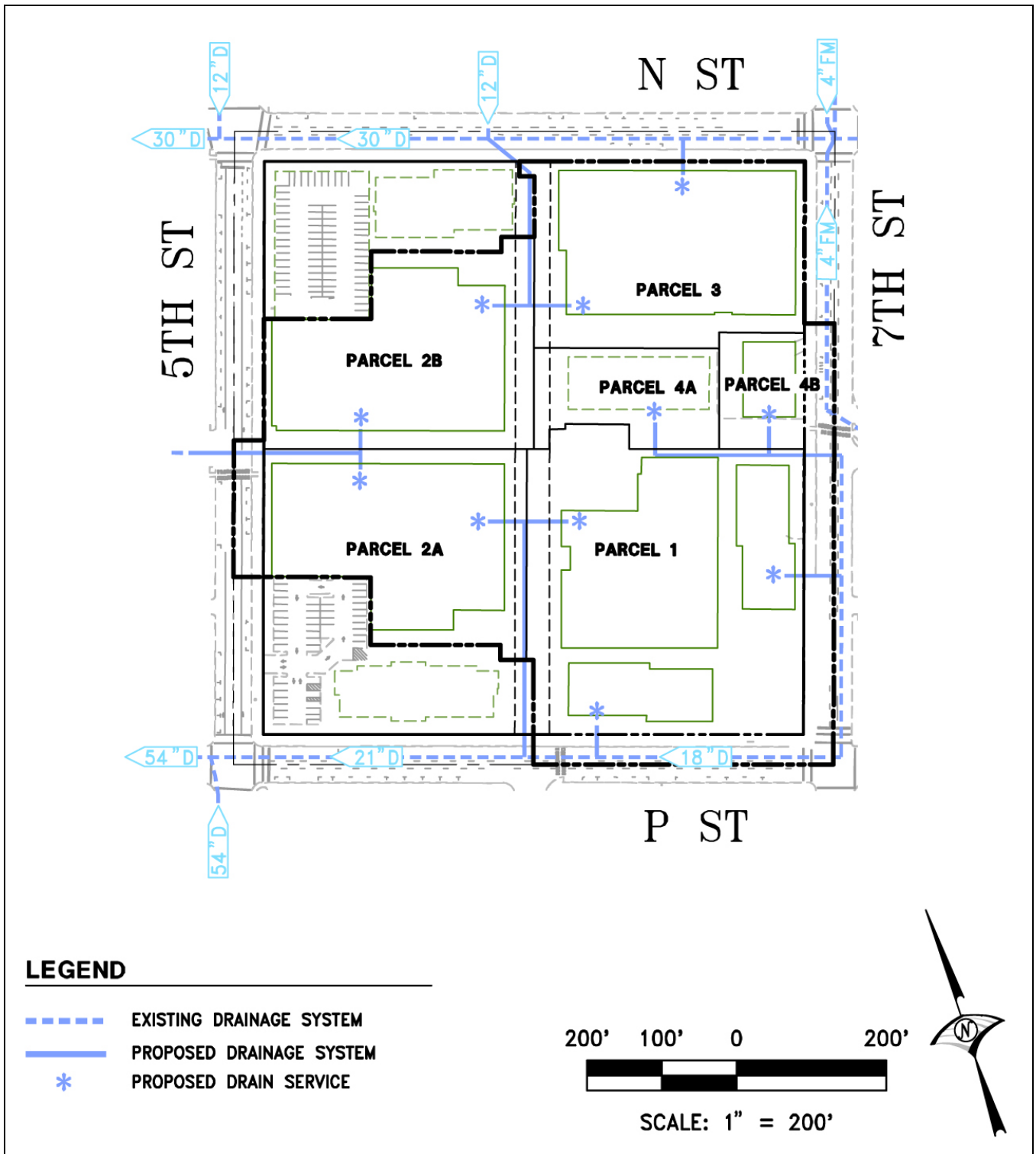
Solid waste collection services in Sacramento, including residential and a small portion of commercial garbage pickup, recycling, and yard waste hauling, are provided by the City's Recycling and Solid Waste Division. In 2012, the City disposed of a total of 401,445 tons of solid waste (CalRecycle 2012).

Most refuse collected by the City is transported to the Sacramento Recycling and Transfer Station and, ultimately, to the Lockwood Regional Landfill in Sparks, Nevada. The Sacramento Recycling and Transfer Station, which is owned and operated by BLT Enterprises, is limited to accepting 2,500 tons per day (tpd) of solid waste (CalRecycle 2014a).

The Lockwood Regional Landfill is owned and operated by a private firm, Waste Management Inc., and is the primary location for the disposal of waste by the City. This landfill is permitted to accept municipal solid waste and construction and demolition debris and receives approximately 5,000 tpd of waste. The landfill has a total maximum permitted capacity of 302.5 million cubic yards and has approximately 270 million cubic yards of available capacity (NDEP 2014). The anticipated closure date of the Lockwood Regional Landfill is approximately 2113 (Applied Soil Water Technologies 2011).

Waste is also processed at the North Area Recovery Station, which is owned and operated by Sacramento County and is limited to accepting 2,400 tpd (CalRecycle 2014b). Waste brought to this station is transported to the Kiefer Landfill. Sacramento County owns and operates the Kiefer Landfill, and the landfill is the primary solid waste disposal facility in the county. The Kiefer Landfill is classified as a Class III municipal solid waste landfill facility and is permitted to accept general residential, commercial, and industrial refuse for disposal, including municipal solid waste, construction and demolition debris, green materials, agricultural debris, and other nonhazardous designated debris. The landfill is permitted to accept a maximum of 10,800 tpd of solid waste and currently has a permitted capacity of approximately 117 million cubic yards. The closure date of the Kiefer Landfill is anticipated to be approximately 2064 (CalRecycle 2014c).

Construction and demolition waste, which is collected by both the City's fleet and private companies, may also be disposed of at the Yolo County Landfill, Forward Landfill, and L and D Landfill. Private haulers can deliver waste to the landfill of their choice and base the decision on market conditions and capacity (City of Sacramento 2009, p. 6.11-67).



Source: Wood Rodgers 2014

Figure 4.12-3

Existing and Proposed Drainage System

4.12.2 REGULATORY SETTING

FEDERAL

Clean Water Act

The Clean Water Act of 1972 (CWA) is the primary federal law that governs and authorizes water quality control activities by the U.S. Environmental Protection Agency (EPA), the lead federal agency responsible for water quality management. By employing a variety of regulatory and non-regulatory tools, including establishing water quality standards, issuing permits, monitoring discharges, and managing polluted runoff, the CWA seeks to restore and maintain the chemical, physical, and biological integrity of surface waters to support “the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water.”

EPA is the federal agency with primary authority for implementing regulations adopted pursuant to the CWA, and has delegated the State of California as the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act.

National Pollutant Discharge Elimination System Permit Program

The National Pollutant Discharge Elimination System (NPDES) permit program was established as part of the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point source municipal waste discharges and nonpoint source stormwater runoff. NPDES permits generally identify:

- ▶ limits on the concentrations and/or mass emissions of pollutants in effluent discharged into receiving waters;
- ▶ prohibitions on discharges not specifically allowed under the permit; and
- ▶ provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

More specifically, the discharge prohibitions and limitations in an NPDES permit for wastewater treatment plants are designed to ensure the maintenance of public health and safety, protection of receiving water resources, and safeguarding of the water’s designated beneficial uses. Discharge limitations typically define allowable effluent quantities for flow, biochemical oxygen demand, total suspended matter, residual chlorine, settleable matter, total coliform, oil and grease, pH, toxic pollutants mineralization, and toxicity to aquatic life.

STATE

Senate Bills 610 and 221

The State of California has enacted legislation that is applicable to larger projects under CEQA. SB 610 (Chapter 643, Statutes of 2001; Section 21151.9 of the California Public Resources Code and Section

10910 et seq. of the California Water Code) requires the preparation of “water supply assessments” (WSAs) for large developments (i.e., more than 500 dwelling units or nonresidential equivalent), such as the proposed project. These assessments, prepared by “public water systems” responsible for serving project areas (in this case, the City), address whether existing and projected water supplies are adequate to serve the proposed project, while also meeting existing urban and agricultural demands and the needs of other anticipated development in the service area in which the proposed project is located.

The lead agency (the City of Sacramento) must determine whether sufficient water supplies are available to meet the demands of the proposed project, in addition to existing and planned future uses. Where a WSA concludes that insufficient supplies are available, the WSA must lay out the steps required to obtain the necessary water supply. The WSA must identify, at a minimum, the existing and future water supplies over a 20-year projection period. This information must be provided for average normal, single-dry, and multiple-dry years. The absence of an adequate current water supply does not preclude project approval, but it does require the lead agency to address a water supply shortfall in its project findings.

Additional complementary statutory requirements, created by 2001 legislation known as SB 221 (California Government Code Section 66473.7), apply to the approval of tentative subdivision maps for more than 500 residential dwelling units. This statute requires cities and counties to include, as a condition of approval of such tentative maps, the preparation of a “water supply verification.” The verification, which must be completed no later than the time of approval of final maps, is intended to demonstrate that there is a sufficient water supply for the newly created residential lots. The statute defines “sufficient water supply” as follows:

... the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection period that would meet the projected demand associated with the proposed subdivision, in addition to existing and planned future uses, including, but not limited to, agricultural and industrial uses.

The following factors must be considered in determining the sufficiency of projected supplies:

- ▶ the availability of water supplies over a historical record of at least 20 years;
- ▶ the applicability of an urban-water-shortage contingency analysis that includes action to be undertaken by the public water system in response to water supply shortages;
- ▶ the reduction in water supply allocated to a specific water-use sector under a resolution or ordinance adopted or a contract entered into by the public water system, as long as that resolution, ordinance, or contract does not conflict with statutory provisions giving priority to water needed for domestic use, sanitation, and fire protection; and
- ▶ the amount of water that the water supplier can reasonably rely on receiving from other water supply projects, such as conjunctive use (i.e., a combined use of surface water and groundwater), reclaimed water, water conservation, and water transfer, including programs identified under federal, state, and local water initiatives.

2013 California Green Building Standards Code

The standards included in the 2013 California Green Building Standards Code (CALGreen Code) (Title 24, Part 11 of the California Code of Regulations) became effective on January 1, 2014. The CALGreen Code was developed to enhance the design and construction of buildings, and the use of sustainable construction practices, through planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality (California Building Standards Commission 2013).

Chapter 6 of the 2013 CALGreen Code describes measures to reduce indoor demand for potable water by 20% and to reduce landscape water usage by 50%. It also requires separate water meters for nonresidential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects.

Chapter 7, Section 708, of the 2013 CALGreen Code requires all construction contractors to reduce construction waste and demolition debris by 50%. Code requirements include preparing a construction waste management plan that identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determining whether materials will be sorted on-site or mixed; and identifying diversion facilities where the materials collected will be taken. The code also specifies that the amount of materials diverted should be calculated by weight or volume, but not by both. In addition, the 2013 CALGreen Code requires that 100% of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

California Water Conservation Act

SBx7-7 was enacted in November 2009, and requires each urban water supplier to select one of four water conservation targets contained in California Water Code Section 10608.20 with the statewide goal of achieving a 20% reduction in urban per-capita water use by 2020. Under SBx7-7, urban retail water suppliers (in this case, the City of Sacramento) are required to develop water use targets and submit a water management plan to DWR by July 2011. The plan must include the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use. In addition, the state will make incremental progress towards this goal by reducing per capita water use by at least 10% by December 31, 2015.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) of 1969 is California's statutory authority for the protection of water quality. Under the act, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. Regional authority for planning, permitting, and enforcement is delegated to the nine Regional Water Quality Control Boards. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The act also requires waste dischargers to notify the Regional Water Quality Control Boards of such activities through the filing of Reports of Waste Discharge (RWD) and authorizes the State Water Resources Control Board and Regional Water Quality Control Boards to issue and enforce waste discharge requirements (WDRs),

NPDES permits, Section 401 water quality certifications, or other approvals. See Section 4.8, “Hydrology and Water Quality” for additional discussion regarding these requirements.

California Integrated Waste Management Act

The California Integrated Waste Management Act (CIWMA) of 1989 created the California Integrated Waste Management Board, now known as the California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle is the agency designated to oversee, manage, and track California’s 92 million tons of waste generated each year. CalRecycle provides grants and loans to help cities, counties, businesses, and organizations meet the state’s waste reduction, reuse, and recycling goals. CalRecycle promotes a sustainable environment in which these resources are not wasted, but can be reused or recycled. In addition to many programs and incentives, CalRecycle promotes the use of new technologies to divert resources away from landfills. CalRecycle is responsible for ensuring that waste management programs are carried out primarily through local enforcement agencies.

The CIWMA is the result of two pieces of legislation, Assembly Bill 939 and SB 1322. The CIWMA was intended to minimize the amount of solid waste that must be disposed of through transformation and land disposal by requiring all cities and counties to divert 25% of all solid waste from landfill facilities by January 1, 1995, and 50% by January 1, 2000.

The 50% diversion requirement is measured in terms of per-capita disposal expressed as pounds per day (ppd) per resident and per employee. The per-capita disposal and goal measurement system uses an actual disposal measurement based on population and disposal rates reported by disposal facilities, and it evaluates program implementation efforts. To achieve the 50% diversion goal, for 2012, the target solid-waste generation rate for the city was 6.9 ppd per resident and 10.8 ppd per employee, and the actual measured generation rate was 4.7 ppd per resident and 7.6 ppd per employee (CalRecycle 2012). Therefore, as of 2012, the City’s actual generation rate was less than the 50% diversion rate requirement.

LOCAL

Sacramento 2030 General Plan

The following goals and policies from the Utilities Element of the 2030 General Plan (City of Sacramento 2009) are applicable to utilities and service systems.

Goal U 1.1 High-Quality Infrastructure and Services. Provide and maintain efficient, high-quality public infrastructure facilities and services throughout the city.

- ▶ **Policy U 1.1.1 Provision of Adequate Utilities.** The City shall continue to provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city currently receiving these services from the City, and shall provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city that do not currently receive these City services upon funding and construction of the infrastructure necessary to provide these City services.

- ▶ **Policy U 1.1.2 Citywide Level of Service Standards.** The City shall establish and maintain service standards [Levels of Service (LOS)] for water, wastewater, stormwater drainage, and solid waste services.
- ▶ **Policy U 1.1.6 Growth and Level of Service.** The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
- ▶ **Policy U 1.1.7 Infrastructure Finance.** The City shall develop and implement a financing strategy and assess fees to construct needed water, wastewater, stormwater drainage, and solid waste facilities to maintain established service levels and to mitigate development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development). The City shall also assist developers in identifying funding mechanisms to cover the cost of providing utility services in infill areas.
- ▶ **Policy U 1.1.8 Infill Areas.** The City shall identify and prioritize infill areas for infrastructure improvements.

Goal U 2.1 High-Quality and Reliable Water Supply. Provide water supply facilities to meet future growth within the City’s Place of Use and assure a high-quality and reliable supply of water to existing and future residents.

- ▶ **Policy U 2.1.3 Water Treatment Capacity and Infrastructure.** The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands.
- ▶ **Policy U 2.1.4 Priority for Water Infrastructure.** The City shall give high priority in capital improvement programming to funding rehabilitation or replacement of critical infrastructure that has reached the end of its useful life.
- ▶ **Policy U 2.1.5 Comprehensive Water Supply Plans.** The City shall prepare, implement, and maintain long-term, comprehensive water supply plans.
- ▶ **Policy U 2.1.7 Water Supply during Emergencies.** The City shall, to the extent feasible, maintain adequate water supply during emergencies.
- ▶ **Policy U 2.1.8 Emergency Water Conservation.** The City shall reduce water use during periods of water shortages and emergencies.
- ▶ **Policy U 2.1.9 New Development.** The City shall ensure that water supply capacity is in place prior to granting building permits for new development.
- ▶ **Policy U 2.1.10 Water Conservation Programs.** The City shall implement conservation programs that increase water use efficiency, including providing incentives for adoption of water efficiency measures.

- ▶ **Policy U 2.1.11 Water Conservation Enforcement.** The City shall continue to enforce City ordinances that prohibit the waste or runoff of water, establish limits on outdoor water use, and specify applicable penalties.
- ▶ **Policy U 2.1.13 Landscaping.** The City shall continue to require the use of water-efficient landscaping in all new development.

Goal U 3.1 Adequate and Reliable Sewer and Wastewater Facilities. Provide adequate and reliable sewer and wastewater facilities that collect, treat, and safely dispose of wastewater.

- ▶ **Policy U 3.1.1 Sufficient Service.** The City shall provide sufficient wastewater conveyance, storage, and pumping capacity for peak sanitary sewer flows and infiltration.
- ▶ **Policy U 3.1.2 New Developing Areas.** The City shall ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2030 General Plan.

Goal U 4.1 Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally-sensitive, accommodate growth, and protect residents and property.

- ▶ **Policy U 4.1.1 Adequate Drainage Facilities.** The City shall ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.
- ▶ **Policy U 4.1.4 Watershed Drainage Plans.** The City shall require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City's National Pollutant Discharge Elimination System (NPDES) permit.
- ▶ **Policy U 4.1.5 New Development.** The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures to prevent on- or off-site flooding.

Goal U 5.1 Solid Waste Facilities. Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

- ▶ **Policy U 5.1.2 Landfill Capacity.** The City shall continue to coordinate with Sacramento County in providing long-term landfill disposal capacity.
- ▶ **Policy U 5.1.3 Transfer Stations.** The City shall provide for adequate transfer station facilities to meet the city's demand.
- ▶ **Policy U 5.1.15 Recycled Materials in New Construction.** The City shall encourage the use of recycled materials in new construction.

- ▶ **Policy U 5.1.16 Recycling and Reuse of Construction Wastes.** The City shall require recycling and reuse of construction wastes, including recycling materials generated by the demolition and remodeling of buildings, with the objective of diverting eighty-five percent to a certified recycling processor.

Sacramento 2035 General Plan

The proposed project was initiated while the 2030 General Plan was in force. Since that time, the City has prepared an update to the 2030 General Plan and anticipates adopting the new 2035 General Plan sometime in early 2015. The following new policies have been identified by the City for the Utilities Element of the draft 2035 General Plan (City of Sacramento 2014):

- ▶ **Policy U 1.1.9 Utilities Location.** The City shall limit, to the extent financially and technically feasible, the construction of major infrastructure facilities in areas better suited for infill and urban development.
- ▶ **Policy U 2.1.3 Water Treatment Capacity and Infrastructure.** The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands.
- ▶ **Policy U 2.1.10 Water Conservation Standards.** The City shall achieve a 20 percent reduction in per-capita water use by 2020 consistent with the State's 20x2020 Water Conservation Plan.
- ▶ **Policy U 2.1.14 Rain Capture.** The City shall promote the use of rain barrels and rain gardens to conserve water, while not increasing the occurrence of disease vectors.
- ▶ **Policy U 4.1.5 Green Stormwater Infrastructure.** The City shall encourage "green infrastructure" design and Low Impact Development (LID) techniques for stormwater facilities (i.e., using vegetation and soil to manage stormwater) to achieve multiple benefits (e.g., preserving and creating open space, improving runoff water quality).
- ▶ **Policy U 5.1.20 Multi-family Recycling Ordinance.** The City shall support the Solid Waste Authority to inform and advise multifamily rental property owners and managers of the recycling requirements contained in the Multi-family Recycling Ordinance.
- ▶ **Policy U 5.1.22 Composting and Vermiculture.** The City shall promote home composting and vermiculture to reduce GHG emissions by reducing the amount of organic waste (e.g., cellulose-based waste, paper, food waste) that is sent to landfills.
- ▶ **Policy U 6.1.15 Energy Efficiency Appliances.** The City shall encourage builders to supply Energy STAR appliances and HVAC systems in all new residential developments, and shall encourage builders to install high-efficiency boilers where applicable, in all new non-residential developments.

Sacramento Standards and Specifications for Public Construction

The City maintains standard specifications for construction of water, wastewater, stormwater, streets, and other improvements, which are required for projects within the City limits (City of Sacramento 2007, 2012).

Sacramento City Code

Water Efficient Landscape Ordinance

The Water Efficient Landscape Ordinance (Title 15, Chapter 15.92 of the City Code) outlines requirements for water-efficient landscapes that apply to public and private projects that include landscaped areas of at least 2,500 square feet and require a building or landscape permit, plan check, or design review. The City requires project applicants to submit a landscape documentation package for review and approval by the City. The landscape documentation package must contain project information, a water-efficient landscape worksheet, a soil management report, a landscape design plan, an irrigation design plan, and a grading design plan.

Water Service System and Fees

Chapter 13.04 of the City Code regulates construction of water distribution facilities; describes requirements for installation and phasing of water meters; establishes the review process for ensuring adequate fire flow and hydrants; and identifies that rates, fees, and charges for sewer service and storm drain service are established and will be updated from time to time by ordinance or resolution of the City Council.

Permitted Sewer Discharges, Requirements, and Fees

Chapter 13.08 of the City Code regulates discharges to the sewer service system; establishes standards and review requirements for sewer and storm drain facilities; and identifies that rates, fees, and charges for sewer service and storm drain service are established and will be updated from time to time by ordinance or resolution of the City Council.

Construction and Demolition Debris Recycling Ordinance

The City requires all contractors to comply with the Construction and Demolition Debris Recycling Ordinance (Title 8, Chapter 8.124 of the City Code) to reduce all project waste by weight from entering landfill facilities by 50% through recycling. The ordinance applies to all new construction valued at \$250,000 or more. Covered projects must recycle five different types of debris and materials: scrap metal; inert materials (concrete, asphalt paving, bricks); corrugated cardboard; wood pallets; and clean wood waste. The City requires contractors to prepare a waste management plan before obtaining building permits. The waste management plan must identify the sources of recyclable materials, outline a recycling method (i.e., self-separation or mixed recovery), and identify a self-haul or franchise waste hauler. Contractors are required to document the quantities of building materials recycled, salvaged or reused, and/or disposed during construction on a waste management log. The waste management log must be submitted to City Solid Waste Services within 30 days of project completion (City of Sacramento 2014b).

City of Sacramento Urban Water Management Plan

The City updated the 2010 Urban Water Management Plan (UWMP) in October 2011. The updated UWMP takes into account development anticipated under the 2030 General Plan. The UWMP is intended to ensure the conservation and efficient use of available water supplies and to ensure an appropriate level of reliability in its water service sufficient to meet the needs of its customers. The City's UWMP will be updated in 2015.

Combined Sewer System Development Fee

To support ongoing maintenance and upgrade efforts in the CSS area, the City has adopted the Combined Sewer System Development Fee (Resolution No. 2005-162). Projects subject to the Combined Sewer Development Fee Program are not subject to the other City Sewer Development Fee. The City enacted the Program to ensure projects requiring new sewer service connections to the combined sewer system contribute their "appropriate share of the capital costs of the City's existing and/or new combined sewer system facilities" (City Code, sec. 13.08.490[A]). Consistent with the 2030 General Plan and City Code, the fee is subject to automatic annual adjustments and the City Council has the discretion to make further adjustments as necessary to ensure the program is adequately funded to maintain and improve the City's combined sewer system (City Code, sec. 13.08.490[C]).

Sacramento Regional Solid Waste Authority Recycling Ordinance No. 20

The Sacramento Regional Solid Waste Authority (SWA) was formed in December 1992 to assume the responsibilities for the solid waste, recycling, and disposal needs of the Sacramento area. The SWA enforces its ordinances to regulate multifamily and commercial solid waste collection, permit franchised haulers, and promote recycling programs.

SWA Ordinance No. 20, Title IV, describes business and multifamily residential recycling requirements. The following requirements apply to all businesses and nonresidential properties that generate 4 cubic yards per week or more of garbage collection service per week:

- ▶ Keep recyclable materials separated from garbage.
- ▶ Subscribe to a recycling service that collects recyclable materials.
- ▶ Enter into a written service agreement with a franchised hauler or authorized recycler, or complete and retain a self-hauling form on-site allowing for self-hauling of recyclable materials.
- ▶ Place recycling containers in employee maintenance or work areas where recyclable materials may be collected and/or stored.
- ▶ Prominently post signs in work areas where recyclable materials are collected and/or stored that instruct employees about what and how to recycle.
- ▶ Prominently place labeled containers and posting notices near garbage bins in customer service areas to collect recyclable materials from customers.

- ▶ Provide written instructions notifying employees about what and how to recycle.
- ▶ Ensure that recyclable materials generated on-site will be taken to a recycling facility, and not a landfill, for proper disposal.
- ▶ Retain on-site service agreements or other recycling documents.

Occupants of multifamily dwellings with five or more units must recycle designated recyclable materials from their garbage. Multifamily dwellings located either in the unincorporated areas of Sacramento County or within the Sacramento city limits must meet the following requirements:

- ▶ Keep designated recyclable materials separate from the garbage.
- ▶ Subscribe to a recycling service that collects recyclable materials.
- ▶ Enter into a written service agreement with a franchised waste hauler or authorized recycler, or complete a self-hauling form allowing for all self-hauling activities.
- ▶ Notify and instruct tenants by explaining in writing what recyclable materials are to be separated and how to separate them.
- ▶ Provide documentation that recyclable materials generated on-site are being taken to a recycling facility, and not to a landfill, for proper disposal.

4.12.3 IMPACTS AND MITIGATION

METHODS OF ANALYSIS

This section includes a review of the project in the context of several relevant plans and other informational documents, including CalRecycle’s diversion report for the City of Sacramento, the City’s 2030 and 2035 General Plans, the City’s 2010 UWMP, Sacramento Regional County Sanitation District’s State of the District Report, and utility plans prepared to accommodate the project.

Water Supply and Wastewater

A WSA has been prepared for the proposed project to assess long-term water supplies and demands (see Appendix I). Demands were based on the amount of development and land use types included as a part of the project and supply estimates are provided by existing water supply plans. Based on the findings of the WSA, and consistent with the City’s UWMP, the City has sufficient water supply to provide water to serve the proposed project through 2035. Tables 4.12-5 and 4.12-6 summarize water supply demand and wastewater generation, respectively. Increased demand on-site associated with the Hotel / Retail / Condo Scenario is estimated to be approximately 230 acre-feet per year. Increased demand on-site associated with the Retail / Condo Scenario is estimated to be approximately 170 acre-feet per year. Increased wastewater demand is estimated to range from 0.22 to 0.19 mgd for the Hotel / Condo / Retail and Condo / Retail Scenarios, respectively.

Table 4.12-5 Sacramento Commons Water Demands			
Land Use Category	Water Demand Factor (afy)	Water Demand (afy)	
		Hotel / Condo / Retail Scenario ¹	Condo / Retail Scenario ²
Neighborhood Support / Retail	0.02 (per employee)	2.4	1.8
Hotel	0.25 (per room)	75	--
Residential	0.15 (per unit)	145	160
Landscape Irrigation	3.5 afy per acre landscaping	6.6	6.6
Total	–	230	170

Notes: afy = acre-feet per year.
Totals have been rounded. Assumes an employment density of 585 square feet per employee for neighborhood support/retail.
¹ Water flows generated under the Hotel / Condo / Retail Scenario are based on the net change in on-site neighborhood support/retail square footage, including 15,000 square feet assumed to be a specialty market, along with a 300-room hotel, and the net change in dwelling units.
² Water flows generated under the Condo / Retail Scenario are based on the net change in on-site neighborhood support/retail square footage, including 15,000 square feet assumed to be a grocer/market, along the net change in dwelling units.
Sources: City of Sacramento SB 610/SB 221 Water Supply Assessment and Certification Form

Table 4.12-6 Sacramento Commons Wastewater Generation Rates			
Land Use Category	Wastewater Generation Factor	Average Dry-Weather Flow (mgd)	
		Hotel / Condo / Retail Scenario ¹	Condo / Retail Scenario ²
Neighborhood Support / Retail	62 gpd/1,000 square feet	0.0034	0.0023
Market	0.6 ESDs/1,000 square feet	0.0036	0.0036
Hotel	170 gpd per room	0.051	-
Residential	170 gpd per unit	0.16	0.18
Total	–	0.218	0.186

Notes: 1 ESD = wastewater demand of 400 gallons per day; ESD = equivalent single-family dwelling unit; gpd = gallons per day; mgd = million gallons per day
¹ Wastewater flows generated under the Hotel / Condo / Retail Scenario are based on the net change in on-site neighborhood support/retail square footage, including 15,000 square feet assumed to be a grocer/market, along with a 300-room hotel, and the net change in dwelling units. See Chapter 2 of this EIR for more details.
² Wastewater flows generated under the Condo / Retail Scenario are based on the net change in on-site neighborhood support/retail square footage, including 15,000 square feet assumed to be a grocer/market, along the net change in dwelling units. See Chapter 2 of this EIR for more details.
Sources: City of Sacramento 2003 and 2013; data compiled by AECOM in 2014

Solid Waste

The analysis of impacts to solid waste services is based on an estimate of the amount of solid waste that would be generated by the proposed project using solid waste generation rates provided by CalRecycle and the City's 2035 General Plan Master EIR (City of Sacramento 2014d, p. 6.11-17). The residential generation rate is 1.1 tons per dwelling unit per year and the non-residential rate is 10.8 pounds per employee per day. Assuming 585 square feet per employee (SACOG 2001, p. 19) for the neighborhood support/retail space and that each hotel room (under the Hotel / Condo / Retail

Scenario) would conservatively generate solid waste at the same rate as a dwelling unit, solid waste demand for the project could conservatively range between approximately 1,340 and 1,630 tons per year. Table 4.12-7 provides a summary of the project's increase in solid waste demand associated with implementation of the project.

Table 4.12-7 Sacramento Commons Solid Waste Generation Rates			
Land Use	Generation Rate	Hotel / Condo /Retail (tons/yr.)	Condo / Retail (tons/yr.)
Residential	1.1 tons/dwelling unit/yr	1,390	1,167
Non-residential	10.8 lbs./day/employee	236	176
Total Waste Generated		1,630	1,340
Note: Assumes 585 square feet per employee for neighborhood support/retail space and uses same solid waste demand for hotel rooms as dwelling units. Totals do not add due to rounding. Source: CalRecycle and City of Sacramento 2014			

THRESHOLDS OF SIGNIFICANCE

In consideration of the performance criteria from the Sacramento 2030 General Plan Master EIR, the MTP/SCS Program EIR, Appendix G of the CEQA Guidelines, and the City of Sacramento Environmental Checklist, utilities and service system impacts (i.e., water, wastewater, stormwater, and solid waste) are considered significant if the project would:

- ▶ increase demand for potable water in excess of existing supplies;
- ▶ result in inadequate capacity in the City's water supply facilities to meet the water supply demand, so as to require the construction of new water supply facilities;
- ▶ result in the determination that adequate water or wastewater capacity is not available to serve the project's demand in addition to existing commitments;
- ▶ require or result in either the construction of new wastewater treatment facilities or stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental impacts; or
- ▶ require or result in either the construction of new solid waste facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.

ISSUES SCOPED OUT IN THE INITIAL STUDY

An Initial Study was prepared to evaluate the potential environmental effects of the proposed project (see Appendix B) (CEQA Guidelines Section 15063[a]). An Initial Study can be used to identify issues within an environmental topic area where a project would have no impact or a less-than-significant impact on the environment and, therefore, would not require additional analysis in the EIR.

No issues related to utilities and service systems were scoped out in the initial study.

PROJECT-SPECIFIC IMPACTS AND MITIGATION

IMPACT 4.12-1	The proposed project could increase demand for potable water in excess of existing supplies. <i>Based on the analysis below, the impact is considered less than significant.</i>
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Implementation of the proposed project would result in an increased demand for water supplies. As shown on Table 4.12-5, the project would increase water demands by between approximately 170 and 230 afy for the Condo / Retail and Hotel / Condo / Retail Scenarios, respectively.

The project site is designated in the City's 2030 General Plan as Central Business District (CBD) which provides for mixed-use, high-rise development and single-use or mixed-use development. The proposed project is consistent with this designation. This level of growth and increase in water demand was contemplated and evaluated in the 2030 General Plan Master EIR and determined to be a less-than-significant impact (Master EIR p. 6.11-32). Development of multi-family housing in urban areas typically reduces the household demand for water as compared to development in suburban areas due to a significant reduction in landscape irrigation.

The City of Sacramento is the water purveyor for the proposed project, and water supply for the proposed project would be provided by the American and Sacramento rivers. The City's 2010 UWMP addressed water supply and demand and water supply reliability for the City's service area. Future water demands were calculated based on projected water demands for all the development projected and analyzed in the 2030 General Plan. As shown in Table 4.12-2, the City's water supplies are expected to exceed water demands during normal, single-dry, and multiple-dry years through 2035.

A WSA was prepared for the proposed project to determine whether the projected available water supplies would meet the proposed project's water demands (Appendix I). Based on the findings of the WSA, and consistent with the City's UWMP, the City has sufficient water supply to provide water to the proposed project through 2035.

In addition, building codes that apply today have provisions that require water conservation for both indoor and outdoor use and therefore development anticipated under the project would be anticipated to be more water efficient compared to existing development on the project site. The project applicant would be required to comply with the City's Water Efficient Landscape Ordinance and the 2013 CALGreen Code, which requires a 20% reduction of indoor demand for potable water and a 50% reduction of landscape water usage, which would further reduce water demand. Compliance with City ordinances set forth in the City Code will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored. The City has sufficient water supply to serve the proposed project and the impact is considered **less than significant**.

Mitigation Measures

None required.

IMPACT 4.12-2 The proposed project could result in inadequate capacity in the City's water supply facilities to meet the water supply demand, so as to require the construction of new water supply facilities. *Based on the analysis below, the impact is considered less than significant.*

The City of Sacramento, as the water service provider for the project site, will require installation of water supply facilities as part of the project development consistent with the Sacramento Standards and Specifications for Public Construction and Chapter 13.04 of the City Code. The project site is an infill site served by existing infrastructure that would not require an offsite extension or substantial expansion of existing onsite utilities to serve the project. The Central City is supplied by several transmission lines that range up to 42 inches in diameter, and by distribution mains that range in size from 6 inches to 12 inches in diameter. New connection points to new buildings would be provided as a part of the project, as shown in Figure 4.12-1.

The environmental effects, including construction of on-site infrastructure, are evaluated as part of the construction related impacts discussed throughout Chapter 4 of this EIR. No offsite utility connections are required as part of the project. The proposed project's estimated water demand of 291.2 afy (0.25 mgd) under the Hotel / Condo / Retail Scenario and 229.9 afy (0.20 mgd) under the Condo / Retail Scenario would require treatment prior to delivery to the project site, see Table 4.12-5.

The capacity of the SRWTP is 135 mgd and design is under way for a project to rehabilitate the older facilities at the SRWTP to restore the capacity to 160 mgd by 2016 (City of Sacramento 2011, p. 2-4). The design capacity of the FWTP is 200 mgd, but the current permitted capacity is 160 mgd and the City is restricted to diversions up to 100 mgd under certain river flow conditions (City of Sacramento 2011, p. 2-4). Considering just the existing capacity of the SRWTP and the current permitted capacity of the FWTP, the City's total combined reliable capacity is 295 mgd. The proposed project's estimated water demand is between 0.07% and 0.09% of the City's treatment capacity.

Impacts associated with expansion of existing water treatment facilities were analyzed in Impact 6.11-2 of the 2030 General Plan Master EIR (p. 6.11-33). The analysis of Impact 6.11-2 determined that new development permitted under the 2030 General Plan would increase demand for water diversion and treatment capacity. The draft 2035 Master EIR notes that "Policy U 2.1.3 would ensure the City provides sufficient funding to meet the projected water demand and Policy U 2.1.9 would prevent the City from granting building permits without sufficient water supply capacity. Implementation of these policies would ensure that development does not outstrip the availability of adequate water diversion and treatment capacity to meet the water demand for such development." In addition, Policy U 1.1.6 requires new development to provide adequate facilities or pay its fair share of facilities needed to accommodate growth without adversely affecting existing service levels.

Existing City regulations require submittal, review, and compliance with City standards for water conveyance. The project applicant would be required to submit a water conveyance infrastructure improvement plan that depicts the locations and appropriate sizes of all required conveyance infrastructure, in conjunction with other site-specific improvement plans. Proposed on-site water facilities would be required to be designed and sized to provide adequate service to the project site for the amount and type of proposed development, based on the City's Standards and Specifications for Public Construction (June 2007), and the Standards and Specifications for Public Construction

Addendum No. 2 (April 2012), or the most current versions of this plan. Based on existing City standards, the water conveyance infrastructure would be required to be designed to satisfy the more critical of the two following conditions, as determined by the City's Department of Utilities: (1) at maximum-day peak-hour demand, the operating or "residual" pressure at all water service connections shall be at least 30 pounds per square inch; or (2) at average maximum-day demand plus fire flow, the operating or "residual" pressure in the area of the fire shall not be less than 20 pounds per square inch.

The project is required to demonstrate there are adequate fire flow demands for the project, based on a water supply test that measures pounds per square inch of pressure at the final point of connection. Existing City regulations require that a final water conveyance infrastructure improvement plan is approved by the Department of Utilities before approval of the final subdivision map and issuance of building permits. In addition, the project is required to pay applicable water connection fees based on tap and meter size, as determined by the Department of Utilities, before building permits are issued.

Sufficient capacity exists within the City's water infrastructure to serve the proposed project, and the proposed project would not exceed capacity or require construction of new or expanded water treatment facilities. In addition, the project would be required to pay applicable connection fees for the upkeep and expansion of treatment facilities in compliance with Chapter 13.04 of the City Code which regulates construction of water distribution facilities; establishes the review process for ensuring adequate fire flow and hydrants; and identifies that rates, fees, and charges. Compliance with City ordinances set forth in the City Code will be required as a condition of project approval and be included in the project's Mitigation Monitoring and Reporting Program to ensure compliance is monitored. Therefore the project's impact on water supply treatment and distribution facilities is considered **less than significant**.

Mitigation Measures

None required.

IMPACT 4.12-3 The proposed project could result in the determination that adequate water or wastewater capacity is not available to serve the project's demand in addition to existing commitments. *Based on the analysis below, the impact is considered less than significant.*

Existing development on the project site currently generates approximately .069 mgd of average dry weather flows. The City's total combined reliable water treatment capacity is 295 mgd. The increase in water demand associated with implementation of the project is between 0.05% and 0.07% of the City's treatment capacity. According to the City, sufficient capacity exists to serve the proposed project, and the proposed project would not exceed treatment capacity or require construction of new or expanded water treatment facilities. As discussed above, the project site is served by water conveyance infrastructure that is adequate to meet the needs of the project.

As shown in Table 4.12-6, the proposed project would increase wastewater demand by approximately 0.22 mgd under the Hotel / Condo / Retail Scenario and approximately 0.19 mgd under the Condo / Retail Scenario. The project does not propose uses that would generate wastewater in unusually high amounts or with pollutant types or concentrations would require pre-treatment or other measures.

Existing regulations in Chapter 13.08.040 of the City Code, “Prohibited Discharges” would address any such circumstances associated with future proposed uses at the project site.

Wastewater flows would ultimately be transported to the SRWWTP for treatment and discharge. The SRWWTP has a current design capacity of 181 mgd average dry-weather flow, and the plant currently treats 119 mgd average dry-weather flow (as of 2013). Project-related wastewater flows combined with the current average dry-weather flow (119 mgd) would not approach the treatment plant’s current design capacity of 181 mgd average dry-weather flow under either development scenario. It is anticipated that water conservation efforts and increased water recycling could substantially reduce the amount of wastewater in the future, and SRCSD has determined that the SRWWTP can provide capacity for future development beyond what was originally anticipated (SRCSD 2010).

The proposed project would not generate wastewater discharges that would exceed the Central Valley RWQCB’s requirements, and the SRWWTP has sufficient capacity to treat wastewater flows generated by either development scenario in addition to existing commitments.

Impacts associated with the SRWWTP’s capacity to serve new development permitted under the 2030 General Plan were analyzed in Impact 6.11-3 of the 2030 General Plan Master EIR (p. 6.11-57). The Master EIR determined that new development permitted under the 2030 General Plan, in addition to existing commitments, would result in an increase in wastewater flows that would require conveyance to and treatment at the SRWWTP. SRCSD has a program in place to continually evaluate demand/capacity needs, and the master-planning effort provides the flexibility to respond to changes in demand that can be anticipated in advance of planned improvements.

Existing City regulations require submittal, review, and compliance with City standards for wastewater conveyance facilities on-site. Specifically, the project applicant would be required to submit a wastewater infrastructure improvement plan that depicts the locations and appropriate sizes of all required conveyance infrastructure in conjunction with other site-specific improvement plans. Proposed on-site water and wastewater facilities are required to be designed and sized to provide adequate service to the project site for the amount and type of proposed development, based on City design standards. A final wastewater infrastructure improvement plan is also required to be approved by the Department of Utilities before approval of the final subdivision map and issuance of building permits. In addition, the project applicant would be required to, as applicable, mitigate CSS impacts pursuant to the Combined Sewer System Development Fee Program, as verified by the Department of Utilities, before building permits are issued. The City has indicated that because the existing sewer infrastructure serving the project area was originally designed to convey the combined sewer and storm water flows and now conveys only sewer flows, the system is considered oversized for managing sewer flows generated in this area (Spokely, Pers. Comm. 2014). The City has adopted a Combined Sewer Development Fee Program (City Code section 13.08.490) to support ongoing maintenance and upgrades within the combined sewer system area. The City requires new projects serviced by the CSS to comply with the Combined Sewer Development Fee Program before new CSS sewer service will be provided. Compliance with City ordinances set forth in the City Code will be required as a condition of project approval and be included in the project’s Mitigation Monitoring and Reporting Program to ensure compliance is monitored.

Adequate water and wastewater treatment capacity is available to serve the proposed project in addition to existing commitments; therefore, the project impact is considered **less than significant**.

Mitigation Measures

None required.

IMPACT 4.12-4 The proposed project could require or result in either the construction of new wastewater treatment facilities or stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental impacts. *Based on the analysis below, the impact is considered less than significant.*

As previously described, the SRWWTP has current design capacity of 181 mgd average dry-weather flow, and the plant currently treats 119 mgd average dry-weather flow (as of 2013). Proposed project-related wastewater flows combined with the current average dry-weather flow (119 mgd) at the SRWWTP would not approach the treatment plant's current design capacity of 181 mgd average dry-weather flow. As noted above, flows to the SRWWTP have decreased as a result of water conservation efforts over the last 10 years. It is also anticipated that state legislation passed in 2009, the CALGreen Code, and the City's Climate Action Plan, all of which mandate water conservation efforts, could substantially reduce the amount of wastewater in the future.

General Plan Policy U 1.1.6 requires new development to provide adequate facilities or pay its fair share of facilities needed to accommodate growth without adversely affecting existing service levels. In addition, General Plan Policy U 1.1.7 requires the City to develop and implement a financing strategy and assess fees to maintain established service levels (for water, wastewater and storm drain infrastructure) and to mitigate development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development). Because sufficient water and wastewater treatment facilities would be available to serve the proposed project, implementation of the project would not cause a significant impact related to expansion of existing water and wastewater treatment facilities.

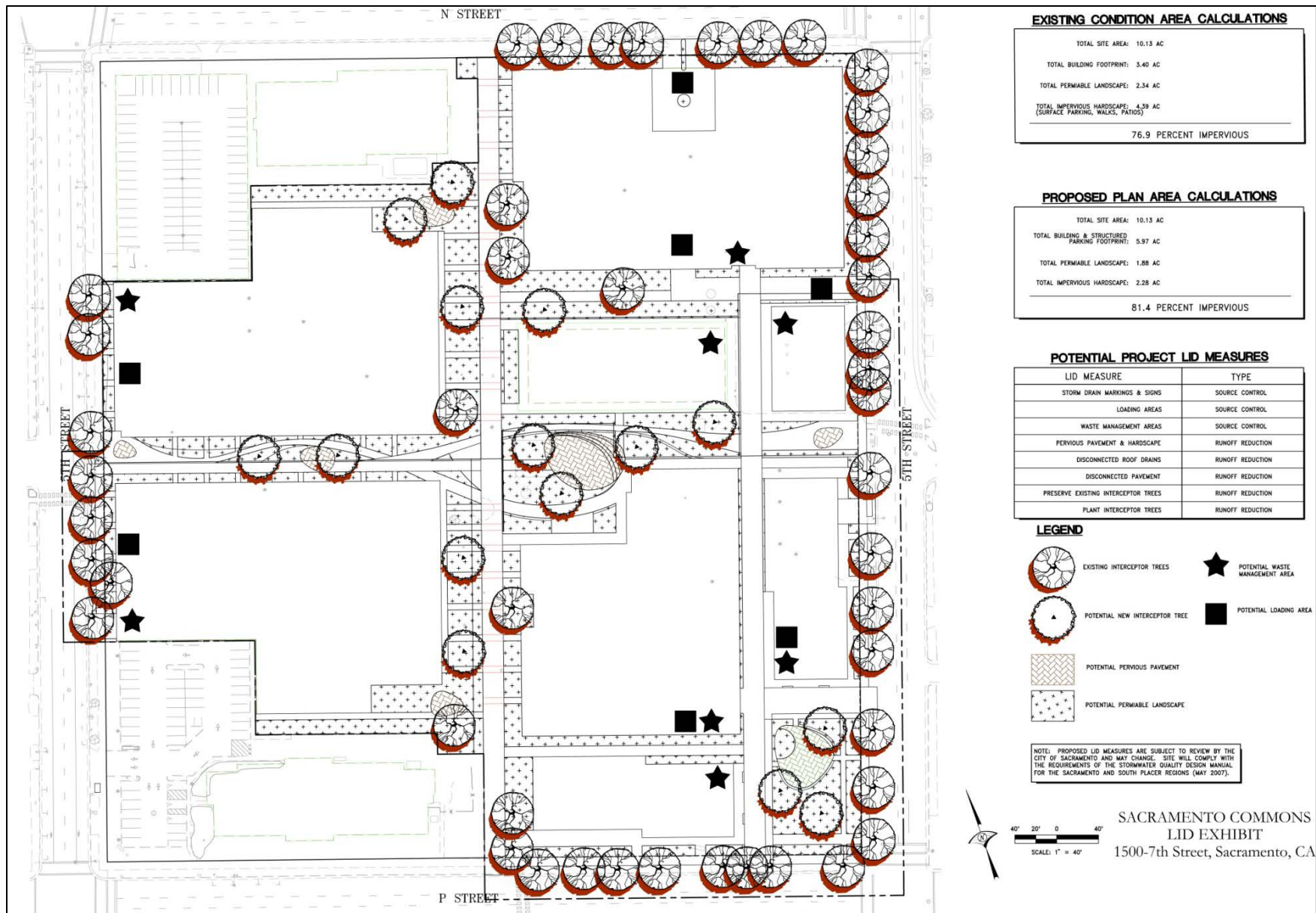
The proposed project would require construction of on-site wastewater conveyance and drainage infrastructure to accommodate wastewater demand and drainage needs for the proposed project. The project site is served by existing sewer conveyance infrastructure. Storm runoff near the project site is conveyed separately, and the project site is served by the City's CSS for sewer only. As shown on Figure 4.12-2, an existing 12-inch sanitary sewer main passes through the site from N Street to P Street (along the old 6th Street alignment). This line serves the existing buildings throughout the project site. The 12-inch line flows westward in P Street and connects to an existing 18-inch line in 5th Street. This 5th Street line serves the westerly portion of the project site. The two lines collect to a 24-inch sanitary sewer main that flows southward in 5th Street. The easterly portion of the project site connects to an existing 24-inch sewer main located in 7th Street. The project site is also served with existing drainage facilities. The storm drainage for the project site is collected and directed to various connection points in N, P, and 7th Streets (Figure 4.12-3). The impacts of constructing on-site wastewater and drainage conveyance infrastructure as part of the proposed project (e.g., noise, air emissions, water quality, biological resources, and cultural resources) are addressed throughout this EIR in connection with impacts of overall site development.

The project site has been previously developed. As a result, any infill project is required to comply with the City's "Do No Harm" policy. This policy requires infill areas to fully mitigate any potential increase in flows leaving the project site. This will be accomplished with on-site detention, as required to ensure that there will be no increase in storm runoff leaving the project area. Existing site features that would be used to preserve and integrate into the project's overall Stormwater Management Plan include a large number of mature trees that surround the project site as well as new trees to be planted as part of the project. These trees intercept the rain and their roots take in the water that soaks into the ground. In addition to preserving and planting new trees on the site, the project includes a comprehensive integrated approach to stormwater management that incorporates an array of low impact development (LID) source control and runoff reduction measures for the treatment of storm water quality on-site. The project will comply with site planning source control principles and design guidance found in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* for loading, outdoor storage, and waste management areas. These areas would be isolated and/or covered to minimize the potential of any pollutants from leaving the site. In addition to these measures, the project would employ runoff reduction measures such as pervious pavement, disconnected roof drains, disconnected pavement and interceptor trees, as identified in Figure 4.12-4.

The project applicant would also be required to participate in the Combined Sewer System Development Fee Program, which is designed to mitigate that project's impacts on the sewer system. The City has adopted a Combined Sewer Development Fee Program to support ongoing maintenance and upgrades within the combined sewer system area. Additionally, SRCSD levies a fee for planning, designing, construction, and other costs related to wastewater conveyance, treatment, and disposal using SRCSD's facilities. Fee amounts are determined in coordination with SRCSD and Sacramento County. Because the existing sewer infrastructure serving the project area was originally designed to convey the combined sewer and storm water flows and now conveys only sewer flows, the system is oversized for managing sewer flows generated in this area.

The proposed project would use a network of on-site conveyance pipelines to carry the project's stormwater drainage to the City's existing separate storm drain system connections in N, P, and 7th Streets. Stormwater flows from the project site would be directed to Sump 52, located near the south side of the Crocker Art Museum at 2nd and P Streets. From this location, stormwater is then pumped into the Sacramento River. The impacts of constructing such on-site facilities are addressed throughout this EIR in connection with discussions of the impacts of overall site development.

Construction and operational impacts associated with stormwater drainage facilities were analyzed in Impact 6.11-3 of the 2030 General Plan Master EIR (p. 6.11-57). The analysis of Impact 6.11-3 determined that new development permitted under the 2030 General Plan would result in an increase in demand for stormwater drainage facilities. However, the 2030 General Plan policies include measures to accommodate growth and the increased demand for stormwater drainage facilities. The analysis found that based on projected growth factors, redevelopment in the downtown area would not exceed the planned capacity of the storm drainage system. Policies from the 2030 General Plan discussed in Impact 6.11-3 ensures that stormwater drainage facilities would meet additional demand from new development permitted under the 2030 General Plan in addition to existing commitments.



Source: Wood Rodgers 2014

Figure 4.12-4

Site Integrated Low Impact Development Strategies

Existing City regulations require submittal, review, and compliance with City standards for stormwater facilities. The project applicant is required to prepare a stormwater drainage study that depicts the locations and appropriate sizes of all required facilities in conjunction with other site-specific improvement plans. Proposed on-site stormwater drainage systems are required to comply with the City's Design and Procedures Manual to meet the City's requirement of 5,000 cubic feet of detention for each additional acre of impervious surface. The project site currently contains 77.3 percent impervious surface area which is slated to increase to approximately 81 percent once the project is complete based on the current Conceptual Site Plan (Melendrez 2014). During the design process, detention volumes and LID strategies, such as porous pavement, interceptor planters, and disconnected downspouts, are selected and incorporated into project plans. The Department of Utilities will evaluate any selected LID measures and determine an adjusted required detention volume. As noted above, the proposed project is required to comply with the City's "Do No Harm" policy to fully mitigate any potential increase in storm water flows leaving the project site. This policy means that the project will be required to incorporate measures to avoid increasing stormwater relative to existing conditions. The proposed on-site detention would be designed to ensure there is no net increase in storm water runoff leaving the project site and must demonstrate that the proposed project meets these requirements. A final stormwater drainage study is required to be approved by the Department of Utilities before approval of the final subdivision map and issuance of building permits and a condition of this requirement will be stated in the Mitigation Monitoring and Reporting Program for the project. See also Mitigation Measure 4.8-2, which addresses this requirement.

The proposed project would not require the construction of or expansion of new wastewater treatment facilities or stormwater drainage facilities. The proposed project would use a network of on-site conveyance pipelines to carry the project's stormwater drainage to the City's existing separate storm drain system connections. The impact is considered **less than significant**.

Mitigation Measures

None required.

IMPACT 4.12-5 The proposed project could require or result in either the construction of new solid waste facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects. *Based on the analysis below, the impact is considered less than significant.*

Implementation of the proposed project would generate temporary and short-term debris and waste during construction. Construction of the proposed project would require demolition of the 206 existing garden apartment units, swimming pool, and some existing trees and landscaping. Demolition debris would include concrete, metal, wood, plastics, and various other demolition-related materials. After demolition and site clearing, building construction would result in the generation of various types of waste, including scrap lumber, scrap finishing materials, various scrap metals, and other recyclable and non-recyclable construction-related wastes.

The 2013 CALGreen Code (Title 24, Part 11 of the California Code of Regulations) requires all construction contractors to reduce construction waste and demolition debris by 50%. Code requirements include preparing a construction waste management plan that identifies the materials to

be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determining whether materials will be sorted on-site or mixed; and identifying diversion facilities where the materials collected will be taken. The Code also specifies that the amount of materials diverted should be calculated by weight or volume, but not by both (California Building Standards Commission 2013). In addition, the 2013 CALGreen Code requires that 100% of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

Existing City regulations require all contractors to comply with the Construction and Demolition Debris Recycling Ordinance (Title 8, Chapter 8.124 of the Sacramento City Code) by reducing project waste entering landfill facilities by 50% by weight through recycling. The City also requires contractors prepare a waste management plan that identifies the sources of recyclable materials, outlines a recycling method (i.e., self-separation or mixed recovery), and identifies a self-haul or franchise waste hauler. The waste management plan must be submitted to and approved by City's Solid Waste Services before a building permit is issued.

Adhering to these requirements would minimize the total volume of demolition and construction waste that would be sent to a landfill, but would not avoid sending such waste to landfills entirely. It is estimated demolition of the garden apartments would generate approximately 8.3 tons of construction debris prior to any recycling or salvaging of materials (<http://thegreenestbuilding.org/waste.html>). The majority of landfilled waste would be delivered to the Lockwood Regional Landfill or Kiefer Landfill. Construction and demolition waste could also potentially be delivered to L and D Landfill, Yolo County Central Landfill, or the Forward Landfill. Combined, these landfills have a large volume of landfill capacity available to serve the proposed project during construction (City of Sacramento 2014d).

Project operation would result in an increase in long-term generation of solid waste associated with the new retail, residential and possible hotel uses. As discussed previously under "Methods of Analysis," the project would increase solid waste demand by approximately 1,340 tons per year of solid waste (under the Condo / Retail Scenario) and approximately 1,630 (under the Hotel / Condo / Retail Scenario) tons per year of solid waste (as shown on Table 4.12-7).

The City provides recycling programs, such as curbside recycling of paper, plastics, and bottles, to reduce the volume of solid waste transported to landfills. In addition, the SWA recycling ordinance reduces waste further by requiring businesses and multifamily residential uses to recycle designated recyclable materials.

Most of the solid waste collected from the project site would be hauled to the Lockwood Regional Landfill, which has a maximum permitted throughput of 5,000 tpd. This landfill has a total maximum permitted capacity of 302.5 million cubic yards and approximately 270 million cubic yards of available capacity. The Lockwood Regional Landfill is anticipated to meet solid waste disposal needs through 2113. In addition, some solid waste may be hauled to the Kiefer Landfill. The landfill is permitted to accept a maximum of 10,800 tpd of solid waste and currently has a permitted capacity of approximately 117 million cubic yards. The closure date of the Kiefer Landfill is anticipated to be approximately 2064. Combined, these landfills have a large volume of landfill capacity available to meet the solid-waste disposal needs of the proposed project.

The increased demand for solid waste facilities was analyzed in Impact 6.11-7 of the 2030 General Plan Master EIR (p. 6.11-74). The analysis of Impact 6.11-7 determined that new development permitted under the General Plan would result in an increase in solid waste sent to transfer centers and landfills. However, the 2030 General Plan policies include measures to accommodate growth and the increased amount of solid waste requiring disposal. The programs provided through policies identified in Impact 6.11-7 are designed to ensure the City continues to provide recycling and clean-up services for its residents and businesses. Many of these programs are already in place, and continue to promote waste diversion, which will help reduce waste flow to landfills. The 2030 General Plan Master EIR determined that because of the remaining capacity at and expected life spans of the Lockwood Regional Landfill and Kiefer Landfill, combined with the continued use of the existing transfer stations and development of at least one new transfer station in the north area, the increase in solid waste generated by buildout of the General Plan would not exceed landfill capacity.

Therefore, there is sufficient landfill capacity to accommodate solid-waste disposal needs of the proposed project. The project would not require the construction of new solid waste facilities or the expansion of existing facilities. The impact is considered **less than significant**.

Mitigation Measures

None required.

3.14.4 CUMULATIVE IMPACT DISCUSSION

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The geographic area that could be affected by a project varies, depending on the type of environmental issue being considered. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. Rather, cumulative impacts of the proposed project are considered in tandem with impacts of buildout conditions described in the SACOG's MTP/SCS Program EIR and the Sacramento 2030 General Plan Master EIR (Public Resources Code Section 21155.2[a]). Pursuant to Public Resources Code Section 21155.2(c)(1), cumulative effects that have been adequately addressed in the MTP/SCS Program EIR and 2030 General Plan Master EIR are not required to be addressed further in this EIR.

Public Resources Code, Section 21155.2 [c] [1] provides that, "where the lead agency determines that a cumulative effect has been adequately addressed and mitigated [in the applicable certified environmental impact reports], th[ose] cumulative effect[s] shall not be treated as cumulatively considerable for the purposes of [CEQA]" (Public Resources Code, Section 21155.2 [c] [1]). This provision of state law applies to the cumulative discussion below.

For utilities and service system impacts, the geographic focus of the cumulative analysis is the Policy Area of the City of Sacramento's General Plan.

IMPACT Cumulative impacts related to water supply, treatment, and conveyance. *Based on the analysis below,*
4.12-6 *the proposed project's contribution to this cumulative impact is not cumulatively considerable.*

Cumulative impacts associated with water supply demand were analyzed in Impact 6.11-1 of the 2030 General Plan Master EIR. The analysis of Impact 6.11-1 determined that buildout of the 2030 General Plan would result in an increase in demand for potable water (p. 6.11-31). The Master EIR concluded that the City's water right permits and U.S. Bureau of Reclamation contracts authorize sufficient water amounts to accommodate both existing demand and additional demand as projected under the 2030 General Plan; therefore, the City considered this cumulative impact to be less than significant.

Cumulative impacts associated with the construction of water supply facilities was discussed under Impact 6.11-2 of the Master EIR, in which the City concluded that buildout of the General Plan could require the construction of new water supply facilities, leading to a potentially significant impact. The draft 2035 General Plan Master EIR notes that even with water conservation plans, buildout of the General Plan would still exceed the City's existing available water diversion and treatment capacity at some point in time. No feasible mitigation measures are available; therefore, this is a significant and unavoidable cumulative impact (City of Sacramento 2014e p. 4.11-7).

Impacts related to water supply were analyzed in Impact USS-1 of the MTP/SCS Program EIR. The analysis of Impact USS-1 determined that new development, including development in the Center and Corridor Communities, could increase the demand for surface water or groundwater to meet the demands of new population and employment growth. Water purveyors would likely coordinate with individual development projects to ensure that water supplies are available to serve new development. The City of Sacramento is the water purveyor for the City, and the project applicant is coordinating with the City to ensure that water supplies are available to meet the demands of the proposed project. The analysis concluded that the implementing agency should adopt Mitigation Measure USS-1, which would ensure that water supplies would be available to meet or satisfy demands by requiring a service capacity analysis or a provider will-serve letter. A WSA has been prepared for the proposed project. Based on the findings of the WSA, the City has determined there is sufficient water supply to provide water to the proposed project through 2035 (See Appendix I).

The increase in water demand associated with implementation of the project is between 0.05% and 0.07% of the City's treatment capacity. According to the City, sufficient capacity exists to serve the proposed project, and the proposed project would not exceed treatment capacity or require construction of new or expanded water treatment facilities. As discussed above, the project site is served by water conveyance infrastructure that is adequate to meet the needs of the project. The WSA, presented in Appendix I, indicates that the City has determined that sufficient water supply would be available to accommodate the proposed project. Dense urban infill projects are among the most water efficient housing types, therefore, the proposed project is consistent with the City's 2030 (and 2035) General Plan and has been designed to reduce water demand in compliance with State and City requirements. The project's contribution to the cumulative increase in water demand is **not cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.12-7 Cumulative impacts related to wastewater conveyance and treatment. *Based on the analysis below, the proposed project's contribution to this cumulative impact is **not cumulatively considerable**.*

Cumulative impacts associated with the SRWWTP's capacity to serve new development permitted under the 2030 General Plan were analyzed in Impact 6.11-3 of the 2030 General Plan Master EIR (p. 6.11-56). The Master EIR determined that new development permitted under the 2030 General Plan, in addition to existing commitments, would result in an increase in wastewater flows that would require conveyance to and treatment at the SRWWTP. In addition, development permitted under the 2030 General Plan would increase the demand for conveyance capacity in the local City-maintained sewer lines that connect to major trunk lines and interceptors in the separate sewer system. For areas of the City that are served by the CSS, the Master EIR determined that there would not be a substantial increase in sewage flows to the system because it is already limited in capacity, and flows must currently be mitigated in accordance with the Combined Sewer System Development Fee Program. The Master EIR identifies policies from the 2030 General Plan (see Section 4.12.2, "Regulatory Setting," above) that set performance standards and criteria that address potential utility and service systems impacts of future development within the City. Cumulative impacts were considered less than significant.

Impacts associated with expansion of wastewater treatment facilities were analyzed in the Master EIR under Impact 6.11-4 (p. 6.11-57). The analysis of Impact 6.11-4 determined that implementation of new development permitted under the 2030 General Plan would contribute to the need to expand the SRWWTP. Because future new development in the City would contribute to the need to expand the SRWWTP, which could result in short-term significant and unavoidable air quality impacts during construction, the Master EIR determined that impacts related to expansion of the SRWWTP would be significant and unavoidable. However, the impact of constructing and expanding the SRWWTP would be addressed in an EIR for that project and the Master EIR indicated that it is beyond the scope and authority of the City of Sacramento to mitigate impacts of a future update to the SRWWTP. The cumulative impact associated with expansion of wastewater treatment facilities was considered significant and unavoidable.

Cumulative impacts associated with wastewater conveyance and treatment were analyzed under Impact 6.11-5 of the 2030 General Plan Master EIR (p. 6.11-59). The General Plan's contribution to the need for expansion of facilities was considered cumulatively considerable and the impact was considered cumulatively significant and unavoidable (p. 6.11-60). In the draft 2035 General Plan EIR, under Impact 4.11-3, the City has identified less than significant impacts associated with buildout of the General Plan in relation to additional wastewater and stormwater that would require the expansion of existing conveyance facilities (p. 4.11-15). In Chapter 6 of the same document, which includes Section 6.5, "Cumulative Impacts," there is no identification of any significant cumulative impact related to wastewater (p. 6-10) (City of Sacramento 2014d).

Impacts related to wastewater treatment facilities were analyzed under Impact USS-3 of the MTP/SCS Program EIR (p. 17-41). The discussion of Impact USS-3 of the MTP/SCS Program EIR determined that new development, including development in the Center and Corridor Communities, could require the construction of new utility and service system infrastructure to maintain adequate service. The analysis found that the land use growth footprint of the MTP/SCS includes the land supply needed to accommodate necessary increases in utilities and service systems, with the exception of construction of new wastewater treatment facilities. Mitigation Measure USS-3 in the MTP/SCS Program EIR states that the implementing agency should undertake project-level review, as necessary, to provide CEQA approval for new wastewater treatment plants, landfills, and similar large utility facilities. Since the proposed project would not result in the need for new or expanded wastewater treatment facilities, Mitigation Measure USS-3 is not applicable. The MTP/SCS Program EIR identified no cumulative operational impacts associated with wastewater discharges exceeding the Central Valley RWQCB's requirements or with exceedance of wastewater treatment capacity.

The project site is developed and existing development on the project site currently generates approximately .069 mgd of average dry weather flows. According to the City, sufficient capacity exists to serve the proposed project, and would not exceed treatment capacity or require construction of new or expanded treatment facilities. The urban infill nature of the proposed project provides a more dense development compared to other housing types which would result in a more efficient use of utilities at the project site. The project does not propose uses that would generate wastewater in unusually high amounts or with pollutant types or concentrations would require pre-treatment or other measures. Existing regulations in Chapter 13.08.040 of the City Code, "Prohibited Discharges" would address any such circumstances associated with future proposed uses at the project site. It is anticipated that water conservation efforts and increased water recycling could substantially reduce the amount of wastewater in the future, and SRCSD has determined that the SRWWTP can provide capacity for future development beyond what was originally anticipated (SRCSD 2010). The proposed project would not generate wastewater discharges that would exceed the Central Valley RWQCB's requirements, and the SRWWTP has sufficient capacity to treat wastewater flows generated by either development scenario in addition to existing commitments.

Existing City regulations require submittal, review, and compliance with City standards for wastewater conveyance facilities on-site. Specifically, the project applicant would be required to submit a wastewater infrastructure improvement plan that depicts the locations and appropriate sizes of all required conveyance infrastructure in conjunction with other site-specific improvement plans. Proposed on-site water and wastewater facilities are required to be designed and sized to provide adequate service to the project site for the amount and type of proposed development, based on City design standards. A final wastewater infrastructure improvement plan is also required to be approved by the Department of Utilities before approval of the final subdivision map and issuance of building permits. In addition, the project applicant would be required to, as applicable, mitigate CSS impacts pursuant to the Combined Sewer System Development Fee Program, as verified by the Department of Utilities, before building permits are issued. The City has indicated that because the existing sewer infrastructure serving the project area was originally designed to convey the combined sewer and storm water flows and now conveys only sewer flows, the system is considered oversized for managing sewer flows generated in this area. Adequate wastewater treatment capacity is available to serve the proposed project in addition to existing commitments. The impact is **not cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.12-8 Cumulative impacts related to stormwater drainage infrastructure. *This impact has been fully addressed by the General Plan Master EIR. There is **no cumulative impact**.*

Cumulative impacts associated with stormwater facilities under the 2030 General Plan was analyzed alongside wastewater facilities under Impact 6.11-3 of the 2030 General Plan Master EIR (starting on p. 6.11-56). The Master EIR determined that new development permitted under the 2030 General Plan, in addition to existing commitments, would require additional drainage infrastructure. The EIR references Policy U 4.1.1, which requires the City to ensure that all new drainage facilities are adequately sized to accommodate stormwater runoff; Policy U 4.1.2, which requires public facilities and infrastructure to be designed pursuant to basin master plans; and Policy U 4.1.3, which commits the City to coordination with the County and other agencies in the development of regional stormwater facilities. The impact is considered less than significant (p. 6.11-58).

The City discussed cumulative stormwater impacts under Impact 6.11-6 of the 2030 General Plan Master EIR (starting on p. 6.11-62), concluding that development assumed to occur under the 2030 General Plan would not increase cumulative stormwater runoff or require new regional facilities. The Master EIR indicates that the 2030 General Plan's contribution is not cumulatively considerable and cumulative impacts from the 2030 General Plan were identified as less than cumulatively significant.

Impacts related to stormwater facilities were analyzed under Impact HYD-1 of the MTP/SCS Program EIR (p. 11-51). The discussion of Impact HYD-1 determined that the impacts associated with runoff water and capacity of stormwater drainage systems related to land use changes from the implementation of the proposed MTP/SCS at the regional level are considered less than significant. The MTP/SCS Program EIR identified no cumulative operational impacts associated with stormwater facilities and systems.

The City of Sacramento finds that the cumulative impact of the proposed project related to stormwater drainage infrastructure has been fully addressed by the 2030 General Plan Master EIR. Therefore, there is **no cumulative** impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does **not have the potential to result in a cumulatively considerable impact** related to stormwater drainage infrastructure.

Mitigation Measures

None required.

IMPACT 4.12-9 Cumulative impacts related to solid waste demand. *This impact has been fully addressed by the General Plan Master EIR. There is **no cumulative impact**.*

The 2030 General Plan Master EIR identified no cumulative construction impacts related to solid waste because these are localized impacts and not evaluated on a cumulative level. Impacts associated with solid waste attributed to buildout of the 2030 General Plan were discussed under Impact 6.11-7 of the

Master EIR indicates that new development permitted under the 2030 General Plan would result in an increase in solid waste sent to transfer centers and landfills (starting on p. 6.11-74). However, the policies from the 2030 General Plan include measures to accommodate growth and the increased amount of solid waste requiring disposal. Implementation of the City's Recycling Ordinance would ensure that solid waste and recycling facilities such as transfer stations are provided throughout Sacramento to help reduce the amount of waste sent to landfills. The programs provided through policies identified in Impact 6.11-7 are designed to ensure that the City continues to provide recycling and clean-up services for its residents and businesses. Many of these programs are already in place, and continue to promote waste diversion, which helps to reduce waste flow to landfills. The Master EIR determined that because of the remaining capacity at and expected life spans of the Lockwood Regional Landfill and Kiefer Landfill, combined with the continued use of the existing transfer stations and development of at least one new transfer station in the north area, the increase in solid waste generated by buildout of the 2030 General Plan would not exceed landfill capacity. The cumulative impact was considered less than significant (p. 6.11-72).

Impacts on solid waste disposal facilities were analyzed under Impact USS-3 of the MTP/SCS Program EIR (p. 17-41). The analysis of Impact USS-3 determined that new development, including development in the Center and Corridor Communities, could require the construction of new utility and service system infrastructure to maintain adequate service. The land use growth footprint of the proposed MTP/SCS includes the land supply needed to accommodate necessary increases in utilities and service systems, with the exception of construction of new solid waste disposal facilities. Mitigation Measure USS-3 in the MTP/SCS Program EIR states that the implementing agency should undertake project-level review as necessary to provide CEQA approval for new wastewater treatment plants, landfills, and similar large utility facilities. Because the proposed project would not result in the need for new or expanded solid waste disposal facilities, MTP/SCS Program EIR Mitigation Measure USS-3 is not applicable to the proposed project.

The City of Sacramento finds that the cumulative impact of the proposed project related to solid waste demand has been fully addressed by the 2030 General Plan Master EIR. Therefore, there is **no cumulative** impact and pursuant to Public Resources Code section 21155.2(c)(1), the proposed project does **not have the potential to result in a cumulatively considerable impact** related to an increase in demand for solid waste disposal.

Mitigation Measures

None required.

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5 ALTERNATIVES

This chapter presents the proposed project objectives; summarizes the significant effects of the proposed project; describes the alternatives that were considered, but dismissed from further evaluation; and, the alternatives selected for evaluation. This chapter also analyzes the comparative effects of the alternatives relative to the proposed project. As required under Section 15126.6(e) of the California Environmental Quality Act (CEQA) Guidelines, the environmentally superior alternative is identified.

5.1 INTRODUCTION

The purpose of the alternatives evaluation in an Environmental Impact Report (EIR), as stated in Section 15126.6(c) of the CEQA Guidelines, is to ensure that “[t]he range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects” identified under the proposed project.

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. Pursuant to CEQA Guidelines, Section 15126.6, an analysis of alternatives to the project is presented in this EIR to provide the public and decision makers with a range of possible alternatives to consider.

5.1.1 FOCUS OF ALTERNATIVES

As discussed in Chapter 4.0 Environmental Impact Analysis, several applicable infill streamlining provisions allow limitations to the required scope of the CEQA alternatives analysis for the proposed project. Pursuant to both Public Resources Code section 21155.2(c)(2) and 21094.5(b)(1) this EIR is not required to evaluate an offsite alternative even if adequate offsite locations were available and the project proponent could obtain control of such locations.¹ Furthermore, Public Resources Code section 21159.28(a) provides that this EIR is not required to describe or discuss a reduced residential density alternative to address effects of cars and light trucks generated by the proposed project. Finally, Public Resources Code section 21094.5(b)(1) states that the EIR is not required to evaluate reduced density or building intensity alternatives.

Section 15126.6[a] of the State CEQA Guidelines requires that an EIR (1) describe a range of reasonable alternatives to a proposed project, or to the location of the project, that would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project and (2) evaluate the comparative merits of the alternatives. Therefore, a key goal of the alternatives analysis included in an EIR is to consider alternatives with the potential to “avoid or substantially lessen one or more of the significant effects” of the proposed project (CEQA Guidelines Section 15126.6[c]). As demonstrated in Chapter 4 of this EIR, the only significant and unavoidable

¹ In addition, the City has not identified any offsite locations of similar size and zoning within the General Plan’s Central Business District that are available, the project proponent could obtain control of, and are sufficient in size to accommodate the proposed project.

impact caused by the proposed project is its impact on historic resources. As discussed below as part of the alternatives analysis, it is not possible to develop an alternative with the potential to avoid or substantially lessen the proposed project's potentially significant and unavoidable historical resource impact without reducing the proposed project's density or building intensity objectives. Therefore, notwithstanding Public Resources Code sections 21159.28(a) and 21094.5(b)(1), alternatives that reduce the proposed project's density and building intensity with the potential to avoid or substantially lessen the project's significant impact on historical resources (the proposed project's only significant and unavoidable impact) are addressed in this Chapter for informational purposes.

The State CEQA Guidelines recommend that an EIR should briefly describe the rationale for selecting the alternatives to be discussed, identify any alternatives that were considered by the lead agency but were rejected as infeasible, and briefly explain the reasons underlying the lead agency's determination (CEQA Guidelines Section 15126.6[c]).

5.1.2 REASONABLE RANGE OF ALTERNATIVES

The CEQA Guidelines state that an EIR shall describe a reasonable range of alternatives that would avoid or substantially lessen any significant effects of the project, but need not consider every conceivable alternative. The range of alternatives required to be evaluated 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 EIR need examine in detail only those alternatives that the lead agency determines could feasibly attain most of the basic project objectives, taking into account factors that include site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; control or access to alternative sites (CEQA Guidelines Section 15126.6[f]). The CEQA Guidelines further state that "the discussion of alternatives shall focus on alternatives to the project or its location [that] 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 project objectives, or would be more costly" (CEQA Guidelines, Section 15126.6[b]).

An EIR must also evaluate a "no-project" alternative, which represents "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (CEQA Guidelines Section 15126.6[e][2]). For the proposed project, the project site is already developed, and the No Project Alternative analyzed in this EIR assumes that existing uses would continue at the project site, with no new development.

The City is not required to analyze off-site alternatives to the proposed project based on its qualification as a transit priority project (Public Resources Code Section 21155.2[c][2]).

5.1.3 FEASIBILITY OF ALTERNATIVES

Alternatives in an EIR must be potentially feasible (CEQA Guidelines, Section 15126.6[a]). The feasibility of an alternative may be determined based on a variety of factors, including, but not limited to site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or

regulatory limitations, jurisdictional boundaries, and site accessibility and control (CEQA Guidelines, Section 15126.6[f][1]). Under CEQA, “feasible” is defined as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (CEQA Guidelines, Section 15364). The concept of “feasibility” also encompasses the question of whether a particular alternative promotes the underlying goals and objectives of a project. Moreover, “feasibility” under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors.

5.1.4 CONSIDERATION OF ALTERNATIVES

The lead agency’s decision making body – in this case, the Sacramento City Council – has the discretion to select a project alternative in lieu of the project. Approval of any alternative, however, could not occur unless the alternative had received sufficient review regarding planning and infrastructure issues, and had been subjected to adequate CEQA review. The required CEQA Findings of Fact, including a mitigation monitoring plan, would need to be prepared that identifies the alternative as the project selected for approval.

5.1.5 PROJECT OBJECTIVES

The selection of alternatives also takes into account the proposed project objectives provided in Chapter 2 of this EIR, “Project Description.” The objectives of the proposed Sacramento Commons project provided below were factored into the development and evaluation of the alternatives presented in this chapter:

- ▶ intensify an existing urban downtown residential community close to urban amenities (e.g. shopping, services, transit, entertainment, and cultural attractions);
- ▶ support investment and reinvestment in downtown Sacramento, particularly with more residential uses;
- ▶ intensify an existing infill development project with a new project that includes additional residential uses, near the major employment centers of downtown Sacramento;
- ▶ provide high-density residential uses that utilize surrounding transit services and provide access to a variety of transportation modes;
- ▶ enhance pedestrian movement through the central portions of the project site;
- ▶ provide additional housing choices for Sacramento's diverse population, and supporting retail and other commercial services for the residents and guests of the proposed development;
- ▶ provide open space areas that support uses on-site and provide places for community gathering, activity, privacy, and connectivity;
- ▶ provide development that is consistent with the City of Sacramento’s General Plan and the SACOG Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS); and

- ▶ incorporate sustainability features that help the City and region achieve its sustainability targets, while enhancing the livability of the community.

5.1.6 SIGNIFICANT EFFECTS OF THE PROPOSED PROJECT

The environmental effects associated with implementation of the proposed project are discussed in detail throughout Chapter 4 of this EIR, “Environmental Impact Analysis.” As discussed in this EIR, the proposed project would result in the following significant and unavoidable adverse effects:

Impact 4.4-1: The proposed project could result in a substantial adverse change in the significance of the Heilbron House.

Impact 4.4-6: Cumulative Historical Resources Impacts.

Other impacts associated with implementation of the proposed project could be reduced to a less-than-significant level through compliance with existing regulations and through mitigation imposed upon the project, as described throughout Chapter 4 of this EIR.

5.2 IDENTIFICATION OF ALTERNATIVES TO THE PROPOSED PROJECT

In identifying alternatives to the proposed project, primary consideration was given to alternatives that could reduce significant and unavoidable historical resource impacts resulting from the proposed project. Potential historical resource impacts were identified as being significant and unavoidable under the proposed project due to redevelopment of the project site.

As discussed in Chapter 4.4 (Cultural Resources), for the purposes of CEQA the project site is a historical resource following the formal determination of eligibility for listing in the NRHP and the resulting automatic listing in the CRHR, and concludes that the proposed project has a significant and unavoidable historical resource impact. Based on this conclusion, the historical consultant, Carey & Co., developed project alternatives to address and evaluate the proposed project’s significant and unavoidable historical resource impact. To develop its recommendations on alternatives, on August 5, 2014, Carey & Co. and the City’s Preservation Director met on the project site to discuss potential project alternatives. On December 9, 2014, in preparation for completing the alternatives analysis for this EIR, a meeting was held with the City’s Preservation Director to review Carey & Co.’s November 2014 report on project alternatives. Carey & Co.’s report is provided as Appendix D.

Carey & Co. concluded that the most likely way to reduce the historical resource impact while allowing for increased residential density on the project site would be by permitting some development to occur on the edges of the project site and retaining the historic core.

Consistent with this approach, an alternative was designed (Alternative 3: 24-Story Core Retention Alternative) that would retain existing low-rise units and most of the landscape features within the interior of the project site while constructing four new 24-story towers and two 7-level garages, two 6-level garages, and a 5-level parking structure along the perimeter of the project site (please refer to the description of Alternative 3 in Section 5.3.3, below).

After analyzing the design, Carey & Co concluded that the alternative would reduce the proposed project's significant and unavoidable historical resource impact, but not to a less than significant level. Impacts are discussed under "Cultural Resources" in Section 5.3.5.

Carey & Co also considered whether reducing the height of the high-rise buildings proposed under the 24-Story Core Retention Alternative to 15-story (similar to existing tower heights on the project site) would be sufficient to avoid the proposed project's significant and unavoidable historical resource impact. As discussed in more detail in the analysis for Alternative 2 in Section 5.3.5 below, while the reduction in height and commensurate reduction in height of structured parking in the 15-Story Core Retention Alternative (Alternative 2) would lessen impacts over the 24-Story Core Retention Alternative, the historical resource impact would still remain significant and unavoidable.

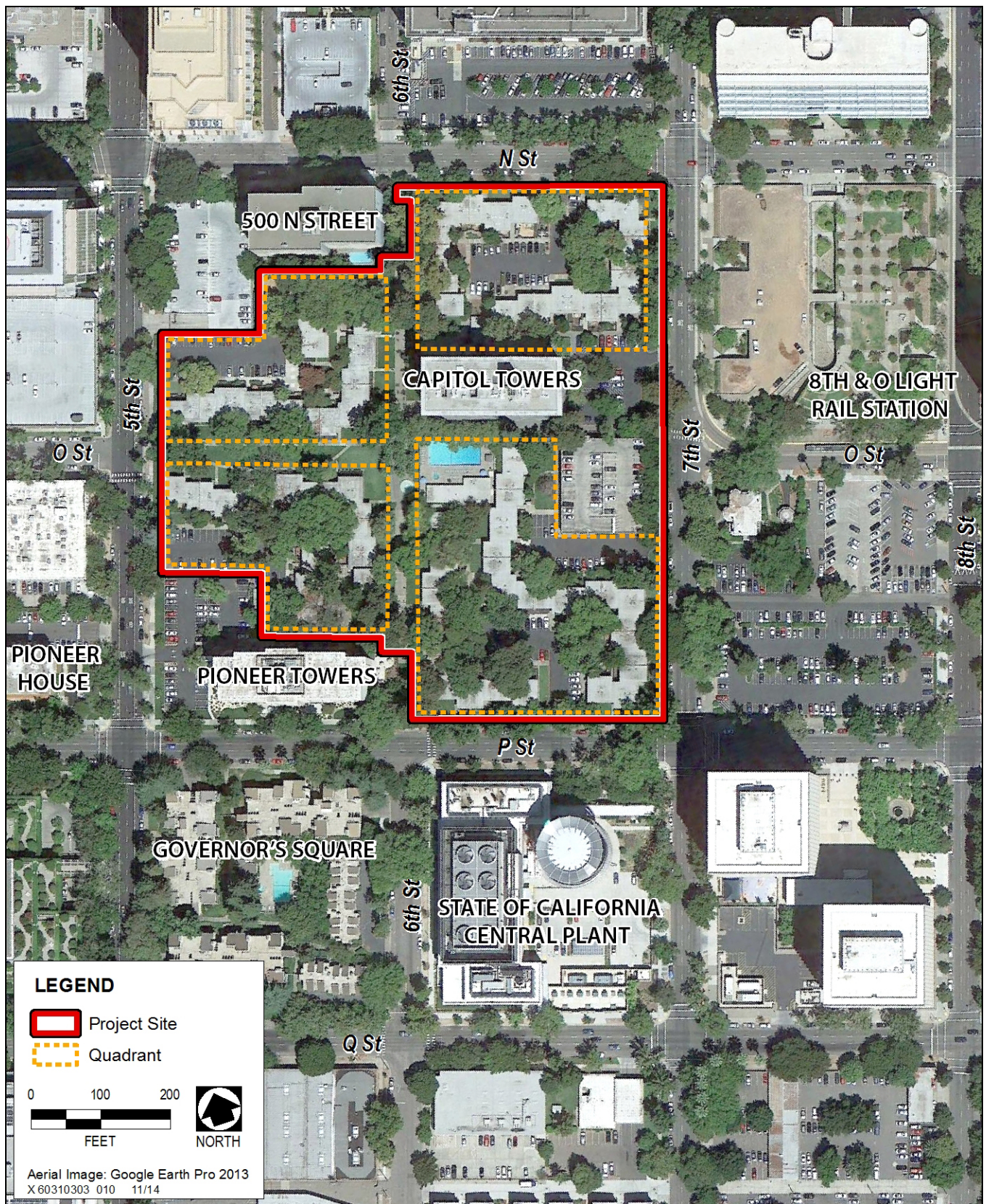
Carey & Co also considered whether preserving two of the project site's four quadrants (the four areas separated by the abandoned 6th Street and O Street right of ways, see Figure 5-1) would substantially lessen or avoid the proposed project's significant and unavoidable historical resource impact. As discussed in more detail in the analysis for Alternative 4 in Section 5.3.5 below, preserving two quadrants, under the Retention of Eastern Half of the Superblock Alternative (Alternative 4), would result in greater historical resource impacts than either the 24-Story or 15-story Core Retention Alternatives. Thus, this alternative was also determined to have a significant and unavoidable historical resource impact. Carey & Co concluded further that a three quadrant retention alternative, like a two quadrant alternative, would have greater historical resource impacts than either the 24-Story or 15-story Core Retention Alternatives and, therefore, did not recommend that it be carried forward for further analysis.

Carey & Co was unable to identify any potentially feasible project alternative that is both consistent with most of the basic proposed project objectives and capable of reducing the proposed project's significant and unavoidable historical resource impact to a less than significant level. The alternatives analyzed in this chapter constitute a reasonable range of alternatives and exceed the requirements of CEQA pursuant to Public Resources Code section 21094.5 as discussed in section 5.1.1, above.

5.2.1 ALTERNATIVES CONSIDERED AND DISMISSED FROM FURTHER CONSIDERATION

Other potential alternatives that were explored by Carey & Co. and the City in preparing the alternatives analysis would limit the footprint or size of the project, but were rejected from further consideration, because they were similar to the three alternatives analyzed, but they would not avoid the proposed project's significant and unavoidable historical resource impact, and they did not meet most of the basic project objectives.

Specifically, an alternative that would retain the western two quadrants of the project site was rejected from further consideration because it would be similar to Alternative 4 (described in detail in Section 5.3.4) and would only minimally reduce effects on the historical resource as compared to the proposed project. Other alternatives that would not significantly increase the density or intensity existing on the project site were rejected because they would not meet the proposed project's basic objectives to provide high-density residential uses on the project site – densities that are supported in the City's 2030 General Plan and the MTP/SCS. Additionally, lower density or intensity alternatives are not required pursuant to Public Resources Code section 21094.5, as discussed in Section 5.1.1.



Source: AECOM 2014

Figure 5-1

Project Site Quadrants

5.3 ALTERNATIVES CONSIDERED IN THIS EIR

This section describes the range of alternatives to the proposed project that are analyzed in this EIR and presents how specific impacts differ in severity from those associated with the proposed project.

Except for historical resources, as with the proposed project, significant impacts of the alternatives can be mitigated to a less-than-significant level through adoption of mitigation measures identified in Chapter 4 of this EIR, which contains the environmental analysis of the proposed project. All of the mitigation measures identified for this project are included in the Executive Summary of this EIR. It should be also noted that each of those mitigation measures can be applied to each of the alternatives outlined in this section to further reduce potential environmental effects. Each of the mitigation measures identified in the EIR as necessary to reduce a potentially significant impact to a less-than-significant level would also be required to reduce potentially significant effects of Alternative 2, 3, and 4 to a less-than-significant level, with the exception of impacts to historical resources.

To varying degrees, the following alternatives would also avoid and/or lessen project impacts, including the significant and unavoidable impact related to the historical resource, but would not reduce this impact to a less-than-significant level.

The alternatives to the proposed project analyzed in this EIR are:

- Alternative 1:** No Project/No New Development
- Alternative 2:** 15-Story Core Retention Alternative
- Alternative 3:** 24-Story Core Retention Alternative
- Alternative 4:** Retention of Eastern Half of the Superblock Alternative

Table 5-1 presents a comparison of various characteristics of the four alternatives and the proposed project.

Table 5-1 Alternatives Comparison					
	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Proposed Project
Number of New Buildings	0	4	4	2	5
Number of Existing Buildings Removed	0	24	24	28	67
New Building Footprint	0	109,500	109,500	114,000	250,000
Total Building Footprint	90,500	164,000	164,000	178,490	260,053
New Residential Units	0	566	862	682	1,171-1,267
Total Residential Units	409	899	1,195	1,007	1,374-1,470
Residential Units Removed	0	76	76	84	206
New Commercial Area (square feet)	0	25,500	25,500	9,000	52,000-70,000
Total Commercial Area (square feet)	4,122	29,622	29,622	13,122	56,122-74,122
Parking	3-level parking structure, 6 surface lots	Three 5-level garages, two 4 level garages	Two 7-level garage, two 6-level garages, 5-level garage	Two 2-level garages	Two 6-level garages, 5-level garage, two 2-level garages
Hotel Rooms	0	0	0	0	0-300

Note: Ranges are provided for the proposed project to reflect the Hotel / Condo / Retail Scenario and Condo / Retail Scenario.
Source: Compiled by AECOM 2014

5.3.1 ALTERNATIVE 1: NO PROJECT/NO DEVELOPMENT ALTERNATIVE

Under CEQA, the No Project Alternative must consider the effects of not developing the project. The No Project/No Development Alternative describes the environmental conditions that exist at the time that the environmental analysis commences (CEQA Guidelines, Section 15126.6 [e][2]). In the case of the proposed project, the Sacramento Commons project site is already in a developed state, so continuation of existing conditions would involve continued occupancy and operation of Capitol Towers in its current configuration. Existing conditions are described in the Environmental Setting of each section within Chapter 4 of this EIR.

Under Alternative 1, the No Project/No Development Alternative, the City Council would not approve any project, and none of the mitigation measures identified within this EIR would be implemented. No demolition would occur under Alternative 1, because existing structures, landscape features and site layout would remain and therefore no impact to the historical resource would result.

It is noted that the allowed density for the site under the City's General Plan is much higher than the existing density on the site. The project site is currently developed at a density of approximately 41 units per acre, and the entire superblock (i.e. 5th Street to 7th Street and N Street to P Street including 500 N Street and Pioneer Towers) is currently developed at a density of approximately 58.5 units per acre. The minimum density that could be permitted for new developments on the project site in the Sacramento 2030 General Plan is 61 units per acre. The density range that would be allowed in the General Plan for the project site is 61 to 450 units per acre, and the permissible zoning density is up to 175 units per acre. Alternative 1 would forego the opportunity to increase residential density on the project site in order to achieve the proposed project's objective to provide high-density residential uses on the project site and provide consistency with the City's General Plan and the MTP/SCS.

Additionally, the existing buildings on the project site, including the 206 garden apartment units, were constructed between 1959 and 1965. The energy efficiency of these buildings is substantially less than would be required by the current California Building Code requirements for new construction, though some incentive for retrofit of existing buildings that would remain under the No project alternative might be encouraged to improve efficiency because access to the California Historical Building Code might provide incentive for such work. The extent to which this might occur, and in what timeframe, cannot reasonably be known.

5.3.2 ALTERNATIVE 2: 15-STORY CORE RETENTION ALTERNATIVE

Alternative 2, the Core Retention Alternative, focuses development along the edges of the four-block project site (also called “superblock”), retaining most of the property’s existing core. Figure 5-2 illustrates the concept plan for Alternative 2 and Figure 5-3 presents conceptual illustrations of building height and placement. This alternative’s total building footprint, 164,000 square feet, would be less than for the proposed project, which is 260,053 square feet. Alternative 2 proposes to retain 130 of the 206 existing garden apartments, while adding 566 new dwelling units in four buildings of 15 stories each, 718 parking spaces in five parking structures, and no hotel, compared to 965-1,061 new dwelling units and 1,552-1,620 parking spaces for the proposed project, with an option to include a hotel. This alternative would not include a new hotel, but would include 25,500 square feet of new retail and support service uses, compared to 52,000-70,000 square feet of new retail and services uses in the proposed project. Areas designated for development in Alternative 2 include the following:

1. Site A: At the southeast corner of the site, along P Street extending to 7th Street, a 15-story tower (containing 182 residential units, 10 live-work units, and 10,000 square feet of retail and support uses) and a five-story parking garage (four stories above ground) would be constructed on approximately 52,100 square feet of land area. Development in this area would necessitate removal of 32 garden apartment units, comprising 10 separate low-rise structures, as well as some associated surface parking areas.
2. Site B: On the western edge of the project site, at the center of the block along 5th Street, a 15-story tower (containing 140 residential units, 8 live-work units, and 7,500 square feet of retail and support uses) and a four-story parking garage (three stories above ground) containing 191 stalls would be constructed on approximately 47,500 square feet of land area. Development in this area would remove 20 garden apartment units, comprising 6 separate low-rise structures, as well as some associated surface parking areas. This area would maintain existing walkways through the center of the project site in the east-west direction.
3. Site C: On the northern edge of the block along N Street, extending to 7th Street, a 15-story tower (containing 112 units, 6 live-work units, and 8,000 square feet of retail and support uses) and a five-story parking garage (four stories above ground) with 138 stalls would be constructed on approximately 36,400 square feet of land area. Within this development area, approximately 24 garden apartment units, comprising 8 separate low-rise structures, as well as some associated surface parking areas, would be removed.

4. Site D: On the eastern edge of the project site, at the center of the block along 7th Street, a 15-story tower with 108 units and a five-story parking garage (four stories above ground) with 108 stalls would be constructed in place of an existing surface parking lot and parking garage, covering approximately 36,880 square feet of land area. This area would maintain existing walkways through the center of the project site in the east-west direction.

The Alternative 2 retains and restores those historical features within the core of the project site, which includes many of the landscape features of the Capitol Towers project. The retained areas would include landscaped areas that reflect the trend from the mid-20th century of creating a fully integrated design of buildings and landscape. The landscape architect, Lawrence Halprin's stylistic hallmark features that would be retained under this alternative, include the patterned concrete plaza with neatly arranged trees with a small fountain, the axial walkways, and most of the smaller organized garden courtyard areas. Certain features of the remaining portions of the historical resource would be retained, including both features of the landscape and of the buildings.

Landscape Features

The landscape design at Capitol Towers is defined by the interrelation between private and common spaces. Features in the common spaces include the open central plaza with fountain, plantings, the Jacques Overhoff sculptural wall, semi-public shared lawns, secondary courtyards between buildings, landscaped courts, and private outdoor spaces, such as patios and balconies. Some of these features would be retained under Alternative 2.

Tree placement is a character-defining feature of the existing Capitol Towers landscape design. Existing mature trees would be retained, especially those that predate construction of Capitol Towers. Some of these were former street trees along O and 6th Streets that demarcate the original street pattern. Where historic trees have been removed, they would be replanted under Alternative 2 to imitate some of the original design concept.

Landscape furniture included in the initial development (e.g., the waste receptacles, light fixtures and slat benches) would be returned to the site and the existing iron benches and the box hedges in the central plaza tree wells would be removed (which are not compatible with the historic character of the project site). The Jacques Overhoff sculptural wall would be protected during construction and would remain within the project site under Alternative 2.

Building Features

Although this alternative would demolish 76 of the existing 206 Capitol Towers garden apartment units, it would maintain a large part of the property's design integrity by the retaining buildings within the core of the project site. This includes retention of their form, massing, layout, materials, and other character-defining features of the garden apartments, such as the staggered setbacks, opposing patio and balcony orientations of the lower and upper units, unifying deep eaves, original aluminum window units, and wood-slat sunshades at the patios.

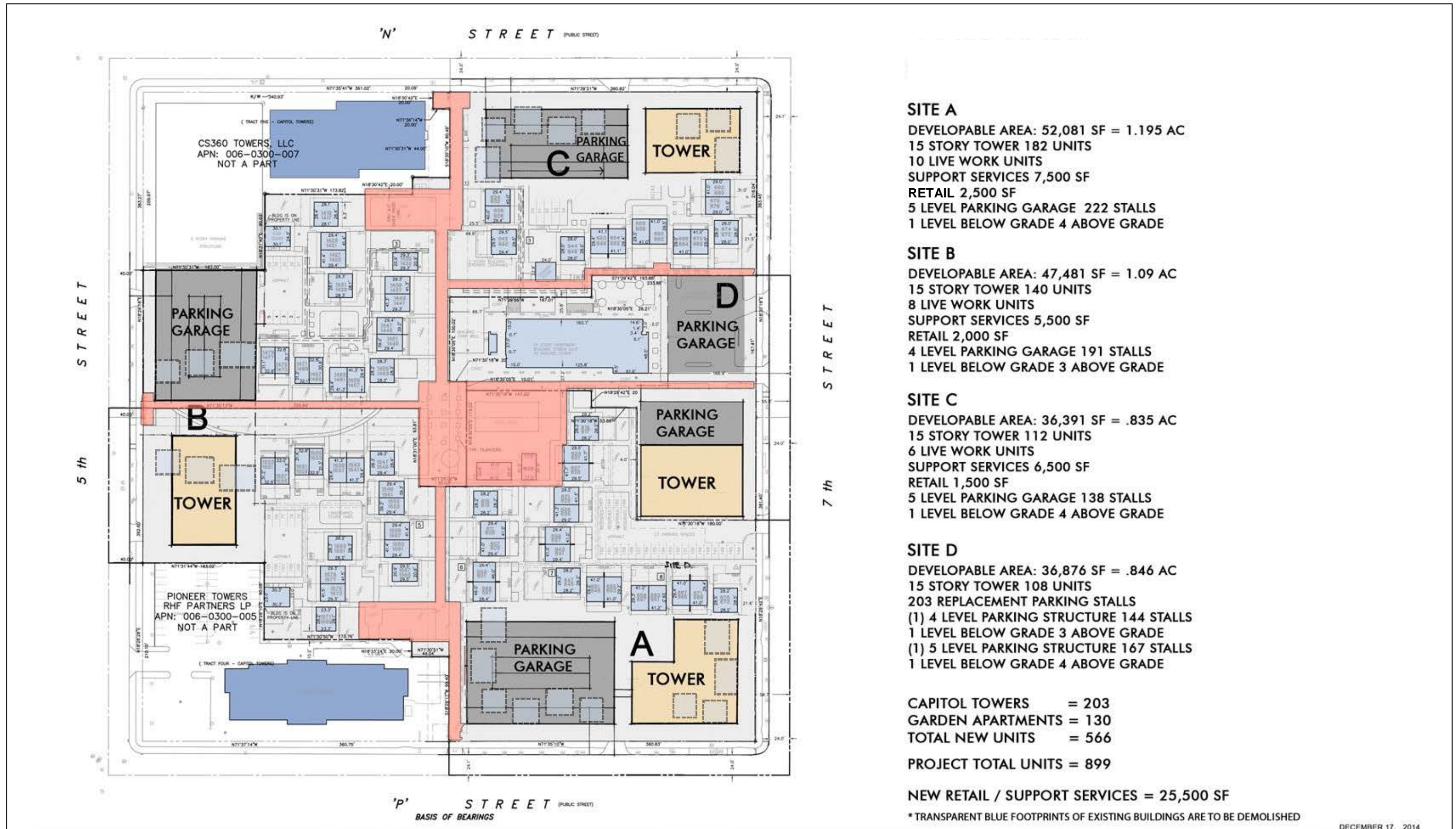


Figure 5-2

Alternative 2 (15-Story Core Retention Alternative) Concept Plan

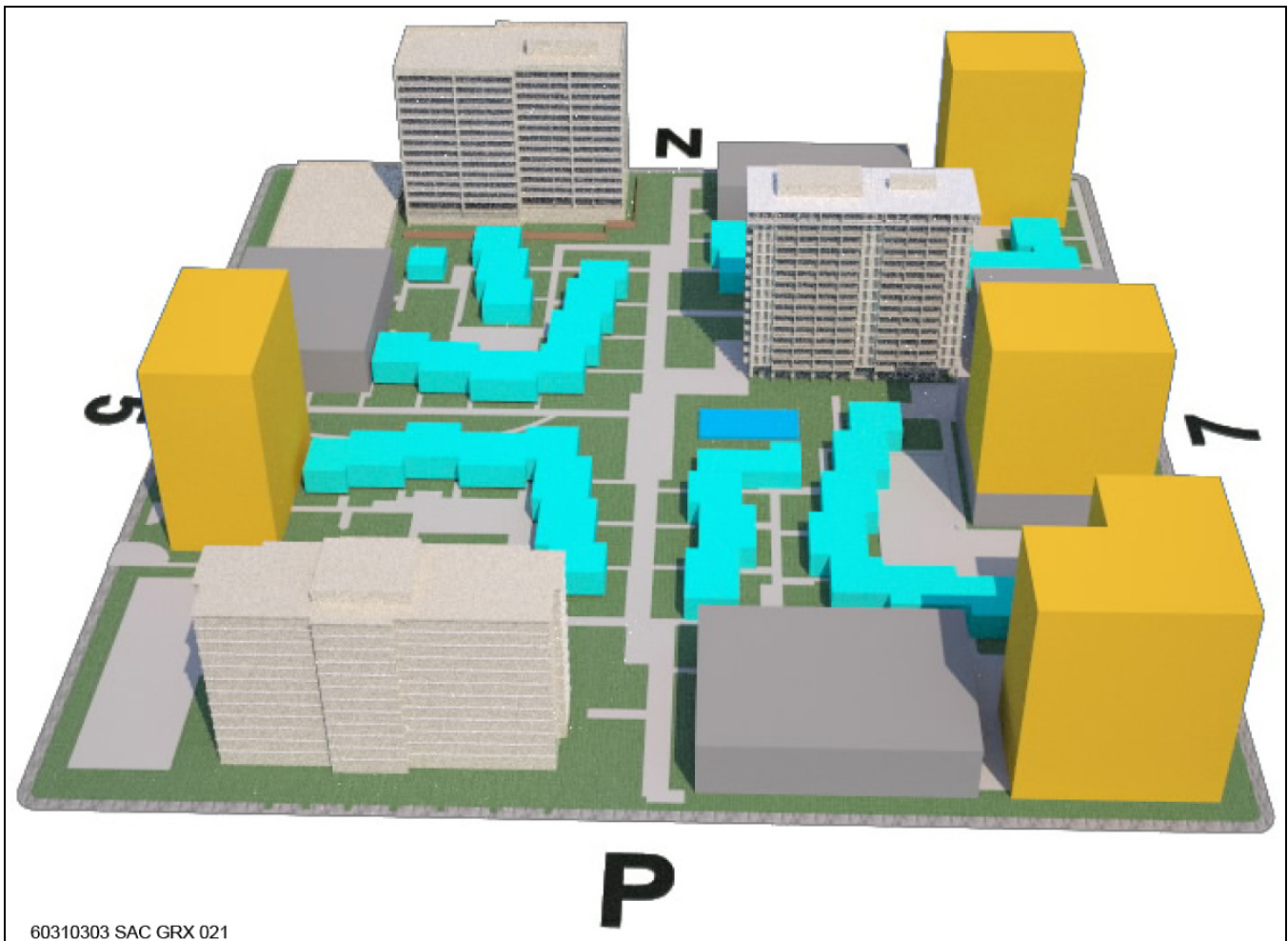


Figure 5-3 Alternative 2 (15-Story Core Retention Alternative) Conceptual Illustration

Restoration of Architectural Features

Original features of the existing buildings would be restored, using photo and other available documentation. These features include the slatted windscreens at the breezeways between the units.

Walkways

Currently, walkways are available through the center of the project site both in the east-west and north-south direction. The existing walkways would be maintained under Alternative 2.

5.3.3 ALTERNATIVE 3: 24-STORY CORE RETENTION ALTERNATIVE

Alternative 3 is similar to Alternative 2 with respect to the number and location of new buildings and parking structures and landscaping design approach. Like Alternative 2, Alternative 3 would remove 76 of the 206 existing garden apartment units. The total building footprint, 164,000 square feet, would be less than for the proposed project, which is 260,053 square feet (see Figure 5-4, below). Alternative 3 proposes 862 new dwelling units in four buildings of 24 stories each (240 foot maximum tower height), 1,204 parking spaces in five parking structures (up to seven stories above ground), compared to 965-1,061 new dwelling units and 1,552-1,620 parking spaces for the proposed project. This alternative

would not include a new hotel. Alternative 3 would include 25,500 square feet of new retail and service uses, compared to 52,000-70,000 square feet of retail and support uses in the proposed project. Alternative 3 would retain and restore building and landscape features, as described in Section 5.3.2 for Alternative 2. Figure 5-5 illustrates conceptual building height and placement for Alternative 3.

5.3.4 ALTERNATIVE 4: RETENTION OF EASTERN HALF OF THE SUPERBLOCK ALTERNATIVE

Alternative 4, the Retention of Eastern Half of the Superblock Alternative, would redevelop two quadrants of the project site, while retaining and restoring the remaining two quadrants (see Figure 5-6, below). This alternative would remove approximately 84 garden apartment units, comprising 28 separate low-rise structures, and retain and restore approximately 122 garden apartment units, comprising 39 separate low-rise structures. This alternative includes five parking structures with up to six levels above ground. Under Alternative 4, the northeast and southeast quadrants would be retained. The western two quadrants would, therefore, be available for development and would accommodate the same mid-rise buildings constructed above parking podiums, as in the proposed project. The eastern two quadrants were chosen for retention in this alternative because these quadrants include more garden apartments than the other two quadrants, thereby retaining more of the property's contributing resources than would be accommodated under a different two-quadrant option. The total building footprint, 178,490 square feet, would be less than for the proposed project, which is 260,053 square feet.

Alternative 4 would include 682 new dwelling units in two mid-rise buildings (5 stories each over a two-level parking podium), 640 parking spaces, and no hotel, compared to 965-1,061 new dwelling units and 1,552-1,620 parking spaces for the proposed project. This alternative would not include a hotel, but would include approximately 9,000 square feet of new retail and service uses, compared to 52,000-70,000 square feet of retail and support uses in the proposed project. Figure 5-7 illustrates conceptual building height and placement for Alternative 4.

The following are additional considerations for Alternative 4:

1. The Jacques Overhoff sculptural wall currently located on the central plaza would be relocated to be within the retained portion of the complex.
2. The north-south and east-west axes would be maintained in their current configuration, maintaining the existing walkways through the site.
3. Mature trees, including street trees from O and 6th Streets, would be retained.
4. Street furniture in the retained areas of the site would be restored (as with Alternatives 2 and 3).
5. Altered features of the historic resources to be retained would be restored (as with Alternatives 2 and 3).

New construction adjacent to the retained area would be designed to be compatible with the historical resources, but visually differentiated from those resources, in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties, Rehabilitation*.

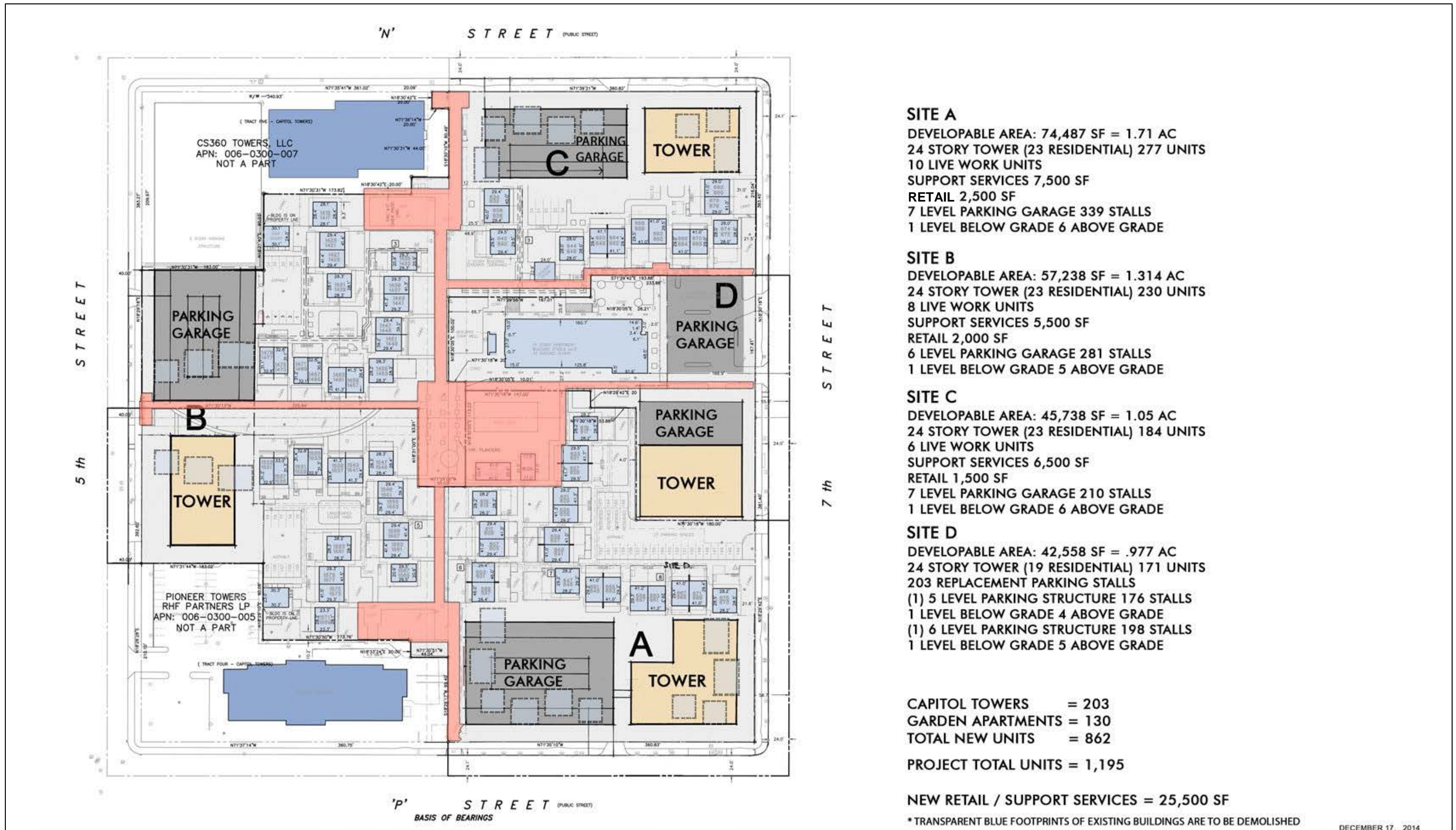


Figure 5-4

Alternative 3 (24-Story Core Retention) Concept Plan

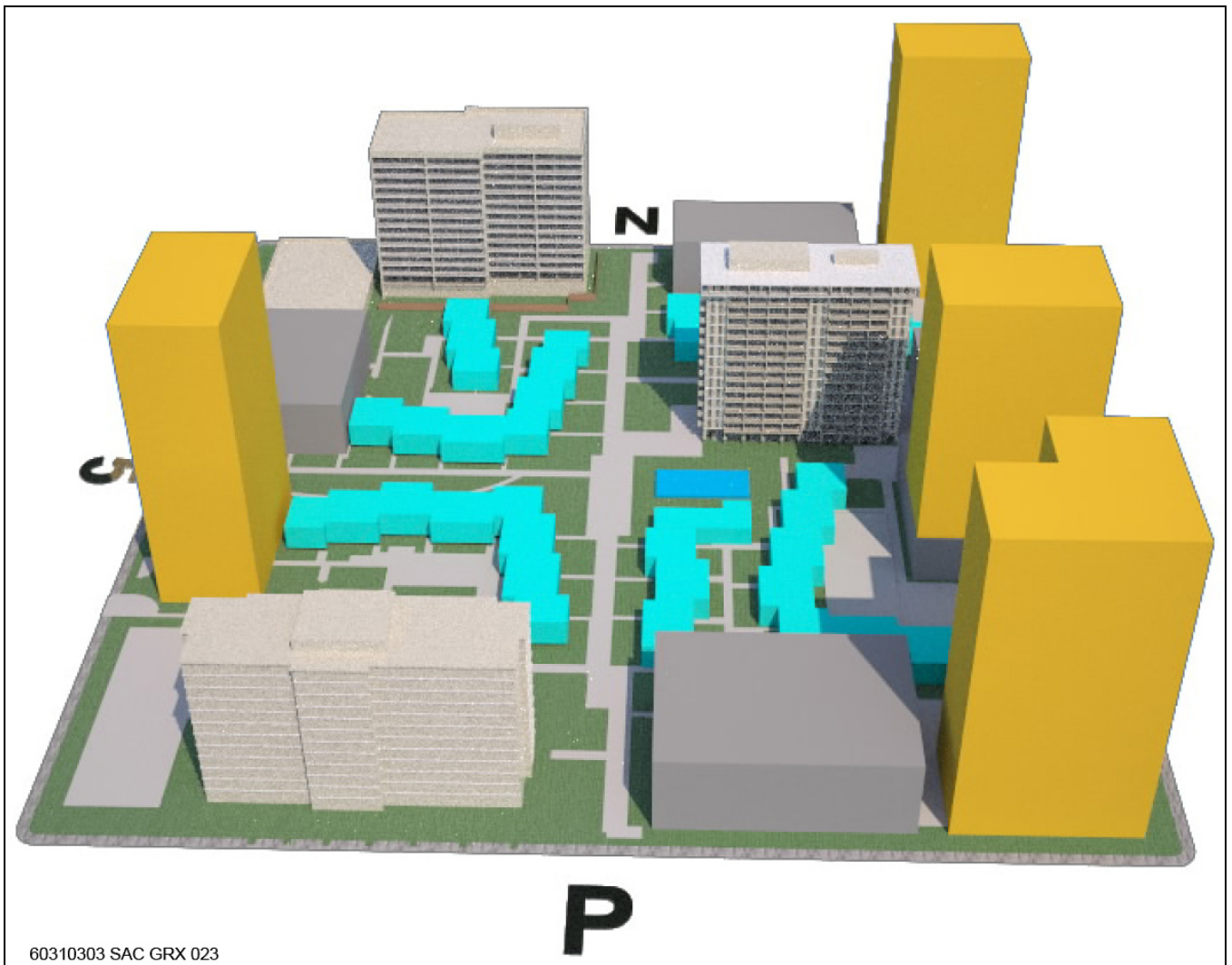


Figure 5-5

Alternative 3 (24-Story Core Retention) Conceptual Illustration

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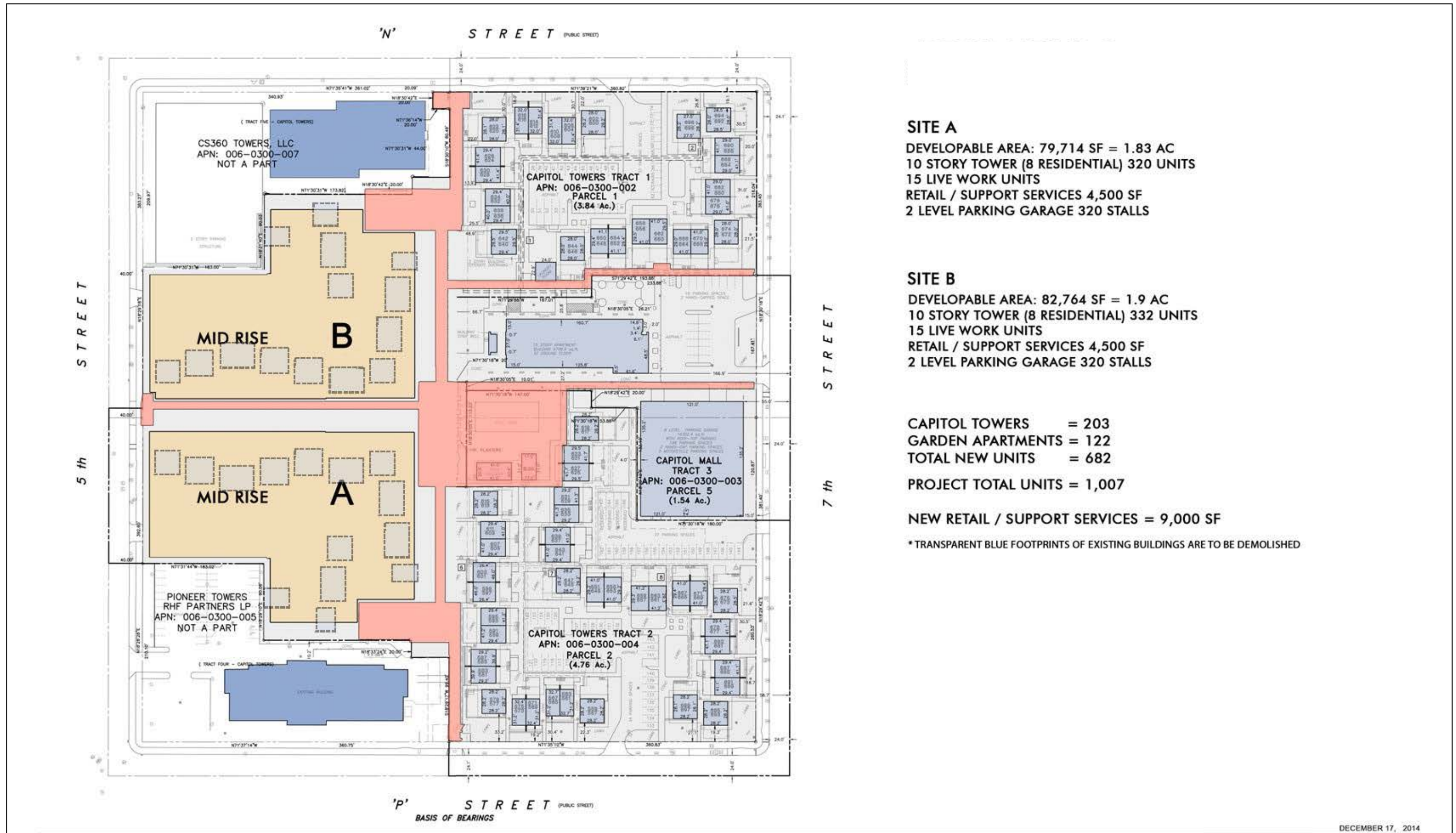


Figure 5-6

Alternative 4 (Retention of Eastern Half of Superblock Alternative) Concept Plan

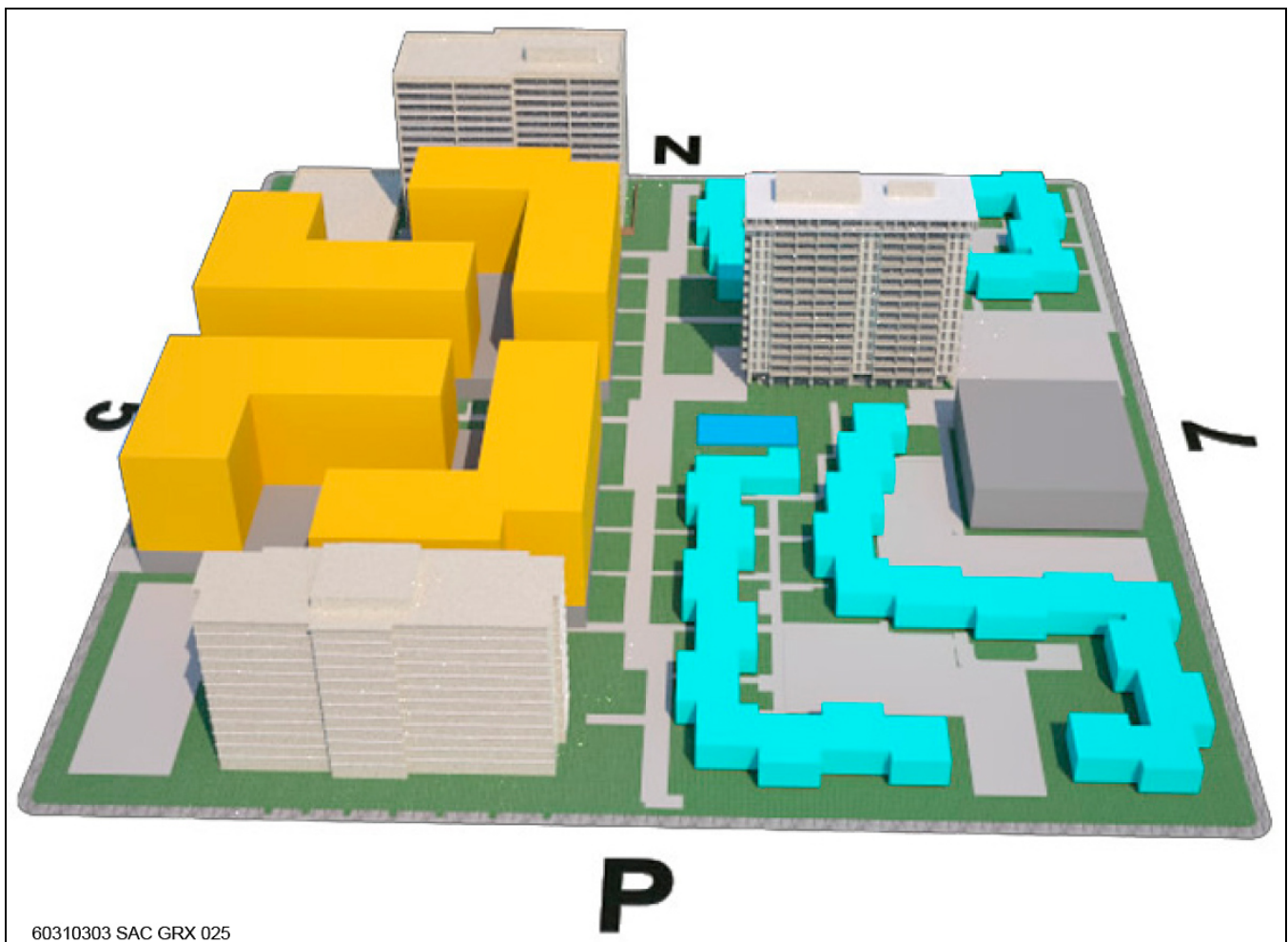


Figure 5-7 Alternative 4 (Retention of Eastern Half of Superblock Alternative) Conceptual Illustration

5.3.5 RELATIVE IMPACTS OF THE ALTERNATIVES

In an EIR, the relative environmental effects of alternatives can be described using different organizational approaches. When alternatives are designed to address a number of different potentially significant effects or when the alternatives are substantially different from one another, it may be advantageous to organize the impact evaluation by alternative. For this project, the alternatives are focused on reducing historical resources impacts. For other environmental topics, the impacts of the different alternatives are relatively similar to one another. This section was organized by impact topic to provide a more reader-friendly explanation of the alternatives.

AESTHETICS

The proposed project would have less-than-significant aesthetics impacts, since the California Public Resources Code Section 21099(d) provides that aesthetic impacts of a qualifying project shall not be considered significant effects on the environment.

Because the existing buildings and site elements would remain under Alternative 1 (No Project/No Development), there would be no change in the visual character of the area.

Aesthetics changes would be reduced in Alternatives 2 (15-story core retention) and 4 (eastern half retention) compared to the proposed project because more of the existing structures, open space, landscape, and trees on the project site would be retained, and because the 15-story tower height in Alternative 2 and the five-story building height in Alternative 4 would be lower than with the proposed project, reducing the visual change perceptible from adjacent streets and the light rail station. Alternative 3 (24-story core retention) would have similar aesthetics impacts to the proposed project; although more of the existing buildings at the core of the project site would be retained, the addition of 24-story towers along the site perimeter would have similar effects on public views of the project site from adjacent streets and light rail stations as the proposed project, since the current visibility into the site, due to relatively large amounts of open landscaped areas and the number of low-rise garden apartments along much of the surrounding street frontages would be impacted. Light and glare effects would be similar for Alternatives 2, 3, and 4 as the proposed project; although the alternatives would include varying building heights and orientations, all the alternatives would be required to comply with PUD Guidelines to reduce or avoid spillover lighting effects into adjacent buildings and offsite areas. Impacts associated with aesthetics would remain less than significant, the same as the proposed project.

AIR QUALITY

The proposed project's construction-related air quality impacts and impacts related to particulate matter concentrations are less than significant with mitigation. Operational impacts, impacts related to carbon monoxide concentrations, impacts related to substantial pollutant concentrations, and impacts related to odors are less than significant for the proposed project.

There would be no construction air quality impacts, and no increase in operational air pollutant emissions under Alternative 1 (no project), since there would be no new development or traffic.

Alternatives 2, 3, and 4 would all have a reduced amount of demolition and new construction on-site compared to the proposed project and, as a result, may result in a shorter construction period. The reduction in the amount of grading, construction, and foundation work in Alternatives 2, 3, and 4 may reduce construction-related air quality impacts somewhat, compared to the proposed project. Operational impacts for Alternatives 2, 3, and 4 would be less than for the proposed project because of the reduced number of residents, no hotel guests, and the reduced amount of non-residential uses in these alternatives. Operational air pollutant emissions impacts would be reduced under the alternatives compared to the proposed project which would be approximately proportional to the reduction in the amount of residential and non-residential development (measured in population, employees, customers, and building square footage) (see Table 5-2 and see Section 4.2 for background). Impacts associated with air quality would remain less than significant, the same as the proposed project.

The proposed project includes a greater number of new dwelling units and non-residential square footage compared to Alternatives 2 through 4 and retains fewer of the existing residential units on the project site, which could have some efficiency benefits related to air quality. The current California Green Building Standards Code (CALGreen Code) addresses energy efficiency, water efficiency and conservation, and material conservation and resource efficiency, among other topics. Increases in

energy efficiency and water conservation reduce indirect air pollutant emissions. These standards were not in effect when existing on-site units were constructed.

Grade Level	ROG (lbs./day) (Threshold: 65)	NO _x (lbs./day) (Threshold: 65)	PM ₁₀ (lbs./day)	PM _{2.5} (lbs./day)	CO ₂ e (MT/yr)
Alternative 1	0	0	0	0	0
Alternative 2	33	21	18	5	4,900
Alternative 3	32	30	17	5	4,700
Alternative 4	37	36	23	7	5,600
Proposed Project	61	59	33	10	9,400

Notes: This table shows the "worst case" scenario for the project: the Hotel / Condo / Retail Scenario.

BIOLOGICAL RESOURCES

The proposed project would have potentially significant impacts associated with project construction and the potential to disturb special-status or protected nesting bird species and impact mature trees protected by City's Code. Mitigation Measures 4.3-1 and 4.3-2 would reduce these impacts to a less-than-significant level.

There would be no impacts on trees and associated biological resources under Alternative 1, as there would be no new structures constructed at the site or tree removal.

Alternatives 2, 3, and 4 would have reduced biological resources impacts compared to the proposed project since these alternatives would remove a smaller number of mature trees and trees that could potentially provide nesting habitat for special-status bird species (see Table 5-3 for a comparison of tree removal under the alternatives compared to the proposed project). However, fewer replacement trees would be planted compared to the proposed project, so the future canopy area would be less with Alternatives 1, 2, 3, and 4 compared to the proposed project. As with the proposed project, Mitigation Measures 4.3-1 and 4.3-2 would still be required for these alternatives to reduce impacts to a less than significant level.

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Proposed Project
City Street Trees Retained	39	35	35	37	35
City Street Trees Removed	0	4	4	2	4
Heritage Trees Retained	11	6	6	7	7
Heritage Trees Removed	0	5	5	4	4
Non City Street Trees Retained	241	168	168	144	50
Non City Street Trees Removed	0	73	73	97	191
Estimated Replacement Trees	0	100	100	100	247
Total Trees after Project/Alternative	280	308	308	285	336

Sources: data compiled by Dudek in 2014

Note: Tree estimates are approximate. As discussed in detail elsewhere in this EIR, the 247 trees planted as a part of the project includes both ground-level trees (147) and podium-level trees (100).

CULTURAL RESOURCES

The proposed project would have a significant impact on a historical resource, Capitol Towers and Garden Apartments. This impact would remain significant and unavoidable under the proposed project even after implementation of Mitigation Measure 4.4-1. Based on this conclusion, Carey & Co. developed project alternatives to address and evaluate possible alternatives that could lessen the proposed project's significant and unavoidable historical resource impact.

The proposed project would also have potentially significant impacts on archaeological resources, and human remains, however the impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 4.4-2. The proposed project's potential significant impact on paleontological resources would also be reduced to a less-than-significant level with implementation of Mitigation Measure 4.4-3.

Alternative 1: No Project/No New Development

Under Alternative 1, no buildings or site landscape features would be demolished and therefore, there would be no impacts on historical or pre-historic resources.

Alternative 2: 15-Story Core Retention Alternative

Overall, development of Alternative 2 would retain most of the large-scale, pedestrian-oriented, multi-family residential complex at the historic core of the superblock. Alternative 2 would have fewer historical resources impacts compared to the proposed project, and compared to Alternatives 3 and 4, although these impacts would remain significant and unavoidable. Alternative 2 would retain much of the site's overall composition, balance, and juxtaposition of the low-rise garden apartment units with the 15-story high-rise towers, along with retaining many other elements of the property's character-defining features. Under this alternative 76 garden apartments would be removed to accommodate the project and Mitigation Measure 4.4-1 would still be required. Alternative 2 would retain the seven aspects of integrity as follows:

1. *Location: Location is the place where the historic property was constructed or the place where the historic event occurred. The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of a historic property, complemented by its setting, is particularly important in recapturing the sense of historic events and persons.*

Most of the major site features would remain in their existing locations, and the superblock assembly would be retained.

2. *Design: Design is the combination of elements that create the form, plan, space, structure, and style of a property. It results from conscious decisions made during the original conception and planning of a property (or its significant alteration) and applies to activities as diverse as community planning, engineering, architecture, and landscape architecture. Design includes such elements as organization of space, proportion, scale, technology, ornamentation, and materials. A property's design reflects historic functions and technologies as well as aesthetics. It includes such considerations as the structural system; massing; arrangement of spaces;*

pattern of fenestration; textures and colors of surface materials; type, amount, and style of ornamental detailing; and arrangement and type of plantings in a designed landscape. Design can also apply to districts, whether they are important primarily for historic association, architectural value, information potential, or a combination thereof. For districts significant primarily for historic association or architectural value, design concerns more than just the individual buildings or structures located within the boundaries. It also applies to the way in which buildings, sites, or structures are related: for example, spatial relationships between major features; visual rhythms in a streetscape or landscape plantings; the layout and materials of walkways and roads; and the relationship of other features, such as statues, water fountains, and archeological sites.

This alternative would retain most of the center portion of the original plan and space, and the structure and style of the property, but the design aspect of integrity would be affected most by the removal of the perimeter low-rise buildings, the perimeter landscape features, and the addition of the large perimeter buildings which would almost wall off the site, which currently has more open views into the site from the surrounding streets. The open core alternative, while eliminating much of the parking at the outer edges including the sole parking structure, would, since many of the garden apartment units would be retained, retain many of the staggered setbacks and most of the alignments of the garden apartments, the opposing patio and balcony orientations of the lower and upper garden apartment units. Also, prominent circulation patterns (north-south and east-west axis), the open central plaza concept, most plantings, and Jacques Overhoff sculptural wall, and much of the existing softscape and hardscape areas would be retained.

3. Setting: *Setting is the physical environment of a historic property. Whereas location refers to the specific place where a property was built or an event occurred, setting refers to the character of the place in which the property played its historical role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space. Setting often reflects the basic physical conditions under which a property was built and the functions it was intended to serve. In addition, the way in which a property is positioned in its environment can reflect the designer's concept of nature and aesthetic preferences. The physical features that constitute the setting of a historic property can be either natural or manmade, including such elements as:*

- *Topographic features (a gorge or the crest of a hill);*
- *Vegetation;*
- *Simple manmade features (paths or fences); and*
- *Relationships between buildings and other features or open space.*

These features and their relationships should be examined not only within the exact boundaries of the property, but also between the property and its surroundings. This is particularly important for historic districts.

Alternative 2 would retain most of the historic setting of Capitol Towers. The new structures would be taller than the existing perimeter low-rise buildings, but would be about the same height as the high rises already within and surrounding the site. This alternative would result in the loss of some aspects of existing spatial relationships, including the loss of the three of the

landscaped corridors that provide views into the site from street views, the loss of some of the low-rise buildings on the perimeter of the site, and the construction of new, taller structures in these locations. These effects would be lessened in the areas to be retained by restoring some of the missing building, landscape, and site features to their original design.

4. Materials: *Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. The choice and combination of materials reveal the preferences of those who created the property and indicate the availability of particular types of materials and technologies. Indigenous materials are often the focus of regional building traditions and thereby help define an area's sense of time and place.*

Since all of the perimeter low-rise buildings and some perimeter landscape site elements would be demolished, there would be a loss of materials related to the property's historic configuration. However, the low-rise buildings that would remain are similar in exterior design and materials to those that would be removed.

5. Workmanship: *Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. It is the evidence of artisans' labor and skill in constructing or altering a building, structure, object, or site. Workmanship can apply to the property as a whole or to its individual components. It can be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. It can be based on common traditions or innovative period techniques. Workmanship is important because it can furnish evidence of the technology of a craft, illustrate the aesthetic principles of a historic or prehistoric period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principles.*

By retaining most of the historic center of Capitol Towers, Alternative 2 would retain most of the historic workmanship.

6. Feeling: *Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character. For example, a rural historic district retaining original design, materials, workmanship, and setting will relate the feeling of agricultural life in the 19th century. A grouping of prehistoric petroglyphs, unmarred by graffiti and intrusions and located on its original isolated bluff, can evoke a sense of tribal spiritual life.*

The addition of perimeter high-rise buildings in this alternative would result in increased shadows and a loss of the existing feeling of openness. However, this alternative would retain some of the historic feeling of the site (existing walkways through the site would be maintained) as urban redevelopment housing that incorporated low-rise garden apartments, a high-rise tower, and integrated Modern landscape elements.

7. Association: *Association is the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like feeling,*

association requires the presence of physical features that convey a property's historic character. For example, a Revolutionary War battlefield whose natural and manmade elements have remained intact since the 18th century will retain its quality of association with the battle.

The historic association, with a the mid-century modern designed landscaped setting including mostly low-rise buildings and a few high-rise buildings, within an assembled superblock site, could be impacted by the addition of more, larger perimeter buildings that could occur in Alternative 2. Therefore, the historic association could be impacted by the changes to the project site that would occur in Alternative 2.

In comparison to the proposed project, Alternative 2 would reduce impacts on historical resource, Capitol Towers, but Carey and Co. concluded that this impact would still remain significant and unavoidable under Alternative 2.

Other cultural resources impacts would be reduced in severity compared to the proposed project due to the smaller development footprint associated with Alternative 2, but the same mitigation measures (Mitigation Measures 4.4-2 and 4.4-3) would still be required to reduce those impacts to a less-than-significant level.

Alternative 3: 24-Story Core Retention Alternative

Alternative 3 would include similar restoration activities to those described in Alternative 2 where historic features would be retained. However, Alternative 3 would include substantially higher towers on the site perimeter than those included in Alternative 2 (24 stories in Alternative 3 compared to 15 stories in Alternative 2). Because the towers in this alternative would be greater in height than the existing towers, and the garage structures would have more levels than under Alternative 2, this alternative would reduce the integrity of the site as compared to Alternative 2 by further altering the site's setting and feeling, reducing its significance under NRHP Criterion A and NRHP Criterion C. Under this alternative, as with Alternative 2, 76 garden apartments would be removed to accommodate the project. This alternative would have reduced impacts on historical resources compared to the proposed project, but the impact on the historical resource would remain significant.

Other cultural resource impacts would be reduced in severity compared to the proposed project due to the smaller development footprint associated with Alternative 3; however, the same mitigation measures (Mitigation Measures 4.4-2 and 4.4-3) would still be required to further reduce those impacts to a less than significant level.

Under Alternative 3 impacts on historical resources would be reduced in severity compared to the proposed project, but Mitigation Measure 4.4-1 would still be required and the impact on historical resources would still remain significant and unavoidable.

Alternative 3 would affect the seven aspects of integrity as follows:

1. Location: The existing Capitol Towers high-rise remains in its historic location, but some features, such as the sculptural wall, would be relocated.

2. Design: While the design of the remaining buildings would not be impacted, the overall site plan would be substantially altered. Also, not all of the character-defining features would remain.
3. Materials: Materials within the areas to be retained would maintain their integrity. The suggested restoration of missing features would improve integrity of materials.
4. Setting: The setting and spatial relationships would be heavily impacted by the higher perimeter tower and garage structures.
5. Workmanship: The workmanship within the areas to be retained would be maintained, but would be lost in the portion of the property that would be demolished.
6. Feeling: Existing walkways through the site would be maintained. However, the site would lose its integrity of feeling under this alternative with the taller perimeter towers and garage structures.
7. Association: Even with the retained portion of the site, the new construction would impact integrity of association.

Alternative 4: Retention of Eastern Half of the Superblock Alternative

Alternative 4 would still diminish the historical resource's (Capitol Towers) integrity by developing new buildings on two quadrants of the project site that would change the setting and spatial relationships among the existing buildings and the site's design. The western two quadrants of the project site would be redeveloped with new mid-rise structures, which would affect the existing setting, and the feeling of the prominent circulation patterns within this area that help to define this historical resource would also be lost. This alternative would reduce the resource's significance under NRHP Criterion A and NRHP Criterion C. Under this alternative, 84 garden apartments would be removed requiring Mitigation Measure 4.4-1. Similar to the analysis presented above for Alternatives 2 and 3 above, the impact would remain significant and unavoidable, as with the proposed project.

Other cultural resources impacts would be reduced in severity compared to the proposed project due to the smaller development footprint associated with Alternative 4. However, the same mitigation measures (Mitigation Measures 4.4-2 and 4.4-3) would be required to reduce those impacts to a less than significant level.

GEOLOGY AND SOILS

The proposed project would have potentially significant impacts related to unstable soils (subsidence, compression, expansion, and liquefaction), reduced to a less-than-significant level with implementation of Mitigation Measure 4.5-2. Impacts related to seismic ground shaking, surface fault rupture, and soil erosion would be less than significant.

Project impacts related to geology and soils would not occur under Alternative 1, since this alternative would not involve changes to the project site.

Alternatives 2, 3, and 4 would have smaller development footprints compared to the proposed project. Due to the earth disturbance, Mitigation Measure 4.5-2 would still be required for Alternatives 2, 3, and 4. Overall, the reduction in construction and foundation work in Alternatives 2, 3, and 4 would further reduce less-than-significant geology and soils impacts compared to the proposed project.

GREENHOUSE GAS EMISSIONS

GHG emissions impacts would be less-than-significant for the proposed project because the project complies with the City's Climate Action Plan.

There would be no construction GHG emission impacts and no change to operational GHG emissions under Alternative 1, since this alternative does not include any new construction or traffic. Since the proposed project proposes new dwelling units, and since current building code requirements require higher energy efficiency compared to codes that applied at the time existing on-site units were constructed, the proposed project would have lower average operational GHG emissions related to energy use per-unit, compared to Alternative 1.

Alternatives 2, 3, and 4 have reduced amounts of development compared to the proposed project. The reduction in construction in Alternatives 2, 3, and 4 would further reduce construction-related GHG impacts compared to the proposed project. Operational GHG impacts for Alternatives 2, 3, and 4 would be reduced compared to the proposed project because of the reduction in the total number of residents, fewer cars on the site, no hotel guests, fewer trees removed, and the reduction in the amount of non-residential uses under these alternatives. Since the proposed project has a greater number of new proposed dwelling units and replaces a greater number of existing dwelling units compared to the alternatives, the proposed project would have lower average operational GHG emissions related to energy use per-unit, compared to Alternatives 2, 3, and 4 because current building code requirements require higher energy efficiency, unless existing units could be and were retrofitted to meet or exceed current energy efficiency requirements.

Furthermore, due to the project site proximity to amenities (e.g., distance to jobs, shopping, entertainment) and feasibility of using non-motorized transportation to reach those amenities, regional modeling developed by SACOG demonstrates that increased residential density downtown reduces transportation-related GHG emissions compared to a project located on the urban fringe without access to transit, with fewer bicycle/pedestrian amenities, reduced access to jobs and amenities, and with lower development densities (SACOG 2014). Since the project proposes a greater number of dwelling units and non-residential square footage compared to Alternatives 2, 3, and 4, the project would allow a greater amount of development to occur in this GHG-efficient location. For this additional reason, the proposed project may provide greater GHG-related benefits as compared to the alternatives.

Mass GHG emissions impacts would be reduced under the alternatives compared to the proposed project approximately proportional to the decrease in residential and non-residential development (measured in population, employees, customers, and building square footage) (see Table 5-2). Though there would be considerably more units, the per-unit GHG emissions would be reduced with the proposed project compared to the alternatives. Impacts associated with greenhouse gas emissions would remain less than significant, the same as the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

The proposed project would have potentially significant impacts related to exposure to hazardous materials during construction of the project. This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 4.7-1. Other hazards and hazardous materials impacts of the proposed project would be less than significant.

Project impacts related to hazards and hazardous materials would not occur under Alternative 1, since this alternative does not propose on-site changes.

Alternatives 2, 3, and 4 would have smaller project footprints compared to the proposed project. The same mitigation measure required for the project would be required for the alternatives. Alternatives 2, 3, and 4 would further reduce less-than-significant, construction-related hazardous materials impacts compared to the proposed project, because these alternatives would develop smaller areas and would have fewer residential units, no hotel, and less retail and service uses compared to the proposed project. Operational hazard and hazardous materials impacts would be reduced compared to those associated with implementation of the proposed project and would be less than significant as with the proposed project.

HYDROLOGY AND WATER QUALITY

Construction-related water quality impacts, long-term operational water quality impacts, and impacts related to flooding and stormwater pollution of the project would be less than significant with mitigation. The project would have less-than-significant impacts related to groundwater and flooding related to levee failures and dam inundation.

Project impacts related to hydrology and water quality would not occur under Alternative 1 because no construction or change from the existing site configuration would occur. Alternatives 2, 3, and 4 would have smaller development footprints compared to the proposed project, proportionally reducing construction effects on water quality and stormwater runoff. These impacts would remain less than significant for Alternative 2, the same as the proposed project. The reduced number of new units and square footage of new retail and other services and associated parking would result in proportional reductions in operational impacts related to water quality.

Although the change in impervious coverage across the project site would vary among the Alternatives, all Alternatives would be required to comply with the City's "Do No Harm" policy requiring infill projects to fully mitigate any potential increase in stormwater flows leaving the project site. Impacts related to flood hazards would be similar for the Alternatives as for the proposed project. Although the amount of impervious coverage would vary slightly among Alternatives 2, 3, and 4, the site is currently developed with impervious surfaces and has low infiltration rates for groundwater recharge. Hydrology and water quality impacts would be less under Alternatives 1, 2, 3, and 4 as compared to the proposed project. Under these alternatives, however, impacts associated with hydrology and water quality would remain less than significant, the same as the proposed project.

NOISE AND VIBRATION

The proposed project would have less-than-significant impacts related to permanent ambient noise levels and interior noise levels. The proposed project would have potentially significant impacts related to construction noise and vibration that can be mitigated to less-than-significant levels. The proposed project would have a less-than-significant impact related to operational vibration.

There would be no noise or vibration impacts under Alternative 1, because there would be no new development or change to traffic patterns.

Alternatives 2, 3, and 4 would include a reduced amount of development compared to the proposed project. The reduction in construction activity may reduce the length of time when construction noise and vibration would be generated. However, the construction activity would occur in the same location and there would be noise- and vibration-sensitive uses in the vicinity of the alternative construction sites, just as with the proposed project. Overall, during construction, construction noise and vibration effects would be similar to those of the proposed project. The same mitigation measures would be required for the alternatives as the proposed project, especially to address vibrational impacts to existing residences and historic structures in the project vicinity.

Operational noise and vibration impacts would be reduced for Alternatives 2, 3, and 4 compared to the proposed project since these alternatives would have fewer residential units, no hotel use, and reduced non-residential use. Noise associated with these land uses and traffic generated would be reduced compared to the proposed project, although on-site/noise-sensitive uses would be exposed to approximately the same traffic noise levels. These alternatives would have fewer sources of noise, reduced sensitive receptor exposure, and reduced traffic volumes compared to the proposed project. Under these alternatives noise impacts would remain less than significant, the same as the proposed project.

PUBLIC SERVICES

Public services impacts of the proposed project, including demand for fire protection services, police protection services, school services, and parks and recreation services would be less than significant (with mitigation for fire access and construction-related police services).

Under Alternative 1, uses on the project site and associated demand for public services would not change; there would be no public services impacts.

Public services impacts for Alternatives 2, 3, and 4 would be less than for the proposed project because of the lower number of residents, no hotel users, and a reduced amount of non-residential uses in these alternatives. The proposed project would increase the population on the project site by approximately 1,700 to 1,900 new residents. At the 1.8 person household size typical for the Central City, Alternative 2 would have about 1,000 new residents, Alternative 3 would have about 1,550 new residents, and Alternative 4 would have about 1,200 new residents. Demand for fire, police, and parks and recreation services would be proportionally reduced. Table 5-4 illustrates student generation rates the Alternatives; Alternative 1 would not generate any new students, and Alternatives 2, 3, and 4 would each generate fewer new students than the proposed project, resulting in reduced impacts related to

school services compared to the proposed project. Under these alternatives, impacts associated with public services would remain less than significant, the same as the proposed project.

Table 5-4 Student-Yield Generation Rates for the Sacramento City Unified School District						
Grade Level	Multi-family (Students per Dwelling Unit)	Net New Students under Alternative 1	Net New Students under Alternative 2	Net New Students under Alternative 3	Net New Students under Alternative 4	Net New Students for the Proposed Project (Range) ¹
Elementary (K–6)	0.19	0	94	150	114	183 to 202
Middle (7–8)	0.03	0	15	24	18	29 to 32
High (9–12)	0.04	0	20	31	24	39 to 42
Total Students	–	0	128	204	156	251 to 276

Notes:
¹ A range is presented because of the scenarios of the proposed project (with or without hotel).
 Source: SCUUSD 2012:7

TRANSPORTATION AND TRAFFIC

The proposed project would have less-than-significant transportation impacts.

There would be no transportation-related impacts under Alternative 1 because there would no new trips. However, because Alternative 1 would have lower residential density than the proposed project, this alternative would not have the proposed project’s beneficial effects related to increased transit ridership. Due to the project site proximity to amenities (e.g., distance to jobs, shopping, entertainment) and feasibility of using non-motorized transportation to reach those amenities, regional modeling developed by SACOG demonstrates that development in locations such as the project site would reduce vehicular transportation demand compared to a project located on the urban fringe without access to transit, with fewer bicycle/pedestrian amenities, reduced access to jobs and amenities, and with lower development densities (SACOG 2014).

Traffic impacts would be reduced under Alternatives 2, 3, and 4 compared to the proposed project since these alternatives have fewer residential units and a reduced amount of non-residential development (Table 5-5). However, because of the lower density of these alternatives, they would not have the same beneficial effects on transit ridership or the same potential to reduce average annual vehicle miles traveled within the region. Under these alternatives impacts associated with transportation and traffic would remain less than significant, the same as the proposed project. Due to the project site proximity to amenities (e.g., distance to jobs, shopping, entertainment) and feasibility of using non-motorized transportation to reach those amenities, regional modeling developed by SACOG demonstrates that development of the project site would reduce vehicular transportation demand compared to a project located on the urban fringe without access to transit, with fewer bicycle/pedestrian amenities, reduced access to jobs and amenities, and with lower development densities (SACOG 2014). Since the project proposes a greater number of dwelling units and non-residential square footage compared to Alternatives 2, 3, and 4, the project would allow a greater amount of development to occur in this location, which may help to reduce regional travel demand relative to the other alternatives.

Table 5-5 Project and Alternatives: Daily Trip Generation					
Average Daily Trips	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Proposed Project (Condo/Retail Scenario and Hotel/Condo/Retail Scenario)
	3,529	7,162	6,882	6,129	13,865 to 17,091

Sources: Trip rates are from Kittleson & Associates, Inc. (see Appendix H for details).
Note: Does not include transit, walking, or bicycling trip reductions or reductions associated with internal trip capture calculated for the proposed project by Kittleson & Associates, Inc. (see Appendix H for details).

UTILITIES AND SERVICE SYSTEMS

The proposed project would have less-than-significant utilities and service system impacts, including water, wastewater, and solid waste impacts

Under Alternative 1, uses on the project site and associated demand for utilities would not change compared to the existing baseline conditions.

Utilities impacts for Alternatives 2, 3, and 4 would be reduced compared to the proposed project since these alternatives would have fewer new residents and a reduced amount of non-residential development compared to the proposed project.

Water demand would be reduced from an estimated 170-230 acre-feet per year for the proposed project to approximately 62-180 acre-feet per year for the alternatives, as shown in Table 5-6. Modern building codes include water conservation measures that would apply to new development (and would not have been required for existing development). Since the proposed project includes a greater amount of new development compared to Alternatives 2 through 4, per-unit water use associated with the proposed project would be less than the alternatives, unless existing units could and were retrofitted to meet or exceed new conservation measures.

Table 5-6 Alternative Water Demands						
Land Use Category	Water Demand Factor (afy)	Proposed Project (Condo / Retail, Hotel / Condo / Retail Scenarios)	Total Water Demand (afy)			
			Alternative 1	Alternative 2	Alternative 3	Alternative 4
Neighborhood Support / Retail	0.02 (per employee)	1.8-2.4 (75 for hotel)	0.14	0.86	0.86	0.3
Residential	0.15 (per unit)	145-160	61	135	179	151
Total	–	162-224	62	136	180	151

Notes: afy = acre-feet per year. Totals have been rounded. Landscape irrigation is not included in any of the above estimates.
Sources: City of Sacramento SB 610/SB 221 Water Supply Assessment and Certification Form; data compiled by AECOM in 2014

Wastewater generation would be reduced from an estimated average dry weather flow of 0.19 to 0.22 million gallons per day (mgd) for the proposed project to approximately 0.070 to 0.205 mgd for the alternatives, as shown in Table 5-7.

Land Use Category	Wastewater Generation Factor	Proposed Project (Condo / Retail, Hotel / Condo / Retail Scenarios)	Total Wastewater Demand (mgd)			
			Alternative 1	Alternative 2	Alternative 3	Alternative 4
Neighborhood Support / Retail	62 gpd/1,000 square feet	0.0.002-0.003 (0.051 for hotel)	256	1,581	1,581	558
Residential	170 gpd per unit	0.16-0.19	69,530	152,830	203,150	171,190
Total (mgd)	–	0.19-0.22	0.070	0.154	0.205	0.172

Notes: gpd = gallons per day. mgd = million gallons per day.
Sources: City of Sacramento 2003; data compiled by AECOM in 2014

Solid waste generation would range from approximately 707 tons per year for Alternative 2 to 779 tons per year for Alternative 3 and 1,033 tons per year for Alternative 4, compared to approximately 1,340 to 1,630 tons per year for the proposed project. Under these alternatives impacts associated with public utilities would remain less than significant, the same as the proposed project.

5.3.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines require that an EIR identify the environmental superior alternative (Section 15126.6 (e)(2)). If the environmentally superior alternative is the “No Project” Alternative, the EIR must identify an environmentally superior alternative from among the other alternatives. Alternative 1, the No Project/No Development Alternative, would avoid the significant impact of the proposed project related to historical resources, and would have less severe impacts in all other issue areas. Since the No Project/No Development Project is the environmentally superior alternative, an environmentally superior alternative must be identified from among the other three development alternatives.

Table 5-8 presents a comparison of the alternative impacts. Of the development alternatives, Alternative 2 (15-story core retention) would achieve the greatest reduction in the project’s significant and unavoidable impact related to historical resources by retaining and restoring the core of the historical superblock and developing residential high-rise buildings that are similar in height to the existing high-rise building within the project site, although this impact would still be significant and unavoidable for Alternative 2.

Although Alternatives 3 and 4 would have less severe impacts to historical resources than the proposed project by retaining a portion of the garden apartments within the superblock and restoring some of the historical features of the project site, the historical resource impacts would remain significant and unavoidable under Alternatives 3 and 4.

Alternative 2 would be the environmentally superior alternative. Alternatives 2, 3, and 4 would all meet the majority of the project objectives (presented in detail in Section 5.1.5), but to a lesser extent than the proposed project. Alternatives 2 and 3 would not meet objective 5; they would retain (but not enhance) existing walkways through the central portions of the project site. Alternative 1 would not meet objectives 1, 3, 4, 5, 6, 8, or 9, which all pertain to intensification or augmentation of existing site characteristics that would remain unchanged under this alternative.

Table 5-8 Alternative Impact Comparison to Proposed Project				
	Alternative 1: No Project Alternative	Alternative 2: 15-Story Core Retention Alternative	Alternative 3: 24-Story Retention Alternative	Alternative 4: Retention of Eastern Half of Superblock Alternative
Aesthetics	Reduced	Reduced	Reduced	Reduced
Air Quality	Reduced	Reduced	Reduced	Reduced
Biological Resources	Reduced	Reduced	Reduced	Reduced
Cultural Resources	Reduced, Significant Impact Avoided	Reduced (greatest amount of reduction among the alternatives); Significant Impact Remains	Reduced, Significant Impact Remains	Reduced, Significant Impact Remains
Geology and Soils	Reduced	Reduced	Reduced	Reduced
GHG Emissions	Similar	Similar	Similar	Similar
Hazards and Hazardous Materials	Reduced	Reduced	Reduced	Reduced
Hydrology and Water Quality	Reduced	Reduced	Reduced	Reduced
Noise and Vibration	Reduced	Reduced	Reduced	Reduced
Public Services	Reduced	Reduced	Reduced	Reduced
Transportation and Traffic	Reduced	Reduced	Reduced	Reduced
Utilities and Service Systems	Reduced	Reduced	Reduced	Reduced

Furthermore, all of the alternatives would offer fewer infill benefits compared to the proposed project. The project site is located at the center of downtown Sacramento, in a walkable neighborhood with close proximity to transit and to the region’s largest job center. The reduced amount of residential and non-residential development in the four alternatives also reduces the extent to which existing infrastructure in the vicinity of the project site can be leveraged in the context of development of the project site.

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6 OTHER CEQA-REQUIRED CONSIDERATIONS

6.1 INTRODUCTION

Section 15126 of the State California Environmental Quality Act (CEQA) Guidelines requires that all phases of a project be considered when evaluating its impact on the environment: planning, acquisition, construction, and operation. As part of this analysis, the Environmental Impact Report (EIR) must also identify:

- (1) Significant environmental effects of the proposed project
- (2) Significant environmental effects that cannot be avoided if the proposed project is implemented
- (3) Significant irreversible environmental changes that would result from implementation of the proposed project
- (4) Growth-inducing impacts of the proposed project
- (5) Alternatives to the proposed project.

Further, the evaluation of significant impacts must consider direct and reasonably foreseeable indirect effects of the project over the short term and long term. As part of this analysis, the EIR must identify mitigation measures proposed to minimize significant effects,

Chapter 4, “Environmental Impact Analysis,” identifies the significant environmental effects of the proposed project and contains mitigation measures proposed to minimize or avoid any potentially significant effects. Chapter 4 also addresses cumulative impacts associated with implementing the project. Chapter 5, “Alternatives,” presents a comparative analysis of alternatives to the proposed project. The other CEQA-required analyses identified above are discussed below.

6.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed project on various aspects of the environment are discussed in detail in Chapter 4, “Environmental Impact Analysis.” Project-specific impacts that cannot be avoided if the project is approved as proposed include:

Impact 4.4-2: The proposed project could result in a substantial adverse change in the significance of Capitol Towers. The impact would remain significant and unavoidable.

Impact 4.4-6: Cumulative historical resources impacts. The cumulative impact is significant and unavoidable.

6.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Under CEQA, an EIR must analyze the extent to which a project's primary and secondary effects would generally commit future generations to the allocation of nonrenewable resources and to irreversible environmental damage (State CEQA Guidelines Sections 15126.2[c] and 15127). Specifically, 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. Irrecoverable 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 a large commitment of nonrenewable resources;
- ▶ the project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- ▶ the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

The Draft EIR evaluates two development scenarios as part of the proposed project. The Hotel / Condo / Retail Scenario would remove the 206 existing garden apartment units (Capitol Villas), retain the existing 15-story Capitol Towers (containing 203 apartment units) and construct a 300-room hotel and up to 1,171 new dwelling units (increasing the total number of dwelling units within project site to 1,374). The net additional dwelling units (exclusive of the 409 units that currently exist on the site) would be 965 (which includes 49 live/work units). This scenario also includes the addition of up to 70,000 net new square feet of neighborhood support/retail space in addition to the existing 4,122 square feet of retail uses within Capitol Towers. As part of the overall retail square footage, an approximately 15,000-square-foot specialty market could be constructed.

The second option is similar to the first option, but replaces the hotel with additional residential units. This option is referred to as the Condo / Retail Scenario. The Condo / Retail Scenario would also remove the 206 existing garden apartment units, retain the existing Capitol Towers and construct up to 1,267 new dwelling units (increasing the total number of dwelling units within the project site to 1,470). The net additional dwelling units (exclusive of the 409 existing units that currently exist on the site) would be 1,061 (which includes 49 live/work units). This scenario would also include the addition of up to 52,000 net new square feet of neighborhood support/retail (increasing the existing square feet of retail uses to 56,122 square feet). As part of the overall retail square footage, an approximately 15,000-square-foot specialty market could be constructed. The State CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated

with the project. The proposed project could result in the use, transport, storage, and disposal of hazardous wastes during construction and operation. However, as described in Section 4.7, "Hazards and Hazardous Materials," all activities would comply with applicable state and federal laws related to hazardous materials, which would substantially reduce the likelihood and severity of accidents that could result in irreversible environmental damage.

Implementation of the proposed project would result in the long-term commitment of resources to urban development. The project will change the visual character of the project site and increase generation of pollutants from vehicular travel and stationary operations. The project would require short-term commitment during construction activities of nonrenewable and/or slowly renewable natural and energy resources, such as water resources. Operations associated with future uses would also consume natural gas and electrical energy.

Resource consumption would be reduced due to the regionally central location of the project site, the replacement of older inefficient buildings with new buildings built to modern codes, and the high level of sustainability that would be achieved through construction of the proposed project. The proposed project is located in a transit priority area and qualifies as a transit priority project consistent with the MTP/SCS, with policies in the Environmental Resources Element of the *Sacramento 2030 General Plan*, and with the City of Sacramento Climate Action Plan.

The project would be more efficient with regard to energy and other resources and would reduce transportation-related energy use relative to projects built in the past under building codes that did not require the same level of energy and water conservation. Compact, multi-family dwelling units that share walls with other units are substantially more energy efficient relative to single-family units that do not share walls. The project is also located in downtown Sacramento adjacent to light rail and bus lines relative to projects in less central locations, relative to lower-density projects, and relative to projects with a less diverse land use mix. The project incorporates open space features, including promenades and spaces for sitting, gathering, and enjoyment of the outdoors. For additional discussion of the sustainability features of the project, please refer to Appendix N, the Planned Unit Development (PUD) Guidelines (see PUD Guidelines Section 1.2.3).

Inclusion of the elements identified in the paragraph above (location, design, site reuse, etc.) may qualify the project to meet the criteria of green rating systems such as Leadership in Energy and Environmental Design (i.e., LEED), GreenPoint, Enterprise Green, or equivalent, as required by the *Sacramento Central City Urban Design Guidelines*. 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. The project would comply with all applicable building codes, including the 2013 Title 24 Energy Efficiency Standards.

Nonetheless, construction activities related to the proposed project would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline and diesel fuel for automobiles and construction equipment.

Over the past decade, an understanding of global climate change and the role that communities can play in addressing it has grown tremendously. There is scientific consensus that recent increases in global temperatures are associated with corresponding increases of greenhouse gases. This temperature increase is beginning to affect regional climates and is expected result in impacts on our region and the world. Climate change has profound implications for the availability of the natural resources on which economic prosperity and human development depend. This issue is explored in Section 4.6, “Greenhouse Gas Emissions and Energy.”

The Legislature also enacted the Sustainable Communities and Climate Protection Act of 2008 (Stats. 2008, ch. 728; Stats. 2009, ch. 354, § 5), referred to as Senate Bill No. 375 (SB 375). In enacting SB 375, the Legislature found automobiles and light trucks are responsible for 30 percent of the state's GHG emissions (Stats. 2008, ch. 728, § 1, subd. [a]). Accordingly, SB 375 directed ARB to develop regional GHG emission reduction targets for automobiles and light trucks for 2020 and 2035 (Gov. Code, § 65080, subd. [b][2][A]). In enacting SB 375, the Legislature found the state's emissions reductions goals cannot be met without improved land use and transportation policy. Consequently, SB 375 (Gov. Code, § 65080, subd. [b][2][B]) mandates that regional transportation plans prepared by Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs) include a sustainable communities strategy to guide regions towards “a more sustainable future by integrating land use, housing, and transportation planning to create more sustainable, walkable, transit-oriented, compact development patterns and communities that meet [ARB's greenhouse gas] emissions targets for passenger cars and light-duty trucks’ (§§ 21155–21155.4, 21159.28; Guidelines, § 15183.3).”

6.4 GROWTH-INDUCING EFFECTS

The proposed project is a residential mixed-use project proposed on an approximately 10-acre infill site in downtown Sacramento located close to a variety of transit resources and meets the requirements of a transit priority project. Pursuant to Public Resources Code Section 21155(b), a transit priority project must:

- ▶ contain at least 50% residential use based on total building square footage,
- ▶ have a minimum net density of 20 dwelling units per acre, and
- ▶ be located within one-half mile of a major transit stop or high-quality transit corridor included in the regional transportation plan.

Since the project is a transit priority project, this EIR is not required to analyze potential growth inducing impacts (Public Resources Code Section 21159.28 [a]).

The project is developed to accommodate growth anticipated by the City, as anticipated under the City's General Plan, as well as the MTP/SCS.

The land use designation for the proposed project, according to the *Sacramento 2030 General Plan* and draft 2035 General Plan, is “Central Business District” (CBD). This designation provides for mixed-use, high-rise development and single-use or mixed-use development within easy access to transit

(e.g., ground-floor office/retail with residential apartments and condominiums above). Allowable uses within this designation include office, retail, and service uses; condominiums and apartments; gathering places (such as a plaza, courtyard, or park); and compatible public, quasi-public, and special uses. The proposed project is consistent with the CBD designation, given the proposed land uses.

The proposed project is also consistent with the use designation, density, building intensity, and applicable policies specified for the project area in SACOG's Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) (Public Resources Code, § 21155, subd. [a]). The MTP/SCS was adopted April 19, 2012, by Resolution No. 14-2012 of the SACOG Board of Directors, and SACOG certified the Program EIR for the MTP/SCS (SCH No. 2011012081) that same day.

The MTP/SCS categorizes the land within the region into five "community types" (i.e. Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development in the MTP/SCS Planning Period). The Center and Corridor Communities consist of areas that are typically higher density and more mixed than surrounding land uses. Centers and Corridors are identified in local plans as historic downtowns, main streets, commercial corridors, rail station areas, central business districts, town centers, or other high density destinations. They typically have more compact development patterns, a greater mix of uses, and a wider variety of transportation infrastructure compared to the rest of the region. The MTP/SCS recommends and forecasts over half of the land to be developed (or redeveloped) within the region to be located within the Center and Corridor Communities (MTP/SCS, p. viii). On December 8, 2014, the City of Sacramento received a letter from SACOG confirming that SACOG concurs with the City's conclusion that the project is consistent with SACOG's MTP/SCS including all applicable use designations, densities, building intensities, and policies applicable to the project site. The letter from SACOG is included as Appendix A.

6.5 CUMULATIVE IMPACTS

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects, and the anticipated effects of future projects. As indicated in the CEQA Guidelines, the discussion of cumulative impacts need not provide the same level of detail as project-related impacts. The discussion should be guided by "standards of practicality and reasonableness" (CEQA Guidelines Section 15130[b]). Although project-related impacts can be individually minor, the cumulative effects of these impacts, in combination with the impacts of other projects, could be significant under CEQA and must be addressed (CEQA Guidelines Section 15130[a]). Where a lead agency concludes that the cumulative effects of a project, taken together with the impacts of other closely related past, present, and reasonably foreseeable probable future projects are significant, the lead agency then must determine whether the project's incremental contribution to such significant cumulative impact is "cumulatively considerable" (and thus significant in and of itself).

6.5.1 CUMULATIVE CONTEXT

To ensure an adequate discussion of cumulative impacts is included in an EIR, CEQA allows the lead agency to use either a list of past, present, and probable future projects (including those projects outside of the control of the lead agency), or projections included in an adopted local, regional, or statewide plan like a general plan (CEQA Guidelines, Section 15130[b][1]). The cumulative impact context for evaluating cumulative impacts for the majority of the technical issue areas evaluated in of this EIR considers development projections identified in the City's 2030 General Plan.

The basis of the cumulative analysis varies by technical area. For example, traffic and traffic-related air pollutant emissions and noise analyses assume development that is planned and/or anticipated in the City, as well as the surrounding area, because each contributes to traffic on local and regional roadways that is quantifiable. Operational air quality impacts are evaluated against conditions in the City and surrounding areas within the Sacramento Federal Nonattainment Area for ozone. With the exception of cumulative effects adequately addressed and mitigated in the MTP/SCS EIR or Master EIR (Public Resources Code 21155.2[c][1]), the cumulative analysis in each of the technical sections evaluates the proposed project's contribution to the cumulative scenario. A description of the cumulative context for each issue area evaluated in this EIR is included in the cumulative impacts at the end of each technical section of Chapter 4.

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6 OTHER CEQA-REQUIRED CONSIDERATIONS

None

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