

Plaza Park, Village Park, and Community Clubhouse Project IS/MND



Prepared for:

Fair Oaks Recreation & Park District

AECOM

September 2019

Plaza Park, Village Park, and Community Clubhouse Project IS/MND



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ACRONYMS AND OTHER ABBREVIATIONS

AB	Assembly Bill
ACMs	asbestos-containing materials
ADA	Americans with Disabilities Act
AEP	annual exceedance probability
Amphitheater	Fair Oaks Veterans Memorial Amphitheater
amsl	above mean sea level
ANSI	American National Standards Institute
APN	Assessor's Parcel Numbers
AQAP	Air Quality Attainment Plan
ARB	California Air Resources Board
B.P.	Before Present
bgs	below the ground surface
BMPs	Best Management Practices
CAA	Clean Air Act
CAAQA	California ambient air quality standards
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	state Environmental Protection Agency
Cal/OSHA	state Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CBC	California Building Standards Code
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CEQA Guidelines	California Environmental Quality Act Guidelines
CGS	California Geological Survey
CH ₄	Methane
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CO	Carbon monoxide
CO ₂	Carbon Dioxide
CO ₂ e	carbon dioxide equivalents
COCs	constituents of concern
Community Plan	Fair Oaks Community Plan
Construction General Permit	General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities [Order 2009-009-DWQ as amended by Order 2012-0006-DWQ]

Corridor Plan	Fair Oaks Boulevard Corridor Plan
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Civil Works Administration
CWA	federal Clean Water Act
dB	decibels
dBA	A-weighted decibels
District	Fair Oaks Recreation and Park District
DOF	California Department of Finance
DPM	particulate matter exhaust from diesel-fueled engines
DPR	Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
FERA	Federal Emergency Relief Administration
FIRM	Flood Insurance Rate Map
FWA	Federal Works Agency
g	percentage of gravity
GET	groundwater extraction and treatment
GHGs	Greenhouse Gases
Guide	SMAQMD Guide to Air Quality Assessment in Sacramento County
GWh	gigawatt-hours
GWP	Global warming potential
HCPs	Habitat Conservation Plans
Hz	hertz
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
ISA	International Society of Arboriculture
kBtu/year	thousand British thermal units per year
KWh/year	kilowatt-hours per year
lb/day	pounds per day
LDL	Larson Davis Laboratories
L _{dn}	Day-Night Noise Level
L _{eq}	Equivalent sound level

$L_{eq[h]}$	1-hour, A-weighted equivalent sound level
L_{max}	Maximum sound level
LOS	level of service
LRAs	Local responsibility areas
Master Plan	Plaza Park, Village Park, and Community Clubhouse Master Plan
Metro Fire	Sacramento Metropolitan Fire District
MMBtu	million British thermal units
MND	Mitigated Negative Declaration
mph	miles per hour
MT	metric tons
MTBE	methyl tertiary butyl ether
MTCO _{2e}	metric tons of carbon dioxide equivalent emissions
MTPS	Metropolitan Transportation Plan
N ₂ O	Nitrous Oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCCPs	Natural Community Conservation Plans
ND	Negative Declaration
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OSHA	federal Occupational Safety and Health Administration
PCBs	Polychlorinated biphenyls
PG&E	Pacific Gas and Electric Company
PGA	Peak horizontal ground acceleration
Plan	Plaza Park, Village Park, and Community Clubhouse Master Plan
PM	particulate matter
PM ₁₀	respirable particulate matter with an aerodynamic diameter of 10 microns or less
PM _{2.5}	respirable particulate matter with an aerodynamic diameter of 2.5 microns or less
PPV	peak particle velocity
project	Plaza Park, Village Park, and Community Clubhouse Project
PWA	Public Works Administration
RD-5	Residential Density-5
RMS	root mean square
RMS	root-mean-square

SACOG	Sacramento Area Council of Governments
SB	Assembly Bill
SCS	Sustainable Communities Strategy
SEL	sound exposure level
SHPO	State Historic Preservation Officer
SLF	Sacred Lands File
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Metropolitan Utility District
SRAs	state responsibility areas
SVAB	Sacramento Valley Air Basin
SVE	soil-vapor extraction
SVP	Society of Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TMDLs	Total Maximum Daily Loads
tons/yr	tons per year
TPHd	total petroleum hydrocarbons as diesel
TPHg	total petroleum hydrocarbons as gasoline
UCMP	University of California, Berkeley Museum of Paleontology
UST	underground storage tank
VdB	vibration decibels
VMT	vehicle miles travelled
VOC	volatile organic compounds
WDRs	reports of waste discharge
WPA	Works Progress Administration

1 INTRODUCTION

1.1 BACKGROUND

Section 21080(a) of the California Public Resources Code states that analysis of a project's environmental impact is required for any "discretionary projects proposed to be carried out or approved by public agencies..." In this case, the Fair Oaks Recreation and Park District (District) has determined that an initial study is required to determine whether there is substantial evidence that implementing the Plaza Park, Village Park, and Community Clubhouse Project (project) would result in significant environmental impacts.

Section 15070 of the California Environmental Quality Act Guidelines (CEQA Guidelines) provides that a lead agency may prepare a mitigated negative declaration when (1) the initial study shows that there is no substantial evidence that the project may have a significant effect on the environment; or (2) the initial study identifies potentially significant effects, however incorporation of mitigation measures into the project would reduce all impacts to a less-than-significant level. Mitigation measures are identified to avoid, eliminate, or reduce potentially significant adverse impacts of the proposed project. Section 15064 specifies that, when an initial study identifies significant environmental impacts, the lead agency must prepare an environmental impact report (EIR).

1.2 PURPOSE OF DOCUMENT

Pursuant to Section 15063 of the CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.), an initial study is a preliminary environmental analysis that is used by the lead agency as a basis for determining whether an EIR, a mitigated negative declaration, or a negative declaration is required for a project. The CEQA Guidelines suggest that an initial study contain, in brief form, a project description; a description of the environmental setting; an identification of environmental effects by checklist or other similar form; an explanation of environmental effects; a discussion of mitigation for significant environmental effects; an evaluation of the project's consistency with existing, applicable land use controls; the names of persons who prepared the study; and identification of data sources used in the review of environmental impacts and the conclusions reached in the document.

1.3 SUMMARY OF FINDINGS

The analysis in this initial study concludes that the proposed project, with implementation of mitigation measures, would have no significant impacts. As such, further environmental review is not required by CEQA.

1.4 APPROVALS

The California Environmental Quality Act ("CEQA"), Public Resources Code sections 21000 et seq., requires that lead agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. This initial study has been prepared to satisfy CEQA and the CEQA Guidelines, Title 14 of the California Code of Regulations, Chapter 3, Section 15000 et seq.

In accordance with Sections 15063 and 15074 of the CEQA Guidelines, an EIR must be prepared if there is substantial evidence supporting a fair argument that the proposed project under review may have a potentially significant impact on the environment. A negative declaration or mitigated negative declaration is a written

statement prepared by the lead agency describing the reasons why the proposed project would not have a significant impact on the environment, and therefore, would not require preparation of an environmental impact report (CEQA Guidelines Section 15371). According to Section 15070 of the CEQA Guidelines, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) for a project subject to CEQA should be prepared when either:

- ▶ the initial study shows that there is no substantial evidence, in light of the whole record before the lead agency, that the project may have a significant impact on the environment; or
- ▶ the initial study identifies potentially significant impacts, but:
 - revisions made to the project plans or proposal before the proposed mitigated negative declaration is released for public review would avoid the impacts or mitigate the impacts to a point where clearly no significant impacts would occur; and
 - there is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant impact on the environment.

The District has analyzed the potential environmental impacts of the proposed project, determined that the proposed project's impacts would be less than significant or can be reduced to less than significant with the implementation of mitigation measures, and has prepared this Initial Study/Mitigated Negative Declaration (IS/MND). This IS/MND addresses all questions in the CEQA Initial Study Checklist.

1.5 DOCUMENT ORGANIZATION

This Initial Study is organized into six chapters:

- ▶ Chapter 1, "Introduction," provides summary information about the proposed project and describes the purpose and content of the Initial Study.
- ▶ Chapter 2, "Project Description," provides the project location, project background, project objectives, detailed project description, and the needed permits and approvals.
- ▶ Chapter 3, "Environmental Checklist," contains the completed initial study checklist. The checklist contains an assessment and discussion of impacts associated with each particular environmental issue. When the evaluation identifies potentially significant effects, as identified in the checklist, mitigation measures are provided to reduce such impacts to less-than-significant levels.
- ▶ Chapter 4, "Summary of Mitigation Measures."
- ▶ Chapter 5, "References," identifies the information sources used in preparing this Initial Study.
- ▶ Chapter 6, "Preparers," lists the names of persons who prepared this Initial Study.

Appendices contain technical reports and other information to supplement the Mitigated Negative Declaration.

2 PROJECT DESCRIPTION

2.1 INTRODUCTION

The Fair Oaks Recreation and Park District (District) is proposing to implement the Plaza Park, Village Park, and Community Clubhouse Master Plan (Plan) prepared in January 2012 and updated in August 2019. The purpose of the Plan was to define a park project consistent with the principles outlined in the Fair Oaks Recreation and Park District's 2010 Master Plan for Parks, Facilities, & Recreation Services, which was adopted in June 2010. The Plaza Park, Village Park, and Community Clubhouse Project (project) would provide cohesion and increase accessibility of the park spaces to the public. In addition, the project would include renovations to the Veterans Memorial Amphitheater, which were not originally included in the 2012 Master Plan but were outlined in a separate Plan created by the District in 2011. In 2019, the District sought input from the community on an update to the 2012 Park Master Plan. Through numerous outreach efforts by the District, the plan evolved and was refined to meet current community needs. The Revised Master Plan for the project was reviewed by the District in August 2019, and approval is anticipated at the District's Board of Directors meeting in September.

Pursuant to CEQA Guidelines Section 15124, this section provides the project location, project background, project objectives, detailed project description, and the needed permits and approvals.

2.2 PROJECT LOCATION AND SETTING

As shown in Exhibit 2-1, the project site is located in in the community of Fair Oaks in unincorporated Sacramento County, California. Fair Oaks is located in northeastern Sacramento County, 16 miles from Sacramento and two miles north of U.S. Highway 50. To the west of the project site is primarily commercial development, while the area east and southeast is primarily residential. Commercial and residential development exists north and south of the project site.

The project site is bordered by Park Drive, Main Street, Temescal Street, Sierra Street, and Fair Oaks Boulevard. The project site is approximately 4 acres in total land area and identified by the Sacramento County Assessor to include Assessor's Parcel Numbers (APN) 244-0171-029, 244-0171-020, and 244-0203-001. The parcels are zoned for Recreation and designated in the Sacramento County General Plan as Low-density Residential (Sacramento County 2011; 2019).

The park complex consists of four recreation areas with different functions in the heart of the historic Fair Oaks Village, including the Plaza Park, Village Park, Community Clubhouse, and Veterans Memorial Amphitheater. Exhibit 2-2 shows the existing condition of the park complex and its facilities, as analyzed in the Plan (District 2012).

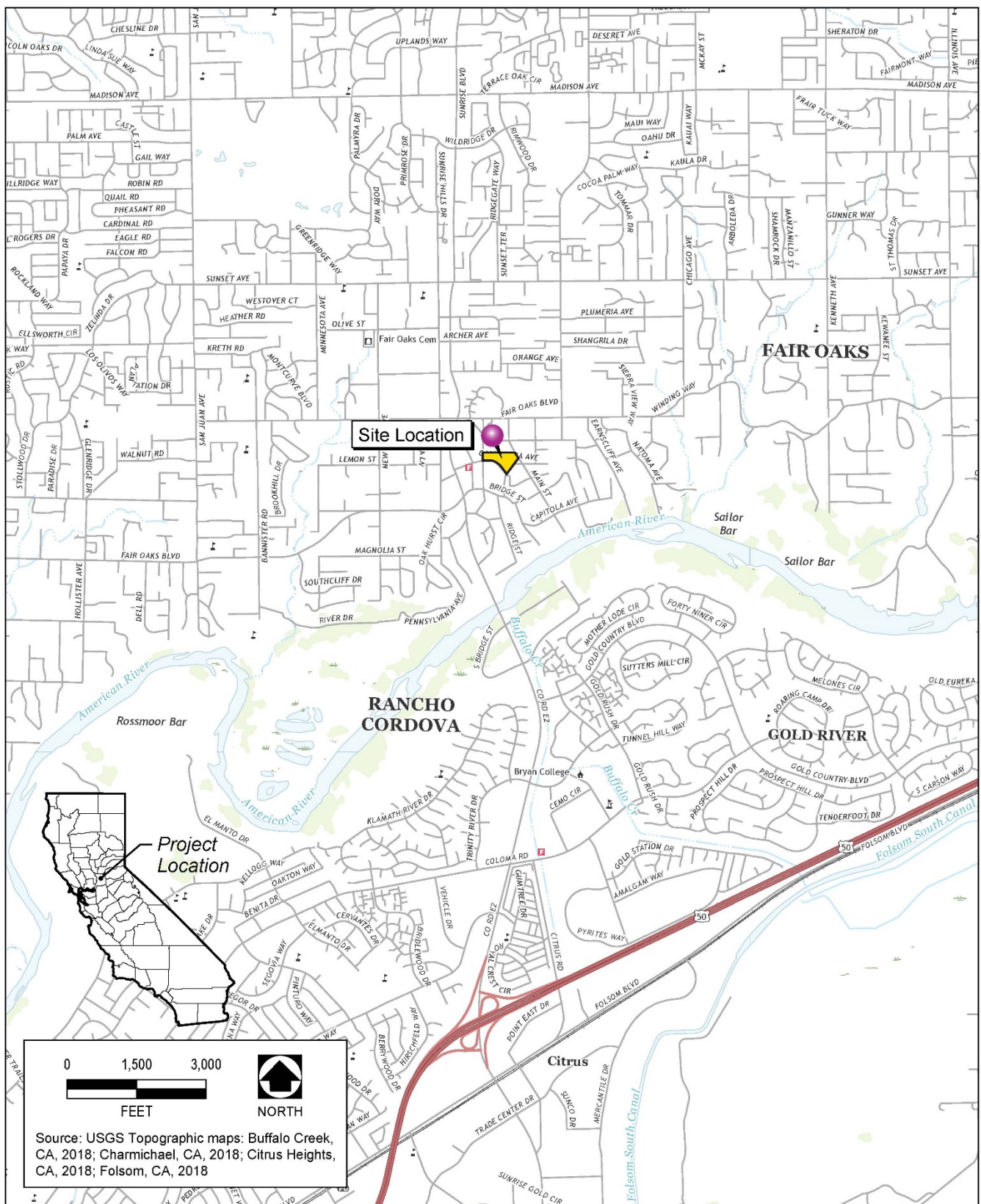


Exhibit 2-1 Regional Area



Exhibit 2-2 Existing Project Area

2.2.1 PLAZA PARK

Plaza Park is a neighborhood park on the east edge of the site near Fair Oaks Boulevard with large shade trees, benches, picnic tables, and chickens that roam the park's grassy areas and planters. Many of the site furnishings and trees have dedication plaques on them that add to the sense of history of the park. Near the center of the park is a rock mosaic inlay and a wood trellis structure both installed by volunteers in the community. The park is approximately one acre in total land area, with a concrete path and lighting lining the perimeter. The main entrance is at the corner of Fair Oaks Boulevard and California Avenue with signage for the park and the Amphitheater's upcoming events. Parking is located along Fair Oaks Boulevard and California Avenue and is shared with the surrounding retail shops. There is currently no Americans with Disabilities Act (ADA) access or parking stalls at either parking area.

2.2.2 VILLAGE PARK

Village Park is the other neighborhood park on the opposite side of the park complex, bordered on three sides by Temescal Street, Main Street, and Park Drive. Village Park is approximately 2.5 acres in land area with a large grass area, a playground, and picnic tables. This park also has a large stage and bandshell, which is used extensively during the summer concert series. A large hill to the west of the playground separates Village Park from the Arts and Crafts/Restroom building. That slope and the rest of the site's topography make it difficult to provide a link between Village Park and Plaza Park. There is a terraced rock wall between the Clubhouse and the park, which is historic and provides character to the park. There are good views into the park but little access. Parking for this area is served by parking lots on Park Drive and Temescal Street. The only ADA accessible path in this park is from the parking lot on Park Drive to the playground. The parking lot along Temescal Street has one ADA stall but no access path.

2.2.3 THE COMMUNITY CLUBHOUSE

The Community Clubhouse, constructed in 1902, is located on a hill at the southern end of the site, west of Village Park, in between Temescal Street and California Avenue. It is used as a community event center for meetings, classes, and special events. The landscape consists of ornamental and shade trees, palm trees, lawn, and accent shrubs. There are two large retaining walls made of river rock built as a Works Progress Administration (WPA) project in 1940 that add to the historic character of the building. Since the building is located on top of a hill, access is challenging. The only ADA accessible entrance to the building is up a wood ramp to a side door. Parking is limited to a small asphalt area near the corner of California Avenue and Temescal Street. Access from the parking lot is up a steep path to the access road in front of the building. There is one ADA parking stall to the west of the building. Additional parking includes two spaces next to the Arts and Crafts/Restroom building, with one space ADA accessible, providing the only accessible path to that building. There is a single light pole with two cobra-head fixtures in this area. The rear of the building includes a large asphalt maintenance lot, dumpster enclosure and a portable storage building. The lot is boarded by a rock wall with a railing, as Village Park is substantially lower in elevation than the Clubhouse.

2.2.4 VETERANS MEMORIAL AMPHITHEATER

The Veterans Memorial Amphitheater is an outdoor facility located between the Community Clubhouse and Plaza Park. It is closed to the public except during theater events that run throughout the summer. The Amphitheatre has

one main entrance off of California Avenue. There is a secondary entrance from the parking lot at the east of the facility used for drop-off. Access around the outside of the Amphitheatre is limited due to uneven slopes and poor lighting. There is a small driveway access from Park Drive used for loading.

Separate from the 2012 Master Plan was a plan to renovate the Veterans Memorial Amphitheatre. The 2010 Veterans Memorial Amphitheatre Improvements Plan is a conceptual design that proposes to provide an indoor concert facility and additional improvements to the existing outdoor facility. The new footprint expands the Amphitheatre to the west, into Plaza Park (Exhibit 2-3). The expansion was accounted for in the design of the Plaza Park, Village Park, and Community Clubhouse Master Plan.

2.3 PROJECT OBJECTIVES

The objective of the project is to fulfill the mission of the District, which is to:

“maximize all available resources to deliver well maintained parks, high quality recreation facilities, programs and events. We will do this through effective partnerships with other service providers thus helping meet the quality of life expectations, building community pride, and supporting the economic goals of the community. We will measure our success by providing adequate access and connections to trails, parks, sports and recreation facilities that meet the needs of our citizens and visitors to our community.” (District 2010, p. 159)

The goals and objectives put forth in the Plan for the project include: increase cohesion of the various facilities, implement the community’s vision, and add historic flavor that will complement and contribute to the eclectic flavor already celebrated in the Fair Oaks community (District 2012). Project design must create a connection between all elements of the park complex, increase on-site parking, open views into the park, provide an ADA accessible perimeter, add a path system, and preserve the character and function of each area (District 2012).

2.4 PROJECT COMPONENTS AND CONSTRUCTION

2.4.1 PARK FACILITIES AND SITE PLAN

PARK ORGANIZATION

The existing park complex lacks cohesion of style, function, and access. The project would include many design solutions to bring cohesion to the park complex. Gateways, specialty pavement, and signage would be added to help strengthen the connection to the rest of the park complex. These improvements would act as visual cues for park users to venture beyond the space they are currently in. Wayfinding signage would also help direct park users for ADA accessible paths to the different park facilities, including restrooms. For much of the Park, upgrades will be made to pathways for better accessibility and connectivity. This includes upgraded pathway lighting for safety.

New signage at main entryways would be added to the park complex at Fair Oaks Boulevard and California Avenue and at California Avenue and Temescal Street. These would be approximately four-foot-tall monument signs incorporated into the landscape setting. Length would vary between six and 12 feet depending on the location. The signs will be mounted on a concrete base.

The entrance to the Clubhouse would be renovated to provide accessible paths to the upper and lower rooms. With the parking lot moved to the perimeter, the space in front of the rock walls will be transformed into a native and drought tolerant demonstration garden with walking paths, seating, and opportunities for a sculpture garden, with art featured throughout the grounds.

The playground at Village Park will be expanded to include a larger play structure, swings, shade shelter, and a hillside play component. Trees surrounding the playground will be preserved to maximize shade. In addition, a new restroom building will be added adjacent to the playground and renovated bandshell.

The Amphitheater building will be replaced with a larger building that will improve the use of the facility for year-round use. It includes doors to allow for a black box theater and multi-purpose recreation room, storage space, dressing rooms, restrooms, and a lobby. The expansion would increase programming opportunities such as theatre performances, theatre classes, special events, pop-up events, and art shows. Access from Plaza Park will be via a ramp and outdoor raised patio on the Plaza Park side. The patio entrance will serve as a community entrance during the theater offseason. Two restrooms will be accessible from Plaza Park.

Plaza Park will be renovated to provide more all-weather surface that can withstand park use year-round. The plaza space will provide café seating to encourage use by patrons of the surrounding businesses and be a gathering space during community events. Additional lighting will be provided to match the character of the village.

PARKING

Parking at the park complex is very limited and is shared by the adjacent retail and residential development. To provide the most options for access to the park complex, the project would reconfigure approximately 80 parking stall and add 10 additional parking spaces spread throughout the site. Parking spaces will meet County of Sacramento standards. Stalls and driveways will be constructed with asphaltic concrete. While parking count is being increased, the spaces will be striped to be more efficient and therefore will be a reduction of impervious area related to the parking lots. There is approximately 41,000 square feet of asphalt existing on the site and the improvements would reduce this to approximately 30,000 square feet.

The project would also formalize the parking spaces along Fair Oaks Boulevard with asphalt pavement, striping, an ADA stall, ramp, and planters around the palm trees. When the street is closed down during events, this would become an extension of the plaza space that connects the park with the Historic Fair Oaks Village. Plan implementation would include expanding and restriping parking along all sides of the park. Parking in front of the Clubhouse would be redesigned to provide parking off the street. The space between the Clubhouse and Amphitheatre would also be redesigned and regraded to provide parking behind the existing private commercial building, more gradual slopes, better organization, and safer crossings.

ADA accessible parking would be distributed throughout the park complex at the accessible park entrances. Specifically, ADA accessible stalls are planned between the Arts and Craft Room and the Clubhouse for safer access to the buildings.



VILLAGE PARK *grant exhibits*

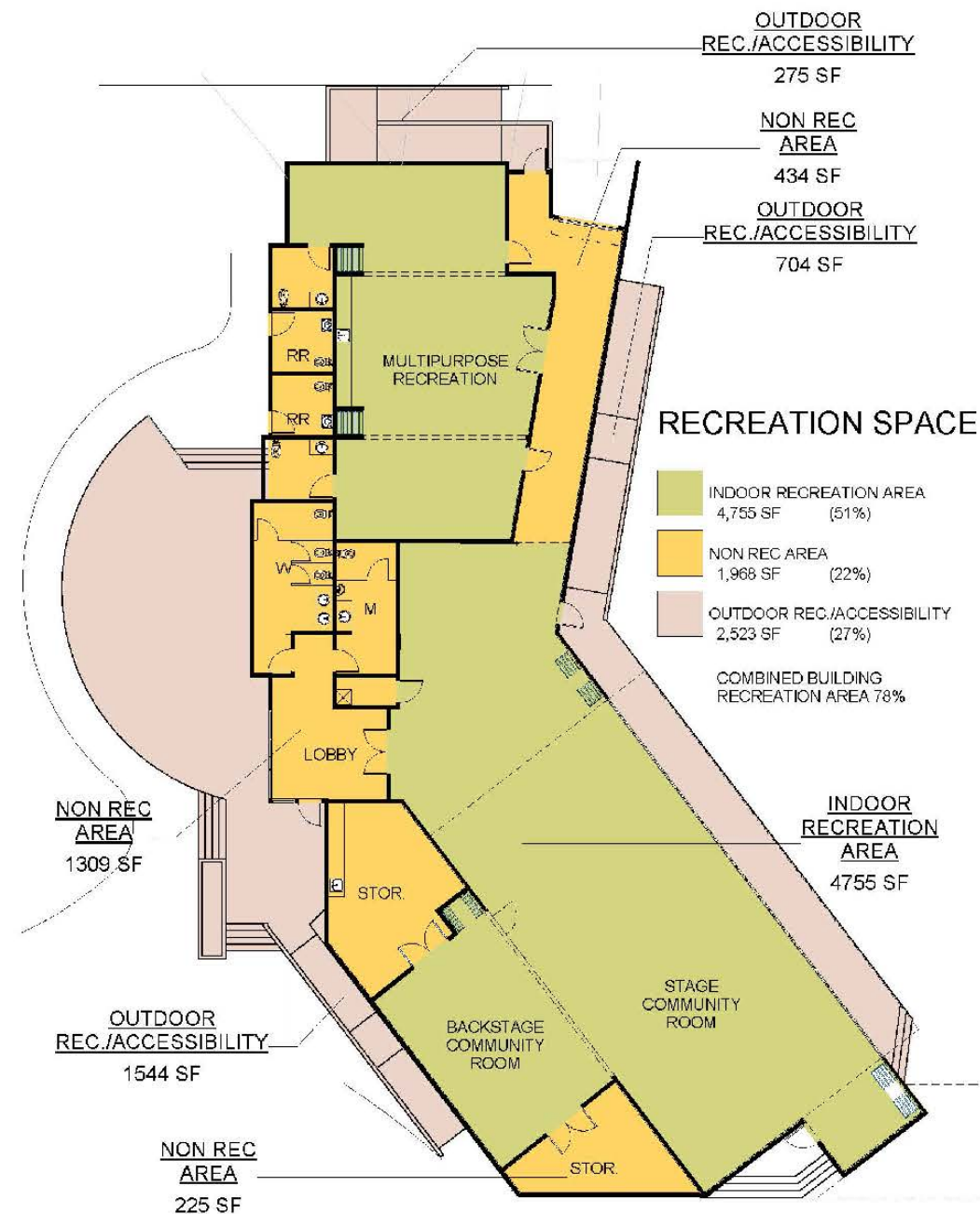


Exhibit 2-3 Amphitheater Plan

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Village Park, Plaza Park, Community Clubhouse and Veterans Memorial Amphitheatre

REVISED MASTER PLAN

7/24/19

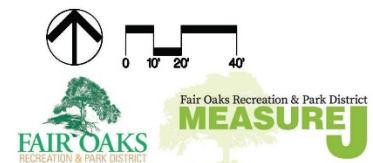


Exhibit 2-4 Updated Project Site Plan

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In order to provide additional parking at the Clubhouse and better organization of space, the parking lot at the Clubhouse would be removed and on-street 90-degree parking would be added on both California Street and Temescal Avenue. Moving the parking to the street would provide an opportunity to add landscape and gathering space at California and Temescal. Decomposed granite area and pathways are proposed.

PEDESTRIAN CIRCULATION

All-weather pedestrian pathways would enhance park complex cohesion. The park site currently lacks a path of travel that connects the entire complex. The project would include a perimeter path system that would connect the park complex to create cohesion and safe access for all park users.

The new all-weather pathways would be between four-feet and eight-feet wide and made of poured-in-place concrete. In total, the project would add 2,000 linear feet of new pathways throughout the park complex. Other secondary circulation will be with permeable surfaces such as decomposed granite and permeable pavers. Impervious surface for accessibility would increase by about 20,000 square feet.

Plan implementation would add an accessible path to the terraced rock wall in Village Park for access to the lower area of the Clubhouse and the band shell stage. The steep path up to the back of the band shell is currently blocked off by a gate that only allows access for park staff. The hillside slope between the play area and the proposed restrooms would be made accessible with the addition of a pathway that gradually brings park users up the hill. Stairs would also be added to that pathway to provide short cuts up the hill. A perimeter path around Village Park will provide an accessible walking loop and include benches and an accessible viewing area during events.

A new sidewalk is proposed on Park Drive that would connect to a path leading to the restroom building. The path would continue around the Amphitheater to Plaza Park. Pedestrian access would also be added between the Arts and Crafts/restroom building and California Avenue through a series of pathways and an ADA accessible ramp.

Access to the Clubhouse would be made safer by the proposed accessible path from the two ADA parking stalls across a maintenance road and around the side of the Clubhouse. A new ADA accessible ramp would be added to the front of the Clubhouse that brings everyone into the front of the building rather than the side entrance. Park users could access the lower parking area with sidewalks that connect to accessible paths or up the central path which would be modified with the addition of steps rather than steep sloped pavement.

The paths around Plaza Park would connect the parking stalls with the perimeter path system. Since the California Avenue side is at a higher elevation than the rest of the park, the proposed path would add steps down to the park, creating additional informal seating. To further address the elevation change of the park, a perimeter path is proposed to connect to a smaller central plaza at the center of the park space. The path adjacent to the parking along Park Drive is lower in elevation from the rest of the park. A step down from the park to the pathway would be added to that side of the park.

SAFETY

Hiding spots and view obstructions were identified in the site analysis plan (2012) and would be addressed in the Site Plan with the addition of safety-level lighting along perimeter paths and at the backs of buildings, removal of

portable storage buildings located near Park Drive between the Amphitheater and the playground that blocked views into the site, and access paths that provide better policing ability from the street.

Changes to the pedestrian circulation and parking directly relate to increasing safety at the park. Striped parking spaces and cross walks help define vehicular circulation and conflicts between the vehicular and pedestrian circulation. These conflict areas are also better defined by highlighting entrances with signage, plant material, and pavement.

Plan implementation would add safety-level park lighting along perimeter paths and at the backs of building. New lighting for pathways and buildings would be of low intensity and would be shielded and directed downward. High mast light standards must be installed in compliance with Sacramento County Improvement Standards (Sacramento County 2018) and therefore the lighting would be shielded, and the light would be directed downward to avoid spillover lighting and skyglow effects. Lighting will be LED and rated for Dark Sky compliance.

LANDSCAPING

One of the greatest assets of the existing park complex is the large mature shade trees. Existing trees will be preserved to the greatest extent feasible. Plan implementation includes the planting of new trees to prepare for the removal of older trees, and new shrubs, flowers, and grass areas. The new landscaping would consider the style of the park and would also serve as a way to define spaces within the park complex.

Shrub planting is limited especially at Plaza Park where a large population of chickens roam. All new plantings would consider the safety of chickens and other wildlife, needed sun exposure, and be low-maintenance vegetation (i.e., drought resistant). As existing trees start declining in health, new trees would be planted to retain the existing character of the space. Project implementation anticipates 14 trees would be removed, while 33 trees would remain. An additional 40 trees would be added to the project site. Other factors considered for the planting plan included providing light shade, so grass can be established under the canopy and aesthetic quality.

Planned planting in front of the Clubhouse includes a native and drought tolerant garden. Planned planting at Village Park and the surrounding areas is limited to planters and islands near parking. These planters would utilize low water use and hardy plants.

Grass areas would be limited to areas that can be maintained and can grow successfully. Grass selection may differ from one area of the park to the other as sun exposure, traffic, and soil type change.

SITE HISTORY

The town of Fair Oaks and this site are rich in history. Adding elements such as signs, kiosks, plaques, and markers to provide historical context and education would enhance the important history of the park. The project would preserve the existing historical features of the site, including the Clubhouse building, which is planned for renovation. Existing plaques and dedications on benches and trees would be preserved or relocated where feasible.

SITE TOPOGRAPHY

The site's topography provides a challenge to the cohesion of the park, as well as accessibility and safety. However, the topography of the site also adds to the character and would be preserved and highlighted. The project would consider the need to preserve and highlight the topography of the site. The hillside slope will function as an accessible path as well a hillside play feature that expands the footprint of the existing playground. Terraced rock walls will remain in place where feasible to preserve the character of the park. Additional rock walls that match the WPA walls will be added as needed to sloped areas to carry the design theme throughout the park.

2.4.2 SCHEDULE

Construction is anticipated to begin in September 2020. Total construction would last 22 months. The District is currently applying for a grant that would allow renovation of the Amphitheater and some of the other park upgrades. The balance of the work will be covered by Measure J funds. If the grant application is not selected for funding, site improvements will include as many elements as possible in the Plan (as much as funding allows) with the exception of the Amphitheater. If the grant is successful, the Plan will be to move ahead with the whole project at one time, with no phasing. The exception to this would be work on the Clubhouse. Improvements to the Clubhouse will occur as funding is available.

Plan implementation would need to be closely coordinated with all the stakeholders using the park complex. The District and other community groups rely heavily on the revenues generated from park events, and construction should be scheduled to avoid conflict with these events. The District's event calendar would need to be consulted prior to construction scheduling. Some annually scheduled events could include:

- ▶ Winter: Christmas in The Village and Father/Daughter Dance
- ▶ Spring: Fiesta Days and Comedy Shows (through Fall)
- ▶ Summer: Concerts in the Park and Theater Festival (through Fall)
- ▶ Fall: Chicken Festival and Senior Luau

2.4.3 PHASING

The 2010 Master Plan anticipated requiring more than one phase for Plan implementation. Plan implementation priorities were identified through the community outreach process to include four zones, each with phases for Plan implementation. However, the current plan is to implement all of the phases, as long as budget allows (see Section 2.4.2, Schedule).

2.4.4 UTILITIES

The project site is currently developed and includes electrical/communication services, water meters, a storm drain system, and sewer services. While the project aims to enhance the circulation and usability of the park complex resources, the project is not expected to increase the capacity of the park. A new sewer and water line may be considered to serve the new restroom building if on-site facilities are not available to connect to nearby. Separate electrical services are provided at Plaza Park, Village Park, the Clubhouse and the Amphitheater. There is no plan to remove or relocate them. Utilities and service systems would continue to be provided by Sacramento

County Water Agency, Sacramento Area Sewer District, Sacramento Regional Wastewater Treatment Plant, and Sacramento Metropolitan Utility District.

Demolition would be needed for removal of a commercial building south of the Amphitheater on a parcel recently purchased by the District and for the Amphitheater remodel. Trucks and/or dumpsters would be the anticipated method of haul-off and materials would be transported to the appropriate facility.

UTILITY RELOCATION

The project will look at the feasibility of undergrounding the current overhead telephone and communication lines that run parallel to California Avenue. There are no other utility relocations anticipated.

2.4.5 ACQUISITIONS/EASEMENTS

The District recently purchased a commercial building adjacent to the project site, just south of the Amphitheater (APN # 244-0171-020). The parcel is currently zoned for O – Recreation. The District plans to remove the building and add a new raised plaza with café seating at the new property purchase location.

2.4.6 SITE ACCESS

Access to the construction site would change depending on where construction is occurring. Access for construction would be coordinated by the secured contractor.

Public access to the project site would be restricted in areas of the park during construction. No long-term street closures are planned or anticipated; however, limited, temporary lane closures may be necessary during construction.

2.4.7 STAGING AREAS

Project construction would require one temporary staging area. The staging area would be located appropriately by the secured contractor. The staging areas would be used as a location for construction worker parking and for workers to gather for instructional and planning meetings, as well as for equipment and material storage. The staging areas may house construction trailers for construction personnel. Fuel stored at these areas would generally be used for small generators for power tools and would be less than 25 gallons.

2.4.8 CONSTRUCTION WORKFORCE AND EQUIPMENT

The District anticipates an average of 15 construction personnel working on any given day, with certain construction activities requiring up to a maximum of 30 construction personnel.

2.5 PROJECT APPROVALS

Approval of the proposed project requires discretionary action by the District. The District is the lead agency for the proposed project. Pursuant to CEQA Section 21067, the lead agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment.” As the lead agency, the District has the responsibility for, among other things, preparing a CEQA

document that analyzes the potential environmental impacts of the proposed project; identifying feasible mitigation measures that could avoid or minimize significant environmental impacts; and adopting a Mitigation Monitoring and Reporting Program to ensure that all required mitigation measures are implemented.

The project may require approvals from other agencies, including, but not necessarily limited to:

- ▶ Sacramento County: encroachment permit/s, building permit, grading permit
- ▶ Central Valley Regional Water Quality Control Board: construction general stormwater permit

2.5.1 AGENCY APPROVAL PROCESS

The District's Board of Directors approved the original Plaza Park, Village Park, and Community Clubhouse Master Plan in 2012 and reviewed the updated concept plan in August 2019. District Board approval is anticipated in September 2019. There is also a Bond Oversight Committee that reports to the Board of Directors that will review and approve designs over the course of the development. Both the Bond Oversight Committee and Board of Directors have standing monthly meetings.

2.6 OPERATIONS AND MAINTENANCE

The park complex is open to the public daily from 8:00 a.m. and dusk. The District does not anticipate activities at the park complex outside normal operating hours, except for approved special events at the park complex. The proposed project would have capacity to accommodate approximately 700 people during the peak season.

The project would not increase the capacity of the park complex. Light fixtures, trash receptacles, and landscaping would be maintained by existing District maintenance staff, plus one additional staff member would be needed for further maintenance of the park complex.

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3 ENVIRONMENTAL CHECKLIST

This chapter addresses the environmental impacts of the proposed project. As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered but no adverse impacts were identified. As a result, there is no further discussion about these issues in this document.

Agriculture and Forestry Resources. Land uses at the project site and adjacent properties are designated Urban and Built-up Land by the Natural Resources Conservation Service; therefore, the project would not convert Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance to non-agricultural use (Department of Conservation 2016). No timberland or forest lands exist in or adjacent to the project area; therefore, forest lands would not be affected by the project. The project is currently zoned for Recreation and the proposed project would be consistent with this designation. **No impact** related to agricultural or forestry resources would occur.

Mineral Resources. The land use designation for the project site is Low-density Residential and is zoned for Recreation. The project is not on, and would not require acquisition of, lands classified as mineral resource zones; therefore, **no impact** would occur.

PROJECT INFORMATION

1. Project Title: Plaza Park, Village Park, and Community Clubhouse Project
2. Lead Agency: Fair Oaks Recreation and Park District
3. Contact Person and Phone Number: Mike Aho
District Administrator
Fair Oaks Recreation and Park District
4150 Temescal Street
Fair Oaks, CA 95628
4. Project Location: Assessor's Parcel Numbers: 44-0171-029, 244-0171-020, and 244-0203-001
5. Project Sponsor: Fair Oaks Recreation and Park District
6. General Plan Designation: Low-density Residential
7. Zoning: Recreation (O)
8. Description of Project:
The Fair Oaks Recreation and Park District (District) is proposing to implement the Plaza Park, Village Park, and Community Clubhouse Master Plan (Plan) prepared in January 2012 and updated in September 2019. Upgrades will be made to pathways for better accessibility and connectivity, including upgraded pathway lighting for safety. Other components of the project include:
 - Plaza Park – Plaza seating, seawalls/retaining walls, additional nose-in parking, accessible curb ramps, and events stage
 - Village Park – Renovated and expanded playground, renovated band shell and stage, additional nose-in parking, curb ramps, restroom building, stairs, and accessible ramps
 - Community Clubhouse – Expanded garden space, accessible ramps, stairs, nose-in parking, driveway, and parking reconfiguration
 - Amphitheater – Replacement of the Amphitheater stage with ancillary facilities including storage, restrooms, dressing rooms, secondary entrance, and accessible ramps
9. Surrounding Land Uses and Setting: The project site is bordered by Park Drive, Main Street, Temescal Street, Sierra Street, and Fair Oaks Boulevard in unincorporated Sacramento County. The park complex is surrounded by mixed-use commercial and residential development.
10. Other public agencies whose approval may be required: Sacramento County and Central Valley Regional Water Quality Control Board

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology & Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology & Water Quality |
| <input type="checkbox"/> Land Use & Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population & Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input checked="" type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities & Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- ☒ I find that although the proposed project **COULD** have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Signature

9-12-19
Date

Mike Aho

Printed Name

District Administrator

Title

Fair Oaks Recreation and Park District
Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less-Than-Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 SETTING

The project site is located on an elevated alluvial terrace approximately 0.4-mile northeast of the American River. The river is not visible from the project site due to the distance and intervening topography and vegetation. The topography in and around the project site is hilly. The approximately 4-acre project site is in an urbanized area of Fair Oaks that consists of mixed-use commercial and residential development. The project site currently consists of Plaza Park, Community Clubhouse, Village Park (which includes a band shell and playground), and the Fair Oaks Veterans Memorial Amphitheater. Park facilities were constructed at various times between 1902 and 1971, with upgrades in the 1980s, 1990s, and early 2000s.

Plaza Park, at the west end of the project site, is composed of a large, flat grassy area surrounded by tall, mature shade trees (see Exhibit 3.1-1). A paved, concrete pathway with dark-colored metal benches surrounds the central grassy area. The west side of the park is adjacent to Fair Oaks Boulevard and is surrounded by shops and restaurants on the north, west, and south sides. Parking stalls for Plaza Park on the south and west sides of the project site are generally filled with cars from patrons of the surrounding commercial areas. A few shrubs provide limited screening of the parked cars on the south side of the park. Overhead power lines and wood poles are visible throughout the viewshed. The generally one-story commercial buildings and associated signage, and cars parked in the Plaza Park stalls and along adjacent roadways, are visible in the foreground throughout the Plaza Park viewshed. Because of the dominance of the contrasting lines, colors, and forms associated with the commercial buildings and vehicles, and the close proximity of these features to the park, they tend to dominate the viewshed.



Exhibit 3.1-1 View of Plaza Park and associated parking areas along Fair Oaks Boulevard and California Avenue, looking south from Park Drive.

The Clubhouse is a historic building composed of cream-colored stucco with Spanish-style terra cotta roof tiles. Landscaping (including two tall evergreen palm trees, several mature deciduous shade trees, shrubs, and grass), marquee signage with a river rock base, and high mast lighting are present around the Clubhouse, in addition to a parking lot. A tall, river rock retaining wall below the Clubhouse provides a pleasing visual contrast with the surrounding landscaped areas and the Clubhouse parking area (see Exhibit 3.1-2). A small landscaped area with grass, two trees, and a few shrubs is present at the point formed by the intersection of California Avenue and Temescal Street. Because the Clubhouse is located on a hill above the surrounding roadways and development, it forms the dominant element in the viewshed. The forms, lines, and colors of the Clubhouse, when considered in combination with its surrounding landscaping, create a cohesive visual pattern that is striking and distinctive, and is an outstanding example of cohesive historic architecture and landscaping. As viewed from California Avenue and Temescal Street, the Clubhouse area is of high visual quality.

Village Park includes a large, flat expanse of grass; a concrete bandstand with a cantilevered white metal roof; a stair-stepped, terraced, hillside area next to the bandstand that is faced with river rock; and a playground (see Exhibit 3.1-3). The east side of the Clubhouse is visible from Village Park. The back of the Clubhouse, which includes large trash receptacles and commercial vehicle access, is generally screened from view by the roof of the bandstand and the elevated topography on the west side of the playground. There is no pathway surrounding Village Park, although a barren dirt area along the north, east, and south edges of the park provides a place where patrons can walk. A small concrete pathway is visible between the bandstand and the playground, at the foot of a hillside grassy area. A concrete marquee sign with a river rock base is present at the east side of the park. The



Exhibit 3.1-2 View of Community Clubhouse and associated retaining wall and parking stalls, looking northwest from Temescal Street.



Exhibit 3.1-3 View of Village Park, band shell, and playground, looking north from Temescal Street.

restroom building, composed of cream-colored stucco with a dark-colored composition roof, is visible from the east and north sides of the park. The park is surrounded by deciduous shade trees along the perimeter, with a few scattered conifers. The dark-green-colored horizontal bars of fencing on the north side of the playground, adjacent to Park Drive, tend to blend in with the green-colored playground structures. High mast light standards and overhead power lines with wood power poles are present throughout the viewshed. The central grassy area of the park occurs in a somewhat bowl-like depression surrounded by hilly topography. Therefore, the dominant features in the viewshed of Village Park consist of the Clubhouse, bandstand, cars parked in the stalls on the north and south sides, asphalt paving associated with Main Street, and the surrounding residential and commercial development. The variety of contrasting lines, colors, and forms of the surrounding residential and commercial development and streetscapes, which tend to dominate the foreground views due to their close proximity, detract from the viewshed as a whole.

The Amphitheater is not visible from surrounding public viewpoints because it is blocked by existing buildings and screening walls along with tall trees. A mural painted on a concrete block wall that forms the back side of the Amphitheater stage is present on the south side of the amphitheater complex. From Park Drive along the north side of the project site, views are dominated by the back sides of park buildings, parking stalls with cars on the north side of Village Park and the west side of Plaza Park, overhead power lines and power poles, adjacent residential housing and fencing, and the grassy areas and mature trees in Village Park and Plaza Park.

The existing viewshed surrounding the project site consists of 2-lane local roadways and associated signage and traffic signals; commercial development including restaurants, shops, and businesses; and residential development with associated landscaping. Overhead electrical lines and wood power poles, along with high mast overhead lighting, are visible throughout the viewshed. Village Park is surrounded primarily by residential development with associated 2-lane local roadways, and overhead power lines and power poles. The project site is within the designated Fair Oaks Boulevard Commercial Corridor. The west side of the project site is surrounded by commercial development associated with a historic area of Fair Oaks Boulevard, as shown in Exhibit 3.1-1. This area around Plaza Park, particularly along the west side adjacent to Fair Oaks Boulevard, includes small businesses, shops, and restaurants in one-story buildings with on-street parking. A variety of architectural styles and colors are present within the surrounding commercial and residential development.

3.1.2 DISCUSSION

a) Have a substantial adverse effect on a scenic vista?

No Impact. There are no scenic vistas at the project site or in the project vicinity, which consists of two existing parks, a Clubhouse, and an Amphitheater surrounding by mixed-use urban development. Thus, there would be no impact.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no state- or locally-designated scenic highways in the project vicinity. Garden Highway, the closest locally-designated scenic highway, is approximately 15 miles to the southwest (Sacramento County 2017). State Route 160, the closest state-designated scenic highway, is approximately 18 miles to the southwest (California Department of Transportation 2017). Thus, there would be no impact.

- c) **In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Less-than-Significant (Beneficial) Impact. The *Plaza Park, Village Park, and Community Clubhouse Master Plan* (Master Plan) (Callander Associates Landscape Architecture, Inc. 2012) provides guidance for updating and unifying the overall park complex as a whole, and is consistent with the principles outlined in the District's *2010–2020 Master Plan for Parks, Facilities, and Recreation Services* (Pros Consulting 2010), the adopted renovation design for the Fair Oaks Veterans Memorial Amphitheater, and the Fair Oaks Village Enhancement Committee plan for Fair Oaks Village. As part of the Master Plan process, three public workshops were held and community input from these workshops was incorporated into the project design. The Master Plan includes designs that would increase the cohesion of the various existing facilities, implement the community's vision, and add historic flavor that would complement and contribute to the eclectic flavor already celebrated in the Fair Oaks community. The existing facilities, most of the grassy areas, and the shade trees would all be retained (aging shade trees would be replaced with new trees). The designs contained in the Master Plan would enhance the park complex by:

- ▶ expanding the existing Amphitheater;
- ▶ providing a continuous accessible path system linking Plaza Park, Village Park, the Clubhouse, and the Amphitheater with each other and to the historic Fair Oaks Village and the rest of the community;
- ▶ reconfiguring the parking around the Clubhouse to provide less conflict with the pedestrian and vehicular circulation patterns;
- ▶ adding and expanding the parking areas around the rest of the park to provide an even dispersal of parking;
- ▶ adding attractive monument signage, informational kiosks, educational signs, and gateways that reflect the style and character of the existing architecture and other site features to bring cohesion and better organization within the park complex; and
- ▶ adding lighting, landscaping, and other site amenities to improve public safety and enhance the aesthetics of the park complex.

The project site is located in an urbanized area of Fair Oaks and is surrounded by mixed-use commercial and residential development. The project site is zoned O - Recreation (Sacramento County 2019) and is designated as Low Density Residential in a mixed-use corridor under the Sacramento County General Plan (Sacramento County 2017a). The recreational zoning (O) includes public park facilities and is intended to preserve the open space and other areas of unusual scenic beauty and recreational potential that are unique to Sacramento County and California and to protect the County's physical, social, recreational, aesthetic, and economic resources (Sacramento County 2015).

As part of the Community/Neighborhood Preservation and Enhancement goal in the Sacramento County General Plan (Sacramento County 2017a), the County includes an objective to preserve and enhance the quality and character of the County's unique communities. The unincorporated area of the County, including the project site,

is a mosaic of unique communities, each possessing a distinct character and a different set of needs. The County intends that the quality of life offered in these communities should be preserved and/or enhanced to ensure that each community is a safe and attractive place to live, work, and play. Quality of life can be affected by a number of factors, including high quality and diverse housing, a wide variety of recreational opportunities, excellent schools, and interesting shopping destinations. The proposed project would help achieve the objective to preserve and enhance the unique character of this area of Fair Oaks and would enhance the visual character of the existing project site.

The project site is located within the East Fair Oaks Boulevard District of the *Fair Oaks Boulevard Corridor Plan* (Corridor Plan) (Sacramento County 2011). The Corridor Plan contains a variety of goals and policies specific to each district, which are intended to guide the design of future projects. These goals and policies as related to visual resources focus on integrating aesthetically pleasing landscaping, lighting, parking, pedestrian and bicycle paths, streetscapes, and urban development in a manner that preserves and enhances the community character. The proposed project would be consistent with the Corridor Plan goals and policies for the East Fair Oaks Boulevard District.

The proposed project supports the County's land use objective of implementing urban design that is functional, aesthetically pleasing, and distinctive. The proposed project also contributes to the County's goals of implementing green infrastructure for Smart Growth Streets, and meets the County's objectives to create and/or improve community identity within the designated Fair Oaks Boulevard commercial corridor (Sacramento County 2017a) by:

- ▶ coordinating improvements to the streetscape and the surrounding corridor to achieve a consistent look and feel or carry through a specific "theme;"
- ▶ creating an "outdoor room" along the street to establish a sense of place and improve the comfort and overall experience of all users, particularly pedestrians and bicyclists; and
- ▶ creating communities and corridors using a holistic perspective when considering land uses and the design context of street and corridor improvements.

The project site is designated as RD-5 under the *Fair Oaks Community Plan* (Community Plan) (Sacramento County 1975). This designation provides for residential development with a maximum density of 5 dwelling units per acre. Plaza Park, Village Park, and the Clubhouse are identified as an existing neighborhood park within the RD-5 residential area in the Community Plan. The proposed project would be consistent with Community Plan goals related to parks, which are focused on preserving existing parks and acquiring land for additional parks.

The *Sacramento County Countywide Design Guidelines* (Sacramento County 2017b) contain several guidelines that are specific to parks, and it also contains general guidelines that would apply to a variety of projects. These policies and guidelines are related to topics such as new development that complements the aesthetic style and character of nearby existing development, land use connectivity including walkable communities, high-quality architectural design, incorporation of natural features such as trees and rock outcroppings into site-specific design, the use of anti-reflective exterior coatings, and the need for shielding of nighttime lighting to reduce light pollution. The proposed project would be evaluated through the County's design review program to ensure that the proposed design is compatible within the context of the project's surroundings and that the project would be a

positive addition to the community, both functionally and aesthetically. Design review is a discretionary process and can be used to require additional improvements above minimum Zoning Code standards, in order to achieve better quality design and create communities with unique character or maintain and add to the character of existing communities. The County's design review program helps to protect and enhance the quality of communities in unincorporated areas such as Fair Oaks.

As part of the proposed Amphitheater expansion, the existing concrete block wall at the south side of the complex, which contains a mural painted by local artist Hugh Gorman, could be removed. The mural depicts scenes of Fair Oaks with stylized motifs. A portion of the mural is visible from the southern end of Plaza Park, and the entirety of the mural is visible to pedestrians and vehicular traffic on Sierra Street. As discussed in detail in Section 3.4, "Cultural Resources," the existing amphitheater complex, including the mural, was evaluated by an architectural historian and determined not to meet the eligibility criteria for potential listing in the CRHR because the property lacks historical and architectural significance and lacks integrity to any potential period of significance. The Amphitheater also does not meet the significance criteria as a historical resource for the purposes of CEQA. During the series of community workshops held by the District during the project's design phase, the District discussed the removal of the wall that contains the mural as a necessary part of the Amphitheater expansion. Although not yet confirmed, removal of the mural would not conflict with any applicable zoning or other regulations governing scenic quality.

The proposed project designs contained in the Master Plan would visually improve the existing park complex by retaining the existing historic character and improving the landscaping, lighting, signage, and pathways in a manner that is consistent with District and County standards. The proposed project would complement and enhance the surrounding viewshed by providing improved green grass areas and signage, replacing aging shade trees with new trees, adding a garden, adding new landscaped areas including planters between parking stalls and grassy areas, adding a network of connected pathways throughout the park complex, and adding an attractive outdoor café seating area in Plaza Park. In addition, parking around the Clubhouse would be reconfigured and a new, larger visually attractive landscaped area with shrubs and trees would be added on the south side. The proposed project would improve the visual character and quality of the viewshed both on site and for the surrounding area as a whole and would be consistent with District and Sacramento County standards governing scenic quality. This impact would be less than significant (beneficial).

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-Significant Impact. As discussed above, the project site is located in an urbanized area of Fair Oaks. A high degree of nighttime lighting associated with commercial and residential development is already present surrounding the project site on all sides, and in the project vicinity. The existing park, Amphitheater, and Clubhouse building contain a limited amount of nighttime lighting for security around buildings, along with high mast lighting at various locations around the park for security and for evening park events.

The proposed project would introduce additional new sources of nighttime lighting for public safety and security purposes associated with the buildings and facilities, access roads, parking lots, and entryways. The proposed project would also include installation of additional high mast lighting. New lighting for pathways and buildings would be of low intensity and would be shielded and directed downward. High mast light standards must be installed in compliance with Sacramento County Improvement Standards (Sacramento County 2018) and

therefore the lighting would be shielded, and the light would be directed downward to avoid spillover lighting and skyglow effects. Lighting will be LED and rated for Dark Sky compliance. Therefore, this impact is considered less than significant.

3.2 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.2.1 SETTING

The proposed project is located in unincorporated Sacramento County, which is within the Sacramento Valley Air Basin (SVAB). The SMAQMD regulates air quality within the SVAB.

Air quality is defined as the concentration of pollutants in relation to their impact on human health. Ambient concentrations of air pollutants are determined by the amount of emissions released by pollutant sources and the ability of the atmosphere to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and the presence of sunlight. Therefore, existing air quality conditions in the project area are influenced by factors such as topography, meteorology, and climate, as well as the quantity emissions released by air pollutant sources.

The SVAB climate is characterized by hot, dry summers and cool, rainy winters. Typically, winds transport air pollutants northward out of the SVAB; however, during approximately half of the time from July to September, the wind pattern shifts southward, blowing air pollutants back into the SVAB and exacerbating the concentration of air pollutant emissions in the air basin. In addition, between winter storms, high pressure and light winds contribute to low-level temperature inversions and stable atmospheric conditions, resulting in the concentration of air pollutants.

Individual air pollutants at certain concentrations may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation. Six air pollutants have been identified by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board

(ARB) as being of concern both on a nationwide and statewide level: ozone; carbon monoxide; nitrogen dioxide; sulfur dioxide; lead; and particulate matter (PM), which is subdivided into two classes based on particle size – PM equal to or less than 10 micrometers in diameter (PM₁₀) and PM equal to or less than 2.5 micrometers in diameter (PM_{2.5}).

Health-based air quality standards have been established for these pollutants by EPA at the national level and by ARB at the state level. These standards are referred to as the national ambient air quality standards (NAAQS) and the California ambient air quality standards (CAAQA), respectively. The NAAQS and CAAQS were established to protect the public with a margin of safety from adverse health impacts caused by exposure to air pollution. Both EPA and ARB designate areas of California as “attainment,” “nonattainment,” “maintenance,” or “unclassified” for the various pollutant standards according to the federal Clean Air Act (CAA) and the California Clean Air Act, respectively. Because the air quality standards for these air pollutants are regulated using human and environment health-based criteria, they are commonly referred to as “criteria air pollutants.” With respect to regional air quality, the SMAQMD region, including Sacramento County, is currently designated as nonattainment for the NAAQS and CAAQS for ozone, and nonattainment for the NAAQS for 24-hour PM_{2.5}, and the CAAQS for PM₁₀ (SMAQMD 2017a).

3.2.2 THRESHOLDS OF SIGNIFICANCE

As stated in Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management district may be relied on to support determinations of significance. The project site is located within unincorporated Sacramento County in an area regulated by the Sacramento Metropolitan Air Quality Management District (SMAQMD). Thus, pursuant to the SMAQMD-recommended thresholds (SMAQMD 2015) for evaluating project-related air quality impacts, the project’s impacts would be considered significant if the project would:

- ▶ generate construction-related criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended daily thresholds of 85 pounds per day (lbs./day) for nitrogen oxides (NO_x), 80 lbs./day or 14.6 tons per year (tons/yr) of respirable particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀), 82 lbs./day or 15 tons/yr of respirable particulate matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}), or result in or substantially contribute (at a level equal to or greater than 5 percent of a California Ambient Air Quality Standards [CAAQS]) to a violation of a CAAQS;
- ▶ generate long-term regional criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended daily thresholds of 65 lbs./day of volatile organic compounds (VOC) or NO_x, 80 lbs./day 14.6 tons/yr of PM_{2.5} or PM₁₀, 82 lbs./day 15 tons/yr of PM_{2.5}, or result in a violation of the CAAQS or result in or substantially contribute (at a level equal to or greater than 5 percent of a CAAQS) to a violation of a CAAQS;
- ▶ contribute to localized concentrations of air pollutants at nearby receptors that would exceed applicable ambient air quality standards; or
- ▶ expose sensitive receptors to excessive nuisance odors, as defined under SMAQMD Rule 402.

3.2.3 DISCUSSION

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant with Mitigation Incorporated. Air quality plans describe air pollution control strategies to be implemented by a city, county, or region. The primary purpose of an air quality plan is to bring an area that does not attain federal or state air quality standards into compliance, as well as to ensure an area that is in attainment is able to maintain compliance, with the requirements of the CAA and California Clean Air Act requirements. The SMAQMD prepares plans to attain and maintain compliance with state and national ambient air quality standards.

Current plans include:

- ▶ 2013 *Sacramento Regional 8-Hour Ozone Attainment and Further Reasonable Progress Plan*
- ▶ 2013 *PM_{2.5} Implementation /Maintenance Plan and Redesignation Request for Sacramento PM_{2.5} Nonattainment Area*
- ▶ 2010 *PM₁₀ Implementation /Maintenance Plan and Redesignation Request for Sacramento County*
- ▶ 1991 *Air Quality Attainment Plan*, to address CAAQS for ozone, carbon monoxide, and PM₁₀
- ▶ 2015 *Triennial Report and Progress Plan*, to assess progress toward attaining CAAQS
- ▶ 2017 *Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan* (updated via the ARB 2018 Updates to the California State Implementation Plan)

The Sacramento ozone planning region (inclusive of all of Sacramento and Yolo counties and portions of Placer, El Dorado, Solano, and Sutter counties), is classified as a severe nonattainment area for the 1997 8-hour NAAQS. In 2013, the SMAQMD, along with other air districts in the region, prepared the *Sacramento Regional 8-Hour Ozone Attainment and Further Reasonable Progress Plan*. This plan was approved by EPA effective March 2, 2015 (80 FR 4795).

The Sacramento particulate matter planning region (inclusive of all of Sacramento County, the eastern portion of Yolo County, the western portion of El Dorado and Placer counties, and the northeast portion of Solano County) was classified as nonattainment in 2009 for the 2006 24-hour PM_{2.5} NAAQS. The region attained the standard based on monitoring data from 2009 to 2011 and prepared the *PM_{2.5} Implementation /Maintenance Plan and Redesignation Request for Sacramento PM_{2.5} Nonattainment Area*. However, due to exceedances in 2012, the region delayed submittal of the plan. On May 10, 2017, EPA determined the region to be in attainment with the 24-hour PM_{2.5} NAAQS by the attainment date of December 31, 2015. The PM_{2.5} plan will be updated and submitted in the future based on the clean data finding made by the EPA.

The Sacramento region was classified as attainment for the 1997 PM₁₀ 24-hour NAAQS. The *PM₁₀ Implementation /Maintenance Plan and Redesignation Request for Sacramento County* (2010) was approved by EPA and is applicable for maintenance from 2012 through 2022.

In accordance with the CCAA, the SMAQMD prepared and submitted the 1991 Air Quality Attainment Plan (AQAP) to address Sacramento County's nonattainment status for the state standards for ozone, carbon monoxide and PM₁₀. Once every three years, the SMAQMD prepares a triennial assessment report to assess progress toward attaining CAAQS. The 2015 Triennial Report and Plan Revision is the most recent assessment of air quality improvement and emission reductions achieved from control measures.

The SMAQMD *Guide to Air Quality Assessment in Sacramento County* (Guide) is intended to provide a tool to identify proposed development projects that may have a significant adverse effect on air quality. According to the Guide, projects whose emissions are expected to meet or exceed the recommended significance criteria will have a potentially significant adverse impact on air quality, therefore potentially conflict with or obstruct implementation of the SMAQMD air quality plans. Project emissions that do not meet or exceed these thresholds would not impact SMAQMD's ability to reach attainment (SMAQMD 2016).

As discussed in detail below in item b), modeled project construction and operational emissions would not exceed the SMAQMD thresholds of significance. However, although construction emissions would not exceed SMAQMD thresholds, due to the nonattainment status of the SVAB with respect to ozone, PM₁₀, and PM_{2.5}, SMAQMD recommends that all construction projects implement the SMAQMD Basic Construction Emission Control Practices (SMAQMD 2017b). SMAQMD's Basic Construction Emission Control Practices include such measures 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. Without incorporation of SMAQMD's Basic Construction Control Practices, the project construction activities could potentially conflict with or obstruct implementation of the SMAQMD's air quality plans for PM and the impact is considered to be **potentially significant**.

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

Comply with Basic Construction Emission Control Practices identified by the SMAQMD and listed below or as they may be updated in the future:

- 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 two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid 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) 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 must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Significance after Mitigation

With implementation of Mitigation Measure AIR-1, the proposed project would not conflict with or obstruct an applicable air quality plan. This impact would be **less than significant**.

b) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

Less than Significant with Mitigation Incorporated. The nonattainment status of regional pollutants is a result of past and present development within the SVAB, and this regional impact is cumulative in nature rather than being attributable to any one source. A single project's emissions may be individually limited, but could be cumulatively considerable when considered in combination with past, present, and future emissions sources within the air basin. The SMAQMD has established project-level construction and operational emissions thresholds of significance for VOC, NO_x, PM₁₀, and PM_{2.5}. If a project's emissions are below the SMAQMD thresholds of significance, the project is not considered to result in a cumulatively considerable contribution to a significant impact on regional air quality (SMAQMD 2016).

Construction

Construction emissions are described as "short-term" or temporary in duration but have the potential to adversely affect air quality. Construction would result in temporary emissions of VOC, NO_x, PM₁₀, and PM_{2.5}. These activities would include demolition, site preparation (e.g., excavation, grading, and clearing); exhaust emissions from use of off-road equipment, material delivery, and construction worker commutes; asphalt paving; and application of architectural coatings. Ozone precursor emissions of VOC and NO_x are associated primarily with construction equipment exhaust and the application of architectural coatings. PM emissions are associated primarily with fugitive dust generated during site preparation and grading and vary depending on the soil silt content, soil moisture, wind speed, acreage of disturbance, vehicle travel to and from the construction site, and other factors. PM emissions are also generated by equipment exhaust and re-entrained road dust from vehicle travel on paved and unpaved surfaces.

Construction emissions were modeled using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Table 3.2-1 summarizes the maximum emissions of VOC, NO_x, PM₁₀, and PM_{2.5} associated with each phase of each construction. Refer to Appendix A for model output files and assumptions. As shown in Table 3.2-1, the modeled emissions generated by construction would not exceed the SMAQMD-recommended thresholds of significance.

Table 3.2-1 Summary of Modeled Maximum Construction-Related Emissions of Criteria Air Pollutants and Precursors

Construction Phase	Maximum Daily Emissions (pounds per day)				Maximum Annual Emissions (tons per year)	
	VOC	NO _x	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
Demolition	3.4	34.3	1.8	1.6	0.03	0.03
Site Preparation and Grading	2.5	26.4	7.7	4.5	.06	.04
Construction	2.6	23.1	2.0	1.3	0.23	0.15
Paving	1.1	9.6	0.6	0.5	0.01	0.01
Architectural Coating	6.7	1.4	0.2	0.2	0.00	0.00
Maximum daily emissions / Total annual emissions¹	6.7	34.3	7.7	4.6	0.35	0.23
SMAQMD significance threshold	-	85	80	82	14.6	15
Exceeds Threshold?	No	No	No	No	No	No
Notes: VOC = volatile organic compounds; NO _x = oxides of nitrogen; PM ₁₀ = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM _{2.5} = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.						
¹ Totals do not all add correctly as a result of rounding.						
Source: AECOM 2019; See Appendix A for detailed modeling assumptions, outputs, and results.						

As discussed above under item a), although construction emissions would not exceed SMAQMD thresholds, SMAQMD recommends that all construction projects implement SMAQMD's Basic Construction Emission Control Practices (SMAQMD 2017b). Without incorporation of SMAQMD's Basic Construction Control Practices, the impact is conservatively considered to be **potentially significant**.

Mitigation Measure AIR-2: Implement Mitigation Measure AIR-1 (Implement the SMAQMD Basic Construction Emission Control Practices).

Significance after Mitigation

Construction emissions are below the SMAQMD emission thresholds. Implementation of Mitigation Measure AIR-2 would further reduce PM emission and satisfy the recommendations of SMAQMD. Thus, this impact would be **less than significant**.

Operations

Daily activities associated with current use and operations of the park complex generate criteria air pollutant emissions and precursors from mobile, energy, and area sources. Mobile sources include vehicle trips arriving at and departing from the park complex. Energy use emissions are associated with building electricity and natural gas usage. Area sources include consumer products (i.e., cleaning supplies, kitchen aerosols, toiletries), natural gas combustion for water and space heating, landscape maintenance equipment, and periodic architectural coatings. While construction emissions are considered short-term and temporary, operational emissions are considered long-term and occur for the lifetime of the project. As described in Section 2.3, *Project Objectives*, the proposed project improvements are intended to increase cohesion of the various facilities. These improvements

could increase overall use of the park complex, and therefore, increase long-term emissions associated with operations.

Long-term operational emissions were modeled using CalEEMod Version 2016.3.2 (see Appendix A for modeling assumptions and output files). As shown in Table 3.2-2, total operational emissions would not exceed any SMAQMD threshold. This comparison to the SMAQMD thresholds shows that operations would not contribute substantially to any existing or projected air quality violation and would not conflict with efforts to reach attainment of any air quality standards. Therefore, the park complex's long-term operational impact would be **less than significant**.

Table 3.2-2 Summary of Modeled Maximum Daily Long-Term Operational Emissions of Criteria Air Pollutants and Precursors¹

Emissions Source	Daily Emissions (lbs./day)			
	VOC	NO _x	PM ₁₀	PM _{2.5}
Area	0.61	0.00	0.00	0.00
Energy	0.03	0.29	0.02	0.02
Mobile	0.94	3.99	2.25	0.62
Total Operational Emissions²	1.58	4.28	2.27	0.64
SMAQMD Thresholds of Significance	65	65	80	82
Exceeds Thresholds?	No	No	No	No
Notes: lbs./day = pounds per day; ROG = reactive organic gases; NO _x = oxides of nitrogen; PM ₁₀ = respirable particulate matter; PM _{2.5} = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.				
¹ Operational emissions were modeled for year 2022.				
² Totals do not add due to rounding.				
Source: AECOM 2019; See Appendix A for detailed modeling assumptions, outputs, and results.				

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant. 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, those with existing health conditions, and athletes or others who engage in frequent exercise are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered sensitive receptors include schools, daycare centers, parks and playgrounds, and medical facilities.

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent as the majority of the workers tend to stay indoors most of the time.

Sensitive receptors nearest to the project are users of the park itself, as well as residences to the east and north of the park complex.

Construction-Related Toxic Air Contaminant Emissions

Construction would generate diesel particulate matter emissions from the use of off-road diesel-powered equipment required for site grading and excavation, paving, and other construction activities. These activities may expose nearby receptors to toxic air contaminants (TACs), including residents in adjacent areas; there are residential areas across the street from the north and east boundaries of the project site, approximately 50 feet (15 meters) from the project site. For this analysis, particulate matter exhaust from diesel-fueled engines (DPM) is considered to be less than or equal to 10 micrometers in diameter. Therefore, PM₁₀ represents the upper limit for DPM emissions associated with construction of the proposed project.

Health risk is a function of the concentration of contaminants in the environment and the duration of exposure to those contaminants. Concentrations of mobile-source DPM emissions are typically reduced by approximately 60 percent at a distance of around 300 feet (100 meters) (Zhu and Hinds 2002). While there are residences across the street from the project site, construction activities would be dispersed throughout the entire 4.5-acre project site, so the majority of construction activities would take place farther than 300 feet from the nearest residences. In addition, as described in item b), PM₁₀ emissions during construction would not exceed the SMAQMD's threshold of significance of 80 lbs./day (Table 3.2-1); the maximum daily on-site exhaust PM₁₀ emissions are estimated to be less than 1.3 lb./day, which would occur only during the grading phase of construction. The risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. Health effects from TACs are often described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to TACs (OEHHA 2015). Construction activities for the proposed project would last approximately 22 months, would vary in activity and equipment intensity over that time, and would take place throughout the entirety of the project site, thereby limiting the amount of time that emitting equipment would be within a distance that would expose sensitive receptors to substantial concentrations. As described in item b), diesel exhaust emissions of NO_x during construction would not exceed SMAQMD's threshold of significance of 85 lbs./day (Table 3.2-1). In addition, the project would implement AIR-1, which would help reduce construction-related TAC emissions. If the duration of construction activities near a sensitive receptor was for the entirety of one year, which is not anticipated, then the exposure would be 3.3 percent of the total exposure period used for typical health risk calculations (i.e., 30 years). Due to the intermittent and temporary nature of construction activities, and the dispersive properties of TACs, as well as the fact that PM emissions would be far less than the SMAQMD emission threshold, short-term construction would not expose sensitive receptors to DPM emission levels that would result in a health hazard. As a result, this impact would be **less than significant**. However, due to the ongoing on-site use of the park facilities during intermittent construction activities, an exclusionary buffer of 50 feet would be implemented around construction activities to ensure park users are not within 50 feet of any construction equipment-related emission sources and to minimize potential exposure to DPM.

Mitigation Measure AIR-3: Provide a 50-foot exclusionary buffer to separate park users from in-use construction equipment.

The construction contractor shall use fencing or other barriers and signage to ensure that on-site park users are not within 50 feet of operational construction equipment.

Carbon Monoxide Hotspots

Carbon monoxide (CO) concentration is a direct function of vehicle idling time and, thus, traffic flow conditions. Under stagnant meteorological conditions, CO concentrations near congested roadways and/or intersections may reach unhealthy levels that adversely affect nearby sensitive land uses.

Local mobile-source CO concentrations were assessed using a screening-level procedure provided by SMAQMD (SMAQMD 2016). SMAQMD recommends a two-tiered screening approach to determine whether traffic would cause a potential CO hotspot at affected intersections. The first-tier states that the project's CO impact would be less than significant if:

- ▶ Traffic generated by the proposed project would not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- ▶ The project would not contribute additional traffic to an intersection that already operates at LOS of E or F.

The project will not increase the capacity of the park complex, and therefore would not attract additional trips that could change LOS at any intersections or along any roadway segments. However, the LOS along Sunrise Boulevard is F and intersections along Sunrise Boulevard may also have unacceptable LOS due to congested peak-period conditions. It is assumed for the purpose of this analysis that the project could contribute trips to intersections with LOS of 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.

There are no intersections with more than 31,600 vehicles in a single hour in the vicinity of the project site. Sunrise Boulevard is the highest volume roadway in the vicinity and daily volumes under long-term cumulative conditions are less than 50,000 trips per day. Peak-hour volumes typically represent approximately 10 percent of the daily totals. This is true for intersections in the vicinity of the project site. For example, the long-term, cumulative daily volume for Greenback Lane at Sunrise Boulevard is estimated to be between 49,560 and 49,630, an average of 49,595.¹ The long-term, cumulative daily volume for Sunrise Boulevard at Greenback Lane is estimated to be 38,750. Adding these cumulative daily volumes together to estimate the total volume at this intersection yields a total of 88,345. The morning peak-hour volume at this intersection for long-term, cumulative conditions is estimated to be 5,858, which is 7 percent of the total and the afternoon peak-hour volume is estimated to be 8 percent of the total. If there were two roadways with daily volumes of 50,000 vehicles, and the peak-hour volume at the intersection was between 7 and 10 percent, this would be between 7,000 and 10,000 vehicles per hour, which does not approach the 31,600 screening level set by SMAQMD. Using SMAQMD guidance, the proposed project would meet all of the SMAQMD's CO hotspot second tier screening criteria. Therefore, the impact would be **less than significant**.

¹ City of Citrus Heights 2018 (March 15th). Mitchell Farms EIR Final Transportation Impact Study. Prepared by Fehr & Peers.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

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. Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from the psychological (i.e., irritation, anger, or anxiety) to the physiological, including circulatory and respiratory effects, nausea, vomiting, and headache. The ability to detect odors varies considerably among the population and overall is quite subjective.

Odor Emissions Related to Short-Term Construction

The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines and emissions associated with asphalt paving and the application of architectural coatings may be considered offensive to some individuals. However, the fact that odors would be temporary and disperse rapidly with distance from the source, construction-generated odors would not result in the frequent exposure of receptors to objectionable odor emissions. Furthermore, construction contractors are required to comply with SMAQMD Rules 402 (Nuisance) and 442 (Architectural Coatings), which would ensure that odors generated by short-term construction would not affect a substantial number of people. Therefore, this impact would be **less than significant**.

Odor Emissions Related to Long-Term Operations

Parks are not typically considered to be sources of objectionable odors. Industries and/or facilities that are likely to emit objectionable odors include wastewater treatment plants, landfills, composting facilities, petroleum refineries, and manufacturing plants. The proposed project would not include any of these types of facilities. Other minor sources of odor that could be generated during operations of the park facilities include landscaping equipment and a small café at the Plaza Park. These activities are only minor odor sources and would take place intermittently. As a result, this impact would be **less than significant**.

3.3 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Significant Impact	Less Than Significant	Less Than Significant with Mitigation Incorporated	No Impact
IV. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.1 SETTING

This section describes the biological resources that occur in the vicinity of the project site. It includes a description of the existing biotic environment, including common plants and wildlife, sensitive habitats, special-status species and their locations in relation to the proposed project. The following section (Section 3.3.2) presents an analysis of potential impacts to biological resources and, where necessary, specifies mitigation measures to reduce potential impacts to less-than-significant levels. Information used in preparing this section was derived from records searches conducted in the California Natural Diversity Database (CNDDB 2019) and the California Native Plant Society's Inventory of Rare and Endangered Plants (CNPS 2019) for the Citrus Heights, Folsom, Carmichael, and Buffalo Creek quadrangles; critical habitat maps (USFWS 2019); and a site visit conducted on August 2, 2019.

LISTED AND/OR SPECIAL-STATUS PLANT SPECIES

Special-status plant species include non-listed species listed as rare by the California Department of Fish and Wildlife and the California Native Plant Society (CNDDDB 2019; CNPS 2019). Seven non-federally listed special-status plant species are recorded as occurring within the vicinity of the project site: Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*; CRPR: 1B.2), Brandegees' clarkia (*Clarkia biloba* ssp. *brandegeae*; CRPR: 4.2), Sanford's arrowhead (*Sagittaria sanfordii*; CRPR: 1B.2), dwarf downingia (*Downingia pusilla*; CRPR: 2B.2), legene (*Legenere limosa*; CRPR: 1B.1), pincushion navarretia (*Navarretia myersii*; CRPR: 1B.1), and stinkbells (*Fritillaria agrestis*; CRPR: 4.2).²

Three listed species were documented in the vicinity of the project site: Boggs Lake hedge-hyssop (*Gratiola heterosepala*; State-listed as endangered; CRPR: 1B.2), Sacramento Orcutt grass (*Orcuttia viscida*; State and federally-listed as endangered; CRPR: 1B.1), and slender orcutt grass (*Orcuttia tenuis*; State-listed as endangered, federally-listed as threatened, and CRPR: 1B.1).

LISTED AND/OR SPECIAL-STATUS WILDLIFE SPECIES

A total of 20 non-listed special-status wildlife species have been documented in the vicinity of the project site (CNDDDB 2019). These are: midvalley fairy shrimp (*Branchinecta mesovallensis*), California linderiella (*Linderiella occidentalis*), hairy water flea (*Dumontia oregonensis*), an andrenid bee (*Andrena subapasta*), Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*), western spadefoot (*Spea hammondi*), western pond turtle (*Emys marmorata*), Cooper's hawk (*Accipiter cooperii*), burrowing owl (*Athene cunicularia*), double-crested cormorant (*Phalacrocorax auritus*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), merlin (*Falco columbarius*), tricolored blackbird (*Agelaius tricolor*), white-tailed kite (*Elanus leucurus*), pallid bat (*Antrozous pallidus*), silver-haired bat (*Lasionycteris noctivagans*), and American badger (*Taxidea taxus*).

Six listed species were documented in the vicinity of the project site: vernal pool fairy shrimp (*Branchinecta lynchi*; federally-listed as threatened), vernal pool tadpole shrimp (*Lepidurus packardii*; federally-listed as endangered), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*; federally-listed as threatened), and steelhead – Central Valley DPS (*Oncorhynchus mykiss irideus* pop. 11; federally-listed as threatened), Swainson's hawk (*Buteo swainsoni*; State-listed as threatened), and bank swallow (*Riparia*; State-listed as threatened).

CRITICAL HABITAT FOR FEDERALLY LISTED SPECIES

The project site is not within any USFWS-designated critical habitat for any federally-listed plant or wildlife species. The closest critical habitat occurrence is steelhead, approximately 0.4 miles to the south of the project site within the American River (USFWS 2019a).

² CNPS 1B.1: Rare or endangered in California and elsewhere; seriously (over 80% of occurrences) threatened in California; CNPS 1B.2: Rare or endangered in California and elsewhere; moderately (20-80% of occurrences) threatened in California; CNPS 2B.2: Rare, threatened or endangered in California but more common elsewhere; moderately (20-80% of occurrences) threatened in California; CNPS 4.2: Limited in California; moderately (20-80% of occurrences) threatened in California

LOCAL PLANS AND POLICIES

The Sacramento County ordinance contains guidelines for construction around and landscaping below native oaks. The ordinance states that other trees species may also be protected at the discretion of County officials. The following language is from the Sacramento County Code:

Title 19 (Trees), Chapter 19.12 (Tree Preservation and Protection) (Sacramento County 2019a):

19.12.060 Tree Permit.

No person shall trench, grade or fill within the dripline of any tree or destroy, kill or remove any tree as defined, in the designated urban area of the unincorporated area of Sacramento County, on any property, public or private, without a tree permit, or unless authorized as a condition of a discretionary project approval by the Board of Supervisors, County Planning Commission, Zoning Board of Appeals, the Zoning Administrator or the Subdivision Review Committee.

19.12.040 Definitions.

Native Oak Tree: Shall include any of the following: valley oak, interior live oak, blue oak, or oracle oak.

Tree: As used in this chapter, a “tree” shall mean any living native oak tree having at least one trunk of six inches or more in diameter measured four and one-half feet above the ground, or a multi-trunked native oak tree having an aggregate diameter of ten inches or more, measured four and one-half feet above the ground.

19.12.070 Jurisdiction.

- a. Private Land Not in Conjunction with Other Discretionary Development. The preservation or removal of trees within privately owned land and not in conjunction with a previously approved discretionary development project shall be the responsibility of the Director of Public Works.
- b. Discretionary Project. The preservation or removal of trees as a condition of approval of a discretionary project shall be the sole and continuing responsibility of the approving body which granted approval of the project.
- c. Parks. The preservation or removal of trees within parks, parkways, and public recreation easements, shall be the responsibility of the Director of Parks and Recreation.
- d. Other Public Land. Preservation or removal of trees within other County owned lands or public easements, shall be the responsibility of the Director of Public Works.

19.12.130 Development Control Measures.

The approving body may mandate any or all of the following control measures to mitigate damage to oak trees caused by land development:

- a. No grade cuts greater than one foot shall occur within the driplines of oak trees, and no grade cuts whatsoever shall occur within five feet of their trunks;
- b. No fill greater than one foot shall be placed within the driplines of oak trees and no fill whatsoever shall be placed within five feet of their trunks;
- c. No trenching whatsoever shall be allowed within the driplines of oak trees. If it is absolutely necessary to install underground utilities within the driplines of an oak tree, the trench shall be either bored or drilled;
- d. No irrigation system shall be installed within the driplines of oak tree(s) which may be detrimental to the preservation of the oak tree(s) unless specifically authorized by the approving body or the Director of Public Works.
- e. Landscaping beneath oak trees may include non-plant materials such as boulders, cobbles, wood chips, etc. The only plant species which shall be planted within the driplines of oak trees are those which are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants. Permitted plants include:
 1. *Iris douglasiana* hybrids (native iris)
 2. *Heuchera* species (coral bells)
 3. *Aloe* species
 4. *Dudleya* species
 5. *Sisyrinchium bellum* (blue-eyed grass)
 6. *Hemerocallis* hybrids (day lily)
 7. *Cyclamen neapolitanum*
 8. *Mimulus aurantiacus* and hybrids (monkey flowers)
 9. *Artemisia* species
 10. *Achillea tomentosa* (woolly yarrow)
 11. *Symphoricarpos mollis* (prostrate snowberry)
 12. *Mahonia repens* (creeping Mahonia)
 13. *Mahonia nervosa* (long leaf Mahonia)
 14. *Mahonia aquifolium* compacts (compact Oregon grape)
 15. *Arctostaphylos edmundsii* "Carmel Sur" (Sur manzanita)
 16. *Arctostaphylos hookeri* "Monterey Carpet"
 17. *Sollya heterophylla* (Australian bluebell creeper)
 18. *Ribes viburnifolium* (Catalina fragrance)
 19. *Daphne odora* (winter daphne)
 20. *Arctostaphylos hookeri* "Wayside"

21. *Arctostaphylos densiflora* “Howard McMinn”
 22. *Symphoricarpos rivularis* (snowberry)
 23. *Rhamnus californica* “Eve Case” (California coffeeberry)
 24. *Heteromoles arbutifolia* (toyon)
 25. *Choisya ternata* (Mexican orange or mock orange)
- f. Paving within the driplines of oak trees should be stringently minimized. When it is absolutely necessary, porous material should be used.

19.12.150 Other Species of Trees.

The approving body shall have the authority to adopt mitigation measures as conditions of approval for discretionary projects in order to protect other species of trees, in addition to the oaks. Violations of such adopted conditions shall be subject to the penalties.

19.12.160 Grading Beneath Tree Driplines.

Grading beneath trees to be saved shall be given special attention. Every reasonable effort shall be made to avoid creating conditions adverse to the tree’s health. The natural ground within the driplines of protected trees shall remain as undisturbed as possible. Grading within the driplines of oak trees will not be permitted unless specifically authorized by the approving body or by the Director of Public Works.

- a. Major roots two inches or greater in diameter encountered within the tree’s dripline in the course of excavation from beneath trees which are not to be removed shall not be cut and shall be kept moist and covered with earth as soon as possible. Roots one inch to two inches in diameter which are severed shall be trimmed and treated with pruning compound and covered with earth as soon as possible.
- b. Support roots that are inside the dripline of the tree shall be protected. The permittee is required to hand-dig in the vicinity of major trees to prevent root cutting and mangling which may be caused by heavy equipment.
- c. Cross sections may be required where trees are located adjacent to roadways, new slopes or critical areas. In addition, a dimension from the face of a tree to some critical point or line may be required.
- d. Any condition imposed by a Planning Commission, the Zoning Administrator, the Board of Zoning Appeals, the Subdivision Review Committee, or the Board of Supervisors relating to grading in the vicinity of trees, is incorporated into and made a part of the improvement standards. The consulting engineer for the project shall verify in writing on a form to be provided by the Director of Public Works that the grading has been completed as required by this section and any conditions imposed by a Planning Commission, the Zoning Administrator, the Board of Zoning Appeals, the Subdivision Review Committee, or the Board of Supervisors.

Sacramento County Zoning Code (Development Standards), Section 5.2.4 (Landscape Standards) (Sacramento County 2015):

In addition to the tree protection ordinances, Sacramento County has a zoning code that includes development standards for all land use zoning districts in unincorporated Sacramento County. The Sacramento County Zoning Code (Development Standards), Section 5.2.4 (Landscape Standards) contains the following guidance for all new developments, and/or the maintenance of existing landscaping for all land use zoning districts. Landscape standards are provided to: 1) ensure the use of native and/or drought tolerant landscaping which is appropriate to the climate in Sacramento County while providing shade and enhance the aesthetics of the surroundings; 2) promote sustainable landscaping practices; 3) ensure the healthy establishment and appropriate long-term care and maintenance of landscaping; 4) set provisions for the removal and replacement of unhealthy trees; and 5) protect the functions of trees for shading, carbon and particulate capture, water quality, energy conservation, and aesthetics while ensuring adequate clearance and visibility. Applicable requirements include (but are not limited to) the following:

General Requirements

- a. Unless otherwise indicated, the minimum container sizes for trees shall be 24-inch box for 35 percent of the trees, and the remainder shall be 15-gallon. The minimum container sizes for shrubs shall be five (5) gallon for 70 percent of the shrubs, and the remainder shall be one (1) gallon. The minimum container sizes for groundcovers shall be one (1) gallon. The required percentages may be considered for adjustment as part of the Design Review process.
- b. Unless otherwise indicated, tree plantings for all projects shall include 40 percent evergreen species. The required percentage may be considered for adjustment as part of the Design Review process.
- c. Varied tree and plant species shall be used throughout the site. No one species shall comprise more than 75 percent of trees, shrubs, or groundcovers proposed for the site.
- d. All landscape and streetscape improvements must meet the County's Improvement Standards, unless otherwise approved by an adopted streetscape plan, corridor plan, or other special area zoning code; and shall be consistent with the current edition of the County's Design Guidelines and the following standards.
- e. Use of irrigation may be waived in the event of mandatory water conservation measures by the water purveyor for the community in which the property is located. Trees and shrubs shall be watered in a manner to keep them alive.

Tree Preservation

Existing mature and native trees and shrubs shall be preserved and incorporated within the project site design to the extent feasible. Removal of protected trees shall be consistent with the County

General Plan, the County Tree Ordinance, Section 5.2.4.H of this Code, and applicable project-specific CEQA mitigation measures.

Design Review

Landscape Plans shall be required and reviewed as part of the Design Review process. For existing buildings and uses, additional landscaping may be required in order to meet the intent of these requirements.

Landscape Care and Maintenance

This Section addresses the appropriate long-term care and maintenance of all landscaping provided for commercial, multifamily, industrial, and institutional developments. It is also intended to set provisions for the removal and replacement of unhealthy trees and or hazardous conditions and provide adequate clearance and visibility of merchant signage, when the aesthetics of the tree and shading requirements will not be reduced.

1. Care and Maintenance

- All required landscaping and irrigation shall be maintained for the life span of the Project and in such a manner so as to not create hiding places or hinder visibility.

2. Tree Pruning

- Prior to pruning, trenching, or grading within the drip line of any required tree, a County Tree Pruning Permit shall be approved by the Planning Director or his or her designee, and the County Tree Coordinator. Tree Pruning shall be performed by a person certified by the International Society of Arboriculture (ISA) as a Certified Tree Worker or Certified Arborist or by the American Society of Consulting Arborists as a Registered Consulting Arborist. A Tree Pruning Permit is issued for one or more trees at a single site and is valid for one year, and can be amended or extended by the Tree Coordinator. Pruning native oaks is subject to Title 19 of the Sacramento County Code. This includes valley oak, interior live oak, blue oak, or oracle oak.

Sacramento County Website (Sacramento County 2019b)

The Sacramento County website also maintains the following guidance for constructing and landscaping around oaks: (1) Landscaping Under Native Oaks of the Central Valley, prepared by John Lichter and Ellen Zagory, University Arboretum, Davis, California, revised July 2003; (2) Compatible Plants Under and Around Oaks, prepared by Bruce Hagen, Barrie Coate, Keith Oldham, and published by the California Oak Foundation in 1991; and (3) Tree Protection Measures for Construction around Oaks. Tree protection measures include (but are not limited to) the following:

- All native oak trees that are 6 inches dbh or larger on the project site, all portions of adjacent off-site native oak trees that are 6 inches dbh or larger which have driplines that extend onto the project site, and all off-site

native oak trees that are 6 inches dbh or larger which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows:

1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of the tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of the tree. Removing limbs which make up the dripline does not change the protected area.
2. Temporary orange construction fencing or a similar protective barrier shall be installed one foot outside the driplines of the oak trees prior to initiating project construction, in order to avoid damage to the trees and their root system.
3. No signs, ropes, cables (except cables which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the oak trees.
4. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of the oak trees.
5. Any soil disturbance (scraping, grading, trenching, and excavation) is to be avoided within the driplines of the oak trees. Where this is necessary, an ISA Certified Arborist will provide specifications for this work, including methods for root pruning, backfill specifications and irrigation management guidelines.
6. All underground utilities and drain or irrigation lines shall be routed outside the driplines of oak trees. Trenching within protected tree driplines is not permitted. If utility or irrigation lines must encroach upon the dripline, they should be tunneled or bored under the tree under the supervision of an ISA Certified Arborist.
7. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of the oak trees.
8. No sprinkler or irrigation system shall be installed in such a manner that it sprays water within the driplines of the oak trees.
9. Tree pruning that may be required for clearance during construction must be performed by an ISA Certified Arborist or Tree Worker and in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines".
10. Landscaping beneath the oak trees may include non-plant materials such as boulders, decorative rock, wood chips, organic mulch, non-compacted decomposed granite, etc. Landscape materials shall be kept two (2) feet away from the base of the trunk. The only plant species which shall be planted within the driplines of the oak trees are those which are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants.

11. Any fence/wall that will encroach into the dripline protection area of any protected tree shall be constructed using grade beam wall panels and posts or piers set no closer than 10 feet on center. Posts or piers shall be spaced in such a manner as to maximize the separation between the tree trunks and the posts or piers in order to reduce impacts to the trees.
12. In the instance where temporary equipment or vehicle access over the dripline is necessary, install 4-inches of new mulch and cover the mulch with metal plates or ¾ inch plywood.

Master Plans and Community Plans

The project is consistent with the guidelines of the following documents and goals:

The Plaza Park, Village Park, and Community Clubhouse Master Plan for the Fair Oaks Recreation and Park District

Goals include preserving existing trees and, as existing trees start declining in health, new trees should be planted to retain the existing character of the space. The Concept Planting Plan includes a list of recommended trees. Planting choices should consider appropriate water use, low maintenance, and aesthetic quality. Planting design for Plaza Park should include plants that are non-toxic to chickens and other wildlife. Planters in the Village Park should be planted with species that utilize low water use and hardy plants (Callander Associates Landscape Architecture, Inc. 2012).

The Master Plan for Parks, Facilities, and Recreation Service

The mission of the District is to maximize all available resources to deliver well maintained parks and high-quality recreation facilities through effective partnerships with other service providers (Pros Consulting 2010).

The Fair Oaks Community Plan

Goals include providing ample open space areas throughout the community and to establish a well-balanced system of parks and location recreation open spaces. Goals also include retaining and promoting the Village downtown area as the economic and cultural center of the community (Sacramento County Planning Department 1975).

3.3.2 DISCUSSION

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

No Impact. The project site is in a developed area of Fair Oaks with landscaped open space consisting of lawns, ornamental shrubs, ornamental trees, and native oak trees (*Quercus* spp.) with an ornamental, non-native understory. The site visit conducted on August 2, 2019 confirmed that the vegetation within the project site is primarily non-native/ornamental; however, a few native trees are present. Plant species observed on-site included (but were not limited to) the following: (1) natives: blue oak (*Quercus douglasiana*), valley oak (*Quercus lobata*), black oak (*Quercus kelloggii*), coast live oak (*Quercus agrifolia*), and incense cedar (*Calocedrus decurrens*); and

(2) non-natives: elm (*Ulmus* sp.), Mexican fan palm (*Washingtonia robusta*), trident maple (*Acer buergerianum*), blue atlas cedar (*Cedrus atlantica*), deodar cedar (*Cedrus deodara*), American sweetgum (*Liquidambar styraciflua*), crape myrtle (*Lagerstroemia* sp.), heavenly bamboo (*Nandina domestica*), raphiolepis (*Raphiolepis* sp.), oleander (*Nerium oldeander*), lantana (*Lantana* sp.), agapantha (*Agapanthus* sp.), daylily (*Heemerocallis* sp.), boxwood (*Buxus* sp.), ornamental rose (*Rosa* sp.), and one small (25-foot tall) non-native pine (*Pinus* sp.).

Wildlife species observed during the site visit consisted of American crow (*Corvus brachyrhynchos*), American red squirrel (*Tamiasciurus hudsonicus*), and numerous domestic chickens and roosters (*Gallus domesticus*).

Listed and/or Special-Status Plant Species

The project site does not support any habitat for listed and/or special status plants since no native habitat is present and vegetation consists of ornamentals and isolated native oak trees with a non-native understory.

Listed and/or Special-Status Wildlife Species

Only one special-status wildlife species has been documented within Fair Oaks: an andrenid bee; however, this occurrence was documented in 1954 with the location listed as the general area of Fair Oaks. The presence of this species is presumed extant. Females of this species collect pollen primarily from sandwort (*Arenaria* sp.), but the following plants are also utilized: owl's clover (*Orthocarpus* sp.) and goldfields (*Lasthenia* sp.) (CNDDDB 2019). None of these species were observed within the project site on August 2, 2019.

A Swainson's hawk occurrence was recorded in 2004 approximately 2 miles southwest of the project site. A nest was present in a tall eucalyptus tree located on the bluffs at Effie Yeaw Nature Center in Ancil Hoffman Park. Nest building was observed spring 2004 and the pair was observed near the nest in April 2004; however, the outcome of the nest was not known. No Swainson's hawks were observed from 2005 through 2012, and a red-tailed hawk (*Buteo jamaicensis*) had taken over the nest site. This species is presumed extant at this location (CNDDDB 2019).

A bank swallow occurrence was noted in 1995 approximately 1.5 miles southwest of the project site at the downstream end of Suicide Bend along the American River. The habitat consisted of a vertical, southwest facing sandy bank surrounded by riparian woodland. The species is presumed extant at this location (CNDDDB 2019).

The project site does not support habitat for the majority of the listed and/or special status wildlife species known to occur in the vicinity; however, raptor species such as the Cooper's hawk may use the trees within the project site for roosting and/or foraging. Cooper's hawks typically build nests in pines (*Pinus* sp.), oaks, Douglas-firs (*Pseudotsuga menziesii*), beeches (*Fagus* sp.), spruces (*Picea* sp.), and other tree species, often on flat ground and in dense woods. It is not expected that this species would nest in the project site due to human disturbance and lack of dense tree cover. The merlin usually nests near forest openings, woodlands, and near rivers, lakes, bogs, and on lake islands; however, they have started to nest in developed areas, where they may inhabit crow's nests in planted conifers (Cornell Lab of Ornithology 2019). Only one small conifer was observed within the project site during the site visit conducted on August 2, 2019, and merlins are not expected to be present within the project site due to lack of suitable habitat and the presence of human disturbance. Nesting of common bird species is discussed below under question d), below (wildlife nursery sites).

Critical Habitat for Federally Listed Species

No impacts to special status plants or wildlife, listed plants or wildlife, or critical habitat for federally-listed plants or wildlife are expected as a result of the proposed Project. The project site is a developed with primarily non-native vegetation and a few scattered native trees.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?

No Impact. The project site is located within a developed part of Fair Oaks with ornamental landscaping including lawns, trees, and shrubs, as well as native oak trees. A field survey conducted on August 2, 2019 confirmed that the vegetation within the project site included primarily non-natives species such as turfgrass, heavenly bamboo, and elm with a small number of native oaks. No riparian habitat or other sensitive natural community is present within the project site; therefore, **no impacts** are anticipated.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No impact. A field survey conducted on August 2, 2019 did not identify any jurisdictional waters or wetlands within the project site. Fair Oaks Village is a developed urban area located approximately 0.4 mile from the American River; however, no tributaries, wetland, or vernal pools, or other wetland habitat was observed. There would be **no impact** to any federally protected wetlands.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant with Mitigation Incorporated. The project site is developed and surrounded by developed properties in all directions. In addition, older trees that are planned for removal will be replaced with new plantings; therefore, no impacts to established wildlife corridors are anticipated.

The project includes the removal of up to 14 older trees but includes a landscaping plan that will replant 40 new trees; therefore, no reduction in bird nesting habitat is anticipated. There is a potential for nesting birds to be directly impacted through removal of trees with nests and indirectly impacted through noise and other disturbance during construction of the proposed project. If project implementation occurs during the bird breeding season (generally February 1 through August 31), active nests may be present within trees slated for removal. In addition, increased disturbance may occur from noise, human presence, and grading/construction activities. Construction noise would have the potential to cause bird nest abandonment in locations adjacent to work areas. Indirect impacts from these activities would be temporary and such impacts would end with project completion.

As detailed in Mitigation Measure BIO-1, preconstruction surveys should be conducted to identify any bird nests within a 500-foot buffer around each work area. Any active nests would be avoided or would have buffers placed around them and monitored for disturbance by a biologist if construction was occurring within the buffer area.

Any active nests (as determined by a biologist) found during preconstruction surveys would be avoided with appropriate buffers (500 feet for nesting raptors and 300 feet for all other bird species), to reduce the potential for harassment and take, which would violate the Migratory Bird Treaty Act (USFWS 2019b). If an active nest was found in a project work area and project activities needed to occur in the area that was excluded by a nest buffer, an alternative option would be to allow a biologist to monitor the nest and halt project implementation if the nesting birds were agitated or appeared harassed. This would allow flexibility for situations where nesting birds in a project work area could be monitored but would allow project implementation to occur.

In summary, indirect impacts to nesting birds from project implementation would be reduced to **less than significant** through application of Mitigation Measure BIO-1 (as listed below).

Mitigation Measure BIO-1: Preconstruction Survey for Nesting Birds.

If project implementation is to occur during the bird breeding season (generally February 1 through August 31), preconstruction surveys will be conducted by a biologist no more than 7 days prior to the start of project implementation to determine if active nest sites for any avian species protected under the federal Migratory Bird Treaty Act occur within all project work areas and 500-foot buffer. If work is conducted outside of this timeframe, then no preconstruction surveys are necessary. If an active nest (defined as a bird building a nest, sitting on a nest, carrying food to young, etc.) is found, then the following buffers may apply:

- a. 500 feet for raptors
- b. 300 feet for all other bird species
- c. At the discretion of the biologist, the buffer for certain species may be reduced to permit project implementation to occur (depending upon the type, duration, intensity, and type of work that is necessary). A biologist will be present to ensure that no harassment or potential take occurs. The biologist will have the authority to stop work if they determine that the activity may result in harassment, through the bird flushing off the nest or preventing adult birds from carrying food to the nest, or otherwise jeopardize the survival of the nest contents (eggs, young, fledglings, etc.).

Significance after Mitigation

Implementation of Mitigation Measure BIO-1 would reduce the potentially significant impact resulting from construction activities to a **less-than-significant level** because it would ensure that construction activities would avoid potentially active nest sites.

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

Less Than Significant with Mitigation Incorporated. A Sacramento County tree permit is required to impact native oak trees of the following species: valley oak, interior live oak (*Quercus wislizenii*), blue oak, or oracle oak (*Quercus morehus*) that have at least one trunk of six inches or more in diameter measured four and one-half feet above the ground, or a multi-trunked native oak tree having an aggregate diameter of 10 inches or more, measured four and one-half feet above the ground (dbh) (Sacramento County 2019a). Several oak trees (including blue oaks

and valley oaks) were observed within the project site during the site visit conducted on August 2, 2019. Project implementation would be consistent with the requirements of the County's tree permit. In addition, potential impacts to trees from project implementation would be reduced to **less than significant** through application of Mitigation Measure BIO-2 (as listed below).

Mitigation Measure BIO-2: Sacramento County Code Compliance for Trees and Landscaping.

The project may result in impacts to valley and/or blue oaks through trenching, grading, and/or filling within the dripline of these trees. Approval for actions that affect trees protected by the County's ordinance must be obtained by Sacramento County officials (Board of Supervisors or County Planning Commission). Project approval may be contingent upon the receipt of a tree permit. A tree permit can be obtained from the Sacramento County Building Assistance Center at 827 7th Street, Room 102, Sacramento County.

Significance after Mitigation

Implementation of Mitigation Measure BIO-2 would reduce the potentially significant impact resulting from project construction activities to a **less-than-significant level** because it would ensure compliance with the tree permit requirements.

f) **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

No Impact. The project would not conflict with any provisions of an adopted habitat or natural community conservation plan since no natural habitats are present within the project site and no Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) cover impacts to the area within Fair Oaks Village.

The closest HCP areas include: (1) the South Sacramento HCP located south of U.S. Highway 50 at Rancho Cordova; and (2) the Natomas Basin HCP that covers impacts to areas within the Natomas Basin located in the vicinity of the junctions of Interstate 5, Interstate 80, and California State Route 99 (SSHCP 2019; Natomas Basin HCP 2019). These plans have established a multi-species conservation program to mitigate the expected loss of habitat value and incidental take of protect species that would result from development of open space/natural areas. There would be **no impact**.

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3.4 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.4.1 SETTING

The following information is based on a preliminary investigation of the project site, which includes a records search at the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS), research in AECOM's cultural library, additional background research, and a field survey of the project site.

The project area is in the southern reaches of the Sacramento Valley in central California. The project site is located in the unincorporated community of Fair Oaks in Sacramento County. The project site is approximately 0.4-mile north of the American River and approximately 12 to 15 miles upstream of its confluence with the Sacramento River in the city of Sacramento.

The project area lies within the ethnographic territory of the Nisenan, who primarily occupied lands east of the Sacramento River. The Nisenan are one of three Maiduan speaking tribelets (Maidu, Konkow, Nisenan) who inhabited the northeastern half of the Sacramento Valley and the adjoining western slopes of the Sierra Nevada (Shipley 1978:82-85). The Nisenan are the southernmost of these three groups. Ethnographic village sites located along the American River area in Nisenan territory include Ekwo (on Sunrise Boulevard), Shiba (on Hazel Avenue), and Yodok (at Folsom) (Wilson and Towne 1978:388). These villages were on the north side of the river; there are no known ethnographic villages in the project area.

RECORDS SEARCH

A cultural records search was conducted by the NCIC of the California Historical Resources Information System located at California State University, Sacramento, on August 14, 2019 (File No. SAC-19-162). The search included the project site and a 0.25-mile radius. The results were used to determine whether known cultural resources have been recorded at or adjacent to the project site and to assess the cultural sensitivity of the area. The records search included reviews of maps listing previously recorded sites and previously conducted cultural resource studies in the area. Other resources reviewed included the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHP), California Inventory of Historic Resources (1976),

California Historical Landmarks (1996), California Points of Historical Interest (1992 and updates), and the Historic Property Data File (April 2012).

The NCIC records search indicated no cultural resources inventories have occurred within the project site and 11 investigations have been conducted within a 0.25-mile radius (Table 3.4-1). No cultural resources have been previously recorded within the project site; however, seven have been recorded within a 0.25-mile radius (Table 3.4-2).

Table 3.4-1 Previous Cultural Resources Inventories

NCIC Report Number	Year	Author(s)	Report Title
Previous Studies Conducted within the Project Site			
None			
Previous Studies Conducted within 0.25 Mile of the Project Site			
002767	2001	McMorris, Christopher	Castles Tentative Parcel Map. Control Number: 00-PMR-0830
003036	1995	Mary L. Maniery, Keith Syda, and Kristin Boice	Cultural Resources Investigations of the Bradshaw, Sunrise, and Folsom East Interceptors Project Sacramento County, California
006243	2004	Mary L. Maniery	Cultural Resources Assessment of the Snyder-Stickler Tentative Parcel Map Project
006248	2005	James Gary Maniery	Archaeological and Architectural Evaluation of Johnson Tentative Parcel Map
006300	1998	Derr, Eleanor H.	Pacific Bell Mobile Services: 7931 California Avenue
006658	2005	Herrmann, Robert	Cultural Resources Survey of the Proposed Beauchamp-Fair Oaks Tentative Subdivision Map Project, 4248 Crestline Avenue, Fair Oaks
006896	2006	Nancy E. Sikes and Juan Cervantes	Cultural Resources Survey of the Proposed Pointe at Fair Oaks Project, Fair Oaks, Sacramento County, CA
006898	2006	Nancy E. Sikes, Juan Cervantes, and Edward Holmes	Cultural Resources Survey and Evaluation of the Proposed Cuevas Development Plan Review Project, 4099 Bridge Street, Fair Oaks, Sacramento County, CA
006908	2006	Sikes, Nancy E., Juan Cervantes, and Edward Holmes	Cultural Resources Survey for the Baker Tentative Parcel Map Project, Fair Oaks, Sacramento County, CA
011268	2012	Rachel E. Webber and Lindsay Allen	Sunrise & Fair Oaks
011587	2014	Lorna Billat and Dana Supernowicz	Collocation ("CO") Submission Packet. FCC Form 621. Project Name: Sunrise & Fair Oaks. Project Number: CVL01499
Note: NCIC = North Central Information Center			
Source: North Central Information Center 2019 (File No.SAC-19-162) compiled by AECOM in 2019			

Table 3.4-2 Previously Recorded Cultural Resources

Primary Number	Trinomial Number	Type	Age	Description	NRHP Eligibility/CRHR Significance
Resources within Project Site					
None					
Resources within 0.25 Mile of Project Site					
P-34-000630	N/A	Building, Structure	Historic	Ancillary Building; Walls/gates/fences	Not Eligible/ Significant
P-34-001316	N/A	Building, Structure	Historic	Single-family property	Not Eligible/ Significant
P-34-001319	N/A	Building Structure	Historic	Single-family property	Not Eligible/ Significant
P-34-001320	CA-SAC-000830H	Site	Historic	Foundation/structure pads	Not Eligible/ Significant
P-34-001424	N/A	Building	Historic	1-3 story commercial building	Not Eligible/ Significant
P-34-002375	N/A	Building	Historic	Single-family property	NRHP and CRHR Listed
P-34-004536	N/A	Building	Historic	1-3 story commercial building	Not Eligible/ Significant
Notes: NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources					
Source: North Central Information Center 2019 (File No.SAC-19-162) compiled by AECOM in 2019					

Sacred Lands File Search

On July 29, 2019, AECOM requested a Sacred Lands File (SLF) search and CEQA Tribal Consultation List pursuant to Assembly Bill 52 (AB 52) from the Native American Heritage Commission (NAHC) on behalf of the Fair Oaks Recreation & Parks District. The NAHC responded in a letter via email on August 20, 2019 that the SLF search was negative. Native American consultation pursuant to AB 52 is being completed by Fair Oaks Recreation & Park District.

BUILT ENVIRONMENT RESOURCES

One previously recorded historical resource was identified within 0.25-mile of the project area.

Slocum House (P-34-2375 / NRHP No. 79000520)

The Slocum House is located southwest of the project site at 7992 California Avenue. A NRHP nomination form was submitted in December 1978 and formally entered in January 1979. The form was prepared by the owner and a consultant, and the State Historic Preservation Officer (SHPO) concurred that the property was significant on the local level for its association with a founding father of a local community with a period of significance of 1925, the year the Colonial Bungalow house was constructed (NPS 1979). The Slocum House is an individual property listed in the NRHP by the Keeper and is listed in the CRHR. It is a historical resource for the purposes of CEQA.

FIELD INVESTIGATION

A site visit was conducted on August 2, 2019. No prehistoric or historical archaeological resources were observed during the visit.

Three historic-age, built environment resources on the project site were inventoried on August 2, 2019, by an architectural historian who meets the Secretary of the Interior's Professional Qualification Standards for history and architectural history:

- ▶ The Fair Oaks Community Clubhouse and associated Works Progress Administration (WPA)-constructed retaining walls;
- ▶ The Fair Oaks Veterans Memorial Amphitheater; and
- ▶ The Arts and Crafts Building.

As part of the current project, the Fair Oaks Community Clubhouse and associated retaining walls were recorded on Department of Parks and Recreation (DPR) 523 series forms as a historical resource for CEQA (Miller 2019). The Fair Oaks Community Clubhouse and associated rock and concrete retaining walls were constructed under the WPA federal work programs in 1936 and 1940. This resource meets the criteria for listing in the California Register of Historical Resources (CRHR) under Criterion 3 at the local level of significance as a representative example of a WPA built property in Fair Oaks, as a good example of the Spanish style used in the WPA program, and for the construction technique using salvaged materials from the previous school building on site to build the Clubhouse. The period of significance is 1936-1940, when the Clubhouse and walls were constructed by the WPA. The character-defining features of the Clubhouse are its stucco exterior, Spanish tile roof, wood knee braces, "WPA" embossed stucco chimney, original wood sash windows, original wood window frames, arched motif on the south projecting bay, and its one-story over basement level configuration. The character-defining features of the associated retaining walls are the river rock with cement mortar, "WPA 1940" plaques, and board formed concrete material. The property is considered a historical resource for the purposes of CEQA. This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

The Fair Oaks Veterans Memorial Amphitheater (Amphitheater) and Arts and Crafts Building were also field investigated during the site visit on August 2, 2019. The findings of the field investigation, combined with review of background information on the development of the Amphitheater and changes to the venue in the early 2000s suggest that the buildings, structures, and objects that comprise the Amphitheater property do not meet the eligibility criteria for potential listing in the CRHR because the property lacks historical and architectural significance and lacks integrity to any potential period of significance. The Amphitheater therefore does not meet the significance criteria as a historical resource for the purposes of CEQA. Likewise, after review of background information on the development of the Arts and Crafts Building, including documented changes to the building in the early 2000s, it was determined that the resource lacks historical and architectural significance and lacks integrity to any potential period of significance. The Arts and Crafts Building therefore also does not meet the criteria as a historical resource for the purposes of CEQA.

HISTORIC SETTING

Fair Oaks lies within part of the 1844 Rancho San Juan Mexican land grant, which was subdivided in 1895. The area was promoted as an agricultural community, and within a few years the community was well populated with families from midwestern and eastern states. Citrus, olives, and other tree crops were established on parcels of five to 20 acres; and roads, bridges, schools, and other improvements were steadily added to the community (Fair

Oaks Recreation & Parks 2012:1). The following historical context includes the development of the historic-age (45 years and older) built environment within the park that may be potentially affected by the project.

Fair Oaks Community Clubhouse

In 1902, Frederic Cox donated 2.5 acres of land to the Fair Oaks School District for the construction of a new grammar school at the current site of the Fair Oaks Community Clubhouse in the Fair Oaks Village Park. The school was constructed by local builder, Joseph Broadley, and was a two-story wood-frame building with a bell tower cupola on the third story and a brick basement. The school was in continuous use until 1928 when a new school was constructed at the corner of Fair Oaks Boulevard and Winding Way. In 1929, the former Fair Oaks Grammar School was converted to a community center. The current Clubhouse was built in 1936 by the WPA (Fair Oaks Recreation & Park District 2012:3-4).

During World War II, the Fair Oaks Clubhouse was used for community events, meetings of various organizations, and was the primary meeting place for the community. After World War II in 1946, the Clubhouse auditorium was leased by the school district to the recently established Fair Oaks Park District and used as a motion picture theater. The park district had entered into a 20-year lease for 50 cents a year for use of the building but was unable to obtain insurance for the leased building without a title. The parks district also sought to make improvements to the Clubhouse building but was unable to carry out plans because the school district held title to the Clubhouse and property. The basement was remodeled by the end of 1946 for use as a public meeting place and social center by the Fair Oaks Civic Club. At the end of 1948, the movie theater was moved to the Quonset Hut building at the northwest corner of the park at 7973 Park Drive (still extant) and the Fair Oaks Elementary School Board sold the Clubhouse and surrounding grounds to the Fair Oaks Park District in 1949 (Fair Oaks Recreation & Park District 2012:4; FOHS 2019b; *Sacramento Bee* 1946; *Sacramento Bee* 1948; *Sacramento Bee* 1949). The Clubhouse has since remained in continuous use as a community center. In 1983, the basement was upgraded to habitable space and in 1989, the rock wall ramp at the parking lot level on the south side of the Clubhouse was constructed. Based on review of aerial imagery, the front entrance of the Clubhouse was altered sometime between 1981 and 1999 and the ramp to a secondary entrance on the east side was added between 1981 and 1993. Many of the original wood sash windows were replaced at an unknown date with anodized metal sashes, but the original wood window frames remain (UCSB 1981, 1999; NETR 2019).

WPA History

The WPA evolved overtime from various federal work programs that started at the end of President Herbert Hoover's administration during the Great Depression. In 1932, Congress authorized the Reconstruction Finance Corporation to lend \$300,000,000 to states and localities for emergency unemployment relief. In 1933, following the election of President Franklin D. Roosevelt, Congress held a special session to grant an additional \$500,000,000 to states through the Federal Emergency Relief Administration (FERA) for immediate relief to the needy unemployed (United States WPA 1938:4). In November 1934, the Civil Works Administration (CWA) was created as a short-term work relief program to put more than 4 million unemployed persons to work on public projects. The CWA was short lived at only four and a half months but was able to initiate 180,000 public improvement and infrastructure projects and was the Nation's first large-scale public employment program. The FERA completed the remainder of the projects initiated by the CWA in 1934, and by the latter half of 1935, the FERA was replaced by the WPA.

The WPA centralized the national organization from the State Emergency Relief Administrations, which existed under the FERA, and made destitution and employability requirements for employment in the program; \$4.5 billion was allocated to the WPA program in its first year. The WPA oversaw construction projects of \$25,000 or less and all non-construction projects for clerical, professional, and white-collar jobs. Under the WPA, construction programs for roads, public buildings, and infrastructure were undertaken including new parks, playgrounds, auditoriums, as well as upgrades to existing facilities, all with the cooperation of local government bodies. In June 1938, the WPA fund was infused with an additional \$3 billion to spend for new public works projects, which provided pay to an additional 60,000 workers a week. By October 1938, the WPA reached its peak employment of 3,250,000 persons and was considered the best of the national government work relief programs. The largest component of the WPA was road construction and repair with an emphasis on improvement of over two million miles of dirt and gravel roads that were the main links between farms and market towns. The second largest component was public buildings construction and improvements. The WPA aided communities in expanding and improving recreational facilities through construction projects in all states. By June 1938, nearly 5,500 new recreation buildings had been constructed (Taylor 2008:330, 345, 436, 519).

WPA in Fair Oaks

All WPA projects were initiated through local applications made by sponsors (United States WPA 1940:5, 13, 20-21). In 1935, a committee headed by J.B. Stark of Carmichael investigated the possibility of obtaining a WPA grant to finance the construction of a community meeting hall and municipal swimming pool in Fair Oaks (*Sacramento Bee* 1935). In April 1936, the federal government allocated \$9,594 dollars for the construction of a new community Clubhouse through the WPA program. The Fair Oaks School District, which still owned the school building and grounds, provided an additional \$4,371 for the construction as part of the required partial local funding of the WPA project. In early April 1936, a crew of 10 WPA-hired men began demolishing the original 1902 Fair Oaks Grammar School for the construction of a new community center. The lumber and materials from the original wood-framed building was salvaged for reuse to construct the new Clubhouse (*Sacramento Bee* 1936b). Demolition and salvage of materials was common practice as part of the WPA program and by 1938, WPA workers had demolished almost 7,000 buildings for modern structures and playgrounds, with a large proportion of the salvaged materials used on other projects (United States WPA 1938:24). The WPA-built Clubhouse was constructed over the brick foundation of the original school, and it appears the wood windows of the 1902 school were salvaged and used on the exterior of the Clubhouse building (FOHS 2019a; *Sacramento Bee* 1936b). The WPA-built Clubhouse was designed in the Spanish Revival style, which was commonly used in WPA projects in California. The Spanish Revival style was reflected in the stucco exterior, Spanish tile roof, and use of arches in the bay and primary entrance to the building. The Craftsman style is also present with the use of triangular wood knee braces in the gable ends, exposed rafter ends, and wide roof overhang on the projecting bays (McAlester 2013:520-534,566-578).

A report of the WPA projects undertaken in northern California as of 1938 revealed:

In virtually every community report, the public facilities constructed are found to be of a permanent and much-needed characters, serving either the greater part or all of the population. The reports indicate, almost without exception, that the facilities were vitally necessary improvements which communities had long needed and planned...The resourcefulness of local

officials in effecting economies through the use of salvages or local materials is frequently cited (States Appraisal Committee 1938:8).

Other WPA projects undertaken in Fair Oaks in 1936 included \$18,000 worth of improvements to the Fair Oaks Grammar School grounds at the corner of Fair Oaks Boulevard and Winding Way, including landscaping, installation of a track and various playing fields, some school building upgrades, a tennis court with dual use as an outdoor theater, windbreak, and outdoor fireplace (*Sacramento Bee* 1936b). Almost \$15,000 worth of Fair Oaks Irrigation District pipelines were also replaced that year (*Sacramento Bee* 1936a).

In 1939, the WPA was reorganized under the Federal Works Agency (FWA) which administered public works not routinely handled by other departments and distributed construction grants and loans to state and local governments. It also oversaw the Public Works Administration (PWA), Bureau of Public Roads, United States Housing Authority, and other programs. The function of the WPA, renamed the Works Projects Administration in 1939, remained much the same under the FWA. In 1940, the WPA undertook landscaping improvements to the grounds around the Fair Oaks Clubhouse, including rock walls around the south and north sides of the building, a board formed concrete wall and ramp at the northeast corner, and a series of staggered rock walls at the southeast side of the building near the basement entrance. Plaques and stamps with “WPA 1940” were installed throughout the retaining walls. Other similar WPA projects undertaken in northern California in 1940 include the William Land Park WPA Rock Garden and McKinley Park sidewalks in the city of Sacramento, retaining walls and sidewalks in Crockett and Richmond in Contra Costa County (all still extant) (Living New Deal 2019).

In 1940, with war declared in Europe, WPA construction projects began to shift towards military bases, housing, roads for moving troops and materiel, and airports. The WPA projects sponsored by the War and Navy Departments spurred defense work and many WPA workers left for positions in private industry. By 1941, WPA employment dropped to its lowest point since the start of the federal work program in 1935 and by 1942 almost all WPA work was defense related. The need for the WPA decreased with plummeting unemployment rates and world events, eventually leading to its end. In December 1942, the president wrote to the head of the FWA and WPA that the programs were no longer required and would be dissolved on February 1, 1943. In the years of the WPA from 1935 to 1943, the federal government spent \$10,500,000,000 on public works project and employed 8,500,000 people. It also constructed 650,000 miles of roads; 78,000 bridges; 125,000 military and civilian buildings; 800 airports; and built, improved, or enlarged, parks, libraries, museums, sidewalks, and many more additions to American infrastructure that are still in use today (Taylor 2008:519-523).

Fair Oaks Veterans Memorial Amphitheater

The Fair Oaks Parks & Recreation board approved a budget of \$7,000 for the construction of the Amphitheater in the Fair Oaks Village Plaza Park in 1969. The outdoor venue was dedicated on May 2, 1971 and was originally comprised of the round stage and wood and metal benches surrounded by a chain link fence (Fair Oaks Recreation & Park District 2012:5; UCSB 1971; *Sacramento Bee* 2003). A mural was painted on the exterior nine panels of the stage in 1984-85 by local artist Hugh Gorman. Gorman renovated the mural in 1998. The mural depicts scenes of Fair Oaks with stylized motifs. A concrete planter at the base of the mural was part of the original design of the mural (*Sacramento Bee* 2002).

The original configuration of the Amphitheater remained unchanged through the early 2000s when renovations were undertaken with local and state grant money and community donations to upgrade the outdoor venue. As

part of the renovation, the stage was expanded 45 feet; a new wrought iron gate was installed at the entrance; and the entryway was remodeled to include park benches, a flower bed, and a waterfall feature. A two-story complex building was also constructed for a snack bar, gift shop, and control booth and a bathroom building was constructed. The buildings concrete block with stucco cladding, have metal frame windows, and hipped roofs with Spanish tile (*Sacramento Bee* 2003). The Amphitheater has been the location of the Fair Oaks Theatre Festival since was founded in 1983 and continues to this day. The outdoor venue also hosts a concert series (Fair Oaks Recreation & Park District 2012:5).

Arts & Crafts Building

The Arts & Crafts Building, located east of the Amphitheater and at the northwest corner of the Fair Oaks Community Clubhouse, is a single-story, concrete block building built between 1960 and 1961. The building is oriented north to south and has a hipped roof with a small hipped cross-gable at the south end and a cross-gable bathroom addition at the north end. A modern metal door with a glass window is located on the south end, three two-part metal sliding windows are located along the east elevation, as is a shed roof awning over a double metal door entry. Between 1993 and 1998 a bathroom addition was added to the north side of the Arts & Crafts Building (NETR 2019).

3.4.2 DISCUSSION

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less than Significant. The Fair Oaks Community Clubhouse and associated WPA-constructed rock and concrete retaining walls in the project area are a historical resource for CEQA. The project proposes to add an accessible path to the terraced rock wall in Village Park for access to the lower area of the Clubhouse and the band shell stage. Access to the Clubhouse would be made by a proposed accessible path from the two ADA parking stalls across a maintenance road and around the side of the Clubhouse. A new ADA accessible ramp would be added to the front (south side) of the Clubhouse to bring everyone into the front of the building rather than the side entrance. The addition of an ADA accessible ramp to the front (south side) of the Clubhouse would not result in a substantial adverse change to the Fair Oaks Community Clubhouse and associated WPA-constructed rock and concrete retaining walls. The entrance to the Clubhouse has been previously altered and is not a character-defining feature of the historical resource. The ramp would not result in substantial adverse change in the significance of a historical resource to such an extent that the significance of the historical resource (the Clubhouse and associated rock and concrete retaining walls) would be materially impaired.

The project proposes to add an accessible path to the terraced rock wall to access the basement entrance at the east side of the Clubhouse and to the adjacent bandshell stage. The addition of an accessible path to the terraced WPA-rock walls would not result in physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings to such an extent that the significance of the historical resource (the Clubhouse and associated rock and concrete retaining walls) would be materially impaired.

The Slocum House located outside of the project site at 7992 California Avenue, is a historical resource for CEQA. The proposed project improvements within the Plaza Park, Village Park, and on the Community Clubhouse would be visible from the Slocum House. The proposed project improvements would not cause a

substantial adverse change in the significance of a historical resource because it would not result in the physical alteration of the house nor would it affect the setting of the house that would result in an adverse effect to the character-defining features of the historical resource.

Substantial adverse change in the significance of a 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. The project does not propose to demolish or materially alter 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 CRHR.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

Less than Significant with Mitigation Incorporated. The project site is not known to have any archaeological materials or archaeologically significant characteristics as defined by the criteria in the CEQA Guidelines. However, a possibility always exists that a significant subsurface cultural resource may occur in the project site, as archaeological sites may be buried with no surface manifestation. The impact would be potentially significant; however, Mitigation Measure CUL-1 would be implemented to minimize any impacts associated with discovery of archaeological resources. Implementation of Mitigation Measure CUL-1 would ensure that any discovery of unknown cultural artifacts would not result in a significant impact on cultural resources. Therefore, the impact would be a **less than significant** with mitigation.

Mitigation Measure CUL-1: Halt Construction Activities if Cultural Resources Are Discovered.

Construction personnel will be instructed about the potential for discovery of unknown cultural resources, and the need for proper and timely reporting of such findings. If previously undiscovered historic, archaeological or tribal cultural resources (including but not limited to charcoal, obsidian or chert flakes, groundstone, shell fragments, bone, midden soils, glass, metal, ceramics, wood, or similar debris) are discovered at any time during construction, all earth-disturbing work in the vicinity of the discovery will be temporarily suspended or redirected until a professional archaeologist has evaluated the nature and significance of the discovery. No construction activities will occur within 100 feet of an area under a stop work order. If a potentially significant archaeological or tribal cultural resource is discovered, Fair Oaks Recreation and Park District will be notified. Impacts on previously unknown significant archaeological resources will be avoided through preservation in place, if feasible. Damaging effects on archaeologically significant cultural resources will be avoided or minimized following the measures identified in California Public Resources Code Section 21084.3(b), if feasible, unless other measures that would be more effective, are provided by the professional archaeologist. If the professional archaeologist believes that damaging effects on significant resources will be avoided or minimized, then work in the area may resume. If avoidance is infeasible, a Treatment Plan that identifies how identified properties that have been determined to be eligible for the CRHR or NRHP will be treated under CEQA shall be prepared and implemented in consultation with Native American Representatives from culturally affiliated Native American tribes (if the resources are prehistoric or Native American in nature). Following completion of construction activities, a report will be prepared that documents what, if any, cultural resources or human remains were discovered during project implementation, how impacts to each resource (whether discovered during construction or during inventory and consultation) were avoided or what treatment was

instituted, the condition of each resource after project implementation, recommendations for how additional impacts can be avoided, and recommendations for management of each resource.

Significance after Mitigation

Implementation of Mitigation Measure CUL-1 would ensure that, if cultural artifacts are discovered during construction, they will have appropriate treatment as provided under State law to avoid a significant impact on cultural resources; therefore, the impact would be **less than significant**.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant with Mitigation Incorporated. A remote possibility exists that an unanticipated discovery of human remains could occur. Such a discovery would be potentially significant. Mitigation Measure CUL-2 would be implemented to ensure that impacts on cultural resources, in the case of an inadvertent discovery of human remains, would be reduced.

Mitigation Measure CUL-2: Halt Construction Activities if Any Human Remains Are Discovered.

The procedures for the treatment of discovered human remains are described in Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code. In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities, such activities that may affect the remains will be halted within 150 feet, and the Fair Oaks Recreation and Park District will be notified. The District will immediately notify the County coroner and a qualified professional archaeologist. If the coroner determines that the remains are those of a Native American, the coroner will contact the Native American Heritage Commission (NAHC) by telephone within 24 hours of making that determination (California Health and Safety Code, Section 7050.5[c]).

Responsibilities for acting on notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code. The Fair Oaks Recreation and Park District or its appointed representative, and the professional archaeologist will consult with a Most Likely Descendant, determined by the NAHC, regarding the removal or preservation and avoidance of the remains, and will determine whether additional burials could be present in the vicinity.

Significance after Mitigation

Implementation of Mitigation Measure CUL-2 would ensure that, if there is a discovery of human remains, appropriate steps under State law are followed to avoid an adverse impact. Therefore, with the impact would be **less than significant**.

3.5 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.5.1 SETTING

Energy systems in California include electricity from renewable and non-renewable sources, natural gas, and petroleum.

ELECTRICAL SERVICE

The Sacramento Metropolitan Utility District (SMUD) generates, transmits, and distributes electrical service to approximately 635,137 customers through its approximately 900-square mile service area, which covers the majority of Sacramento County, including the Fair Oaks Community, and a very small southwest portion of Placer County (SMUD 2019). SMUD's service area currently serves a population of approximately 1.5 million (SMUD 2019). In 2018, SMUD delivered approximately 10,315 gigawatt-hours (GWh) of electricity to its customers (CEC 2019a).

In 2018, California enacted legislation requiring utility companies to have 60 percent of their power mix come from renewable energy resources by 2030 and, by 2045, all retail electricity must be met by carbon-free resources. SMUD provides power from a variety of sources, including hydropower, natural-gas-fired generators, renewable energy, and purchases. SMUD offers a program called Greenergy, in which customers may select carbon-free energy for either 100 or 50 percent of their electricity use for an extra fee each month; this program grew 19 percent in the year 2018. SMUD has also developed an Integrated Resource Plan that identifies its commitment to achieve a net-zero GHG position by the year 2040 (SMUD 2019).

NATURAL GAS

Natural gas service is provided to Sacramento County and surrounding areas by Pacific Gas and Electric Company (PG&E) through portions of PG&E's approximately 42,800 miles of natural gas distribution pipelines (PG&E 2019). In 2016, PG&E generated approximately 33,525 GWh net electricity and purchased an additional 41,691 GWh of electricity. Natural gas consumption within the PG&E service area was approximately 4,794 million therms in 2018 (CEC 2019b), approximately 6.36 percent (305 million therms) of which was provided to users in Sacramento County (CEC 2019c).

PETROLEUM

Petroleum products (gasoline, diesel, jet fuel) are consumed almost exclusively by the transportation sector, and account for almost 99 percent of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2015). The 2005 Renewable Fuel Standard Program and 2007 Energy Independence and Security Act establish requirements for renewable fuel use to replace petroleum-based fuels. In Sacramento County, it is estimated that 586 million gallons of gasoline and 45 million gallons of diesel were sold in 2018 (CEC 2019d).

PLANS RELEVANT TO RENEWABLE ENERGY OR ENERGY EFFICIENCY

Sacramento County General Plan:

The Sacramento County General Plan's Energy Element includes the following goals related to energy.

- ▶ Reverse the historical trend of increasing per capita consumption of energy;
- ▶ Shift toward using a greater share of renewable sources of energy;
- ▶ Shift seasonal and daily peak energy demands to increase the load factor of electrical generating facilities; and
- ▶ Maintain or enhance the general standard of living, the level of employment, and the quality of the environment.

The County's General Plan also includes policies related to energy, including the following:

- ▶ **EN-1.** Develop standards which would reduce the energy required to maintain interior spaces in the comfort zone, including such standards as tree planting and proper orientation of dwellings.
- ▶ **EN-3.** Encourage the conservation and rehabilitation of existing housing and the revitalization of older, more intensively developed neighborhoods in the urban area.

In addition to the Energy Element, other elements of the General Plan include policies and implementation measures that could result in energy conservation for the region. These include the following:

- ▶ **Land Use Implementation Measure J:** Update the Energy Element and/or the Public Facilities Element of the General Plan to include policies related to alternative energy production within the County, which may include a General Plan Land Use Diagram overlay designation reflecting prime or allowable areas for alternative energy production (such as solar or wind farms).
 - **Policy CI-5.** Land use and transportation planning and development should be cohesive, mutually supportive, and complement the objective of reducing per capita vehicle miles travelled (VMT).
 - **Policy CO-143.** Work cooperatively with local utilities to assure that new trees are planted in locations that will maximize energy conservation and air quality benefits.

3.5.2 DISCUSSION

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant. Implementation of the proposed project would involve the consumption of energy during construction and ongoing energy use in the form of electricity, natural gas, and fossil fuels (e.g., gasoline, diesel fuel). Table 3.5-1 provides a summary of energy demands under the proposed project.

Table 3.5-1 Summary of Proposed Project Energy Requirements

Phase	Energy Requirement ^a	Unit	Annual Energy Consumption (MMBtu) ^b
Construction (Maximum Annual)			
Diesel	32,853	gallons/year	4,537
Gasoline	5,882	gallons/year	735
		<i>Subtotal</i>	<i>5,272</i>
Site Operations			
Electrical	75,900	KWh/year	259
Natural Gas	179,050	kBtu/year	179
		<i>Subtotal</i>	<i>438</i>
Operational Transportation			
Diesel	2,795	gallons/year	386
Gasoline	44,907	gallons/year	5,613
		<i>Subtotal</i>	<i>5,999</i>
		Total	11,710
Notes: kBtu/year = thousand British thermal units per year; KWh/year = kilowatt-hours per year; MMBtu = million British thermal units Totals do not add due to rounding. Sources: ^a Modeled by AECOM in 2019 ^b U.S. Energy Information Administration 2016			

The primary energy demands during construction would be associated with construction equipment and vehicle fueling. Energy in the form of fuel and electricity would be consumed during this period by construction vehicles and equipment operating on-site, trucks delivering equipment and supplies to the site, and construction workers driving to and from the site. Over the anticipated 22-month construction period, the proposed project would require a total of approximately 33,000 gallons of diesel and 5,900 gallons of gasoline. These calculations are based on the CalEEMod emissions calculations for proposed construction activities and application of the United States Energy Information Administration CO₂ emissions coefficients (EIA 2016) to estimate fuel consumption for each phase of construction activities (see Appendix A for detailed modeling and calculations).

The proposed project includes renovations to an existing park complex and does not include unusual characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites. Due to the limited proposed construction activities and few construction workers required, fuel energy demands during construction would be temporary and not represent a substantial amount of fuel relative to the approximately 586 million gallons of gasoline and 45 million gallons of diesel that were sold in

Sacramento County in 2018. In addition, construction equipment and vehicles used for the proposed project would be required to comply with all federal and State standards and regulations, including limiting of idling to 5 minutes or less. The actual adverse physical environmental effects associated with energy use during construction are reported in the air quality and greenhouse gas emissions section of this document. Therefore, construction fuel consumption associated with the proposed project would not result in an inefficient, wasteful, or unnecessary consumption of energy resources during project construction and this impact would be **less than significant**.

The proposed project could result in increased use of the park complex for special events. This potential increase in use could result in increased energy demands associated with both electricity use for on-site park operations and fuel use for increased mobile trips to and from the park complex. Facility operations could increase electricity use by approximately 75,900 KWh per year (approximately 0.08 GWh per year) and natural gas use by approximately 179,050 kBTU per year (approximately 1.8 therms). Mobile trips associated with park use could increase fuel use by approximately 45,000 gallons of gasoline per year and 2,800 gallons of diesel fuel per year. These energy demands do not represent a substantial energy requirement relative to the 10,315 GWh of electricity provided by SMUD to its service areas in 2018 and the 305 million therms of natural gas provided by PG&E to users in Sacramento County in 2018. See Appendix A for detailed assumptions and calculations. Similarly, increased fuel use would be minimal relative to the overall fuel use in the region. While proposed improvements may increase accessibility and use of the park complex, overall park capacity would not increase from existing conditions. The actual adverse physical environmental effects associated with energy use during operations are reported in the air quality and greenhouse gas emissions section of this document. Operations under the proposed project would not result in an inefficient, wasteful, or unnecessary consumption of energy resources and this impact would be **less than significant**.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. Construction activities under the proposed project would use construction equipment and vehicles that are in compliance with federal and State standards for fuel efficiency. In addition, as described above, proposed construction and operational activities would not result in an inefficient or wasteful consumption of energy resources.

Improvements made to existing facilities would meet existing building energy standards, which are more energy efficient than older buildings. In addition, the proposed project would result in the planting of more trees than those removed, aligning with the Conservation Element of the County of Sacramento General Plan. Finally, the overall project objective is to increase cohesiveness of the existing park elements, improving existing space within an urban area; this is in alignment with the Energy Element (Policy EN-3) of the County of Sacramento General Plan, which calls for the revitalization of older, more intensively developed neighborhoods in the urban area. Therefore, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and this impact would have **no impact**.

3.6 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.6.1 SETTING

GEOLOGY, SEISMICITY, AND SOILS

The project site is located in the southern Sacramento Valley, on a flat alluvial plain composed of Pleistocene (2.6 million years Before Present [B.P.] to 11,700 years B.P.) and Holocene (11,700 years B.P. and younger) age deposits. These sediments overlie the thick sequence of sedimentary rock units that form the deeply buried

bedrock units in the mid-basin areas of the valley. The topography at the project site is hilly. Elevations range from approximately 206 feet above mean sea level (amsl) at the Clubhouse, to 191 feet amsl at the southern project site boundary, 186 feet amsl at the western project site boundary (Plaza Park), and 195 feet amsl at the eastern project site boundary (Village Park).

The Sacramento Valley has historically experienced a very low level of seismic activity. The nearest potentially active faults are located approximately 25 miles east in the Foothills Fault System, and active faults are located approximately 55 miles north near Lake Oroville and west in the Coast Ranges (Jennings and Bryant 2010).

Based on a review of U.S. Natural Resources Conservation Service (NRCS) (NRCS 2018) soil survey data, the project site consists of the Xerarents-Urban Land-Fiddymment complex 8–15 percent slopes. Xerarents are found in Mediterranean climates (like the Sacramento area), and they do not have soil horizons because they have been deeply mixed by plowing, spading, or other methods of moving by humans. Urban soils have been altered or obscured by urban works and structures; buildings and pavement cover more than 85 percent of the surface. Because the project site is composed primarily of Xerarents and Urban Land, the soil complex is not rated by NRCS in terms of soil characteristics.

PALEONTOLOGICAL RESOURCES

Based on geologic mapping prepared by Gutierrez (2011), the project site is located in the Pleistocene-age Turlock Lake Formation. This formation consists of arkosic alluvium that includes fine sand and silt at the base, grading upward into coarse sand and coarse pebbly sand or gravel. The sediments of the Turlock Lake Formation originated from the Sierra Nevada and have been divided into upper and lower members. The lower member includes gravel and coarse sand that overlies finer, well-sorted sand, silt, and clay of possible lacustrine (lake) origin. The upper unit is found topographically above the lower unit and includes gravel beds and silt and fine sand that may be lacustrine in origin (Marchand and Allwardt 1981). The maximum age is estimated to be approximately 780,000 years B.P. (Dundas et al. 1996).

The results of a paleontological resources records search performed at the University of California, Berkeley Museum of Paleontology (UCMP) on August 2, 2019 indicate there are no recorded fossil localities at the project site. However, the Turlock Lake Formation is known to contain unique, scientifically important vertebrate fossil remains. The Fairmead Landfill site in Chowchilla contains Irvingtonian-age fossils recovered from the Turlock Lake Formation that were originally discovered in 1993 during excavation activities for a new Madera County landfill. Since 1993, more than 15,000 fossil specimens from over 35 different species have been recovered from the Fairmead site, including mammoth, ground sloth, giant short-faced bear, saber tooth cat, wolf, deer, camel, horse, antelope, rodents, birds, reptiles, fish, and prehistoric vegetation. Furthermore, excavations for the California Department of Transportation's Fresno SR 180 West Freeway project uncovered fossil specimens from a Pleistocene-age camel in sediments of the Turlock Lake Formation in Fresno County (Hansen 2008). In addition, Hay (1927) reported specimens of horses, camel, and mammoth from sediments in Fresno County that Piper et al. (1939) interpreted as probably equivalent to the Turlock Lake Formation. Other vertebrate fossils have also been reported from various locations in the Central Valley from sediments referable to the Turlock Lake Formation (Jefferson 1991a, 1991b, UCMP 2019). Because of the large number of vertebrate fossils that have been recovered from the Turlock Lake Formation, it is considered to be of high paleontological sensitivity.

For the purposes of this analysis, a unique paleontological resource or site is one that is considered significant under the following professional paleontological standards. An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets one of the following criteria:

- ▶ a type specimen (i.e., the individual from which a species or subspecies has been described);
- ▶ a member of a rare species;
- ▶ a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;
- ▶ a skeletal element different from, or a specimen more complete than, those now available for its species; or
- ▶ a complete specimen (i.e., all or substantially all of the entire skeleton is present).

The value or importance of different fossil groups varies depending on the age and depositional environment of the rock unit that contains the fossils, their rarity, the extent to which they have already been identified and documented, and the ability to recover similar materials under more controlled conditions (such as for a research project). Marine invertebrates are generally common; the fossil record is well developed and well documented, and they would generally not be considered a unique paleontological resource. Identifiable vertebrate marine and terrestrial fossils are generally considered scientifically important because they are relatively rare.

3.6.2 DISCUSSION

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

No Impact. The project site is not located within or adjacent to a fault zoned under the Alquist-Priolo Earthquake Fault Zone Act, or any other known fault. The nearest fault zoned under the Alquist-Priolo Act is the Cleveland Hill Fault south of Lake Oroville, approximately 55 miles to the north (California Geological Survey [CGS] 2017). Thus, there would be no impact.

- ii) **Strong seismic ground shaking?**

Less-than-Significant Impact. The nearest active faults are located approximately 55 miles to the north and west. The intensity of ground shaking depends on the distance from the earthquake epicenter to the site, the magnitude of the earthquake, and site soil conditions. Peak horizontal ground acceleration (PGA), which is a measure of the projected intensity of ground shaking from seismic events, can be estimated by probabilistic method using a computer model. The California Building Standards Code (CBC) requires a site-specific calculation of the PGA for use in earthquake-resistant design. The CGS Probabilistic Seismic Hazards Assessment Model (CGS 2008) indicates there is a 1-in-10 probability that an earthquake within 50 years would

result in a PGA of 0.154g (where g is a percentage of gravity) at the project site, which indicates that a low level of seismic shaking is anticipated. All project-related facilities would be designed and constructed in accordance with standard engineering practices and the *Sacramento County Improvement Standards* (Sacramento County Engineering Department 2018). Furthermore, proposed improvements to the Amphitheater would be subject to the requirements of the CBC, which contains engineering and design requirements that are specifically intended to reduce the loss of life and property from seismic hazards. Therefore, this impact would be **less than significant**.

iii) Seismic-related ground failure, including liquefaction?

No Impact. 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, becoming similar to quicksand. Factors determining liquefaction potential are soil type, level and duration of ground motions, and depth to groundwater. Liquefaction is most likely to occur in low-lying areas where the substrate consists of poorly consolidated to unconsolidated water-saturated sediments, recent Holocene-age sediments, or deposits of artificial fill. The project site is underlain by stable, well cemented Pleistocene-age sediments, and the nearest active seismic sources are at least 55 miles away. Furthermore, the depth to groundwater in the project area in 2018 was reported to be approximately 20–30 feet below the ground surface (California Department of Water Resources [DWR] 2018). Therefore, liquefaction would not represent a hazard at the project site, and there would be **no impact**.

iv) Landslides?

Less-than-Significant Impact. The project site is located in an area of varied topography, but there is no history of landslides occurring at the project site. Although there are several areas of steep slopes at the project site, particularly around the existing Clubhouse, these areas have been reinforced by retaining walls. Additional retaining walls would be constructed as necessary as part of the proposed improvements based on standard engineering practices. Furthermore, active seismic sources are at least 55 miles away. Thus, this impact would be **less than significant**.

b) Result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. Project implementation would include earthmoving activities in various locations throughout the approximately 4-acre park. Based on NRCS soil survey data for Sacramento County, the project site consists of Xerarents-Urban Land-Fiddymment complex 8–15 percent slopes soil type, which is not rated by NRCS in terms of soil characteristics. Earthwork would include soil removal; grading; limited trenching and pipe installation; installation of building, road, and parking lot foundations; and landscaping. Construction activities during the winter months would expose soils to rain events, which could mobilize loose soil and result soil erosion. Subsequent soil transport during storm events could result in sedimentation both within and downstream of the project site. Furthermore, earthmoving activities during the summer months could result in wind erosion.

However, as discussed in detail in Section 3.9, “Hydrology and Water Quality,” because the proposed project would disturb more than 1 acre of land, the District would be required by law to prepare a Storm Water Pollution Prevention Plan (SWPPP) and to implement associated Best Management Practices (BMPs) that are specifically designed to reduce construction-related erosion. Construction techniques that could be implemented to reduce the

potential for stormwater runoff may include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup. BMPs that could be implemented to reduce erosion may include silt fences, staked straw bales/wattles, silt/sediment basins and traps, geofabric, trench plugs, terraces, water bars, soil stabilizers and re-seeding and mulching to revegetate disturbed areas.

Furthermore, Sacramento County's Land Grading and Erosion Control Ordinance (Sacramento County Municipal Code, Title 16, Chapter 16.44) includes specific standards for project construction related to erosion control. This ordinance requires preparation and submittal of a grading plan, along with erosion and sediment control plans that would be implemented both during and following the completion of construction activities. The plans must contain a list of all BMPs that would be used to reduce erosion and control stormwater runoff. A geotechnical report may also be required, as determined by the County.

Compliance with these existing regulations would ensure a **less-than-significant** impact.

c) 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?

Less-than-Significant Impact. Nearly the entire project site is composed of artificial fill (underneath the existing buildings, roads, and parking lots), and heavily disturbed soil (Xerarents) underneath the existing landscaped areas. The depth to groundwater in the project area is approximately 20–30 feet below the ground surface (DWR 2018). The project site contains several areas of steep slopes, but there is no history of landslides at the project site and retaining walls have been installed, and are included as part of the proposed improvements, where necessary. Currently, no information about the properties of the existing soils at the project site is available. However, compliance with the CBC requirements to prepare a geotechnical engineering report, along with Sacramento County (2018) Design Standards, Sacramento County grading permit requirements, and standard engineering practices, all of which would incorporate specific recommendations for construction in unstable soils (where necessary), would ensure that the proposed improvements are designed appropriately based on site-specific conditions. Thus, this impact would be **less than significant**.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating direct or indirect substantial risks to life or property?

Less-than-Significant Impact. As noted in c) above, nearly the entire project site is composed of artificial fill (underneath the existing buildings, roads, and parking lots), and heavily disturbed soil (Xerarents) underneath the existing turf grass. Compliance with the CBC requirements to prepare a geotechnical engineering report, along with Sacramento County (2018) Design Standards, Sacramento County grading permit requirements, and standard engineering practices, all of which would incorporate specific recommendations for construction in expansive soils (where necessary), would ensure that the proposed improvements are designed appropriately based on site-specific conditions. Thus, this impact would be **less than significant**.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Wastewater generated by the existing park facilities is conveyed off-site via underground pipelines for treatment at the Sacramento Regional Wastewater Treatment Plant. The proposed improvements at the project site would include installation of new on-site connections (if necessary for restroom upgrades) to existing off-site underground conveyance lines. Because the proposed project would not require installation of a septic system or alternative waste water disposal system, there would be **no impact**.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporated. The project site is located in the Pleistocene-age Turlock Lake Formation. As described previously, thousands of vertebrate fossil specimens have been recovered from the Turlock Lake Formation; therefore, it is considered to be of high paleontological sensitivity.

The project site has been developed with various structures, and upgraded with additional landscaping, parking, and walkways, at various times over a period that dates back to 1902. Based on NRCS soil survey data, nearly the entire project site consists of either (1) artificial fill (underneath the existing buildings, roads, and parking lots), or (2) heavily disturbed soil (Xerarents) underneath the existing landscape areas. Therefore, any fossils that may have originally been present at the project site have likely long since been destroyed. However, because new facilities would be located on different parts of the project site, and given that excavation ranging from 6–8 feet below the ground surface may be required for grading around the Clubhouse and for the foundation (and potential utility connections) of the expanded Amphitheater, project-related construction activities could result in accidental damage to or destruction of unique paleontological resources. Therefore, this impact is considered potentially significant.

Mitigation Measure GEO-1: Conduct Construction Personnel Education, Stop Work if Paleontological Resources are Discovered, Assess the Significance of the Find, and Prepare and Implement a Recovery Plan, as Required.

To minimize the potential for destruction of, or damage to potentially unique, scientifically important paleontological resources during earth-moving activities, the District shall implement the measures described below.

- Prior to the start of earthmoving activities at the project site, inform all construction personnel involved with earthmoving activities 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. This worker training may either be prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources or prepared and presented separately by a qualified paleontologist.
- If paleontological resources are discovered during earthmoving activities, immediately cease work in the vicinity of the find and notify the District. The Sacramento County Office of Planning and Environmental Review shall also be notified for purposes of record keeping related to paleontological resource localities. The District shall retain a qualified paleontologist to evaluate the resource and

prepare a recovery plan based on Society of Vertebrate Paleontology (SVP) Guidelines (SVP 1996). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the District, as the CEQA lead agency, to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

Significance after Mitigation

Implementation of Mitigation Measure GEO-1 would reduce project-related impacts on unique paleontological resources to a **less-than-significant** level because construction workers would be alerted to the possibility of encountering paleontological resources and, in the event that resources were discovered, fossil specimens would be recovered and recorded and would undergo appropriate curation.

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3.7 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII.Greenhouse Gas Emissions. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.7.1 SETTING

Certain gases in the earth's atmosphere, classified as Greenhouse Gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space through the atmosphere. However, infrared radiation is selectively absorbed by GHGs in the 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 Earth. Anthropogenic (e.g., human caused) emissions of these GHGs lead to atmospheric levels in excess of natural ambient concentrations and have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change.

The Intergovernmental Panel on Climate Change (IPCC) concluded that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the warming of the earth from pre-industrial times to 1950. Some variations in natural phenomena also had a small cooling effect. From 1950 to the present, increasing GHG concentrations resulting from human activity, such as fossil fuel burning and deforestation, have been responsible for most of the observed temperature increase (IPCC 2013).

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 are the GHGs that are widely accepted as the principal contributors to human-induced global climate change that are relevant to the project:

- Carbon Dioxide: Natural sources of carbon dioxide (CO₂) include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; and evaporation from oceans. Anthropogenic (human) sources include burning of coal, oil, natural gas, and wood.

- ▶ Methane: Methane (CH₄) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- ▶ Nitrous Oxide: Nitrous oxide (N₂O) is produced by both natural and human-related sources. Primary human-related sources of N₂O are agricultural soil management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. N₂O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO₂, therefore, CO₂ has a GWP of 1. The other main GHGs that have been attributed to human activity include CH₄, which has a GWP of 28, and N₂O, which has a GWP of 265 (IPCC 2013). For example, 1 ton of CH₄ has the same contribution to the greenhouse effect as approximately 28 tons of CO₂. GHGs with lower emissions rates than CO₂ may still contribute to climate change, because they are more effective at absorbing outgoing infrared radiation than CO₂ (i.e., high GWP). The concept of CO₂e is used to account for the different GWP potentials of GHGs to absorb infrared radiation. GHG emissions are typically measured in terms of pounds or tons of CO₂e and are often expressed in metric tons of CO₂ equivalent emissions (MTCO₂e).

3.7.2 THRESHOLDS OF SIGNIFICANCE

GHG emissions contribute, on a cumulative basis, to global climate change. The proposed project would not contribute significantly to climate change by itself. However, cumulative emissions from many projects and plans would all contribute to global GHG concentrations and the climate system. This section considers the proposed project’s cumulative contribution to the significant cumulative impact of climate change.

As stated in Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management district may be relied on to make the above determinations. For the purposes of determining whether the proposed project’s construction-related and operational GHG emissions may result in a cumulatively considerable contribution to the cumulative impact of climate change, for land development and construction projects, SMAQMD considers a project to exceed GHG emission thresholds if:

- ▶ the annual construction-related emissions exceed 1,100 metric tons (MT) carbon dioxide equivalent (CO₂e)/year; or
- ▶ the annual operational emissions exceed 1,100 MT CO₂e/year.

For the purposes of determining whether the proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, consideration is given to applicable State, local, and regional plans, including:

- ▶ Executive Order B-55-18;
- ▶ Assembly Bill (AB) 32 and Senate Bill (SB) 32;

- ▶ California Air Resources Board (ARB) 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan Update) (2017);
- ▶ The Sacramento Area Council of Governments (SACOG) 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS); and
- ▶ The Sacramento County General Plan (2017).

3.7.3 DISCUSSION

a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less than Cumulatively Considerable. Implementation of the proposed project would generate short-term construction and long-term operational GHG emissions. Construction-related GHG emissions would cease following construction of the proposed project. Operational emissions are considered long-term and assumed to occur for the lifetime the project.

Construction-related exhaust GHG emissions would be generated from a variety sources during construction of the proposed project including, but not limited to, heavy-duty construction equipment, haul trucks, material delivery trucks, and construction worker vehicles.

Operational GHG emissions can be categorized into direct and indirect GHG emissions. Direct GHG emissions are those emissions that are generated at the location of consumption or use. For example, mobile-source emissions are direct emissions because GHG emissions are generated as a vehicle is operated. Conversely, indirect emissions are those emissions that occur at a different time or location from the point of consumption or use. For example, electricity-related GHG emissions are indirect emission because as a consumer uses electricity, the fuel combustion and emissions associated with creating that electricity likely occurred off-site or at a different time. Other indirect GHG emissions include emissions associated with solid waste disposal and water consumption. The California Emissions Estimator Model (CalEEMod) estimates direct emissions associated with the proposed project's mobile (e.g., staff and student-related vehicles), area (e.g., landscape maintenance equipment), and energy (e.g., natural gas) sources; and indirect emissions associated with energy (i.e., electricity), water (i.e., conveyance and distribution), and solid waste (i.e., decomposition) sources.

As described in Chapter 2, *Project Description*, the proposed project will not result in an increase in capacity of the existing park facilities. However, the proposed improvements could result in an increase in use of the park areas. Table 3.7-1 presents a summary of the proposed project's potential annual construction-related and operational GHG emissions to compare with the applicable threshold of significance.

As shown in Table 3.7-1, the proposed project's short-term construction and long-term operational GHG emissions would not exceed the SMAQMD thresholds of significance of 1,100 MT CO₂e/year. Therefore, contribution of the GHG emissions that would be generated by the construction and operations of the proposed project to climate change would result in a **less than cumulatively considerable** contribution to the cumulative impact of climate change.

Table 3.7-1 Modeled GHG Emissions for Construction of the Proposed Project

Emissions Source	GHG Emissions (MT CO ₂ e / year)
Construction GHG Emissions	
Maximum Annual Construction Emissions*	474
Total Annual Operational Emissions	542
SMAQMD Threshold of Significance (Construction-related or Operational)	1,100
Exceed Thresholds?	No
Notes: * Construction emissions are shown for the modeled maximum annual scenario. Total construction emissions would be approximately 772 MT CO ₂ e per year, but would occur over the entirety of the proposed construction period (approximately 22 months) and would not continue after the completion of construction activities. Source: Modeled by AECOM in 2019	

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Cumulatively Considerable. While they do not apply directly to the proposed project, the primary regional plans concerning reduction of GHG emission for unincorporated area of Sacramento County are the Sacramento County General Plan and the SACOG MTP/SCS.

The General Plan includes park operations and maintenance, and such activities were included with the General Plan EIR. Therefore, the proposed project on the existing park facilities are in alignment with the Sacramento County General Plan.

The proposed project would provide improvements to existing facilities and not induce traffic. At the regional planning scale of the MTP/SCS, conservation of natural resources is recognized as an important factor in improving quality of life, in part, because it can provide outdoor space such as parks and other recreational areas. The MTP/SCS acknowledges that public parks are one way in which people connect with nature, particularly in urban areas (SACOG 2016). In addition, the MTP/SCS framework promotes a shift toward more infill development and use of existing assets (SACOG 2016). As described in Section 2.3, *Project Objectives*, the proposed project is intended to fulfill the mission of the District to “deliver well maintained parks, high quality recreation facilities, programs, and events.” Accomplishing this objective through implementation of the proposed project would be in alignment with the MTP/SCS promotion of natural resource conservation and use of existing facilities.

In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. It requires that statewide GHG emissions be reduced to 1990 levels by 2020. In December 2008, the ARB adopted its Climate Change Scoping Plan (Scoping Plan), which contains the main strategies the State of California will implement to achieve the required GHG reductions required by AB 32 (ARB 2014).

ARB’s First Update to the Climate Change Scoping Plan: Building on the Framework includes measures to meet California’s goal of reducing emissions to 1990 levels by 2020 and reiterates the State’s role in the long-term goal

to reduce GHG emissions to 80 percent below 1990 levels by 2050. The Scoping Plan Update provides discussions of sector-specific (e.g., transportation) issues, technologies, needs, and ongoing state activities to significantly reduce emissions through 2050. Achieving California's long-term goal will require improved vehicle efficiency, reduced carbon content of fuels, planning and building of communities to reduce vehicular GHG emissions and provide more transportation options, and improved efficiency throughout the existing transportation systems (ARB 2014). ARB's Scoping Plan Update includes measures that would indirectly address GHG emissions from construction activities, including the phasing-in of cleaner technology for diesel engine fleets and the development of a Low Carbon Fuel Standard. Policies formulated under the mandate of AB 32 that apply to construction-related activity, either directly or indirectly, are assumed to be implemented statewide and would affect the proposed project should those policies be implemented before construction begins. In November 2017, ARB released California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan Update) (ARB 2017). The 2030 target of a 40 percent reduction in GHG emissions below 1990 statewide GHG emissions (consistent with Executive Order B-30-15, which is outlined below) guides the 2017 Scoping Plan Update (ARB 2017). The 2017 Scoping Plan Update establishes a plan of action, consisting of a variety of strategies to be implemented rather than a single solution, for California to reduce statewide emissions by 40 percent by 2030 compared to 1990 levels (ARB 2017). The proposed project would comply with applicable regulations that are enacted to achieve the Scoping Plan mandates.

The SMAQMD quantitative thresholds of significance for GHGs were developed with the intent to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to GHG emissions reductions goals set forth by AB 32, the 2008 Scoping Plan, and Executive Orders (SMAQMD 2018). Currently, the SMAQMD is in the process of updating land use operational thresholds for GHG emissions to reflect changes in State legislation and approval of the 2017 Climate Change Scoping Plan since the adoption of the current SMAQMD thresholds of significance adopted in 2014 (SMAQMD 2018). To show progress towards meeting the more stringent State climate goals for 2030 and ultimately 2050, the SMAQMD staff recommends setting the threshold level so that 90 percent of emissions from projects would be captured for review and potential mitigation. Based on a review of land development projects submitted to the SMAQMD for CEQA review during calendar years 2014 through 2017, and the intent to increase the emissions capture rate to 98 percent, the revised recommended screening threshold is 3,500 MT GHG per year (SMAQMD 2018). While this appears to be a relaxation in the threshold (from the current 1,100 MT per year to a proposed 3,500 MT per year), it reflects the types of projects being proposed in the SMAQMD jurisdiction. Because the SMAQMD threshold of significance for GHG emissions is set based upon the intent of compliance with State GHG reduction goals, and because proposed revisions to the threshold would be higher than existing, the proposed project is considered to be consistent with existing State plans because it does not exceed the current SMAQMD threshold of significance for GHG emissions of 1,100 MT CO₂e.

Due to the project's consistency with the above described plans, as well as not exceeding thresholds of significance, the proposed project would not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions. This impact would result in a **less than cumulatively considerable** contribution to the significant impact of climate change.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.8.1 SETTING

AECOM performed a search of publicly available databases maintained under Public Resources Code Section 65962.5 (i.e., the “Cortese List”) to determine whether any known hazardous materials are present either in or within 0.25 mile of the project site. The Hazardous Waste and Substances Site List (the “EnviroStor” database) is maintained by the California Department of Toxic Substances Control (DTSC) as part of the requirements of Public Resources Code Section 65962.5. The State Water Resources Control Board (SWRCB) maintains the GeoTracker database, an information management system for groundwater. The results of records searches from the EnviroStor and GeoTracker databases indicate there are several open active cases, and several closed cases that have affected groundwater, within 0.25 mile of the project site. Relevant information about these sites is presented in Table 3.8-1.

The nearest currently operating permitted underground storage tank is approximately 535 feet west of the project site at an AT&T facility, located at 7931 California Avenue (SWRCB 2019).

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably paint. The use of lead as an additive to paint was discontinued in 1978 because human exposure to lead was determined by U.S. Environmental Protection Agency (EPA) and the Occupational Health and Safety Administration (OSHA) to be an adverse human health risk, particularly to young children. Demolition of structures containing lead-based paint requires specific remediation activities regulated by federal, state, and regional and local laws.

Asbestos is designated as a hazardous substance when the fibers have 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 poses an inhalation threat only if the ACMs are in a friable state. If the ACMs are not friable, then there is no inhalation hazard because asbestos fibers remain bound in the material matrix. People exposed to asbestos may develop lung cancer and mesothelioma. Emissions of asbestos fibers to the ambient air, which can occur during activities such as renovation or demolition of structures made with ACMs (e.g., insulation), are regulated locally by SMAQMD in accordance with EPA's Asbestos National Emission Standards for Hazardous Air Pollutants.

El Sereno High School, operated by the San Juan Unified School District, is 0.25 mile northeast of the project site at 10700 Fair Oaks Boulevard.

The nearest airport is Mather Field, approximately 5.5 miles to the southwest.

The project site is not located in a wildland fire hazard area (California Department of Forestry and Fire Protection [CAL FIRE] 2007, 2008).

3.8.2 DISCUSSION

a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less-than-Significant Impact. Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans), and use of these materials is regulated by California Department of Toxic Substances Control (DTSC), as outlined in California Code of Regulations (CCR) Title 22. The District and its construction contractors would be required to use, store, and transport hazardous materials in compliance with applicable federal and State regulations during project construction and operation. Because the project would be required to implement and comply with existing hazardous material regulations, and because each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated quicker response to emergencies, this impact would be **less than significant**.

Table 3.8-1 Summary of Hazardous Materials Database Searches¹

Site Name, Address, and Number	Distance and Direction from Project Site	Type of Contamination	Affected Media	Case Status	Summary
ARCO #0284 10224 Fair Oaks Blvd. SWRCB Site No. T0606700901	Immediately adjacent (to the north)	TPHg, TPHd, benzene, toluene, ethylbenzene, xylene, and MTBE	Soil and shallow groundwater (other than drinking water)	Closed	This former gasoline station contained three gasoline USTs and one oil UST. A portable soil vapor extraction system was installed and operated for approximately 1.5 years. Six groundwater monitoring wells were installed; well #4 was installed in the Plaza Park parking area, just south of Park Drive. Petroleum hydrocarbons were either very low or were below laboratory reporting limits from monitoring well #4. The results of laboratory testing indicate the contaminated groundwater plume is stable and the concentrations of most COCs are below threshold levels. The direction of groundwater flow is to the southwest, but the contaminated groundwater plume does not extend off site. The case is closed but land use controls are in place, including a prohibition on subsurface excavation.
B&B Automotive 10500 Fair Oaks Blvd. SWRCB Site No. T0606700265	600 feet northeast	TPHg, benzene, toluene, ethylbenzene, and xylene	Soil and shallow groundwater (other than drinking water)	Open	This site formerly contained a gasoline station and automotive repair shop. Three USTs were used to store gasoline, a fourth UST was used to store waste oil, and a concrete oil-water separator was also present. The USTs and the oil-water separator were excavated and removed, along with contaminated soil associated with each component. Groundwater monitoring and vapor extraction wells were installed. An SVE system was operated at the site for several years, but did not substantially reduce the concentration of petroleum hydrocarbons in groundwater. Air sparging in combination with the SVE was implemented and is ongoing. Benzene and petroleum hydrocarbons are currently present in on-site wells and four off-site wells. The direction of groundwater flow is primarily to the northwest, but the contaminated groundwater flowing off site to the north has comingled with groundwater flowing off site from the Fast Stop #2 Food Store to the east (see site record below).

Table 3.8-1 Summary of Hazardous Materials Database Searches¹

Site Name, Address, and Number	Distance and Direction from Project Site	Type of Contamination	Affected Media	Case Status	Summary
Fast Stop #2 (now Super Quick) Food Store 10542 Fair Oaks Blvd. SWRCB Site No. T0606701042	725 feet northeast	TPHg, benzene, toluene, ethylbenzene, xylene, and MTBE	Soil and shallow groundwater (other than drinking water)	Open	The property formerly included a gasoline fueling area with two USTs. The USTs, along with contaminated soil, were excavated and removed. An SVE system, a GET system, and ozone injection have all been operated on the site to reduce groundwater contamination. The ozone injection system ceased in January 2019. Groundwater treatment is ongoing. The direction of groundwater flow is to the northwest (not toward the project site). The contaminated groundwater plume extends off-site to the north, northwest, and northeast.
Fair Oaks Car Wash 4350 Sunrise Blvd. SWRCB Site No. T0606702751	650 feet northwest	TPHg, benzene, toluene, ethylbenzene, xylene, MTBE	Soil and shallow groundwater (other than drinking water)	Closed	This car wash facility formerly included a fuel station with three gasoline USTs. The USTs, along with contaminated soil, were excavated and removed. The direction of groundwater flow is north-northwest. Contaminated groundwater did not migrate off site. All COCs except MTBE were reduced to levels below regulatory thresholds. MTBE residuals were only slightly above threshold values, and the case was closed assuming natural attenuation would further reduce the levels of MTBE.
ARCO #2126 4400 Sunrise Blvd. SWRCB Site No. T0606791919	880 feet northwest	TPHg, benzene, MTBE, and tert-butyl alcohol	Soil and shallow groundwater (other than drinking water)	Open	Three gasoline USTs were excavated and replaced, along with contaminated soil, at this active service station. An SVE and an air-sparge treatment system were installed. Groundwater treatment and monitoring are ongoing. The contaminated groundwater plume extends off-site to the south into the Fair Oaks Car Wash, and northwest into Sunrise Boulevard. The direction of groundwater flow is to the northwest.
<p>Notes: UST = underground storage tank; total petroleum hydrocarbons as gasoline = TPHg; total petroleum hydrocarbons as diesel = TPHd; MTBE = methyl tertiary butyl ether; COC = constituents of concern; SVE = soil vapor extraction; GET = groundwater extraction and treatment</p> <p>¹ Includes all open hazardous materials site listings within 0.25 mile of the project site, and closed listings with contaminated groundwater plumes within 0.25 mile of the project site.</p> <p>Sources: California Department of Toxic Substances Control 2019, State Water Resources Control Board 2019</p>					

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact. Due to the age of the commercial building south of the Amphitheater, the Amphitheater, and underground pipelines, asbestos and lead-based paint could be encountered during project-related demolition activities. However, the handling and disposal of these materials is regulated by the Sacramento Metropolitan Air Quality Management District (SMAQMD), the federal and state Occupational Safety and Health Administration (OSHA and Cal/OSHA), and the federal and state Environmental Protection Agency (EPA and Cal/EPA). Because the District and its construction contractors are required to comply with these materials handling regulations, and because the project-related construction area would be fenced to exclude the presence of non-authorized personnel, project-related impacts related to asbestos and lead-based paint would be **less than significant**.

Construction and operation of the proposed project would entail the use of small amounts of hazardous materials such as fuel, oils, paints, and solvents. However, the use of these materials is heavily regulated at both the federal and state level. Furthermore, because the proposed project would disturb more than 1 acre of land, the District is required by law to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) with appropriate BMPs, such as spill prevention and contingency measures to reduce the potential for accidental spills and procedures for implementation of appropriate and timely cleanup activities if spills do occur. Therefore, this impact would be **less than significant**.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-than-Significant Impact. The proposed project is approximately 0.25 mile southwest of the San Juan Unified School District's El Sereno High School. The project site consists of an existing developed park with a variety of facilities. The proposed project would involve a variety of improvements at the park, including parking and pathways, landscaping, and an extension of the existing Amphitheater. Minor amounts of hazardous materials such as fuel, oils, paints, and solvents would be used during construction activities, and would also be stored on-site during the project's operational phase. The construction area would be surrounded by exclusionary fencing, and none of the materials used at the project site would be acutely hazardous. As discussed in Section 3.2, "Air Quality," the proposed project would not result in emissions of toxic air contaminants. Thus, this impact would be **less than significant** and no mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-Significant Impact. There are a number of Cortese-listed sites in close proximity to the project site, each of which is described in Table 3.8-1. The large, co-mingled contaminated groundwater plume associated with the former B&B Automotive and the Fast Stop Food Store is approximately 600 feet north of the project site at the closest point, and the direction of groundwater flow from this plume is to the north/northwest, away from the project site. Similarly, the direction of groundwater flow in the contaminated groundwater plume from the ARCO #2126 site, approximately 750 feet northwest of the project site at the closest point, is also to the northwest. The contaminated groundwater plume from the Fair Oaks Car Wash has not migrated off that property,

and is approximately 650 feet to the northwest; again, the direction of groundwater flow from that plume is to the northwest, away from the project site. Because of the distance from the project site and the direction of flow of the contaminated groundwater plumes, these sites do not pose a human health or environmental hazard for the proposed project.

The former ARCO fuel station #0284 is adjacent to Plaza Park, on the north side of Park Drive. A soil-vapor extraction (SVE) system was installed to remediate groundwater that was contaminated by total petroleum hydrocarbons as gasoline and diesel (TPHg and TPHd, respectively), benzene, toluene, ethylbenzene, xylene, and methyl tertiary butyl ether (MTBE). As part of a network of wells installed to monitor groundwater constituents of concern (COCs), one monitoring well was installed in the Plaza Park parking area just south of Park Drive. COCs were either very low or were not detected at laboratory reporting levels from this monitoring well, which was destroyed in 2014 per Sacramento County Department of Environmental Health regulations. In 2011, ARCADIS performed a soil vapor analysis to determine the potential human health risks from potential volatilization of COCs from the contaminated groundwater plume, through the overlying soil, and into the outdoor air and indoor air (inside buildings). Recreationists at Plaza Park were specifically identified as one of several nearby sensitive receptors that could potentially be affected, in addition to nearby residents, commercial employees and shoppers, and construction workers during future construction activities at the ARCO site. Based on laboratory results of the soil vapor analysis, COCs were not detected at or above laboratory reporting limits. This indicates that COC migration to indoor and outdoor air would not represent a hazard (ARCADIS 2013). Given that the depth to groundwater ranges from 14–30 feet below the ground surface (bgs), and that excavation for utility trenches and the foundation for the addition to the Amphitheater typically would not exceed 8 feet bgs, it is unlikely that groundwater would be encountered by any project-related underground trenching activities. Therefore, this impact is considered **less than significant**, and no mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The nearest airport is the Mather Field, approximately 5.5 miles southwest of the project site. Proposed improvements at the existing park would have no effect on airport safety hazards due the distance between the park and Mather Field and the fact that the proposed project would not include tall buildings, would not include nighttime lighting that could be mistaken for airport lighting, and would not result in an increase in waterfowl habitat that could result in birdstrikes. Thus, there would be **no impact**. (Please see Section 3.11, “Noise and Vibration,” for an evaluation of airport noise hazards.)

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. The approximately 4-acre project site is developed with an existing park, which would be upgraded. All construction materials, equipment, and personnel would be staged on site. The project site is accessible by emergency vehicles from all sides via local roadways. The relatively limited amount of proposed on-site improvements and the limited amount of associated construction would result in only minor increases in short-term, temporary, construction-related traffic on local roadways. Improvements related to ingress/egress points would provide for appropriate emergency access in accordance with Sacramento County Improvement Standards (Sacramento County 2018), which are intended to provide for the safety of all persons during the

project's operational phase. Therefore, the proposed project would not substantially impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact is considered **less than significant** and no mitigation is required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. As discussed in detail in Section 3.17, "Wildfire," the project site and vicinity are located in Local Responsibility Area not a State Responsibility Area, and are not classified as a very high or high fire hazard severity zone (CAL FIRE 2007, 2008). Vegetation at the project site consists of turf grass, shade trees, and other urban landscaping. The project site is located in a developed area of Fair Oaks and is surrounded by mixed-use commercial and residential development. Fire protection services would continue to be provided by the Sacramento Metropolitan Fire District Fire Station No. 31 in Fair Oaks, which has sufficient capacity to serve the proposed project. Therefore, the proposed project would have **no impact** related to exposure of people or structures to wildland fires.

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3.9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that there the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) 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; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 SETTING

SURFACE WATER HYDROLOGY

The project site is located in Fair Oaks, northeast of the city of Sacramento within the Sacramento River Basin. The Sacramento River Basin encompasses about 27,000 square miles and is bounded by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Delta to the southeast. The American River is approximately 0.4 miles southeast of the project site. The three forks of the upper American River originate high in the Sierra Nevada and drain approximately 1,875 square miles of mountainous terrain before converging at Folsom Reservoir. Folsom Dam and Reservoir were constructed to regulate water releases for power generation, flood control, and protection of downstream fish and wildlife species. Nimbus Dam, which forms Lake Natoma, regulates water released from the Folsom Reservoir hydroelectric facility. The Lower American River runs from below Nimbus Dam downstream 23 miles to its confluence with the Sacramento River. This highly regulated river system is contained by natural bluffs and

terraces, and by constructed levees. Flow in the Lower American River varies throughout the year and is controlled primarily by water releases at Folsom Dam to reduce flooding or to meet downstream water demands.

Flooding

The American River Flood Control System includes Folsom Dam, Nimbus Dam, an auxiliary dam at Mormon Island, and eight earth-filled dikes. According to the most recent Flood Insurance Rate Map (FIRM) prepared by FEMA's National Flood Insurance Program, the project site is located in unshaded Zone X—an area of minimal flood hazard (FEMA 2012) (see Exhibit 3.9-1). Furthermore, the project site is not located in a 200-year flood (0.5% annual exceedance probability [AEP]) hazard area as mapped by the U.S. Army Corps of Engineers and the Reclamation Board in 2002, or in a California Department of Water Resources (DWR) 100-year (1% AEP) Awareness Floodplain (DWR 2019).

SURFACE WATER QUALITY

Beneficial uses of the American River between Folsom Dam and the Sacramento River, as listed in the Sacramento and San Joaquin River Basin Plan (Central Valley Regional Water Quality Control Board [CVRWQCB] 2018), are summarized in Table 3.9-1.

Table 3.9-1 Beneficial Uses of the Lower American River Watershed

Municipal and Domestic Supply	Canoeing and Rafting
Agricultural (Irrigation) and Industrial Supply	Warm-Water and Cold-Water Freshwater Habitat (including fish migration and spawning habitat)
Hydropower Generation	Wildlife Habitat
Contact and Noncontact Recreation	

Source: Central Valley Regional Water Quality Control Board 2018

The Lower American River is included on the State Water Resources Control Board's (SWRCB) 303(d) list of impaired water bodies (SWRCB 2017). The pollutants of concern and the status of development of Total Maximum Daily Loads (TMDLs) required by the federal Clean Water Act (CWA) are presented in Table 3.9-2.

Table 3.9-2 Section 303(d) List of Impaired Waterbodies

Impaired Water Body	Pollutant	Pollutant Source	TMDL Status
Lower American River	Bifenthrin ¹	Unknown	Expected in 2027
	Indicator Bacteria (<i>Escherichia coli</i>)	Unknown	Expected in 2027
	Mercury	Legacy mining	Expected in 2010; still in process
	Polychlorinated biphenyls (PCBs)	Unknown	Expected in 2021
	Pyrethroids ²	Unknown	Expected in 2027
	Toxicity	Unknown	Expected in 2021

Notes: TMDL = total maximum daily load

¹ A commercial pyrethroid insecticide.

² A group of manufactured chemicals that are used as insecticides. Pyrethroids can enter waterbodies from stormwater and agricultural runoff, and are extremely toxic to aquatic life. They are commonly sprayed on crops, and are also sprayed in the air to control mosquitoes.

Source: State Water Resources Control Board 2017

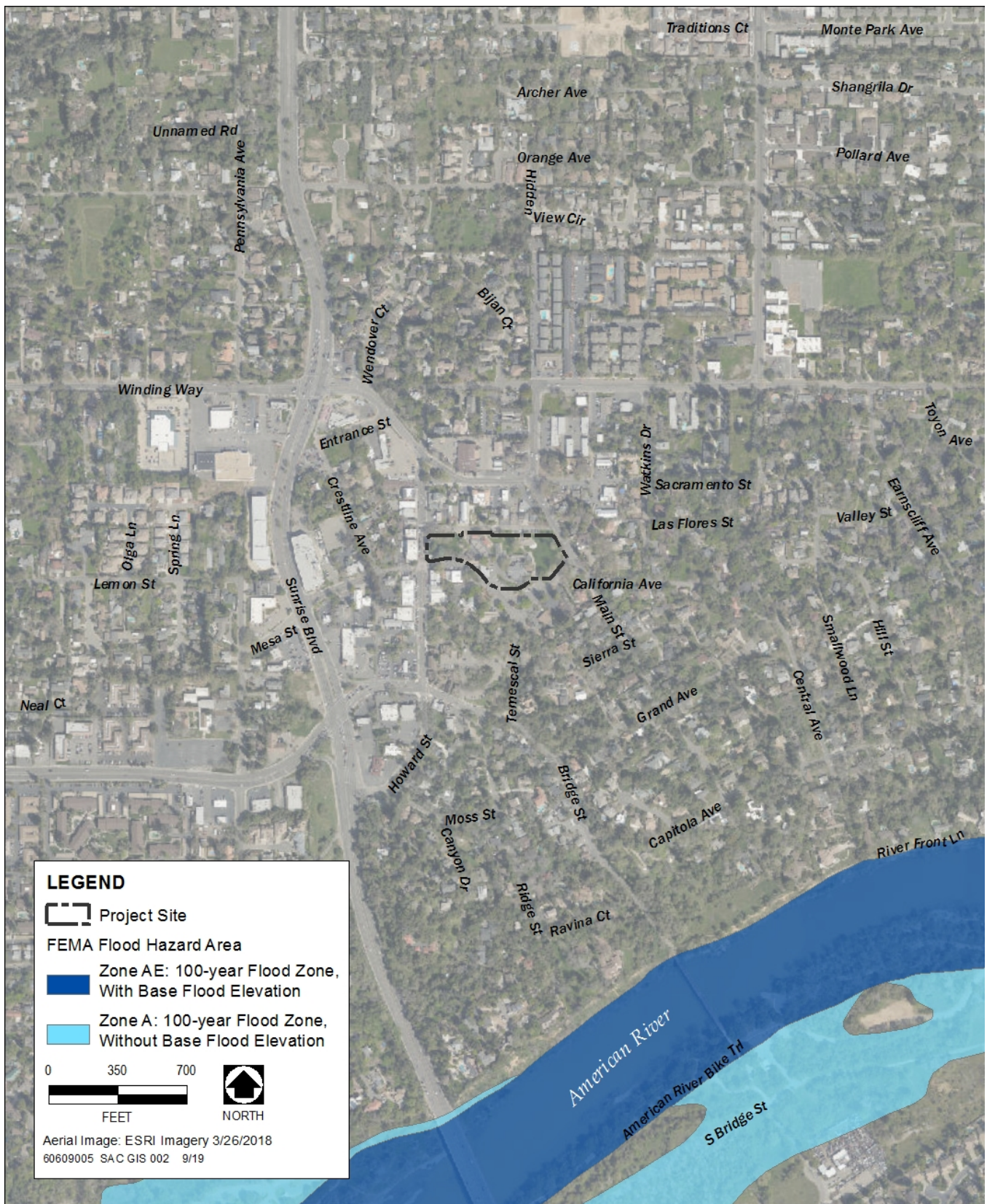


Exhibit 3.9-1 FEMA Floodplain Mapping

3.9.2 DISCUSSION

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less-than-Significant Impact. The proposed project would require construction over an approximately 4-acre site. The depth to groundwater in the project area varies widely depending on topography. The depth to shallow groundwater adjacent to and north of the project site (on the north side of Park Drive at the former ARCO service station at 10224 Fair Oaks Boulevard) was reported to range from 14–34 feet below the ground surface (bgs) (ARCADIS 2013). In 2018, DWR reported the approximate depth to groundwater as approximately 20–30 feet bgs (DWR 2018). Based on these groundwater depths, the need for construction dewatering is unlikely. Project construction would require vegetation removal, excavation, grading, material stockpiling, and staging at the project site that would temporarily disturb surface soils. These activities would expose soil to the erosive forces of wind and water. The soil could ultimately be transported via the storm drainage system to the American River, increasing turbidity and degrading water quality.

Erosion and construction-related wastes have the potential to degrade water quality and beneficial uses if they enter runoff and flow into waterways, potentially altering the dissolved oxygen content, temperature, pH, suspended sediment and turbidity levels, and/or nutrient content of receiving waters or causing toxic effects in the aquatic environment. Therefore, project-related construction activities could violate water quality standards or otherwise substantially degrade water quality.

Sacramento County has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by the Central Valley Regional Water Quality Board (Order No. R5-2016-0040-010) (CVRWQCB 2016). The Municipal Stormwater Permit requires the County to reduce pollutants in stormwater discharges to the maximum extent practicable and to effectively prohibit non-stormwater discharges. The County has also established a Stormwater Ordinance (Sacramento County Code 15.12), which prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks.

The project is required by law to comply with the provisions of the SWRCB's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities* (Order 2009-009-DWQ as amended by Order 2012-0006-DWQ) (Construction General Permit) (SWRCB 2012). The Construction General Permit regulates stormwater discharges for construction activities under the CWA, and applies to all land-disturbing construction activities that would disturb 1 acre or more. Project applicants must submit a notice of intent to discharge to the CVRWQCB, and must prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to minimize those discharges. All NPDES permits also have inspection, monitoring, and reporting requirements. CVRWQCB requires dischargers to implement construction and operational design features and BMPs that are specifically intended to reduce the potential for downstream hydromodification. The Construction General Permit also requires implementation of BMPs that are designed to prevent accidental spills of hazardous materials during the construction phase to the maximum extent practicable, and the SWPPP must include procedures for immediate cleanup should any releases occur. CVRWQCB also has the authority to issue waivers to reports of waste discharge (WDRs) and/or WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

Because the District is required by law to comply with CVRWQCB requirements to obtain WDRs (if applicable) and comply with the provisions therein, and to prepare and implement a SWPPP with associated BMPs specifically designed to protect beneficial uses of downstream waterbodies in compliance with the federal CWA, the state Porter-Cologne Water Quality Act, and the regional Basin Plan (*Water Quality Control Plan for the Sacramento and San Joaquin River Basins* [CVRWQCB 2018]), this impact would be **less than significant**.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that there the project may impede sustainable groundwater management of the basin?

No Impact. There are no on-site groundwater wells. The existing parks, Clubhouse, and Amphitheater are currently supplied with potable water via underground pipelines, and these park facilities would continue to receive water in the same manner as they do currently. The proposed project would not require the installation of on-site groundwater wells, and the project does not include an increase in the capacity of recreationists that would substantially increase the need for water supply. Thus, there would be **no impact**.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site;

Less-than-Significant Impact. The CVRWQCB requires that projects include source and/or treatment control measures on selected new development and redevelopment projects. Source control BMPs are intended to keep pollutants from contacting site runoff. Treatment control measures are intended to remove pollutants that have already been mobilized in runoff. The project site already contains an existing developed park with an existing drainage system. The park includes large grassy areas and shade trees, which help to slow the rate of water movement and allow sediments and pollutants to settle out prior to discharge to receiving waters. These vegetated features also provide filtration and pollutant uptake/adsorption. Minor grading would be implemented throughout the park for installation of new walkways and parking areas, and to reduce the slope of pathways around the Clubhouse. The proposed project also includes replacement of aging landscape trees over time (which provide shade and help to retain water), a new garden at the Clubhouse, and new planters scattered throughout the edges of the parking areas that would be planted with low-water-use plants.

The existing park already includes existing walkways and parking areas, and the minor grading throughout the park that would be necessary for proposed improvements would not substantially alter the existing drainage pattern and would not substantially increase the amount of impervious surfaces. Erosion would be controlled by the District's implementation of a SWPPP with BMPs as described above, and through continued operational landscape features such as grass and trees that slow runoff and provide vegetative pollutant treatment. Therefore, this impact would be **less than significant**.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less-than-Significant Impact. The project site is not located in a FEMA flood zone (FEMA 2012) (see Exhibit 3.9-1). As described in c) i) above, the existing park already includes existing walkways, parking areas, and landscaping, and the minor improvements to walkways, parking, and the Amphitheater would not substantially

alter the existing drainage pattern, would result in only a minor increase in the amount of impervious surfaces, and therefore would not substantially increase the rate or amount of surface runoff. The existing on-site drainage system would continue to serve the park after the upgrades are installed, and the existing and proposed vegetation would help to reduce the rate and volume of stormwater runoff. Therefore, this impact would be **less than significant**.

- iii) **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; or**

Less-than-Significant Impact. The project site consists of an existing developed park with an existing drainage system. The proposed improvements to walkways, parking, and the Amphitheater would result in only a minor increase in the amount of impervious surfaces, and would not substantially increase the rate or amount of surface runoff such that the capacity of the existing drainage system would be exceeded or provide substantial additional sources of polluted runoff. Furthermore, the large grassy areas and shade trees help to slow the rate of water movement and allow sediments and pollutants to settle out prior to discharge to receiving waters. These vegetated features also provide filtration and pollutant uptake/adsorption. Therefore, this impact would be **less than significant**.

- d) **In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

No Impact. The project site is not located in a flood hazard, tsunami, or seiche zone; thus, there would be **no impact**.

- e) **Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

No Impact. For the reasons discussed in a) and b) above, the proposed project would not obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, there would be **no impact**.

3.10 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.10.1 SETTING

The District is proposing improvements to the existing Plaza Park, Village Park, Community Clubhouse, and Veterans Memorial Amphitheater located in the community of Fair Oaks in unincorporated Sacramento County (see Exhibit 2-1 in Chapter 2, “Project Description”). The 4-acre park complex is bordered by Park Drive, Main Street, Temescal Street, Sierra Street, and Fair Oaks Boulevard in the heart of the historic Fair Oaks Village. As shown in Exhibit 2-2 of Chapter 2, the main existing facilities at the park complex include:

- ▶ Plaza Park is a neighborhood park on the east edge of the site near Fair Oaks Boulevard with large shade trees, benches, and picnic tables. The park is approximately one acre in land area, with a concrete path lining the perimeter.
- ▶ Village Park is the other neighborhood park on the opposite side of the park complex, bordered on three sides by Temescal Street, Main Street, and Park Drive. Village Park is approximately 2.5 acres in land area with a large grass area, a playground, and picnic tables. This park also has a large stage and bandshell, which is used extensively during the summer concert series.
- ▶ The Community Clubhouse at the southern end of the site, west of Village Park, in between Temescal Street and California Avenue. It is used as a community event center for meetings, classes, and special events.
- ▶ The Veterans Memorial Amphitheater is an outdoor facility between the Community Clubhouse and Plaza Park. Live shows are performed during the summer and the facility is closed to the public the remaining time.

The park complex is surrounded by mixed-use commercial and residential development. The west side of the park complex is surrounded by commercial development associated with a historic area of Fair Oaks Boulevard. This area around Plaza Park, particularly along the west side of the park adjacent to Fair Oaks Boulevard, includes small businesses, shops, and restaurants with on-street parking. Village Park is surrounded primarily by residential development and the Old Fair Oaks Library Building is southeast of Village Park on Temescal Street. The Fair Oaks Parks and Recreation District administrative offices are southeast of the Community Clubhouse on Temescal Street.

The *Plaza Park, Village Park, and Community Clubhouse Master Plan* (Master Plan) (Callander Associates Landscape Architecture, Inc. 2012) provides guidance for updating and unifying the overall park complex as a whole, and is consistent with the principles outlined in the District's *2010–2020 Master Plan for Parks, Facilities, and Recreation Services* (Pros Consulting 2010) and the adopted renovation design for the Fair Oaks Veterans Memorial Amphitheater. The goals and objectives put forth in the Plan for the project are to increase cohesion of the various facilities, implement the community's vision, add historic flavor that will complement, and contribute to the eclectic flavor already celebrated in the Fair Oaks community (District 2012).

The Sacramento County General Plan was last comprehensively updated on November 9th, 2011. There are no Sacramento County General Plan land use policies applicable to the proposed project. The park complex is designated as Low Density Residential in a mixed-use corridor under the County General Plan (Sacramento County 2017). The Low Density Residential designation provides for areas of predominantly single-family housing with some attached housing units. The Mixed Use Corridor designation identifies commercial corridors targeted by the County for revitalization with mixed-use, retail, employment, and residential uses that are both compact and transit oriented (Sacramento County 2011).

The park complex is zoned by Sacramento County as Recreation (O) (Sacramento County 2019). The O zoning district includes public park facilities as an allowable use, and is intended to preserve the open space and other areas of unusual scenic beauty and recreational potential that are unique to Sacramento County and California and to protect the County's physical, social, recreational, aesthetic, and economic resources (Sacramento County 2015).

The park complex is designated as Residential Density-5 (RD-5) under the *Fair Oaks Community Plan* (Community Plan) (Sacramento County 1975). This designation provides for residential development with a maximum density of 5 dwelling units per acre. Plaza Park, Village Park, and the Clubhouse are identified as an existing neighborhood park within the RD-5 residential area in the Community Plan. The Community Plan goals related to parks are focused on preserving existing parks, establishing a well-balance system of parks, and acquiring land for additional parks (Sacramento County 1975).

The project site is located within the East Fair Oaks Boulevard District of the *Fair Oaks Boulevard Corridor Plan* (Corridor Plan) (Sacramento County 2011). The Corridor Plan contains a variety of goals and policies specific to each district, which are intended to guide the design of future projects. There are no land use goals and policies in the Community Plan applicable to the proposed project; rather, Community Plan goals and policies are primarily related to visual resources, including integrating pleasing landscaping, lighting, parking, pedestrian and bicycle paths, streetscapes, and urban development in a manner that preserves and enhances the community character (see Section 3.1, "Aesthetics," for further discussion).

3.10.2 DISCUSSION

a) Physically divide an established community?

Construction of the proposed improvements would occur within the park complex. The closest residential areas are located adjacent to Village Park north of Park Drive, east of Main Street, and southeast Temescal Street. Village Park is separated from these residential neighborhoods by these roadways.

The proposed project does not include any linear features, such as new roadways, that could divide existing communities in the vicinity of the park complex or impede interaction among land uses within these communities. Therefore, the proposed project would not physically divide an established community. **No impact** would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project would implement the Plaza Park, Village Park, and Community Clubhouse Master Plan (2012 and 2019) by renovating, providing cohesion, and increasing accessibility of the park spaces to the public. In addition, the project would include renovations to the Veterans Memorial Amphitheater consistent with the conceptual design provided in the 2010 Veterans Memorial Amphitheatre Improvements Plan (updated in 2019).

The proposed project consists of expanding the existing Amphitheater to include an indoor concert facility; renovating and expanding the Village Park playground and band shell and stage; providing a continuous accessible path system linking Plaza Park, Village Park, the Clubhouse, and the Amphitheater; reconfiguring the parking around the Clubhouse; adding and expanding the parking areas around the rest of the park complex; and adding lighting, landscaping, and other site amenities (see Exhibits 2-3 and 2-4 in Chapter 2).

The park complex is designated by the Sacramento County General Plan as Low Density Residential and zone by Sacramento County as Recreation (O). Plaza Park, Village Park, and the Clubhouse are identified as an existing neighborhood park within the RD-5 residential area in the Community Plan. Because the proposed project would not change recreational uses of the park complex and would not introduce changes in land use that would be inconsistent with existing uses, the proposed project would be consistent with the County General Plan's land use designation and zoning as well as the Community Plan's land use designation.

The proposed project supports the goals of the Community Plan related to preserving existing parks and establishing a well-balance system of parks (Community Plan Goal 5). In addition, the proposed project supports the Corridor Plan goals and policies for the East Fair Oaks Boulevard District by retaining the existing historic character; improving the landscaping, lighting, signage, and pathways; replacing aging shade trees with new trees; and adding new landscaped areas including planters between parking stalls and grassy areas (see Section 3.1 for further discussion). There are no Sacramento County General Plan land use policies applicable to the proposed project. In addition, the project does not propose any General Plan policy changes or General Plan amendments. **No impact** would occur.

Specific impacts on other resources and issue areas are addressed in each technical section of this IS/MND, as appropriate. These technical sections provide a detailed analysis of other relevant physical environmental effects that could result from the project. Land use inconsistencies are not physical effects on the environment. The proposed project would not conflict with the land use designation or zoning for the project site or generate any adverse physical impacts beyond those addressed in detail in the environmental sections of this IS/MND (air quality, biological resources, cultural resources, etc.).

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3.11 NOISE AND VIBRATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Noise. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 SETTING

The project site is located in the unincorporated community of Fair Oaks in Sacramento County. The project site is surrounded by residential, office, and commercial uses. Primary existing sources of noise in the vicinity of the project site are activities at the park complex and roosters crowing within the parks and in the area. Vehicular traffic on surrounding roadways and to a lesser extent, activities associated with surrounding residential and other developed properties also generate noise in the area.

SOUND, NOISE, AND ACOUSTICS

Sound is the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is defined as sound that is unwanted (i.e., loud, unexpected, or annoying). Acoustics is the physics of sound.

The amplitude of pressure waves generated by a sound source determines the perceived loudness of that source. A logarithmic scale is used to describe sound pressure level in terms of decibels (dB). The threshold of human hearing (near-total silence) is approximately 0 dB. A doubling of sound energy corresponds to an increase of 3 dB. In other words, when two sources at a given location are each producing sound of the same loudness, the resulting sound level at a given distance from that location is approximately 3 dB higher than the sound level produced by only one of the sources. For example, if one automobile produces a sound pressure level of 70 dB when it passes an observer, two cars passing simultaneously do not produce 140 dB; rather, they combine to produce 73 dB.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 hertz (Hz) and above 5,000 Hz in a manner corresponding to the human ears decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). All noise levels reported in this section are in terms of A-weighting. There is a strong correlation between A-weighted sound levels and community response to noise. As discussed above, doubling sound energy results in a 3-dB increase in sound. In typical noisy environments, noise-level changes of 1 to 2 dB are generally not perceptible by the healthy human ear; however, people can begin to detect 3-dB increases in noise levels. An increase of 5 dB is generally perceived as distinctly noticeable and a 10-dB increase is generally perceived as a doubling of loudness. The following are the sound level descriptors commonly used in environmental noise analysis:

- ▶ Equivalent sound level (L_{eq}): An average of the sound energy occurring over a specified time period. In effect, the L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same 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.
- ▶ Maximum sound level (L_{max}): The highest instantaneous sound level measured during a specified period.
- ▶ L_{dn} (Day-Night Noise Level): The 24-hour L_{eq} with a 10 dB “penalty” applied during nighttime noise-sensitive hours, 10:00 p.m. through 7:00 a.m. The L_{dn} attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.
- ▶ L_n (Statistical Descriptor): The noise level exceeded n percent of a specific period of time, generally accepted as an hourly statistic. An L_{10} would be the noise level exceeded 10 % of the measurement period.

Sound from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, and the sound level attenuates (decreases) at a rate of 6 dB for each doubling of distance from a point/stationary source. Roadways and highways and, to some extent, moving trains consist of several localized noise sources on a defined path; these are treated as “line” sources, which approximate the effect of several point sources. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Therefore, noise from a line source attenuates less with distance than noise from a point source with increased distance.

GROUNDBORNE VIBRATION

Groundborne vibration is energy transmitted in waves through the ground. Vibration attenuates at a rate of approximately 50 percent for each doubling of distance from the source. This approach considers only the attenuation from geometric spreading and tends to provide for a conservative assessment of vibration level at the receiver.

Vibration is an oscillatory motion that can be described in terms of the displacement, velocity, or acceleration. Vibration typically is described by its peak and root-mean-square (RMS) amplitudes. The RMS value can be considered an average value over a given time interval. The peak vibration velocity is the same as the “peak particle velocity” (PPV), generally presented in units of inches per second. PPV is the maximum instantaneous positive or negative peak of the vibration signal and is generally used to assess the potential for damage to

buildings and structures. The RMS amplitude typically is used to assess human annoyance to vibration, and the abbreviation “VdB” is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

EXISTING NOISE ENVIRONMENT

As noted, the existing noise environment within the vicinity of the project site is primarily influenced by activities and events within the Village Park (playground and concerts) and Plaza Park (Amphitheater), as well as roosters crowing within the parks and in the area. Surface-transportation noise emanating from vehicular traffic on Fair Oaks Boulevard, Main Street, and other surrounding roadways and to a lesser extent, neighborhood activities, are also the noise sources in the area. Existing commercial uses contribute to the noise environment at existing adjacent residential uses due to loading activities, vehicle movements in parking lots, and vocalizations. Intermittent noise from outdoor activities at the surrounding residences (e.g., people talking, operation of landscaping equipment, car doors slamming, and dogs barking), also influences the existing noise environment.

The closest existing noise-sensitive land uses to the project site are the houses to the east and north of the park complex.

An ambient noise survey was conducted from July 25th to Monday July 29th, 2019. The purpose of the survey was to establish existing noise conditions. Ambient noise measurements were conducted near existing noise-sensitive uses at various locations in the vicinity of the project site. The results of the noise survey are shown in Table 3.11-1. Exhibit 3.11-1 shows the locations of the ambient noise measurement sites. Two long-term (24-hour) and one short-term (30 minutes) measurements were taken on and off the project site during the events at the Amphitheater (Friday and Saturday) and the concerts at Village Park (Thursday). As shown in Table 3.11-1, measured ambient noise levels at the noise-sensitive land uses closest to the project site range from 52 to 67 dBA L_{eq} and from 63 and 68 dBA L_{dn} .

Measurement LT-01 recorded noise levels from the concert in Village Park. The concert was held between 5 p.m. and 10 p.m. on Thursday, July 25th at the Village Park. As shown in Exhibit 3.11-2, noise levels during the concert reached 75 dBA, L_{eq} . Typical noise levels in the area are below 60 dBA, L_{eq} , except during roadway traffic peak hours, which are at or below 65 dBA, L_{eq} , as shown in Exhibit 3.11-2.

Measurement LT-02 recorded noise levels from the concert in Amphitheater at Plaza Park. The concert was held between 5 p.m. and 10 p.m. on Saturday, July 27th at the Amphitheater. As shown in Exhibit 3.11-3, noise levels during the concert reached 74 dBA, L_{eq} . Typical noise levels in the area are below 60 dBA, L_{eq} , except during roadway traffic peak hours, which are at or below 65 dBA, L_{eq} , as shown in Exhibit 3.11-3.

Table 3.11-1 Summary of Ambient Noise Level Survey Results in the Vicinity of the Project Site

Site	Location	Date		Duration	Time		Measured Sound Level, dB Daytime (7 a.m.–7 p.m.)				
		From	To		From	To	L _{eq}	L _{max}	L ₅₀	L ₉₀	L _{dn}
LT-1	Village Park at Old Fair Oaks Library Building (4200 Temescal Street)	Thursday, July 25, 2019	Friday, July 26, 2019	24 Hour	14:00	13:00	66.5	93.8	52.5	47.3	67.2
		Friday, July 26, 2019	Saturday, July 27, 2019	24 Hour	14:00	13:00	66.7	92	52	47.5	63.6
		Saturday, July 27, 2019	Sunday, July 28, 2019	24 Hour	14:00	13:00	54.3	70.3	50.7	47	64.2
		Sunday, July 28, 2019	Monday, July 29, 2019	20 Hour	14:00	10:00	51.7	66.5	49	45	63.1
LT-2	Amphitheater at Plaza Park	Thursday, July 25, 2019	Friday, July 26, 2019	24 Hour	15:00	14:00	57.9	85	50.9	47.7	64.4
		Friday, July 26, 2019	Saturday, July 27, 2019	24 Hour	15:00	14:00	54.7	72.7	49.7	46.1	64.0
		Saturday, July 27, 2019	Sunday, July 28, 2019	24 Hour	15:00	14:00	53.5	70.8	48.7	45.8	67.7
		Sunday, July 28, 2019	Monday, July 29, 2019	20 Hour	15:00	10:00	55.1	75.8	48.3	45.3	63.7
ST-01	Along Park Drive North of Amphitheater	Saturday, July 27, 2019		30 mins	17:00	17:30	64.7	74.2	56.5	47.5	NA
<p>Notes: dB = decibels; L_{eq} = equivalent sound level (the sound energy averaged over a continuous period of time); L_{max} = maximum instantaneous sound level; ST = short-term measurement</p> <p>Noise-level measurements were completed using a Larson Davis Laboratories (LDL) Model 824 precision integrating sound-level meter. The meter was calibrated before the measurements using an LDL Model CAL200 acoustical calibrator. The meter was programmed to recorded A-weighted sound levels using a “slow” response. The equipment used complies with all pertinent requirements of the American National Standards Institute for Class 1 sound-level meters (ANSI S1.4).</p> <p>Source: Data compiled by AECOM in 2019</p>											

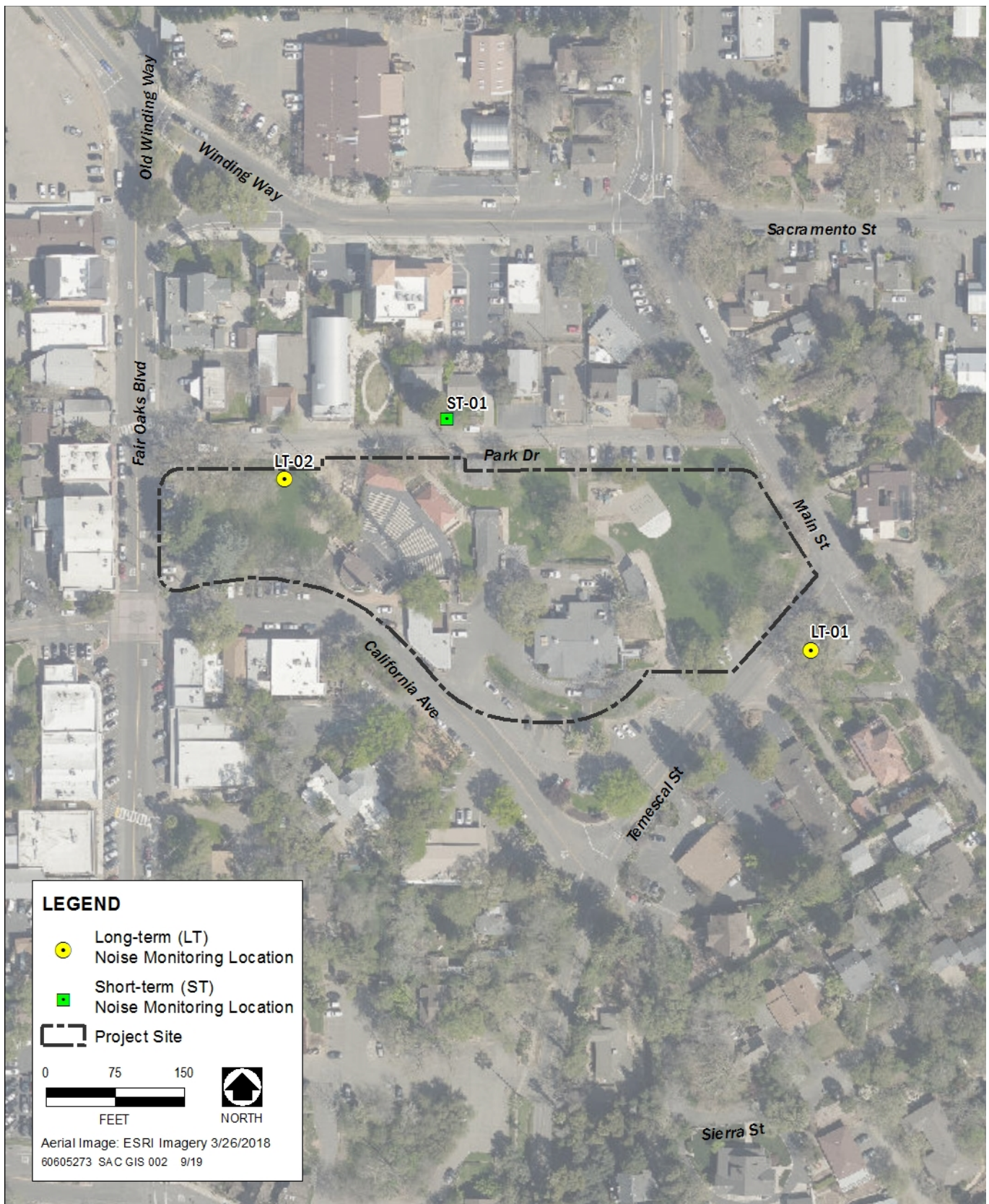


Exhibit 3.11-1 Ambient Noise Survey

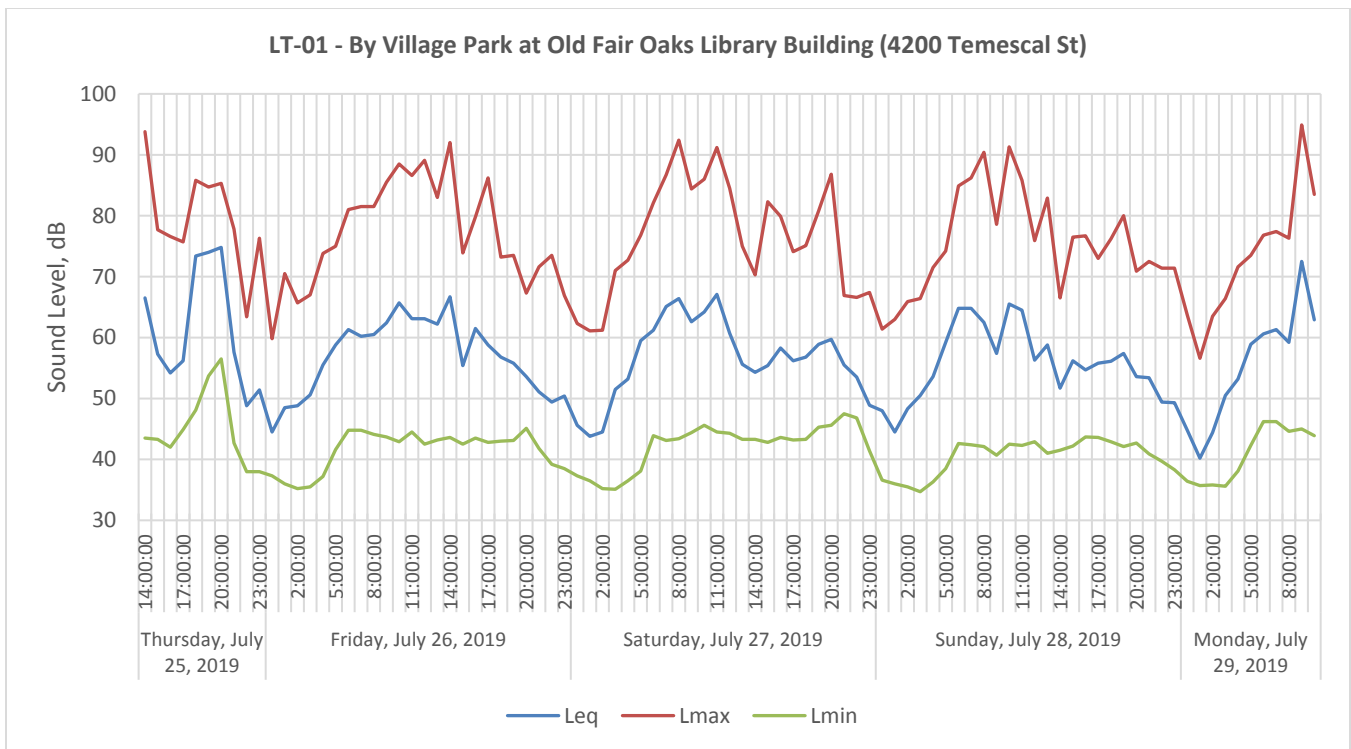


Exhibit 3.11-2 Measured Noise at Village Park at Old Fair Oaks Library Building (4200 Temescal Street)

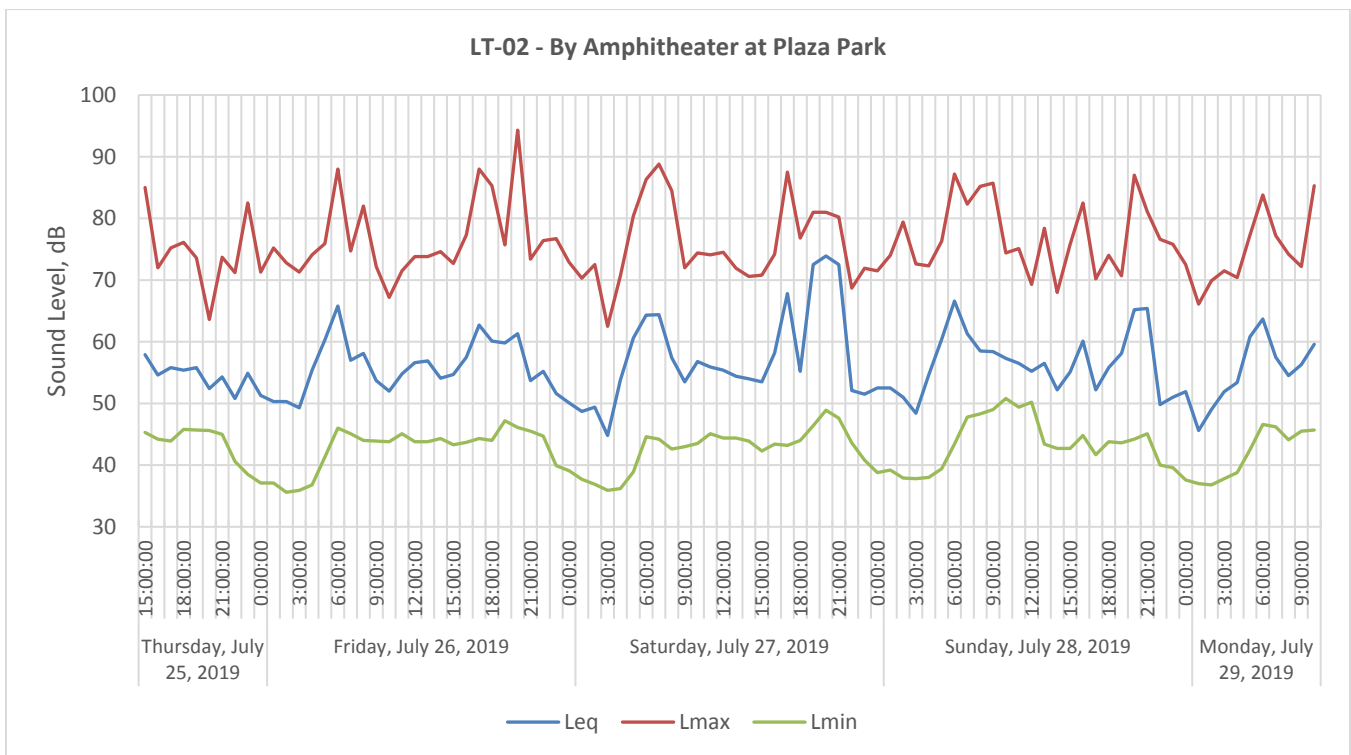


Exhibit 3.11-3 Measured Noise at Plaza Park by Amphitheater

3.11.2 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on the environmental checklist in Appendix G of the State CEQA Guidelines, as amended. Implementing the project would result in a significant noise impact if it would result in:

- ▶ generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- ▶ generation of excessive groundborne vibration or groundborne noise levels; or
- ▶ for a project within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels.

The County of Sacramento General Plan Noise Element (County of Sacramento 2017) provides several policies related to land use and noise compatibility. While these policies do not directly apply to the project, they are presented for context. For non-transportation noise sources, the County has established interior and exterior noise standards for daytime and nighttime hours (Table 3.11-2).

Table 3.11-2 Non-Transportation Noise Standards, Sacramento County Noise Element

Receiving Land Use	Outdoor Area ^{1,2}				Interior ³	
	Daytime		Nighttime		Day & Night	
	Median L ₅₀ ⁶	Maximum (L _{max})	Median L ₅₀	Maximum (L _{max})	Median L ₅₀	Maximum (L _{max})
All Residential	55	75	50	70	35	55
Churches, Meeting Halls, Schools, Libraries, etc.	55	75	- ⁵	- ⁵	35	60
Office Buildings	60	75	- ⁵	- ⁵	45	65
Commercial Buildings	-	-	- ⁵	- ⁵	45	65
Playgrounds, Parks, etc.	65	75	- ⁵	- ⁵	-	-
Industry	60	80	- ⁵	- ⁵	50	70

Notes:

- ¹ The standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
- ² Sensitive areas are defined acoustic terminology section.
- ³ Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
- ⁵ The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.
- ⁶ Where median (L₅₀) noise level data is not available for a particular noise source, average (L_{eq}) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply.

Source: Sacramento County 2017

The Sacramento County Code Noise Control Ordinance contains performance standards for the purpose of preventing unnecessary, excessive and offensive noise levels within the county. Section 6.68.090 of the

Sacramento County Code establishes that noise associated with construction, repair, remodeling, demolition, paving, or grading is exempt from the Noise Ordinance, provided said activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday; and on each Sunday after the hour of 8:00 p.m.

3.11.3 DISCUSSION

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Short-Term Project-Generated Construction Source Noise

Less than Significant with Mitigation Incorporated. Demolition and construction would occur in different locations throughout the project site and would include site preparation (e.g., excavation, and construction); material transport; construction of the new facilities, and related-support structures; and other miscellaneous activities (e.g., paving).

Site preparation generates the highest anticipated noise levels, as the equipment mix would include earth-moving equipment such as scrapers, dozers, loaders, and a motor grader. The simultaneous operation of on-site construction equipment associated with the proposed project, as identified above, could result in combined noise levels up to approximately 89 dB L_{eq} at 50 feet from the center of construction activity.

Based upon the equipment noise levels, usage factors, and a typical noise-attenuation rate of 6 dB for every doubling of distance, exterior noise levels at noise-sensitive receptors located within 100 feet of the project site could be as high as 83 dB L_{eq} . Table 3.11-3 summarizes modeled construction noise levels compared to existing noise levels at noise sensitive locations measured during the ambient noise survey.

Table 3.11-3 Ambient and Project Construction Noise Levels at Closest Sensitive Receptors

Receiver	Distance (ft) From Acoustical Center Between Noise-Sensitive Receiver locations and Proposed Construction Areas	Exterior Noise Level, dBA L_{eq}		Interior Noise Level, dBA L_{eq}	
		Ambient Noise	Maximum Construction Noise	Project Noise, Doors/Windows Open	Project Noise Doors/Windows Closed
Residences to the east	100	52 - 67	83	68	58
Residences to the north	100	54 - 58	83	68	58

Refer to Appendix B for modeling input parameters and output results.
dBA = A-weighted decibels
ft = foot/feet
 L_{eq} = Equivalent Noise Level
Sources: FHWA 2006, EPA 1974, Modeled by AECOM 2019

As shown in Table 3.11-3, daytime project construction noise levels at the closest noise sensitive areas, located approximately 100 feet from the acoustical center of proposed construction activities, could reach as high as 83 dB L_{eq}.

Under the County's noise ordinance, construction activities that do not occur during the more noise-sensitive hours (e.g., evening, nighttime, and early morning) are exempt from daytime noise standards, given that construction equipment is fitted with feasible noise control devices.

Nevertheless, if construction activities were to occur during the more noise-sensitive hours (e.g., evening, nighttime, and early morning) or construction equipment were not properly equipped with noise control devices, construction-generated source noise could result in annoyance and/or sleep disruption of occupants of the nearby existing noise-sensitive land uses (e.g., single-family) and create a substantial temporary increase in ambient noise levels in the direct vicinity of the project site. Potential construction-related project impacts on existing noise-sensitive land uses are therefore considered **potentially significant**.

Mitigation Measure NOI-1: Implement Measures to Reduce Short-Term, Construction-Related Noise.

- Provide written notification to the residents within 500 feet³ of the project site at least three weeks prior to construction, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents to contact regarding construction noise. Post contact information in conspicuous locations adjacent to the site with contact information regarding construction noise and activities. The notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall be included in the notification. If there is communication related to construction noise, implement feasible methods to reduce noise exposure effects, such as shielding, changing the location of stationary sources, and changing construction hours.
- Prohibit the start-up of machines or equipment before place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m.
- Prohibit use of materials and equipment deliveries before 7:00 a.m. and after 7:00 p.m., Monday through Saturday and before 9:00 a.m. and past 5:00 p.m. on Sunday.
- Restrict the use of bells, whistles, alarms, and horns to safety-warning purposes.
- Equip all construction equipment with noise-reduction devices, such as mufflers to minimize construction noise and operate all internal combustion engines with exhaust and intake silencers.

³ Building rows located within 500 feet of the construction site, would shield construction noise. Therefore, construction noise would be attenuated to ambient level beyond this distance.

- Locate fixed construction equipment (e.g., compressors and generators), construction staging and stockpiling areas, and construction vehicle routes as far as feasible from noise-sensitive receptors, northern portion of the site and/or off-site staging areas north of the site.

Significance after Mitigation

Implementation of Mitigation Measure NOI-1 would reduce the potentially significant impact resulting from construction activities to a **less-than-significant level** because it would ensure that construction activities would avoid noise-sensitive hours, reduce equipment noise levels, reduce other sources of noise on-site, and provide SCOE with the opportunity to further reduce temporary noise exposure effects during the course of construction, if necessary.

Long-Term Project-Generated Stationary Source Noise

Parking Lot Activities

Less-than-Significant Impact. The proposed project would introduce 20 new parking spaces spread throughout the site, including ADA accessible stalls approximately 100 feet from adjacent noise-sensitive residential uses to the east. Based upon previous noise measurements, the sound exposure level (SEL) associated with a parking event is approximately 71 dB SEL at 50 feet. Assuming that each parking stall adjacent to residential uses were to fill and empty (20 parking events total) within an hour, the noise level is predicted to be 48 dBA L_{eq} at 50 feet from the center of the parking stalls. This would generate a noise level of 42 dBA L_{eq} at 100 feet. Existing ambient noise levels at the residential uses to the west of the project site range between 52 to 67 dBA L_{eq} . Therefore, noise levels associated with parking would not be distinguishable from the existing ambient noise levels. As a result, this impact would be **less than significant**.

Traffic

Less-than-Significant Impact. The project would add traffic volumes to the project. However, typically, traffic volumes have to double before the associated increase in noise levels is noticeable (3 dBA L_{dn}) along roadways (Caltrans 2013a). The incremental addition of proposed project traffic would not cause a doubling of those volumes. Consequently, construction of the proposed project would not result in a noticeable change in the traffic noise contours of area roadways. Long-term, off-site operational traffic source noise would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. As a result, this impact would be **less than significant**.

Increase in Project Events Noise Levels at Nearby Receptors

Less than Significant. As measured at the closest receptors to the parks, the nearest noise-sensitive uses to the parks are already exposed to events noise levels of approximately 63 and 68 dBA L_{dn} , as represented by ambient noise measurement LT-1 and LT-2 (shown in Exhibit 3.11-1). The highest hourly noise level from the events at the nearest noise-sensitive uses to the parks would be approximately 74 dBA L_{eq} (Amphitheater) and 75 dBA L_{eq} (concert at Village Park), as shown in Exhibit 3.11-2 and Exhibit 3.11-3. The project would not increase the capacity of the park complex. The frequency of the events would potentially increase due to the proposed project improvements. The resulting noise levels associated with park activities would be similar to the existing noise levels. Therefore, the impact would be **less than significant**.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Construction activities have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

On-site construction equipment could include scrapers, dozers, loaders, and a motor grader. According to Federal Transit Administration (FTA 2018), vibration levels associated with the use of a large dozer is 0.089 inches per second (in/sec) peak particle velocity (PPV) and 87 vibration decibels [VdB referenced to 1 microinch per second (μ in/sec) and based on the root mean square (RMS) velocity amplitude] at 25 feet. Table 3.11-4 summarizes modeled construction vibration levels at noise sensitive locations.

Table 3.11-4 Project Construction Vibration Levels at Closest Sensitive Receptors

Receiver	Location	Shortest Distance (ft) Between Noise-Sensitive Uses and Proposed Construction Areas	Vibration Levels	
			PPV	VdB
On-site	On-site Buildings (Fair Oaks Community Clubhouse, Amphitheater Structures)	50	0.031	78
Off-site	Off-site, north, south, east and west of the project site	100	0.011	69
Source: FTA, Transit Noise and Vibration Impact Assessment, September 2018. Modeled by AECOM 2019.				

Using FTA's recommended procedure for applying a propagation adjustment to these reference levels, predicted worst-case vibration levels of approximately 0.031 in/sec PPV and 78 VdB at the closest existing sensitive receptor could occur. These vibration levels would not exceed Caltrans's recommended standard of 0.2 in/sec PPV (Caltrans 2013b) with respect to the prevention of structural damage for normal buildings or the FTA's maximum-acceptable vibration standard of 80 VdB (Federal Transit Administration 2018) with respect to human annoyance for residential uses. The long-term operation of the proposed project would not include any vibration sources, and short-term construction would not result in the exposure of persons or structures to or generation of excessive groundborne vibration or groundborne noise levels. As a result, this impact would be **less than significant**.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within 2 nautical miles of an airport. The closest airport is Mather AFB, which is located approximately 5.4 nautical miles to the south of the project site. Thus, the project would not expose people residing or working in the project area to excessive noise levels. **No impact** would occur.

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3.12 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
a) Induce substantial unplanned 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 SETTING

POPULATION

The project site is located in in the community of Fair Oaks in unincorporated Sacramento County. The California Department of Finance (DOF) estimates that Sacramento County's total population increased from 1,223,499 in 2000 to 1,418,788 in 2010, or a 16-percent increase over the 10-year period (DOF 2012). Approximately 39 percent (554,554 persons) resided in the unincorporated areas of the county and 61 percent (864,234 persons) resided in the incorporated cities in 2010 (DOF 2012).

As of January 1, 2019, Sacramento County's total population has increased to 1,546,174 persons with 38 percent (594,216 persons) residing in the unincorporated areas of the county and 62 percent (951,958 persons) residing in incorporated cities (DOF 2019). The total population of Fair Oaks was approximately 32,469 in 2019 (U.S. Gazetteer 2019).

HOUSING

According to the DOF, the total number of housing units within the incorporated cities and unincorporated areas of Sacramento County was 574,449 in 2019, with an average household size of 2.89 persons per unit (DOF 2019). Approximately 65 percent of these housing units were attached and detached single-family homes. In 2019, the total number of housing units in the unincorporated area of the county was 223,231 units, which represents approximately 39 percent of the total housing units in the county as a whole (DOF 2019).

In 2019, the total number of housing units in the community of Fair Oaks was approximately 13,800, with an average household size of 2.39 persons per unit (U.S. Gazetteer 2019).

3.12.2 DISCUSSION

- a) **Induce substantial unplanned 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)?**

The proposed project would provide a continuous accessible path system linking Plaza Park, Village Park, the Clubhouse, and the Amphitheater with each other and to the historic Fair Oaks Village and the rest of the community; reconfigure the parking around the Clubhouse; add and expand the parking areas around the rest of the park to provide an even dispersal of parking; add lighting, landscaping, and other site amenities; and expand the Veterans Memorial Amphitheater.

Construction would begin in September 2020 and would require a total of approximately 22 months to complete. The source of the construction labor force is unknown at this time, but workers would likely come from the local labor pool. It is not anticipated that workers would relocate to the project area from other areas in the county or region. One additional staff member will be needed for further maintenance of the park complex.

The proposed project would enhance cohesion of the various park facilities and increase availability to the public. The proposed project would not involve constructing new homes or businesses or extending roadways or other infrastructure that would directly or indirectly induce unplanned population growth. Therefore, **no impact** would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction of the proposed project would occur within the approximately 4-acre park complex. Therefore, the proposed project would not displace a substantial number of people or necessitate the construction of replacement housing elsewhere. **No impact** would occur.

3.13 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 SETTING

As discussed below in Section 3.13.2, the proposed project would not affect schools or other public services. Therefore, the following discussion focuses on fire and police protection providers that would serve the park complex.

FIRE PROTECTION

The Sacramento Metropolitan Fire District (Metro Fire) provides fire protection services to the park complex. Metro Fire serves approximately 738,000 residents within a 417-square-mile service area that includes unincorporated portions of Sacramento and Placer Counties and the cities of Citrus Heights and Rancho Cordova (Metro Fire 2017). Metro Fire provides fire protection and suppression; inspections; plan checking; emergency transportation and medical services; public education; advanced life support; and rescue services, including technical rescue, urban search and rescue, swift water rescue, and tactical emergency medical support (Metro Fire 2017).

Metro Fire's Operations Division oversees the district's all-hazard emergency services which are delivered from 41 stations with daily shift staffing of 171 personnel. The Operations Branch answered over 96,000 calls for service in 2016. These calls for service were answered by five Battalion Chiefs, 36 first-out engine companies, seven truck companies, 14 fire-based medics, and nine single role paramedic units (Metro Fire 2017).

The closest Metro Fire station to the park complex is Fire Station 31 located at 7950 California Avenue, approximately 0.1 mile west of the park complex. Fire Station 31 is equipped with one engine company and one Type IV engine (Metro Fire 2017, 2019).

POLICE PROTECTION

The Sacramento County Sheriff's Department would provide police protection services to the project site. The Sacramento County Sheriff's Department operates several facilities, including a headquarters building, main jail, the Rio Cosumnes Correctional Center, five station houses, ten community service centers, a training academy, firearms training facility, marine enforcement detail, and an air support bureau. Local law enforcement protection consists of response to calls and trouble spots, investigations, surveillance, and routine patrolling.

The park complex is within the department's North Division. The North Division is headquartered at 5510 Garfield, approximately 6 miles northwest of the park complex. The North Division provides patrol services for approximately 415,000 people living in unincorporated areas of northern Sacramento County, including the park complex. The Division is currently staffed with 134 sworn officers and 19 support staff (Sacramento County Sheriff's Department 2019). As of January 1, 2019, there have been no reported crimes within the park complex (RAIDS 2019).

In addition, Fair Oaks Recreation and Park District contracts with Fulton-El Camino Park District Police Department for police patrol services for an average of eleven (11) hours a week. The focus of services is to discourage violations of park regulations, disorderly conduct, and criminal activity through the issuance of warnings and citations and the making of arrests when necessary.

PARKS

The park complex is operated and maintained by the Fair Oaks Recreation and Park District. The park complex currently consists of Plaza Park, Community Clubhouse, Village Park (which includes a band shell and playground), and the Fair Oaks Veterans Memorial Amphitheater (Exhibit 2-2 in Chapter 2, "Project Description"). See Chapter 2 for a detailed description of existing park facilities.

3.13.2 DISCUSSION

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

Fire protection?

Fire protection services would continue to be provided by Metro Fire's Station 31 in Fair Oaks. The proposed project would not increase the population in the project area as a result of new housing or employment opportunities that causes the need for new firefighters, equipment, or facilities. The project would not expand the capacity of the park complex.

The proposed project consists of expanding the existing Amphitheater to include an indoor concert facility; providing a continuous accessible path system linking Plaza Park, Village Park, the Clubhouse, and the Amphitheater; reconfiguring the parking around the Clubhouse; and adding and expanding the parking areas around the rest of the park. Proposed improvements to the park complex and Amphitheater would be required to incorporate California Fire Code requirements and Metro Fire's fire prevention standards into project designs. These standards address fire alarm system installation, sprinkler systems, building materials, access road length, dimensions, and finished surfaces for firefighting equipment; fire hydrant placement; fire flow availability and requirements; and plan submittal requirements.

The District would be required to demonstrate to Metro Fire and the Sacramento County Community Development Department that applicable California Fire Code requirements and Metro Fire's fire prevention standards are incorporated into project designs during review and approval of project plans or final inspections. Incorporation of all California Fire Code requirements and Metro Fire's fire prevention standards into project designs for the Amphitheater would reduce the potential for fire hazards. Therefore, the proposed project would not affect Metro Fire's response times or other performance objectives and would not result in the construction of new or expansion of existing fire protection facilities. Impacts on fire protection services would be **less than significant**.

Police protection?

The proposed project would not increase the population in the project area as a result of new housing; therefore, the proposed project would not require additional Sacramento County Sheriff's Department or Fulton-El Camino Park District Police Department staffing to maintain its officer-to-population service ratio.

Sacramento County Sheriff's Department and Fulton-El Camino Park District Police Department would continue to respond to criminal offenses at the park complex. The proposed project includes adding safety-level park lighting along perimeter paths and at the backs of building and removing obstructions that block views of access paths and into the park complex to provide better policing ability from the street. It is not expected that the proposed project would substantially increase the Sheriff's Department or Fulton-El Camino Park District Police Department calls for service. Therefore, the proposed project would not affect the Sacramento County Sheriff's Department or Fulton-El Camino Park District Police Department performance objectives and would not result in the construction of new or expansion of existing police protection facilities. **No impact** would occur.

Schools?

The proposed project would not provide any new housing that generates students. **No impact** would occur.

Parks?

The proposed project would not increase the population in the project area as a result of new housing or employment opportunities.

The proposed upgrades to the park complex and expansion of the Amphitheater to include an indoor concert facility could increase the number of events held at the park complex. This increase in use of the park and its facilities is considered minor and would be consistent with the type of uses already extant at the site. Because the proposed project would meet the recreational needs of the existing community, the proposed project would not

result in a substantial increase in the use of the park or its recreational facilities such that overuse would lead to or substantially contribute to their physical deterioration; therefore, the impact would be **less than significant**.

The proposed project would result in the potentially significant environmental impacts associated with construction activities. These impacts are addressed in relevant sections throughout this IS/MND in connection with discussions of the impacts of overall site development. Mitigation measures are identified for potentially significant impacts to ensure those impacts are reduced to a **less-than-significant** level. There are no additional significant impacts beyond those comprehensively considered throughout the other sections of this IS/MND.

Other public facilities?

The proposed project would not increase the population in the project area as a result of new housing or employment opportunities. Therefore, the proposed project would not increase demand for other public facilities. **No impact** would occur.

3.14 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation. Would the project:				
a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.17.1 SETTING

The project site is located in the community of Fair Oaks in unincorporated Sacramento County. The project site is in a mixed-use area, with commercial development, residential development, recreation, and public services located in close proximity to one another. The mix of uses, along with the pedestrian-friendly design of development and public rights-of-way, create an environment that is relatively hospitable for walking and cycling trips to reach destinations. Streets in the vicinity are relatively narrow, so intersections have relatively short and safe crossing distances, although bike lanes are generally not present in the area. Streets in the vicinity of the project site have extensive shade from a mature tree canopy, which creates more pleasant walking conditions in the summer, as well as relatively low speeds, which also creates a more pedestrian-friendly environment. There is on-street parking in the area surrounding the project site, which serves as a barrier between pedestrians and vehicular movements, creating additional sense of safety for pedestrians visiting the project site. Overall, the physical character of the project area helps to encourage non-vehicular travel, which has environmental impacts related to air quality, greenhouse gas emissions, and transportation noise.

Sacramento Regional Transit's 21 bus line uses Sunrise Boulevard in the vicinity of the project site and the 28 bus uses Fair Oaks Boulevard. There is a bus stop on Fair Oaks Boulevard adjacent to the project site, both providing connections to the Gold Line light rail, which services stops between Folsom and downtown Sacramento.

The project site is bordered by Park Drive, Main Street, Temescal Street, Sierra Street, and Fair Oaks Boulevard. Sunrise Boulevard, which is designated as a "Thoroughfare" in Sacramento County's Circulation Diagram, is located approximately 700 feet west of the project site. The County's Circulation Element establishes that

Thoroughfares “emphasize high mobility for through-traffic” (Sacramento County 2017).⁴ Sunrise Boulevard is also designated by the County as “BRT/Hi-Bus – Mixed Use Lanes.” This designation provides for bus rapid transit (BRT) with a high expected transit demand, but where the County has determined that exclusive right-of-way is necessary, and where BRT will share a lane with other traffic. Fair Oaks Boulevard is designated by the County as an “Arterial – 4 Lanes,” although the street has two lanes in the vicinity of the project site.

The project area was included in the Fair Oaks Village Parking and Circulation Study (Fair Oaks 2010). The parking and circulation study found parking in the Fair Oaks Village, and specifically around the Village Park complex, to be insufficient. The existing parking in the area does not provide enough spaces for park visitors and is not properly delineated with striping or signage. During events held at the Clubhouse and Amphitheater, parking spills over into residential streets and parking spaces outside of commercial properties, causing issues with residents and insufficient parking for patrons of the nearby businesses. Recommended solutions for these issues include: a coherent striping program, provide back-in parking along California Avenue and Fair Oaks Boulevard, and redesign or reorganize existing parking areas (Fair Oaks 2010).

3.17.2 DISCUSSION

a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Project construction would require hauling of equipment and materials, as well as worker commute trips to and from the project area along local roadways. Construction worker commute trips would come from the greater Sacramento area. While construction-related trips would occur on regional and local roadways, given the scale of the project, this would not substantially increase traffic congestion compared to existing conditions, particularly considering the temporary nature of project construction. No long-term street closures are planned or anticipated; however, limited, temporary lane closures may be necessary during construction, and public access to the project site would be temporarily restricted in active construction areas.

Once constructed, daily activities associated with current use and operations of the park complex would continue. The project would upgrade and renovate an existing park complex to enhance cohesion and usability of the park’s facilities. The project is also designed to enhance accessibility.

The park complex currently shares parking with adjacent retail and residential development. Improvements would reconfigure approximately 80 parking stalls and add 10 additional parking spaces spread throughout the site. The project would also formalize the parking spaces along Fair Oaks Boulevard with asphalt pavement, striping, an ADA stall, ramp, and planters around the palm trees. Parking spaces would be designed to meet County of Sacramento standards. There is approximately 41,000 square feet of asphalt existing on the site and, although the project would add parking spaces, the improvements would reduce the impervious surface of asphalt for parking to approximately 30,000 square feet. These improvements would allow more visitors to the park complex to use on-site parking, including ADA stalls, rather than using on-street parking and parking lots in the vicinity of the project site. This is consistent with recommendations put forth in the Fair Oaks Village Parking and Circulation Study, as well as the Fair Oaks Community Plan Goal 9 C and Policy 7: “Provide better off-street parking, particularly in the Village -area and transit park and ride areas.”

⁴ For more detail, please see the Sacramento County General Plan Circulation Element, available online at: <https://planning.saccounty.net/PlansandProjectsIn-Progress/Documents/6.%20Circulation%20Element%20Amended%2012-13-17.pdf>.

The improvements to the Amphitheater could allow an increase in the frequency of special events. However, this would not create any conflict with any relevant plan, ordinance, or policy addressing the circulation system that would lead to an adverse physical environmental impact. Rather, to the extent that the project would increase the frequency of events in a location that is pedestrian-friendly, the project would help to implement relevant policies intended to reduce the environmental impacts (air quality, greenhouse gas emissions, transportation noise, and energy consumption). The project does not propose changes to any travelways in the vicinity of the project site that would conflict with the County's Circulation Element. The project could benefit from Circulation Element Policy CI-26, if this is implemented in coordination with the District to serve special events: "CI-26. Consider the expansion of Neighborhood Shuttle services in unincorporated area communities." The construction and operation of the project would not conflict with any applicable transportation policy, plan, or ordinance; therefore, there would be **no impact**.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

As discussed in CEQA Guidelines Section 15064.3(b.3), increased travel demand (normally measured according to additional vehicle miles traveled or "VMT") can be an indicator of potential adverse physical environmental effects. The actual adverse physical environmental effects associated with VMT are analyzed in other sections of this document, including Air Quality, Greenhouse Gas Emissions, Noise and Vibration, and Energy.

As discussed, temporary construction worker commute trips would be from the greater Sacramento area. Truck trips associated with materials and equipment deliveries are also expected to originate from the greater Sacramento area. Construction truck trips would be temporary and limited to the volumes necessary to deliver equipment and materials to the site. Upon completion of construction, all worker commute trips and truck trips would cease.

It is possible that long-term operation of the project would increase travel demand. If the project is successful, and the park complex can host 55 additional special events, some patrons of the expanded special events calendar would travel to the project site using motor vehicles, which would generate air pollutant emissions and greenhouse gas emissions, produce transportation noise, and require the consumption of energy (which has the same adverse physical environmental effects as transportation related to criteria air pollutants and greenhouse gas emissions). However, this particular increase in special events is occurring in a pedestrian-friendly area that is served by transit, which will serve to minimize the incremental travel demand related effects.

Although most of the park visitors would be residents of the Fair Oaks community, the additional 12 events held at the Amphitheater could attract up to 40 percent of its participants from outside of the District's service area. Events held at the Amphitheater are typically held Fridays through Sunday, in the evening, which is outside of the typical peak hours of streets in the vicinity of the project site. There is no adverse physical environmental impact associated with VMT that is not addressed fully in other relevant technical sections of this Initial Study. The impact would be **less than significant**.

The following recommended measures could further reduce temporary travel demand during special events by encouraging pedestrian, bicycle, and other alternative modes of transportation for park events.

Recommended Transportation Measures:

- The District will consider providing parking fee incentives for early arrivals and High Occupancy Vehicles to reduce congestion and vehicular trips.
- The District will consider holding or advertising activities before or after special events, such as promotional children activities and raffle, to reduce peak congestion.
- The District will communicate with Sacramento County regarding changeable message signs to guide traffic in a way that improves efficiency of the circulation system before and after special events.
- The District will consider including information related to non-vehicular options and incentives for special events as a part of event advertising.
- The District will consider providing free and secure bicycle parking with an attendant and offer those that arrive via non-motorized vehicle an incentive, such as a free or discounted concession or entrance into a raffle, with winner/s announced at the event for further promotional effect.
- The District will communicate with Sacramento County regarding the implementation of Circulation Policy CI-26 regarding the feasibility of neighborhood shuttles to serve special events at the project site.
- The District will consider coordinating with relevant service providers to establish defined transportation network company pick-up and drop-off locations for special events.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The project would improve access to the park by adding parking, ramps, and new all-weather pathways within and around the perimeter of the park that would connect the park complex to create cohesion and safe access for all park users. Enhanced connectivity of the park complex and expanded parking on-site would improve circulation around the park complex. The project does not include street/roadway changes, and therefore would not add dangerous curves or intersections, or otherwise increase any hazards. There would be **no impact**.

d) Result in inadequate emergency access?

The project is the modernization and reuse of an existing park. The project site would maintain the same emergency access as under existing conditions; therefore, **no impact** would occur. See sections 3.8, Hazards and Hazardous Materials, and 3.13, Public Services for more details regarding emergency response and access to the project site.

3.15 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 SETTING

Tribal cultural resources are defined in CEQA as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, which may include non-unique archaeological resources previously subject to limited review under CEQA. Section 3.4, "Cultural Resources" contains a more detailed description of the environmental setting for the project site, relating to cultural and tribal resources. Pertinent details relating to tribal cultural resources are repeated below.

ASSEMBLY BILL 52 NATIVE AMERICAN CONSULTATION

Assembly Bill (AB) 52 requires the lead agency to begin consultation with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe; and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation (Public Resources Code Section 21080.3.1[d]).

A project would result in a significant impact if the project would:

- ▶ Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined

in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k), or
- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

SACRED LANDS FILE SEARCH

On July 29, 2019, AECOM requested a Sacred Lands File (SLF) search and CEQA Tribal Consultation List pursuant to Assembly Bill 52 (AB 52) from the Native American Heritage Commission (NAHC) on behalf of the Fair Oaks Recreation & Parks District. The NAHC responded in a letter via email on August 20, 2019 that the SLF search was negative. Native American consultation pursuant to AB 52 is being completed by Fair Oaks Recreation & Parks District. The District sent letters to all the listed tribes. So far, one response has been received from Buena Vista Rancheria stating they have no comment.

RECORDS SEARCH

A records search of the project area and environs was completed at the NCIC on August 14, 2019 (NCIC File No. SAC-19-162). A summary of the records search results is presented in Section 3.4.1. No prehistoric archaeological resources or ethnographic village sites were identified during the records search in the project site or within ¼-mile of the project site.

3.15.2 DISCUSSION

Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geologically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**

As discussed in Section 3.4, no tribal cultural resources that are listed or eligible for listing in the CRHR or local register of historical resources were identified during background research at the NCIC or NAHC. However, records maintained by the NCIC and NAHC are not exhaustive and negative results do not preclude the presence of tribal cultural resources in the project area.

Impacts of project construction relating to the disturbance of tribal cultural resources may be potentially significant.

Mitigation Measure TCR-1: Implement Mitigation Measure CUL-1: Halt Construction Activities if Cultural Resources Are Discovered.

The implementation of Mitigation Measure CUL-1 would reduce the impact to prehistoric archaeological sites that may be considered tribal cultural resources by requiring notification and appropriate treatment of resources, as provided under State law. Therefore, the impact would be **less than significant**.

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

On behalf of the Fair Oaks Recreation & Parks District, AECOM requested a search of SLF and Native American contact list for the project site from the NAHC for the project site on July 29, 2019. The results of the SLF search was negative. Native American consultation pursuant to AB 52 is being completed by Fair Oaks Recreation & Parks District.

No tribal cultural resources within the project area have been identified to date.

As noted in checklist response 3.5, "Cultural Resources," no cultural resource inventories have been conducted within the project site and 11 have been conducted within a 0.25-mile radius. None of the inventories identified NRHP-eligible prehistoric resources. Though unlikely, soil disturbance during project activities could damage previously unrecorded prehistoric resources. If buried tribal resources were inadvertently discovered and impacted during project implementation, this would be a potentially significant impact. Mitigation Measure CUL-1 found in Section 3.4 would be implemented to reduce this potentially significant impact to a **less than significant** level.

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3.16 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 SETTING

The approximately 4-acre project site currently consists of Plaza Park, Community Clubhouse, Village Park, and the Fair Oaks Veterans Memorial Amphitheater. Park facilities were constructed at various times between 1902 and 1971, with upgrades in the 1980s, 1990s, and early 2000s. The existing park is served by a variety of utility providers, including Sacramento County Water Agency Zone 13 (water supply), Sacramento County Water Agency Zone 11B (stormwater drainage), Sacramento Area Sewer District and Sacramento Regional Wastewater Treatment Plant (wastewater), Sacramento Metropolitan Utility District (electricity), Pacific Gas and Electric (natural gas), and the L&D and Kiefer Landfills (solid waste). A variety of telecommunications providers, including telephone and television, have existing facilities in the project area and are currently providing services to the project site.

3.16.2 DISCUSSION

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications**

facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-Significant Impact. The project site is currently developed and includes electrical/communication services, water meters, a storm drain system, and sewer services. While proposed improvements may increase accessibility and use of the park complex, overall park capacity would not increase from existing conditions. The project site is currently developed and includes electrical/communication services, water meters, a storm drain system, and sewer services. A new sewer and water line may be considered to serve the new restroom building if onsite facilities are not available to connect to nearby. Separate electrical services are provided at Plaza Park, Village Park, the Clubhouse and the Amphitheater. There is no plan to remove or relocate them. Utilities and service systems would continue to be provided by Sacramento County Water Agency, Sacramento Area Sewer District, Sacramento Regional Wastewater Treatment Plant, and Sacramento Metropolitan Utility District. The minor increase in use of the park due to the increase in Amphitheater and park-wide events would not be extensive enough to cause significant environmental effects for water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Therefore, because proposed increase in operational use would be within the capacity of the existing park complex, impacts would be **less than significant**. (See section 3.4, Energy, for more discussion on energy utilities.)

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-Significant Impact. Sacramento County Water Agency Zone 13 currently provides water to the community of Fair Oaks, including the park, and would continue to supply water to the redeveloped park facilities in the future. The project may lead to an increase in use due to an increase in events held at the Veterans Memorial Amphitheater and other events held in the general park complex. However, the increase in water consumption and use would be minor. Because the project would not increase capacity of the park, the project would not adversely affect Zone 13's ability to provide the necessary water supply to the park in the future; and therefore, this impact would be **less than significant**.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less-than-Significant Impact. The Sacramento Area Sewer District currently conveys and disposes of wastewater generated by the existing park in existing utility lines and would continue to do so in the future. The reconfigured parking and other park upgrades are not anticipated to require renovations or replacements to wastewater conveyance pipelines. Because the project would not increase capacity of the park, the project would not adversely affect the County's ability to provide the necessary wastewater conveyance or treatment at the Sacramento Regional Wastewater Treatment Plant for the park in the future. Although the park upgrades and Veterans Memorial Amphitheater expansion may lead to an increase the number of events, the increase in waste production would be considered minor; therefore, this impact would be **less than significant**.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. Project construction would generate solid waste that would require disposal at an off-site licensed waste facility. Trucks and/or dumpsters would be the anticipated method of haul-off and materials would be transported to the appropriate facility. There are two landfills that could accept solid waste from the project site. L&D Landfill, located at 8635 Fruitridge Road in Sacramento, primarily receives construction and demolition debris, household garbage, and other non-hazardous waste. Kiefer Landfill, located at 12701 Kiefer Boulevard in Sloughhouse, is operated by the County (City of Sacramento 2016). 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. The solid waste facility permit allows for 10,815 total tons of refuse per day and has a total capacity of 117 million cubic yards (City of Sacramento 2016).

The park upgrades and Veterans Memorial Amphitheater expansion may lead to an increase the number of events, which could lead to an increase in solid waste production. However, this increase is anticipated to be minor. On-site waste management would continue to be maintained by existing park maintenance staff.

Because both landfills have capacity to receive project waste during both the construction and operational phase. The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; therefore, this impact is considered **less than significant**.

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

No Impact. The District already has and would continue to implement recycling programs during the project's operational phase. During the demolition phase, construction and demolition debris would be recycled at local facilities. The California Green Building Code requires that at least 65 percent of construction and demolition waste be diverted from landfills. The proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste, and there would be **no impact**.

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3.17 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.17.1 SETTING

Fire hazard severity zones are measured qualitatively, based on vegetation, topography, weather, crown fire potential (a fire's tendency to burn upward into trees and tall brush), and ember production and movement within the area in question.

Fire prevention areas considered to be under state jurisdiction are referred to "state responsibility areas" or SRAs, and the California Department of Forestry and Fire Protection (CAL FIRE) is responsible for vegetation fires within SRA lands.⁵ In general, SRA lands contain trees producing, or capable of producing, forest products; timber, brush, undergrowth, and grass, whether of commercial value or not, that provide watershed protection for irrigation or for domestic or industrial use; or lands in areas that are principally used, or are useful for, range or forage purposes.

Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189 require identification of fire hazard severity zones within the State of California. In SRAs, the CAL FIRE is required to delineate three wildfire hazard ranges: moderate, high, and very high. The project site and vicinity are not located in a SRA. The closest SRA lands to the project site are located east of White Rock Road and south of U.S. Highway 50,

⁵ California Public Resources Code (PRC) Sections 4125–4127 define a State Responsibility Area as lands in which the financial responsibility for preventing and suppressing wildland fire resides with the State of California.

approximately 10 miles east of project site, and are rated as a Moderate Fire Hazard Severity Zone (CAL FIRE 2007a).⁶

“Local responsibility areas” (LRAs), which are under the jurisdiction of local entities (e.g., cities and counties), are required only to identify very high fire hazard severity zones. The project site and vicinity are in an LRA, and there are no very high or high fire hazard severity zones encompassing the project site (CAL FIRE 2007b).

3.17.2 DISCUSSION

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The project site and vicinity are not located in a SRA or very high fire hazard severity zone. Therefore, the proposed project would not impair an adopted emergency response plan or emergency evacuation plan for areas within a SRA or very high fire hazard severity zone. See Section 3.8, “Hazards and Hazardous Materials,” for further information related to emergency response and emergency evacuation plans. **No impact** would occur.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The approximately 4-acre project site is developed with an existing park, which would be upgraded. Vegetation at the project site consists of turf grass, shade trees, and other urban landscaping. The project site is located in an urbanized area of Fair Oaks and is surrounded by mixed-use commercial and residential development. The project site and vicinity are not located in a SRA or very high fire hazard severity zone. Therefore, construction and operation of the proposed project would not exacerbate wildfire risks. **No impact** would occur.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No impact. See response to item b), above. The proposed project would not install or maintain infrastructure that could exacerbate fire risks within a SRA or very high fire hazard severity zone. **No impact** would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No impact. See response to item b), above. The proposed project would not expose people or structures to significant risks from downstream flooding, landslides, slope instability or drainage changes. **No impact** would occur.

⁶ CAL FIRE’s Online Fire Hazard Severity Zone viewer was accessed on August 14, 2019, to confirm the hazard severity zone rating for the project area (<http://egis.fire.ca.gov/FHSZ/>).

4 SUMMARY OF MITIGATION MEASURES

The analysis in this initial study concludes that the proposed project, with implementation of mitigation measures, would have no significant impacts. Mitigation measures would be implemented for potential impacts to Air Quality, Biological Resources.

4.1 AIR QUALITY

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

Comply with Basic Construction Emission Control Practices identified by the SMAQMD and listed below or as they may be updated in the future:

- 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 two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid 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) 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 must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Mitigation Measure AIR-2: Implement Mitigation Measure AIR-1 (Implement the SMAQMD Basic Construction Emission Control Practices).

Mitigation Measure AIR-3: Provide a 50-foot exclusionary buffer to separate park users from in-use construction equipment.

The construction contractor shall use fencing or other barriers and signage to ensure that on-site park users are not within 50 feet of operational construction equipment.

4.2 BIOLOGICAL RESOURCES

Mitigation Measure BIO-1: Preconstruction Survey for Nesting Birds.

If project implementation is to occur during the bird breeding season (generally February 1 through August 31), preconstruction surveys will be conducted by a biologist no more than 7 days prior to the start of project implementation to determine if active nest sites for any avian species protected under the federal Migratory Bird Treaty Act occur within all project work areas and 500-foot buffer. If work is conducted outside of this timeframe, then no preconstruction surveys are necessary. If an active nest (defined as a bird building a nest, sitting on a nest, carrying food to young, etc.) is found, then the following buffers may apply:

- a. 500 feet for raptors
- b. 300 feet for all other bird species
- c. At the discretion of the biologist, the buffer for certain species may be reduced to permit project implementation to occur (depending upon the type, duration, intensity, and type of work that is necessary). A biologist will be present to ensure that no harassment or potential take occurs. The biologist will have the authority to stop work if they determine that the activity may result in harassment, through the bird flushing off the nest or preventing adult birds from carrying food to the nest, or otherwise jeopardize the survival of the nest contents (eggs, young, fledglings, etc.).

Mitigation Measure BIO-2: Sacramento County Code Compliance for Trees and Landscaping.

The project may result in impacts to valley and/or blue oaks through trenching, grading, and/or filling within the dripline of these trees. Approval for actions that affect trees protected by the County's ordinance must be obtained by Sacramento County officials (Board of Supervisors or County Planning Commission). Project approval may be contingent upon the receipt of a tree permit. A tree permit can be obtained from the Sacramento County Building Assistance Center at 827 7th Street, Room 102, Sacramento County.

4.3 CULTURAL RESOURCES

Mitigation Measure CUL-1: Halt Construction Activities if Cultural Resources Are Discovered.

Construction personnel will be instructed about the potential for discovery of unknown cultural resources, and the need for proper and timely reporting of such findings. If previously undiscovered historic, archaeological or tribal cultural resources (including but not limited to charcoal, obsidian or chert flakes, groundstone, shell fragments, bone, midden soils, glass, metal, ceramics, wood, or similar debris) are discovered at any time during construction, all earth-disturbing work in the vicinity of the discovery will be temporarily suspended or redirected until a professional archaeologist has evaluated the nature and significance of the discovery. No construction activities will occur within 100 feet of an area under a stop work order. If a potentially significant archaeological or tribal cultural resource is discovered, Fair Oaks Recreation and Park District will be notified. Impacts on previously unknown significant archaeological

resources will be avoided through preservation in place, if feasible. Damaging effects on archaeologically significant cultural resources will be avoided or minimized following the measures identified in California Public Resources Code Section 21084.3(b), if feasible, unless other measures that would be more effective, are provided by the professional archaeologist. If the professional archaeologist believes that damaging effects on significant resources will be avoided or minimized, then work in the area may resume. If avoidance is infeasible, a Treatment Plan that identifies how identified properties that have been determined to be eligible for the CRHR or NRHP will be treated under CEQA shall be prepared and implemented in consultation with Native American Representatives from culturally affiliated Native American tribes (if the resources are prehistoric or Native American in nature). Following completion of construction activities, a report will be prepared that documents what, if any, cultural resources or human remains were discovered during project implementation, how impacts to each resource (whether discovered during construction or during inventory and consultation) were avoided or what treatment was instituted, the condition of each resource after project implementation, recommendations for how additional impacts can be avoided, and recommendations for management of each resource.

Mitigation Measure CUL-2: Halt Construction Activities if Any Human Remains Are Discovered.

The procedures for the treatment of discovered human remains are described in Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code. In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities, such activities that may affect the remains will be halted within 150 feet, and the Fair Oaks Recreation and Park District will be notified. The District will immediately notify the County coroner and a qualified professional archaeologist. If the coroner determines that the remains are those of a Native American, the coroner will contact the Native American Heritage Commission (NAHC) by telephone within 24 hours of making that determination (California Health and Safety Code, Section 7050.5[c]).

Responsibilities for acting on notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code. The Fair Oaks Recreation and Park District or its appointed representative, and the professional archaeologist will consult with a Most Likely Descendant, determined by the NAHC, regarding the removal or preservation and avoidance of the remains, and will determine whether additional burials could be present in the vicinity.

4.4 GEOLOGY AND SOILS

Mitigation Measure GEO-1: Conduct Construction Personnel Education, Stop Work if Paleontological Resources are Discovered, Assess the Significance of the Find, and Prepare and Implement a Recovery Plan, as Required.

To minimize the potential for destruction of, or damage to potentially unique, scientifically important paleontological resources during earth-moving activities, the District shall implement the measures described below.

- Prior to the start of earthmoving activities at the project site, inform all construction personnel involved with earthmoving activities 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. This worker training may either be prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources or prepared and presented separately by a qualified paleontologist.

- If paleontological resources are discovered during earthmoving activities, immediately cease work in the vicinity of the find and notify the District. The Sacramento County Office of Planning and Environmental Review shall also be notified for purposes of record keeping related to paleontological resource localities. The District shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan based on Society of Vertebrate Paleontology (SVP) Guidelines (SVP 1996). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the District, as the CEQA lead agency, to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

4.5 NOISE

Mitigation Measure NOI-1: Implement Measures to Reduce Short-Term, Construction-Related Noise.

- Provide written notification to the residents within 500 feet⁷ of the project site at least three weeks prior to construction, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents to contact regarding construction noise. Post contact information in conspicuous locations adjacent to the site with contact information regarding construction noise and activities. The notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall be included in the notification. If there is communication related to construction noise, implement feasible methods to reduce noise exposure effects, such as shielding, changing the location of stationary sources, and changing construction hours.
- Prohibit the start-up of machines or equipment before place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m.
- Prohibit use of materials and equipment deliveries before 7:00 a.m. and after 7:00 p.m., Monday through Saturday and before 9:00 a.m. and past 5:00 p.m. on Sunday.
- Restrict the use of bells, whistles, alarms, and horns to safety-warning purposes.

⁷ Building rows located within 500 feet of the construction site, would shield construction noise. Therefore, construction noise would be attenuated to ambient level beyond this distance.

- Equip all construction equipment with noise-reduction devices, such as mufflers to minimize construction noise and operate all internal combustion engines with exhaust and intake silencers.
- Locate fixed construction equipment (e.g., compressors and generators), construction staging and stockpiling areas, and construction vehicle routes as far as feasible from noise-sensitive receptors, northern portion of the site and/or off-site staging areas north of the site.

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5.2 ENVIRONMENTAL CHECKLIST

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5.3 AESTHETICS

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APPENDIX A

Air Quality, Greenhouse Gas and Energy Calculations and Modeling Data

Summary of Modeled Maximum Construction-Related Emissions of Criteria Air Pollutants and Precursors						
Portion of Construction Phase	Maximum Daily Emissions (lb/day)				Maximum Annual Emissions (Tons/Yr)	
	VOC	NO _x	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
Demolition	3.4	34.3	1.8	1.6	0.037	0.032
Grading	2.5	26.4	7.7	4.5	0.061	0.036
Buidling Construction	2.6	23.1	2.0	1.3	0.233	0.148
Paving	1.1	9.6	0.6	0.5	0.011	0.009
Architectural Coating	6.7	1.4	0.2	0.1	0.004	0.002
Maximum daily emissions / Total Annual Emissions	6.7	34.3	7.7	4.5	0.35	0.23
SMAQMD significance threshold	-	85	80	82	14.6	15
Exceeds Threshold?	-	No	No	No	No	No

Notes: lb/day = pounds per day; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM_{2.5} = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; VOC = volatile organic compounds; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Source: AECOM 2019

Maximum Construction Emissions Detailed:

	Maximum Daily Emissions (lb/day)				Maximum Annual Emissions (Tons/Yr)		
Phase	ROG	NOX	PM10	PM2.5	PM10	PM2.5	
Demolition	3.4043		34.2903	1.8405	1.5938	0.03672	0.03181
<i>On-Site</i>	3.3121		33.201	1.6587	1.5419	0.0332	0.0308
<i>Off-Site</i>	0.0922		1.0893	0.1818	0.0519	0.00352	0.00101
Grading	2.4935		26.4283	7.6755	4.5414	0.06139	0.03634
<i>On-Site</i>	2.4288		26.3859	7.5606	4.5104	0.0605	0.0361
<i>Off-Site</i>	0.0647		0.0424	0.1149	0.031	0.00089	0.00024
Building Constr. (2020)	2.6065		23.121	1.9787	1.2997	0.0312	0.02068
<i>On-Site</i>	2.1198		19.186	1.1171	1.0503	0.0179	0.0168
<i>Off-Site</i>	0.4867		3.935	0.8616	0.2494	0.0133	0.00388
Building Constr. (2021)	2.3396		21.014	1.8101	1.1412	0.2326	0.148
<i>On-Site</i>	1.9009		17.4321	0.9586	0.9013	0.1251	0.1176
<i>Off-Site</i>	0.4387		3.5819	0.8515	0.2399	0.1075	0.0304
Building Constr. (2022)	2.1151		19.0044	1.6592	0.9998	0.0465	0.0283
<i>On-Site</i>	1.7062		15.6156	0.809	0.7612	0.0231	0.0217
<i>Off-Site</i>	0.4089		3.3888	0.8502	0.2386	0.0234	0.0066
Paving	1.0513		9.5677	0.6408	0.4917	0.01144	0.00883
<i>On-Site</i>	0.9765		9.5221	0.4877	0.4504	0.00878	0.00811
<i>Off-Site</i>	0.0748		0.0456	0.1531	0.0413	0.00266	0.00072
Arch. Coating	6.7056		1.4472	0.2119	0.1168	0.00373	0.00208
<i>On-Site</i>	6.642		1.4085	0.0817	0.0817	0.00147	0.00147
<i>Off-Site</i>	0.0636		0.0387	0.1302	0.0351	0.00226	0.00061

Phase	Energy Requirement	Unit	Annual Energy Consumption (MMBtu)
Construction Energy Requirements			
Diesel	32,853	Gallons/yr	4,537
Gasoline	5,882	Gallons/yr	735
		<i>Subtotal</i>	<i>5,272</i>
Facility Operational Energy Increase			
Electrical	75,900	KWh/yr	259
Natural Gas	179,050	kBTU/yr	179
		<i>Subtotal</i>	<i>438</i>
Mobile Operational Energy Increase			
Diesel	2,795	Gallons/yr	386
Gasoline	44,907	Gallons/yr	5,613
		<i>Subtotal</i>	<i>5,999</i>
		Total	11,710

Notes:

Totals do not add due to rounding.

Source: Modeled by AECOM in 2019

Conversion Factors		
Category	Amount	Units
Diesel (heat content)	5.8	MMBtu/barrel
Motor Gasoline	5.25	MMBtu/barrel
Gallons per Barrel	42	gallons/barrel

Source: <http://www.theclimateregistry.org/wp-content/uploads/2017/05/2017-Climate-Registry-Default-Emission-Factors.pdf>

Phase	Source	MT CO ₂ e/yr ^a	Fuel Type	Factor (MT CO ₂ /gallon) ^b	Gallons/year
<i>Demolition</i>	Offroad Equip	68.48	Diesel	0.01107814	6,181
	Hauling	0.00	Diesel	0.01107814	-
	Vendor	0.00	Diesel	0.01107814	-
	Worker	7.50	Gas	0.00969337	774
<i>Grading</i>	Offroad Equip	21.02	Diesel	0.01107814	1,897
	Hauling	0.00	Diesel	0.01107814	-
	Vendor	0.00	Diesel	0.01107814	-
	Worker	0.78	Gas	0.00969337	81
<i>Building Construction</i>	Offroad Equip	37.28	Diesel	0.01107814	3,366
	Hauling	0.00	Diesel	0.01107814	-
	Vendor	12.51	Diesel	0.01107814	1,129
	Worker	8.75	Gas	0.00969337	903
<i>Building Construction</i>	Offroad Equip	304.11	Diesel	0.01107814	27,451
	Hauling	0.00	Diesel	0.01107814	-
	Vendor	101.19	Diesel	0.01107814	9,135
	Worker	68.95	Gas	0.00969337	7,113
<i>Building Construction</i>	Offroad Equip	66.44	Diesel	0.01107814	5,997
	Hauling	0.00	Diesel	0.01107814	-
	Vendor	21.91	Diesel	0.01107814	1,977
	Worker	14.52	Gas	0.00969337	1,498
<i>Paving</i>	Offroad Equip	29.71	Diesel	0.01107814	2,682
	Hauling	0.00	Diesel	0.01107814	-
	Vendor	0.00	Diesel	0.01107814	-
	Worker	2.18	Gas	0.00969337	225
<i>Architectural Coating</i>	Offroad Equip	4.60	Diesel	0.01107814	416
	Hauling	0.00	Diesel	0.01107814	-
	Vendor	0.00	Diesel	0.01107814	-
	Worker	1.84	Gas	0.00969337	190
Total Gallons				Diesel	60,231
				Gasoline	10,784
Maximum Annual Demands*				Diesel	32,853
				Gasoline	5,882

* Maximum annual construction demands are for one year of the 22-month construction period.

Sources:

^a Modeled by AECOM in 2019;

^b U.S. Energy Information Administration 2016 (https://www.eia.gov/environment/emissions/co2_vol_mass.php)

Factor:	MT/gallon
Diesel	1.11E-02
Gasoline	<u>9.69E-03</u>

Estimated Annual Electrical and Natural Gas Demand		
	Electrical Demand (kWh/year)	Natural Gas Demand (kBtu/year)
Existing	379,500	895,250
Proposed	455,400	1,074,300
Delta Existing vs Proposed	75,900	179,050
Notes: kWh = kilowatt-hours; kBtu = thousand British thermal unit Source: Modeled by AECOM 2019		

	Electrical Demand (kWh/year)	Natural Gas Demand (kBtu/year)
Existing	379,500	895,250
Proposed	455,400	1,074,300
Delta Existing vs Proposed	75,900	179,050

Notes: kWh = kilowatt-hours; kBtu = thousand British thermal unit

Source: Modeled by AECOM 2019

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County
Region: SACRAMENTO

Calendar Year: 2022
Season: Annual

Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population
SACRAMENTO	2022	All Other Buses	Aggregated	Aggregated	DSL	443.92927
SACRAMENTO	2022	LDA	Aggregated	Aggregated	GAS	591545.26
SACRAMENTO	2022	LDA	Aggregated	Aggregated	DSL	5535.8098
SACRAMENTO	2022	LDA	Aggregated	Aggregated	ELEC	9888.8522
SACRAMENTO	2022	LDT1	Aggregated	Aggregated	GAS	64366.141
SACRAMENTO	2022	LDT1	Aggregated	Aggregated	DSL	189.85178
SACRAMENTO	2022	LDT1	Aggregated	Aggregated	ELEC	398.56132
SACRAMENTO	2022	LDT2	Aggregated	Aggregated	GAS	206880.89
SACRAMENTO	2022	LDT2	Aggregated	Aggregated	DSL	1121.9892
SACRAMENTO	2022	LDT2	Aggregated	Aggregated	ELEC	1542.2448
SACRAMENTO	2022	LHD1	Aggregated	Aggregated	GAS	17006.354
SACRAMENTO	2022	LHD1	Aggregated	Aggregated	DSL	14345.103
SACRAMENTO	2022	LHD2	Aggregated	Aggregated	GAS	2290.7942
SACRAMENTO	2022	LHD2	Aggregated	Aggregated	DSL	4751.4783
SACRAMENTO	2022	MCV	Aggregated	Aggregated	GAS	29867.018
SACRAMENTO	2022	MDV	Aggregated	Aggregated	GAS	150419.61
SACRAMENTO	2022	MDV	Aggregated	Aggregated	DSL	2956.2328
SACRAMENTO	2022	MDV	Aggregated	Aggregated	ELEC	786.05277
SACRAMENTO	2022	MH	Aggregated	Aggregated	GAS	3109.6371
SACRAMENTO	2022	MH	Aggregated	Aggregated	DSL	1067.1565
SACRAMENTO	2022	Motor Coach	Aggregated	Aggregated	DSL	102.64196
SACRAMENTO	2022	OBUS	Aggregated	Aggregated	GAS	585.69698
SACRAMENTO	2022	PTO	Aggregated	Aggregated	DSL	0
SACRAMENTO	2022	SBUS	Aggregated	Aggregated	GAS	117.95719
SACRAMENTO	2022	SBUS	Aggregated	Aggregated	DSL	1050.4662
SACRAMENTO	2022	T6 Ag	Aggregated	Aggregated	DSL	17.124732
SACRAMENTO	2022	T6 CAIRP heavy	Aggregated	Aggregated	DSL	108.92761
SACRAMENTO	2022	T6 CAIRP small	Aggregated	Aggregated	DSL	59.750859
SACRAMENTO	2022	T6 instate construction heavy	Aggregated	Aggregated	DSL	189.89791
SACRAMENTO	2022	T6 instate construction small	Aggregated	Aggregated	DSL	1752.5965
SACRAMENTO	2022	T6 instate heavy	Aggregated	Aggregated	DSL	1371.8151
SACRAMENTO	2022	T6 instate small	Aggregated	Aggregated	DSL	5234.0143
SACRAMENTO	2022	T6 OOS heavy	Aggregated	Aggregated	DSL	61.195341
SACRAMENTO	2022	T6 OOS small	Aggregated	Aggregated	DSL	32.905916
SACRAMENTO	2022	T6 Public	Aggregated	Aggregated	DSL	4473.7092
SACRAMENTO	2022	T6 utility	Aggregated	Aggregated	DSL	172.87966
SACRAMENTO	2022	T6TS	Aggregated	Aggregated	GAS	2123.3199
SACRAMENTO	2022	T7 Ag	Aggregated	Aggregated	DSL	11.532814
SACRAMENTO	2022	T7 CAIRP	Aggregated	Aggregated	DSL	853.26554
SACRAMENTO	2022	T7 CAIRP construction	Aggregated	Aggregated	DSL	50.621881
SACRAMENTO	2022	T7 NNOOS	Aggregated	Aggregated	DSL	923.7622
SACRAMENTO	2022	T7 NOOS	Aggregated	Aggregated	DSL	336.97969
SACRAMENTO	2022	T7 other port	Aggregated	Aggregated	DSL	10.841698
SACRAMENTO	2022	T7 POAK	Aggregated	Aggregated	DSL	44.480501
SACRAMENTO	2022	T7 Public	Aggregated	Aggregated	DSL	4582.732
SACRAMENTO	2022	T7 Single	Aggregated	Aggregated	DSL	1405.9078
SACRAMENTO	2022	T7 single construction	Aggregated	Aggregated	DSL	324.17374
SACRAMENTO	2022	T7 SWCV	Aggregated	Aggregated	DSL	554.90255
SACRAMENTO	2022	T7 SWCV	Aggregated	Aggregated	NG	286.79115
SACRAMENTO	2022	T7 tractor	Aggregated	Aggregated	DSL	836.83148
SACRAMENTO	2022	T7 tractor construction	Aggregated	Aggregated	DSL	270.80289
SACRAMENTO	2022	T7 utility	Aggregated	Aggregated	DSL	24.535824
SACRAMENTO	2022	T7IS	Aggregated	Aggregated	GAS	4.6705199
SACRAMENTO	2022	UBUS	Aggregated	Aggregated	GAS	191.71585
SACRAMENTO	2022	UBUS	Aggregated	Aggregated	DSL	2.11894
SACRAMENTO	2022	UBUS	Aggregated	Aggregated	ELEC	0.0021911
SACRAMENTO	2022	UBUS	Aggregated	Aggregated	NG	408.09645

Estimated Annual Fuel Consumption Increase for Proposed Project Operations				
	Increased in MT CO ₂ e/yr ^a	% Average Fleet Mix ^b	Factor (MT CO ₂ /gallon) ^c	Gallons/year
Gross Project Fuel	472.81			
Diesel		6.55%	1.11E-02	2,795
Gasoline		92.07%	9.69E-03	44,907

Fleet Mix:	
DSL	6.55%
GAS	92.07%

Sources:

^a Modeled by AECOM in 2019;

^b EMFAC2014 (v1.0.7) Web Database

^c U.S. Energy Information Administration 2016 (https://www.eia.gov/environment/emissions/co2_vol_mass.php)

(Project Specific Data/Calcs)	
Project Daily VMT:	1858.312329
Project Annual VMT:	678284
No Project Daily VMT:	1548.593607
No Project Annual VMT	Percent Increase VMT with Project
565236.6667	20%

VTM	Trips	% VMT	Project Daily VMT	Project Annual VMT	Project Total Co2	Project Annual Fuel Consumption (gallons)	No Project Daily VMT	No Project Annual VMT	Total Co2 Increase
23579.57718	3729.006	0.06%	1.1160	407.34	0.513278445	45.74493046	0.9300	339.45	0.427732037
21127372.04	2764928	53.81%	999.9473	364980.77	110.1691553	11628.70717	833.2894	304150.64	91.80762939
200935.7283	25811.78	0.51%	9.5102	3471.22	0.766590046	68.32082802	7.9252	2892.68	0.638825038
400963.4129	49293.91	1.02%	18.9774	6926.75	0	0	15.8145	5772.29	0
2129386.502	292380.9	5.42%	100.7827	36785.70	12.97510193	1369.563563	83.9856	30654.75	10.81258494
3346.86637	698.5121	0.01%	0.1584	57.82	0.029752369	2.651621299	0.1320	48.18	0.024793641
15899.45043	1969.287	0.04%	0.7525	274.67	0	0	0.6271	228.89	0
7073751.275	955128.8	18.02%	334.7969	122200.87	46.78491076	4938.297164	278.9974	101834.06	38.98742563
45564.46144	5492.506	0.12%	2.1565	787.14	0.236395096	21.06824734	1.7971	655.95	0.196995913
50193.83073	7790.719	0.13%	2.3756	867.11	0	0	1.9797	722.59	0
559718.8002	253369.3	1.43%	26.4912	9669.29	10.99099536	1160.13476	22.0760	8057.74	9.159162796
490384.3235	180443.3	1.25%	23.2096	8471.51	5.293270871	471.752341	19.3414	7059.60	4.411059059
76429.16892	34129.42	0.19%	3.6174	1320.33	1.714437572	180.9643764	3.0145	1100.28	1.428697977
167186.1925	59767.62	0.43%	7.9128	2888.18	2.017522314	179.8077026	6.5940	2406.82	1.681268595
204425.0022	59734.04	0.52%	9.6753	3531.49	0.89256643	94.21324518	8.0628	2942.91	0.743805358
4803695.828	682664.2	12.23%	227.3564	82985.08	39.03425244	4120.190356	189.4636	69154.23	32.5285437
114587.2329	14276.87	0.29%	5.4234	1979.52	0.790856418	70.48352059	4.5195	1649.60	0.659047015
26225.59116	3999.546	0.07%	1.2412	453.05	0	0	1.0344	377.54	0
26446.59531	311.0881	0.07%	1.2517	456.87	0.907541713	95.79393432	1.0431	380.73	0.756284761
9332.407271	106.7156	0.02%	0.4417	161.22	0.185073435	16.49430538	0.3681	134.35	0.154227862
13831.02994	1498.573	0.04%	0.6546	238.93	0.419104711	37.35188191	0.5455	199.11	0.349253926
25639.67132	11718.63	0.07%	1.2135	442.93	0.896583394	94.63724866	1.0113	369.11	0.747152829
20748.18589	0	0.05%	0.9820	358.43	0.771756427	68.78127158	0.8183	298.69	0.643130356
5750.547633	471.8288	0.01%	0.2722	99.34	0.098915512	10.44084913	0.2268	82.79	0.082429594
32870.8533	12122.23	0.08%	1.5558	567.85	0.800957188	71.38373187	1.2965	473.21	0.667464323
232.0293432	75.34882	0.00%	0.0110	4.01	0.00499025	0.444746226	0.0092	3.34	0.004158542
21505.00818	1590.343	0.05%	1.0178	371.50	0.367613834	32.76285896	0.8482	309.59	0.306344862
3119.730532	872.3625	0.01%	0.1477	53.89	0.056949711	5.0755308	0.1230	44.91	0.047458092
12708.05505	858.5211	0.03%	0.6015	219.53	0.297775269	26.53863435	0.5012	182.95	0.248146057
93230.5184	7923.42	0.24%	4.4126	1610.58	2.1834678	194.5972672	3.6771	1342.15	1.8195565
184822.8823	15830.56	0.47%	8.7476	3192.86	3.517827793	313.5194735	7.2896	2660.72	2.931523161
258844.2948	60399.8	0.66%	12.2510	4471.60	5.241048469	467.0981223	10.2091	3726.33	4.367540391
12076.67069	893.452	0.03%	0.5716	208.63	0.206567645	18.40993452	0.4763	173.86	0.172139704
1693.062312	480.4264	0.00%	0.0801	29.25	0.031018254	2.764440794	0.0668	24.37	0.025848545
69449.39722	13570.25	0.18%	3.2870	1199.76	1.830395425	163.1303872	2.7392	999.80	1.525329521
2915.3139	1988.116	0.01%	0.1380	50.36	0.06181273	5.508937821	0.1150	41.97	0.051510608
100657.1625	42483.38	0.26%	4.7641	1738.88	3.495190864	368.9285894	3.9700	1449.07	2.912659053
167.0285899	50.74438	0.00%	0.0079	2.89	0.005704968	0.508444064	0.0066	2.40	0.004754144
151695.388	12457.68	0.39%	7.1797	2620.58	4.338966232	386.7018196	5.9831	2183.81	3.615805194
9128.306331	228.8596	0.02%	0.4320	157.69	0.301710584	26.88936159	0.3600	131.41	0.251425487
184941.5162	13486.93	0.47%	8.7532	3194.91	5.0322961	448.4934785	7.2943	2662.43	4.193580083
59601.35735	4919.903	0.15%	2.8209	1029.63	1.747538444	155.7459219	2.3508	858.02	1.456282036
1722.103258	82.3969	0.00%	0.0815	29.75	0.059934678	5.34156012	0.0679	24.79	0.049945565
5260.456022	338.0518	0.01%	0.2490	90.88	0.192120766	17.12238484	0.2075	75.73	0.160100638
92795.10957	13900.95	0.24%	4.3919	1603.06	3.380701427	301.2983562	3.6600	1335.88	2.817251189
104492.0113	16223.98	0.27%	4.9456	1805.13	3.050930489	271.9081708	4.1213	1504.27	2.542442074
22645.64903	1465.577	0.06%	1.0718	391.21	0.798750997	71.1871094	0.8932	326.01	0.665625831
22636.1414	2164.12	0.06%	1.0714	391.05	1.769938075	157.7422449	0.8928	325.87	1.474948396
11687.76899	1118.485	0.03%	0.5532	201.91	0.73976383	85.50541589	0.4610	168.26	0.616469858
113851.5548	10627.76	0.29%	5.3885	1966.81	2.97475001	265.1187357	4.4904	1639.01	2.478958342
18680.66671	1224.289	0.05%	0.8841	322.71	0.67078377	59.78228231	0.7368	268.93	0.558986475
498.1135736	282.162	0.00%	0.0236	8.61	0.016332813	1.455629761	0.0196	7.17	0.013610677
344.4156237	93.44776	0.00%	0.0163	5.95	0.012972508	1.369289726	0.0136	4.96	0.010810423
14474.39245	766.8634	0.04%	0.6851	250.05	0.588687436	62.13784418	0.5709	208.37	0.490572863
136.3697783	8.47576	0.00%	0.0065	2.36	0.003039512	0.270890532	0.0054	1.96	0.002532927
0.046907578	0.008765	0.00%	0.0000	0.00	0	0	0.0000	0.00	0
39047.78451	1632.386	0.10%	1.8481	674.56	1.512549986	174.827709	1.5401	562.13	1.260458322
39263324.88				280.7811484		28838.96862		233.5565583	

No Project Annual Fuel Increase (gallons)	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_TOTE	ROG_DIUR	ROG_HTSK	ROG_RUNI	ROG_REST	ROG_TOT	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_TOTE	TOG_DIUR
38.12077538	0.00355	3.72E-05	0	0.003588	0	0	0	0	0.003588	0.004042	4.23E-05	0	0.004084	0
9690.589305	0.239582	0	0.803055	1.042637	0.215285	0.371062	0.761861	0.147644	2.538488	0.349541	0	0.879237	1.228778	0.215285
56.93402335	0.003463	0	0	0.003463	0	0	0	0	0.003463	0.003943	0	0	0.003943	0
0	0	0	0	0	0.000277	0.000266	0	7.64E-05	0.000619	0	0	0	0	0.000277
1141.302969	0.056765	0	0.133658	0.190422	0.050487	0.075569	0.260948	0.031704	0.609131	0.082806	0	0.146338	0.229143	0.050487
2.209684416	0.000462	0	0	0.000462	0	0	0	0	0.000462	0.000526	0	0	0.000526	0
0	0	0	0	0	1.12E-05	1.06E-05	0	3.08E-06	2.48E-05	0	0	0	0	1.12E-05
4115.247636	0.124434	0	0.385433	0.509868	0.100533	0.159497	0.524165	0.075452	1.369514	0.181531	0	0.422	0.603531	0.100533
17.55687278	0.000784	0	0	0.000784	0	0	0	0	0.000784	0.000892	0	0	0.000892	0
0	0	0	0	0	4.32E-05	4.2E-05	0	1.19E-05	9.71E-05	0	0	0	0	4.32E-05
966.7789663	0.040411	0.008515	0.040058	0.088983	0.001424	0.04274	0.291722	0.000564	0.425434	0.058967	0.012425	0.043859	0.11525	0.001424
393.1269508	0.100629	0.001736	0	0.102365	0	0	0	0	0.102365	0.11456	0.001976	0	0.116535	0
150.803647	0.004076	0.001143	0.005031	0.01025	0.000155	0.004729	0.029266	6.38E-05	0.044463	0.005948	0.001668	0.005508	0.013124	0.000155
149.8397522	0.03123	0.000575	0	0.031805	0	0	0	0.031805	0.035553	0.000654	0	0.036207	0	0
78.51103765	0.533468	0	0.131383	0.664851	0.092327	0.060622	0.152882	0.043845	1.014527	0.651064	0	0.1429	0.793964	0.092327
3433.491963	0.116927	0	0.366506	0.483433	0.088931	0.13699	0.427184	0.068014	1.204552	0.17028	0	0.401272	0.571552	0.088931
58.73626716	0.001587	0	0	0.001587	0	0	0	0	0.001587	0.001806	0	0	0.001806	0
0	0	0	0	0	2.2E-05	2.16E-05	0	6.07E-06	4.96E-05	0	0	0	0	2.2E-05
79.8282786	0.002057	0	4.78E-05	0.002105	0.000498	3.25E-05	0.000692	0.000126	0.003453	0.003001	0	5.23E-05	0.003054	0.000498
13.74525448	0.001373	0	0	0.001373	0	0	0	0	0.001373	0.001563	0	0	0.001563	0
31.12656826	0.001104	0.000503	0	0.001607	0	0	0	0	0.001607	0.001257	0.000572	0	0.001829	0
78.86437389	0.002849	0.00048	0.00218	0.005509	4.68E-05	0.000479	0.005303	1.45E-05	0.011352	0.004158	0.000701	0.002387	0.007245	4.68E-05
57.31772631	0.002994	0	0	0.002994	0	0	0	0	0.002994	0.003408	0	0	0.003408	0
8.700707605	0.000374	0.001371	0.000167	0.001912	6.13E-06	4.17E-05	0.00031	1.53E-06	0.002272	0.000546	0.002	0.000183	0.002729	6.13E-06
59.48644322	0.004214	0.000331	0	0.004545	0	0	0	0	0.004545	0.004798	0.000377	0	0.005175	0
0.370621855	0.00012	9.34E-06	0	0.000129	0	0	0	0	0.000129	0.000136	1.06E-05	0	0.000147	0
27.30238246	0.000295	6.22E-06	0	0.000302	0	0	0	0	0.000302	0.000336	7.08E-06	0	0.000343	0
4.229609	9.98E-05	3.95E-06	0	0.000104	0	0	0	0	0.000104	0.000114	4.5E-06	0	0.000118	0
22.11552862	0.002197	1.21E-05	0	0.002209	0	0	0	0	0.002209	0.002501	1.37E-05	0	0.002515	0
162.1643894	0.019845	0.000154	0	0.019999	0	0	0	0	0.019999	0.022592	0.000175	0	0.022767	0
261.2662279	0.012435	9.52E-05	0	0.01253	0	0	0	0	0.01253	0.014156	0.000108	0	0.014264	0
389.2484352	0.034099	0.000471	0	0.03457	0	0	0	0	0.03457	0.038819	0.000537	0	0.039356	0
15.3416121	0.00013	3.39E-06	0	0.000134	0	0	0	0	0.000134	0.000148	3.86E-06	0	0.000152	0
2.303700662	5.73E-05	2.2E-06	0	5.95E-05	0	0	0	0	5.95E-05	6.52E-05	2.51E-06	0	6.78E-05	0
135.9419893	0.005965	0.001751	0	0.007715	0	0	0	0	0.007715	0.00679	0.001993	0	0.008783	0
4.590781517	2.36E-05	2.58E-05	0	4.95E-05	0	0	0	0	4.95E-05	2.69E-05	2.94E-05	0	5.63E-05	0
307.4404912	0.010438	0.002367	0.010404	0.023209	0.000141	0.004804	0.026099	5.78E-05	0.054311	0.015231	0.003454	0.011391	0.030076	0.000141
0.423703386	0.000136	3.16E-05	0	0.000168	0	0	0	0	0.000168	0.000155	3.59E-05	0	0.000191	0
322.2515163	0.006187	0.009858	0	0.016045	0	0	0	0	0.016045	0.007044	0.011222	0	0.018266	0
22.40780133	0.000752	8.91E-05	0	0.000841	0	0	0	0	0.000841	0.000856	0.000101	0	0.000958	0
373.7445654	0.004749	0.013185	0	0.017934	0	0	0	0	0.017934	0.005406	0.015011	0	0.020417	0
129.7882683	0.002124	0.004809	0	0.006933	0	0	0	0	0.006933	0.002418	0.005474	0	0.007892	0
4.4513001	0.000408	1.96E-05	0	0.000428	0	0	0	0	0.000428	0.000465	2.23E-05	0	0.000487	0
14.26865404	0.00155	0.000129	0	0.001678	0	0	0	0	0.001678	0.001764	0.000146	0	0.00191	0
251.0819635	0.012374	0.005772	0	0.018146	0	0	0	0	0.018146	0.014087	0.00657	0	0.020658	0
226.5901424	0.009127	0.003389	0	0.012516	0	0	0	0	0.012516	0.010391	0.003858	0	0.014248	0
59.32259117	0.004455	0.000566	0	0.005021	0	0	0	0	0.005021	0.005072	0.000644	0	0.005716	0
131.4518708	0.000785	0.0008	0	0.001586	0	0	0	0	0.001586	0.000894	0.000911	0	0.001805	0
71.25451324	0.004575	2.61E-05	0	0.004601	0	0	0	0	0.004601	0.059553	0.000443	0	0.059997	0
220.9322797	0.00752	0.001741	0	0.009261	0	0	0	0	0.009261	0.00856	0.001982	0	0.010543	0
49.81856859	0.004365	0.000475	0	0.00484	0	0	0	0	0.00484	0.00497	0.000541	0	0.00551	0
1.213024801	8.47E-06	1.72E-05	0	2.57E-05	0	0	0	0	2.57E-05	9.64E-06	1.96E-05	0	2.92E-05	0
1.141074772	0.00033	0	1.66E-07	0.00033	7.52E-07	2.46E-05	0.000158	3.32E-07	0.000514	0.000482	0	1.82E-07	0.000482	7.52E-07
51.78153682	0.000362	0	0.000408	0.00077	3.69E-06	3.53E-05	0.000219	1.61E-06	0.00103	0.000529	0	0.000446	0.000975	3.69E-06
0.22574211	9.33E-08	0	0	9.33E-08	0	0	0	0	9.33E-08	6.66E-06	0	0	6.66E-06	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145.6897575	0.003998	0	0	0.003998	0	0	0	0	0.003998	0.285578	0	0	0.285578	0

24032.47385

TOG_HTSK	TOG_RUNI	TOG_REST	TOG_TOTA	CO_RUNE	CO_IDLEX	CO_STREX	CO_TOTEX	NOX_RUNI	NOX_IDLEX	NOX_STRE	NC	CO2_RUNE	CO2_IDLEX	CO2_STRE	CO2_TOTE	CH4_RUNE	CH4_IDLEX
0	0	0	0.004084	0.011106	0.000985	0	0.012091	0.077874	0.002102	0.007172	0	29.39197	0.3198	0	29.71177	0.000165	1.73E-06
0.371062	0.761861	0.147644	2.72463	16.59205	0	7.204695	23.79674	0.976156	0	0.628507	2	6206.123	0	171.1577	6377.281	0.06136	0
0	0	0	0.003943	0.050668	0	0	0.050668	0.019588	0	0	0	44.37503	0	0	44.37503	0.000161	0
0.000266	0	7.64E-05	0.000619	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.075569	0.260948	0.031704	0.647851	2.835708	0	0.814714	3.650422	0.225421	0	0.093052	0	729.6845	0	21.39561	751.0801	0.01293	0
0	0	0	0.000526	0.003713	0	0	0.003713	0.004384	0	0	0	1.722253	0	0	1.722253	2.15E-05	0
1.06E-05	0	3.08E-06	2.48E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.159497	0.524165	0.075452	1.463178	7.426538	0	3.150808	10.57735	0.628476	0	0.347139	1	2631.363	0	76.84069	2708.204	0.030655	0
0	0	0	0.000892	0.006815	0	0	0.006815	0.002139	0	0	0	13.68403	0	0	13.68403	3.64E-05	0
4.2E-05	0	1.19E-05	9.71E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.04274	0.291722	0.000564	0.451701	0.746652	0.070199	0.514968	1.33182	0.181398	0.000744	0.15503	0	628.5719	2.294122	5.361654	636.2276	0.00819	0.002304
0	0	0	0.116535	0.459643	0.014386	0	0.474029	1.435916	0.036311	0	1	304.2338	2.173836	0	306.4077	0.004674	8.06E-05
0.004729	0.029266	6.38E-05	0.047337	0.075931	0.009489	0.066069	0.151488	0.022145	9.97E-05	0.020655	0	98.06898	0.355627	0.817771	99.24238	0.000859	0.000314
0	0	0	0.036207	0.14083	0.004765	0	0.145595	0.379114	0.011769	0	0	115.6404	1.146464	0	116.7868	0.001451	2.67E-05
0.060622	0.152882	0.043845	1.14364	4.56858	0	0.587645	5.156225	0.260525	0	0.017739	0	47.51441	0	4.15292	51.66733	0.077224	0
0.13699	0.427184	0.068014	1.292671	5.903215	0	2.68645	8.589666	0.569868	0	0.309474	1	2191.468	0	68.07892	2259.547	0.027533	0
0	0	0	0.001806	0.027389	0	0	0.027389	0.007212	0	0	0	45.77972	0	0	45.77972	7.37E-05	0
2.16E-05	0	6.07E-06	4.96E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.25E-05	0.000692	0.000126	0.004402	0.051659	0	0.001038	0.052697	0.013351	0	0.000115	0	52.52519	0	0.009003	52.5342	0.000469	0
0	0	0	0.001563	0.005026	0	0	0.005026	0.052603	0	0	0	10.71321	0	0	10.71321	6.38E-05	0
0	0	0	0.001829	0.004649	0.006258	0	0.010908	0.043105	0.006809	0.003139	0	23.04132	1.219088	0	24.2604	5.13E-05	2.33E-05
0.000479	0.005303	1.45E-05	0.013088	0.063757	0.003718	0.046603	0.114078	0.019231	4.19E-05	0.00445	0	51.29905	0.247871	0.352944	51.89986	0.000573	0.000125
0	0	0	0.003408	0.01494	0	0	0.01494	0.109175	0	0	0	44.67409	0	0	44.67409	0.000139	0
4.17E-05	0.00031	1.53E-06	0.003089	0.007004	0.010614	0.004585	0.022203	0.002683	0.00012	0.000278	0	5.37158	0.329182	0.025088	5.725849	7.59E-05	0.000318
0	0	0	0.005175	0.011176	0.006011	0	0.017187	0.280697	0.055357	0.008254	0	42.01588	4.348536	0	46.36442	0.000196	1.54E-05
0	0	0	0.000147	0.000317	6.88E-05	0	0.000386	0.001634	0.000151	0.000113	0	0.276595	0.012272	0	0.288867	5.55E-06	4.34E-07
0	0	0	0.000343	0.001776	0.000245	0	0.00202	0.025114	0.000367	0.002192	0	21.20695	0.072841	0	21.27979	1.37E-05	2.89E-07
0	0	0	0.000118	0.000486	0.000135	0	0.00062	0.004241	0.000243	0.001132	0	3.256234	0.040371	0	3.296606	4.64E-06	1.83E-07
0	0	0	0.002515	0.005918	0.0004	0	0.006318	0.046867	0.000797	0.00212	0	17.10273	0.134371	0	17.2371	0.000102	5.6E-07
0	0	0	0.022767	0.058822	0.003946	0	0.062768	0.301127	0.009718	0.017655	0	125.1439	1.248876	0	126.3928	0.000922	7.14E-06
0	0	0	0.014264	0.044632	0.002955	0	0.047587	0.409806	0.00575	0.03102	0	202.6749	0.959043	0	203.6339	0.000578	4.42E-06
0	0	0	0.039356	0.115781	0.011851	0	0.127632	0.659834	0.029673	0.106182	1	299.6528	3.731887	0	303.3847	0.001584	2.19E-05
0	0	0	0.000152	0.000906	0.000137	0	0.001043	0.013731	0.000202	0.001239	0	11.91652	0.04091	0	11.95743	6.05E-06	1.57E-07
0	0	0	6.78E-05	0.000275	7.39E-05	0	0.000349	0.002371	0.000136	0.000617	0	1.773201	0.02233	0	1.795531	2.66E-06	1.02E-07
0	0	0	0.008783	0.016195	0.034425	0	0.05062	0.445368	0.173956	0.02302	1	89.38122	16.57353	0	105.9547	0.000277	8.13E-05
0	0	0	5.63E-05	0.000277	0.001094	0	0.001371	0.00319	0.001496	0.004272	0	3.259636	0.318472	0	3.578108	1.1E-06	1.2E-06
0.004804	0.026099	5.78E-05	0.061179	0.235154	0.035348	0.226409	0.496912	0.062348	0.000207	0.017258	0	199.1783	1.280536	1.864656	202.3235	0.00206	0.000606
0	0	0	0.000191	0.000496	0.000155	0	0.000651	0.001778	0.000222	0.000167	0	0.306782	0.023457	0	0.330239	6.34E-06	1.47E-06
0	0	0	0.018266	0.038479	0.137248	0	0.175728	0.45044	0.123352	0.028245	1	226.4004	24.76612	0	251.1665	0.000287	0.000458
0	0	0	0.000958	0.00588	0.001255	0	0.007136	0.045263	0.001118	0.001073	0	17.24158	0.223315	0	17.4649	3.49E-05	4.14E-06
0	0	0	0.020417	0.037551	0.190578	0	0.228129	0.426039	0.160713	0.032083	1	259.5343	31.76648	0	291.3008	0.000221	0.000612
0	0	0	0.007892	0.0143	0.067527	0	0.081827	0.174239	0.060675	0.011208	0	88.96552	12.19294	0	101.1585	9.87E-05	0.000223
0	0	0	0.000487	0.00157	0.000216	0	0.001786	0.011	0.000324	0.000103	0	3.414178	0.055217	0	3.469394	1.9E-05	9.11E-07
0	0	0	0.00191	0.005505	0.001416	0	0.006921	0.037223	0.002122	0.000424	0	10.75944	0.36171	0	11.12115	7.2E-05	5.97E-06
0	0	0	0.020658	0.045055	0.056887	0	0.101941	0.876118	0.156248	0.042488	1	179.2879	16.40829	0	195.6962	0.000575	0.000268
0	0	0	0.014248	0.041071	0.047301	0	0.088372	0.317084	0.043717	0.059291	0	168.0858	8.521126	0	176.607	0.000424	0.000157
0	0	0	0.005716	0.016586	0.007728	0	0.024314	0.11758	0.007652	0.006441	0	44.77689	1.459823	0	46.23671	0.000207	2.63E-05
0	0	0	0.001805	0.002144	0.007839	0	0.009984	0.210124	0.026769	0.006036	0	99.92022	2.534875	0	102.4551	3.65E-05	3.72E-05
0	0	0	0.059997	0.12623	0.006186	0	0.132416	0.049543	0.007705	0	0	41.50501	1.317152	0	42.82216	0.054108	0.000412
0	0	0	0.010543	0.032738	0.022742	0	0.05548	0.380092	0.023818	0.018242	0	167.7103	4.486896	0	172.1972	0.000349	8.09E-05
0	0	0	0.00551	0.017442	0.006332	0	0.023774	0.117903	0.006508	0.005225	0	37.57979	1.249377	0	38.82916	0.000203	2.21E-05
0	0	0	2.92E-05	0.00011	0.000254	0	0.000364	0.000973	0.000203	0.001016	0	0.89957	0.045875	0	0.945445	3.93E-07	7.98E-07
2.46E-05	0.000158	3.32E-07	0.000666	0.015179	0	0.000449	0.015628	0.002433	0	7.01E-05	0	0.746164	0	0.004766	0.75093	5.87E-05	0
3.53E-05	0.000219	1.61E-06	0.001235	0.005436	0	0.007371	0.012807	0.00406	0	0.00068	0	33.99716	0	0.079757	34.07691	0.000108	0
0	0	0	6.66E-06	9.96E-06	0	0	9.96E-06	9.08E-05	0	0	0	0.175946	0	0	0.175946	6.53E-06	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0.285578	2.177521	0	0	2.177521	0.021278	0	0	0	87.55586	0	0	87.55586	0.279821	0

CH4_STRE	CH4_TOTE	PM10_RUI	PM10_IDLI	PM10_STR	PM10_TOT	PM10_PM	PM10_PM	PM10_TOT	PM2_5_RL	PM2_5_IDI	PM2_5_ST	PM2_5_TC	PM2_5_PA	PM2_5_PA	PM2_5_TC	SOx_RUNE
0	0.000167	0.001148	5.44E-06	0	0.001153	0.000312	0.003388	0.004853	0.001098	5.21E-06	0	0.001104	7.8E-05	0.001452	0.002633	0.000278
0.173477	0.234837	0.034567	0	0.006167	0.040734	0.186312	0.855869	1.082914	0.031783	0	0.005671	0.037454	0.046578	0.366801	0.450833	0.061415
0	0.000161	0.001683	0	0	0.001683	0.001772	0.00814	0.011594	0.00161	0	0	0.00161	0.000443	0.003489	0.005541	0.00042
0	0	0	0	0	0	0.003536	0.016243	0.019779	0	0	0	0	0.000884	0.006961	0.007845	0
0.025996	0.038926	0.004552	0	0.000847	0.005399	0.018778	0.086261	0.110438	0.004186	0	0.000779	0.004964	0.004694	0.036969	0.046628	0.007221
0	2.15E-05	0.000303	0	0	0.000303	2.95E-05	0.000136	0.000468	0.00029	0	0	0.00029	7.38E-06	5.81E-05	0.000355	1.63E-05
0	0	0	0	0	0	0.00014	0.000644	0.000784	0	0	0	0	3.51E-05	0.000276	0.000311	0
0.080717	0.111371	0.011549	0	0.002011	0.01356	0.06238	0.286557	0.362497	0.010619	0	0.001849	0.012468	0.015595	0.12281	0.150873	0.026039
0	3.64E-05	0.000255	0	0	0.000255	0.000402	0.001846	0.002503	0.000244	0	0	0.000244	0.0001	0.000791	0.001136	0.000129
0	0	0	0	0	0	0.000443	0.002033	0.002476	0	0	0	0.000111	0.000871	0.000982	0	0
0.007827	0.018321	0.001511	0	0.000126	0.001637	0.004936	0.047162	0.053735	0.00139	0	0.000116	0.001505	0.001234	0.020212	0.022951	0.00622
0	0.004755	0.017048	0.000447	0	0.017495	0.006487	0.04132	0.065301	0.01631	0.000428	0	0.016738	0.001622	0.017709	0.036068	0.002876
0.000996	0.002169	0.000177	0	1.36E-05	0.000191	0.000674	0.007513	0.008378	0.000163	0	1.25E-05	0.000176	0.000168	0.00322	0.03564	0.00097
0	0.001477	0.005178	0.000147	0	0.005326	0.002211	0.016435	0.023972	0.004954	0.000141	0	0.005095	0.000553	0.007044	0.012692	0.001093
0.017084	0.094308	0.000436	0	0.000211	0.000646	0.000901	0.00265	0.004198	0.000408	0	0.000199	0.000607	0.000225	0.001136	0.001968	0.00047
0.071755	0.099288	0.008154	0	0.001587	0.009741	0.042361	0.194597	0.2467	0.007498	0	0.00146	0.008958	0.01059	0.083399	0.102947	0.021686
0	7.37E-05	0.000672	0	0	0.000672	0.00101	0.004642	0.006324	0.000643	0	0	0.000643	0.000253	0.001989	0.002885	0.000433
0	0	0	0	0	0	0.000231	0.001062	0.001294	0	0	0	0	5.78E-05	0.000455	0.000513	0
1.12E-05	0.000481	5.09E-05	0	1.28E-07	5.1E-05	0.00035	0.0038	0.004201	4.68E-05	0	1.17E-07	4.69E-05	8.75E-05	0.001628	0.001763	0.00052
0	6.38E-05	0.001264	0	0	0.001264	0.000165	0.001341	0.00277	0.00121	0	0	0.00121	4.11E-05	0.000575	0.001825	0.000101
0	7.46E-05	0.000615	1.16E-05	0	0.000627	0.000183	0.001987	0.002797	0.000589	1.11E-05	0	0.0006	4.57E-05	0.000852	0.001497	0.000218
0.000409	0.001107	2.88E-05	0	3.48E-06	3.23E-05	0.000339	0.003684	0.004055	2.65E-05	0	3.2E-06	2.97E-05	8.48E-05	0.001579	0.001693	0.000508
0	0.000139	0.000613	0	0	0.000613	0	0	0.000613	0.000586	0	0	0.000586	0	0	0.000586	0.000422
2.96E-05	0.000424	1.12E-05	0	3.46E-07	1.16E-05	5.07E-05	0.004721	0.004783	1.03E-05	0	3.18E-07	1.06E-05	1.27E-05	0.002023	0.002047	5.32E-05
0	0.000211	0.001769	6.86E-05	0	0.001837	0.000435	0.026987	0.029259	0.001692	6.56E-05	0	0.001758	0.000109	0.011566	0.013432	0.000397
0	5.99E-06	8.18E-05	2.98E-06	0	8.48E-05	3.07E-06	3.33E-05	0.000121	7.83E-05	2.85E-06	0	8.11E-05	7.67E-07	1.43E-05	9.62E-05	2.61E-06
0	1.4E-05	0.000277	1.73E-07	0	0.000277	0.000284	0.00309	0.003651	0.000265	1.65E-07	0	0.000265	7.11E-05	0.001324	0.001661	0.0002
0	4.82E-06	9.16E-05	3.53E-07	0	9.19E-05	4.13E-05	0.000448	0.000581	8.76E-05	3.38E-07	0	8.8E-05	1.03E-05	0.000192	0.00029	3.08E-05
0	0.000103	0.00062	7.34E-07	0	0.000621	0.000168	0.001826	0.002615	0.000594	7.02E-07	0	0.000594	4.2E-05	0.000782	0.001419	0.000162
0	0.000929	0.006302	2.8E-05	0	0.00633	0.001233	0.013395	0.020958	0.006029	2.67E-05	0	0.006056	0.000308	0.005741	0.012105	0.001182
0	0.000582	0.004739	8.42E-06	0	0.004747	0.002445	0.026554	0.033747	0.004534	8.05E-06	0	0.004542	0.000611	0.01138	0.016534	0.001915
0	0.001606	0.016839	8.9E-05	0	0.016928	0.003424	0.03719	0.057541	0.01611	8.51E-05	0	0.016196	0.000856	0.015938	0.03299	0.002831
0	6.21E-06	0.000138	4.98E-08	0	0.000138	0.00016	0.001735	0.002032	0.000132	4.76E-08	0	0.000132	3.99E-05	0.000744	0.000915	0.000113
0	2.76E-06	5.23E-05	2.06E-07	0	5.25E-05	2.24E-05	0.000243	0.000318	5.01E-05	1.98E-07	0	5.03E-05	5.6E-06	0.000104	0.00016	1.68E-05
0	0.000358	0.002538	0.000341	0	0.002879	0.000919	0.009978	0.013775	0.002428	0.000326	0	0.002754	0.00023	0.004276	0.00726	0.000844
0	2.3E-06	1.13E-05	3.73E-07	0	1.17E-05	3.86E-05	0.000419	0.000469	1.08E-05	3.57E-07	0	1.12E-05	9.64E-06	0.00018	0.0002	3.08E-05
0.001892	0.004558	0.000136	0	2.16E-05	0.000158	0.001331	0.014462	0.015952	0.000126	0	1.99E-05	0.000145	0.000333	0.006198	0.006676	0.001971
0	7.81E-06	8.91E-05	4.67E-06	0	9.37E-05	6.63E-06	1.14E-05	0.000112	8.52E-05	4.47E-06	0	8.97E-05	1.66E-06	4.87E-06	9.62E-05	2.9E-06
0	0.000745	0.005829	6.53E-05	0	0.005894	0.00602	0.010324	0.022238	0.005577	6.25E-05	0	0.005639	0.001505	0.004425	0.011569	0.002139
0	3.91E-05	0.000273	4.59E-07	0	0.000273	0.000362	0.000621	0.001257	0.000261	4.39E-07	0	0.000261	9.06E-05	0.000266	0.000618	0.000163
0	0.000833	0.005261	5.73E-05	0	0.005318	0.007339	0.012587	0.025244	0.005033	5.48E-05	0	0.005088	0.001835	0.005394	0.012317	0.002452
0	0.000322	0.002173	2.13E-05	0	0.002194	0.002365	0.004056	0.008616	0.002079	2.04E-05	0	0.002099	0.000591	0.001738	0.004429	0.000841
0	1.99E-05	6.06E-05	1.09E-07	0	6.07E-05	6.83E-05	0.000117	0.000246	5.8E-05	1.04E-07	0	5.81E-05	1.71E-05	5.02E-05	0.000125	3.23E-05
0	7.79E-05	0.000214	7.12E-07	0	0.000215	0.000209	0.000358	0.000781	0.000205	6.82E-07	0	0.000205	5.22E-05	0.000153	0.000411	0.000102
0	0.000843	0.004831	0.000332	0	0.005163	0.003682	0.006315	0.015161	0.004622	0.000318	0	0.00494	0.000921	0.002707	0.008567	0.001694
0	0.000581	0.003297	2.29E-05	0	0.00332	0.004147	0.007111	0.014578	0.003154	2.19E-05	0	0.003176	0.001037	0.003048	0.007261	0.001588
0	0.000233	0.001104	4.71E-06	0	0.001109	0.000899	0.001541	0.003549	0.001056	4.5E-06	0	0.001061	0.000225	0.000661	0.001946	0.000423
0	7.36E-05	0.000404	4.45E-05	0	0.000448	0.000898	0.001541	0.002887	0.000386	4.26E-05	0	0.000429	0.000225	0.00066	0.001314	0.000944
0	0.05452	9.74E-05	1.6E-05	0	0.000113	0.000464	0.000795	0.001373	9.32E-05	1.53E-05	0	0.000109	0.000116	0.000341	0.000565	0
0	0.00043	0.005099	1.43E-05	0	0.005114	0.004518	0.007748	0.01738	0.004879	1.37E-05	0	0.004893	0.001129	0.003321	0.009343	0.001584
0	0.000225	0.000979	3.14E-06	0	0.000983	0.000741	0.001271	0.002995	0.000937	3E-06	0	0.00094	0.000185	0.000545	0.00167	0.000355
0	1.19E-06	3.55E-06	7.31E-08	0	3.62E-06	1.98E-05	3.39E-05	5.73E-05	3.4E-06	7E-08	0	3.47E-06	4.94E-06	1.45E-05	2.29E-05	8.5E-06
3.18E-08	5.88E-05	8.1E-07	0	1.43E-07	9.52E-07	7.59E-06	2.34E-05	3.2E-05	7.45E-07	0	1.31E-07	8.76E-07	1.9E-06	1E-05	1.28E-05	7.38E-06
9.43E-05	0.000202	2.93E-05	0	6.22E-07	2.99E-05	0.000191	0.002077	0.002298	2.7E-05	0	5.72E-07	2.75E-05	4.78E-05	0.00089	0.000965	0.000336
0	6.53E-06	6.16E-07	0	0	6.16E-07	1.8E-06	1.96E-05	2.2E-05	5.9E-07	0	0	5.9E-07	4.51E-07	8.4E-06	9.44E-06	1.66E-06
0	0	0	0	0	0	6.2E-10	6.74E-09	7.36E-09	0	0	0	0	1.55E-10	2.89E-09	3.04E-09	0
0	0.279821	0.000145	0	0	0.000145	0.001487	0.002836	0.004467	0.000138	0	0	0.000138	0.000372	0.001215	0.001725	0

SOx_IDLE SOx_STRE SOx_TOTE N2O_RUNI N2O_IDLE N2O_STRE N2O_TOTE Fuel Consumption

3.02E-06	0	0.000281	0.00462	5.03E-05	0	0.00467	2.648003
0	0.001694	0.063108	0.109364	0	0.082274	0.191638	673.1424
0	0	0.00042	0.006975	0	0	0.006975	3.954837
0	0	0	0	0	0	0	0
0	0.000212	0.007433	0.018051	0	0.009865	0.027915	79.27891
0	0	1.63E-05	0.000271	0	0	0.000271	0.153492
0	0	0	0	0	0	0	0
0	0.00076	0.0268	0.052972	0	0.036774	0.089746	285.8596
0	0	0.000129	0.002151	0	0	0.002151	1.219562
0	0	0	0	0	0	0	0
2.27E-05	5.31E-05	0.006296	0.010645	5.81E-05	0.011672	0.022375	67.15586
2.06E-05	0	0.002897	0.047821	0.000342	0	0.048163	27.30798
3.52E-06	8.09E-06	0.000982	0.00139	7.81E-06	0.001562	0.00296	10.47535
1.08E-05	0	0.001104	0.018177	0.00018	0	0.018357	10.4084
0	4.11E-05	0.000511	0.014961	0	0.001003	0.015964	5.453653
0	0.000674	0.02236	0.04481	0	0.02888	0.07369	238.5024
0	0	0.000433	0.007196	0	0	0.007196	4.080027
0	0	0	0	0	0	0	0
0	8.91E-08	0.00052	0.000805	0	1.19E-05	0.000817	5.545153
0	0	0.000101	0.001684	0	0	0.001684	0.954794
1.15E-05	0	0.000229	0.003622	0.000192	0	0.003813	2.162161
2.45E-06	3.49E-06	0.000514	0.000885	3.35E-06	0.000329	0.001217	5.478197
0	0	0.000422	0.007022	0	0	0.007022	3.981491
3.26E-06	2.48E-07	5.67E-05	0.000149	1.18E-05	2.7E-05	0.000188	0.604382
4.11E-05	0	0.000438	0.006604	0.000684	0	0.007288	4.132137
1.16E-07	0	2.73E-06	4.35E-05	1.93E-06	0	4.54E-05	0.025745
6.88E-07	0	0.000201	0.003333	1.14E-05	0	0.003345	1.896519
3.81E-07	0	3.11E-05	0.000512	6.35E-06	0	0.000518	0.293804
1.27E-06	0	0.000163	0.002688	2.11E-05	0	0.002709	1.536222
1.18E-05	0	0.001194	0.019671	0.000196	0	0.019867	11.26451
9.06E-06	0	0.001924	0.031858	0.000151	0	0.032008	18.14847
3.53E-05	0	0.002866	0.047101	0.000587	0	0.047688	27.03856
3.87E-07	0	0.000113	0.001873	6.43E-06	0	0.00188	1.065682
2.11E-07	0	1.7E-05	0.000279	3.51E-06	0	0.000282	0.160023
0.000157	0	0.001001	0.014049	0.002605	0	0.016655	9.443008
3.01E-06	0	3.38E-05	0.000512	5.01E-05	0	0.000562	0.318892
1.27E-05	1.85E-05	0.002002	0.002969	1.7E-05	0.001315	0.004302	21.3559
2.22E-07	0	3.12E-06	4.82E-05	3.69E-06	0	5.19E-05	0.029432
0.000234	0	0.002373	0.035587	0.003893	0	0.03948	22.38472
2.11E-06	0	0.000165	0.00271	3.51E-05	0	0.002745	1.556525
0.0003	0	0.002752	0.040795	0.004993	0	0.045788	25.96161
0.000115	0	0.000956	0.013984	0.001917	0	0.015901	9.015549
5.22E-07	0	3.28E-05	0.000537	8.68E-06	0	0.000545	0.309203
3.42E-06	0	0.000105	0.001691	5.69E-05	0	0.001748	0.991151
0.000155	0	0.001849	0.028182	0.002579	0	0.030761	17.44104
8.05E-05	0	0.001668	0.026421	0.001339	0	0.02776	15.73975
1.38E-05	0	0.000437	0.007038	0.000229	0	0.007268	4.120756
2.39E-05	0	0.000968	0.015706	0.000398	0	0.016105	9.131109
0	0	0	0.008461	0.000269	0	0.00873	4.949589
4.24E-05	0	0.001627	0.026362	0.000705	0	0.027067	15.34673
1.18E-05	0	0.000367	0.005907	0.000196	0	0.006103	3.460573
4.33E-07	0	8.93E-06	0.000141	7.21E-06	0	0.000149	0.084261
0	4.72E-08	7.43E-06	7.24E-05	0	1.2E-06	7.36E-05	0.079263
0	7.89E-07	0.000337	0.000351	0	6.06E-05	0.000412	3.596927
0	0	1.66E-06	2.77E-05	0	0	2.77E-05	0.015681
0	0	0	0	0	0	0	0
0	0	0	0.017849	0	0	0.017849	10.12012

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	4.00	Acre	4.00	174,240.00	0
Racquet Club	25.00	1000sqft	0.57	25,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2022
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MW hr)	590.31	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Estimated building/facility operations using recreational racquet club land use.

Construction Phase - Construction anticipated to begin in September 2020, and last approximately 22 months.

Off-road Equipment - Construction equipment based on CalEEMod defaults.

Grading - Balanced site.

Demolition - Demolition site is approximately 1,465 square feet.

Trips and VMT - Construction trips and VMT based upon CalEEMod defaults.

Vehicle Trips - Potential increased use of park complex estimated at 20% increase in daily operational mobile trips.

Water And Wastewater -

Energy Use - Potential increased use of park complex estimated at 20% increase in daily operational energy use.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	36.00
tblConstructionPhase	NumDays	230.00	350.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	8.00	16.00
tblConstructionPhase	NumDays	18.00	36.00
tblConstructionPhase	PhaseEndDate	10/22/2021	6/30/2022
tblConstructionPhase	PhaseEndDate	9/2/2021	3/22/2022
tblConstructionPhase	PhaseEndDate	9/28/2020	10/26/2020
tblConstructionPhase	PhaseEndDate	10/15/2020	11/17/2020
tblConstructionPhase	PhaseEndDate	9/28/2021	5/11/2022
tblConstructionPhase	PhaseStartDate	9/29/2021	5/12/2022
tblConstructionPhase	PhaseStartDate	10/16/2020	11/18/2020
tblConstructionPhase	PhaseStartDate	10/6/2020	10/27/2020
tblConstructionPhase	PhaseStartDate	9/3/2021	3/23/2022
tblEnergyUse	LightingElect	4.57	5.48
tblEnergyUse	NT24E	7.20	8.64
tblEnergyUse	NT24NG	12.42	14.90
tblEnergyUse	T24E	3.41	4.09
tblEnergyUse	T24NG	23.39	28.07
tblGrading	AcresOfGrading	8.00	4.00
tblVehicleTrips	ST_TR	22.75	27.30
tblVehicleTrips	ST_TR	21.35	25.62
tblVehicleTrips	SU_TR	16.74	20.09
tblVehicleTrips	SU_TR	17.40	20.88
tblVehicleTrips	WD_TR	1.89	2.27
tblVehicleTrips	WD_TR	14.03	16.84

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2.0 Emissions Summary

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2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1287	1.2666	0.9031	1.7600e-003	0.0676	0.0617	0.1293	0.0314	0.0575	0.0889	0.0000	155.4211	155.4211	0.0364	0.0000	156.3303
2021	0.2996	2.7402	2.5583	5.3300e-003	0.1057	0.1269	0.2326	0.0287	0.1193	0.1480	0.0000	472.2412	472.2412	0.0805	0.0000	474.2540
2022	0.1984	0.7394	0.8134	1.5900e-003	0.0280	0.0337	0.0617	7.5700e-003	0.0316	0.0392	0.0000	140.5340	140.5340	0.0271	0.0000	141.2106
Maximum	0.2996	2.7402	2.5583	5.3300e-003	0.1057	0.1269	0.2326	0.0314	0.1193	0.1480	0.0000	472.2412	472.2412	0.0805	0.0000	474.2540

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1287	1.2666	0.9031	1.7600e-003	0.0676	0.0617	0.1293	0.0314	0.0575	0.0889	0.0000	155.4210	155.4210	0.0364	0.0000	156.3301
2021	0.2996	2.7402	2.5583	5.3300e-003	0.1057	0.1269	0.2326	0.0287	0.1193	0.1480	0.0000	472.2408	472.2408	0.0805	0.0000	474.2537
2022	0.1984	0.7394	0.8134	1.5900e-003	0.0280	0.0337	0.0617	7.5700e-003	0.0316	0.0392	0.0000	140.5339	140.5339	0.0271	0.0000	141.2104
Maximum	0.2996	2.7402	2.5583	5.3300e-003	0.1057	0.1269	0.2326	0.0314	0.1193	0.1480	0.0000	472.2408	472.2408	0.0805	0.0000	474.2537

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2020	11-30-2020	1.0999	1.0999
2	12-1-2020	2-28-2021	0.7763	0.7763
3	3-1-2021	5-31-2021	0.7650	0.7650
4	6-1-2021	8-31-2021	0.7642	0.7642
5	9-1-2021	11-30-2021	0.7575	0.7575
6	12-1-2021	2-28-2022	0.7030	0.7030
7	3-1-2022	5-31-2022	0.4135	0.4135
8	6-1-2022	8-31-2022	0.0873	0.0873
		Highest	1.0999	1.0999

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2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1109	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Energy	5.7900e-003	0.0527	0.0442	3.2000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	179.2239	179.2239	7.0900e-003	2.2900e-003	180.0835
Mobile	0.1218	0.4690	1.1015	3.0600e-003	0.2529	2.8500e-003	0.2558	0.0678	2.6600e-003	0.0705	0.0000	281.6366	281.6366	0.0150	0.0000	282.0124
Waste						0.0000	0.0000		0.0000	0.0000	28.9952	0.0000	28.9952	1.7136	0.0000	71.8345
Water						0.0000	0.0000		0.0000	0.0000	0.5231	7.2884	7.8115	2.1600e-003	1.2100e-003	8.2265
Total	0.2385	0.5217	1.1461	3.3800e-003	0.2529	6.8500e-003	0.2598	0.0678	6.6600e-003	0.0745	29.5184	468.1495	497.6679	1.7379	3.5000e-003	542.1576

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1109	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Energy	5.7900e-003	0.0527	0.0442	3.2000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	179.2239	179.2239	7.0900e-003	2.2900e-003	180.0835
Mobile	0.1218	0.4690	1.1015	3.0600e-003	0.2529	2.8500e-003	0.2558	0.0678	2.6600e-003	0.0705	0.0000	281.6366	281.6366	0.0150	0.0000	282.0124
Waste						0.0000	0.0000		0.0000	0.0000	28.9952	0.0000	28.9952	1.7136	0.0000	71.8345
Water						0.0000	0.0000		0.0000	0.0000	0.5231	7.2884	7.8115	2.1600e-003	1.2100e-003	8.2265
Total	0.2385	0.5217	1.1461	3.3800e-003	0.2529	6.8500e-003	0.2598	0.0678	6.6600e-003	0.0745	29.5184	468.1495	497.6679	1.7379	3.5000e-003	542.1576

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2020	10/26/2020	5	40	
2	Grading	Grading	10/27/2020	11/17/2020	5	16	
3	Building Construction	Building Construction	11/18/2020	3/22/2022	5	350	
4	Paving	Paving	3/23/2022	5/11/2022	5	36	
5	Architectural Coating	Architectural Coating	5/12/2022	6/30/2022	5	36	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 37,500; Non-Residential Outdoor: 12,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	145.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	84.00	33.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Demolition - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0662	0.6640	0.4351	7.8000e-004		0.0332	0.0332		0.0308	0.0308	0.0000	67.9972	67.9972	0.0192	0.0000	68.4771
Total	0.0662	0.6640	0.4351	7.8000e-004		0.0332	0.0332		0.0308	0.0308	0.0000	67.9972	67.9972	0.0192	0.0000	68.4771

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3.2 Demolition - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6000e-004	0.0208	4.7100e-003	6.0000e-005	1.2200e-003	7.0000e-005	1.3000e-003	3.4000e-004	7.0000e-005	4.1000e-004	0.0000	5.5472	5.5472	3.2000e-004	0.0000	5.5552
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	7.6000e-004	8.3000e-003	2.0000e-005	2.2000e-003	2.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.9522	1.9522	6.0000e-005	0.0000	1.9536
Total	1.6800e-003	0.0216	0.0130	8.0000e-005	3.4200e-003	9.0000e-005	3.5200e-003	9.3000e-004	8.0000e-005	1.0100e-003	0.0000	7.4994	7.4994	3.8000e-004	0.0000	7.5088

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0662	0.6640	0.4351	7.8000e-004		0.0332	0.0332		0.0308	0.0308	0.0000	67.9971	67.9971	0.0192	0.0000	68.4770
Total	0.0662	0.6640	0.4351	7.8000e-004		0.0332	0.0332		0.0308	0.0308	0.0000	67.9971	67.9971	0.0192	0.0000	68.4770

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3.2 Demolition - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6000e-004	0.0208	4.7100e-003	6.0000e-005	1.2200e-003	7.0000e-005	1.3000e-003	3.4000e-004	7.0000e-005	4.1000e-004	0.0000	5.5472	5.5472	3.2000e-004	0.0000	5.5552
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	7.6000e-004	8.3000e-003	2.0000e-005	2.2000e-003	2.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.9522	1.9522	6.0000e-005	0.0000	1.9536
Total	1.6800e-003	0.0216	0.0130	8.0000e-005	3.4200e-003	9.0000e-005	3.5200e-003	9.3000e-004	8.0000e-005	1.0100e-003	0.0000	7.4994	7.4994	3.8000e-004	0.0000	7.5088

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0503	0.0000	0.0503	0.0267	0.0000	0.0267	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2111	0.1284	2.4000e-004		0.0102	0.0102		9.3700e-003	9.3700e-003	0.0000	20.8470	20.8470	6.7400e-003	0.0000	21.0156
Total	0.0194	0.2111	0.1284	2.4000e-004	0.0503	0.0102	0.0605	0.0267	9.3700e-003	0.0361	0.0000	20.8470	20.8470	6.7400e-003	0.0000	21.0156

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3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.3200e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7809	0.7809	2.0000e-005	0.0000	0.7814
Total	4.5000e-004	3.0000e-004	3.3200e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7809	0.7809	2.0000e-005	0.0000	0.7814

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0503	0.0000	0.0503	0.0267	0.0000	0.0267	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2111	0.1284	2.4000e-004		0.0102	0.0102		9.3700e-003	9.3700e-003	0.0000	20.8470	20.8470	6.7400e-003	0.0000	21.0155
Total	0.0194	0.2111	0.1284	2.4000e-004	0.0503	0.0102	0.0605	0.0267	9.3700e-003	0.0361	0.0000	20.8470	20.8470	6.7400e-003	0.0000	21.0155

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3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.3200e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7809	0.7809	2.0000e-005	0.0000	0.7814
Total	4.5000e-004	3.0000e-004	3.3200e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7809	0.7809	2.0000e-005	0.0000	0.7814

3.4 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0339	0.3070	0.2696	4.3000e-004		0.0179	0.0179		0.0168	0.0168	0.0000	37.0576	37.0576	9.0400e-003	0.0000	37.2836
Total	0.0339	0.3070	0.2696	4.3000e-004		0.0179	0.0179		0.0168	0.0168	0.0000	37.0576	37.0576	9.0400e-003	0.0000	37.2836

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3.4 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0592	0.0165	1.3000e-004	3.0900e-003	3.1000e-004	3.3900e-003	8.9000e-004	2.9000e-004	1.1900e-003	0.0000	12.4932	12.4932	7.4000e-004	0.0000	12.5117
Worker	5.0000e-003	3.3900e-003	0.0372	1.0000e-004	9.8700e-003	7.0000e-005	9.9400e-003	2.6300e-003	7.0000e-005	2.6900e-003	0.0000	8.7459	8.7459	2.5000e-004	0.0000	8.7521
Total	7.0200e-003	0.0626	0.0537	2.3000e-004	0.0130	3.8000e-004	0.0133	3.5200e-003	3.6000e-004	3.8800e-003	0.0000	21.2391	21.2391	9.9000e-004	0.0000	21.2638

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0339	0.3070	0.2696	4.3000e-004		0.0179	0.0179		0.0168	0.0168	0.0000	37.0576	37.0576	9.0400e-003	0.0000	37.2836
Total	0.0339	0.3070	0.2696	4.3000e-004		0.0179	0.0179		0.0168	0.0168	0.0000	37.0576	37.0576	9.0400e-003	0.0000	37.2836

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3.4 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0592	0.0165	1.3000e-004	3.0900e-003	3.1000e-004	3.3900e-003	8.9000e-004	2.9000e-004	1.1900e-003	0.0000	12.4932	12.4932	7.4000e-004	0.0000	12.5117
Worker	5.0000e-003	3.3900e-003	0.0372	1.0000e-004	9.8700e-003	7.0000e-005	9.9400e-003	2.6300e-003	7.0000e-005	2.6900e-003	0.0000	8.7459	8.7459	2.5000e-004	0.0000	8.7521
Total	7.0200e-003	0.0626	0.0537	2.3000e-004	0.0130	3.8000e-004	0.0133	3.5200e-003	3.6000e-004	3.8800e-003	0.0000	21.2391	21.2391	9.9000e-004	0.0000	21.2638

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099

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3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0135	0.4405	0.1178	1.0500e-003	0.0252	1.2200e-003	0.0264	7.2800e-003	1.1600e-003	8.4400e-003	0.0000	101.0497	101.0497	5.7800e-003	0.0000	101.1941
Worker	0.0380	0.0248	0.2775	7.6000e-004	0.0805	5.6000e-004	0.0811	0.0214	5.2000e-004	0.0219	0.0000	68.9048	68.9048	1.8100e-003	0.0000	68.9501
Total	0.0515	0.4654	0.3952	1.8100e-003	0.1057	1.7800e-003	0.1075	0.0287	1.6800e-003	0.0304	0.0000	169.9545	169.9545	7.5900e-003	0.0000	170.1442

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095

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3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0135	0.4405	0.1178	1.0500e-003	0.0252	1.2200e-003	0.0264	7.2800e-003	1.1600e-003	8.4400e-003	0.0000	101.0497	101.0497	5.7800e-003	0.0000	101.1941
Worker	0.0380	0.0248	0.2775	7.6000e-004	0.0805	5.6000e-004	0.0811	0.0214	5.2000e-004	0.0219	0.0000	68.9048	68.9048	1.8100e-003	0.0000	68.9501
Total	0.0515	0.4654	0.3952	1.8100e-003	0.1057	1.7800e-003	0.1075	0.0287	1.6800e-003	0.0304	0.0000	169.9545	169.9545	7.5900e-003	0.0000	170.1442

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0486	0.4451	0.4664	7.7000e-004		0.0231	0.0231		0.0217	0.0217	0.0000	66.0417	66.0417	0.0158	0.0000	66.4372
Total	0.0486	0.4451	0.4664	7.7000e-004		0.0231	0.0231		0.0217	0.0217	0.0000	66.0417	66.0417	0.0158	0.0000	66.4372

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3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7500e-003	0.0914	0.0237	2.3000e-004	5.5000e-003	2.3000e-004	5.7300e-003	1.5900e-003	2.2000e-004	1.8100e-003	0.0000	21.8743	21.8743	1.2300e-003	0.0000	21.9050
Worker	7.7500e-003	4.8700e-003	0.0557	1.6000e-004	0.0176	1.2000e-004	0.0177	4.6800e-003	1.1000e-004	4.7900e-003	0.0000	14.5092	14.5092	3.5000e-004	0.0000	14.5181
Total	0.0105	0.0962	0.0794	3.9000e-004	0.0231	3.5000e-004	0.0234	6.2700e-003	3.3000e-004	6.6000e-003	0.0000	36.3835	36.3835	1.5800e-003	0.0000	36.4230

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0486	0.4451	0.4664	7.7000e-004		0.0231	0.0231		0.0217	0.0217	0.0000	66.0416	66.0416	0.0158	0.0000	66.4372
Total	0.0486	0.4451	0.4664	7.7000e-004		0.0231	0.0231		0.0217	0.0217	0.0000	66.0416	66.0416	0.0158	0.0000	66.4372

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3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7500e-003	0.0914	0.0237	2.3000e-004	5.5000e-003	2.3000e-004	5.7300e-003	1.5900e-003	2.2000e-004	1.8100e-003	0.0000	21.8743	21.8743	1.2300e-003	0.0000	21.9050
Worker	7.7500e-003	4.8700e-003	0.0557	1.6000e-004	0.0176	1.2000e-004	0.0177	4.6800e-003	1.1000e-004	4.7900e-003	0.0000	14.5092	14.5092	3.5000e-004	0.0000	14.5181
Total	0.0105	0.0962	0.0794	3.9000e-004	0.0231	3.5000e-004	0.0234	6.2700e-003	3.3000e-004	6.6000e-003	0.0000	36.3835	36.3835	1.5800e-003	0.0000	36.4230

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0176	0.1714	0.2195	3.4000e-004		8.7800e-003	8.7800e-003		8.1100e-003	8.1100e-003	0.0000	29.4766	29.4766	9.2600e-003	0.0000	29.7081
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0176	0.1714	0.2195	3.4000e-004		8.7800e-003	8.7800e-003		8.1100e-003	8.1100e-003	0.0000	29.4766	29.4766	9.2600e-003	0.0000	29.7081

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3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	7.3000e-004	8.3700e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1818	2.1818	5.0000e-005	0.0000	2.1832
Total	1.1600e-003	7.3000e-004	8.3700e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1818	2.1818	5.0000e-005	0.0000	2.1832

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0176	0.1714	0.2195	3.4000e-004		8.7800e-003	8.7800e-003		8.1100e-003	8.1100e-003	0.0000	29.4765	29.4765	9.2600e-003	0.0000	29.7081
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0176	0.1714	0.2195	3.4000e-004		8.7800e-003	8.7800e-003		8.1100e-003	8.1100e-003	0.0000	29.4765	29.4765	9.2600e-003	0.0000	29.7081

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3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	7.3000e-004	8.3700e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1818	2.1818	5.0000e-005	0.0000	2.1832
Total	1.1600e-003	7.3000e-004	8.3700e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1818	2.1818	5.0000e-005	0.0000	2.1832

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0254	0.0326	5.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	4.5959	4.5959	3.0000e-004	0.0000	4.6033
Total	0.1196	0.0254	0.0326	5.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	4.5959	4.5959	3.0000e-004	0.0000	4.6033

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3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	6.2000e-004	7.1200e-003	2.0000e-005	2.2500e-003	2.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.8546	1.8546	5.0000e-005	0.0000	1.8557
Total	9.9000e-004	6.2000e-004	7.1200e-003	2.0000e-005	2.2500e-003	2.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.8546	1.8546	5.0000e-005	0.0000	1.8557

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0254	0.0326	5.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	4.5959	4.5959	3.0000e-004	0.0000	4.6033
Total	0.1196	0.0254	0.0326	5.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	4.5959	4.5959	3.0000e-004	0.0000	4.6033

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3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	6.2000e-004	7.1200e-003	2.0000e-005	2.2500e-003	2.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.8546	1.8546	5.0000e-005	0.0000	1.8557
Total	9.9000e-004	6.2000e-004	7.1200e-003	2.0000e-005	2.2500e-003	2.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.8546	1.8546	5.0000e-005	0.0000	1.8557

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1218	0.4690	1.1015	3.0600e-003	0.2529	2.8500e-003	0.2558	0.0678	2.6600e-003	0.0705	0.0000	281.6366	281.6366	0.0150	0.0000	282.0124
Unmitigated	0.1218	0.4690	1.1015	3.0600e-003	0.2529	2.8500e-003	0.2558	0.0678	2.6600e-003	0.0705	0.0000	281.6366	281.6366	0.0150	0.0000	282.0124

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.08	109.20	80.36	61,927	61,927
Racquet Club	421.00	640.50	522.00	616,357	616,357
Total	430.08	749.70	602.36	678,284	678,284

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Racquet Club	10.00	5.00	6.50	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
Racquet Club	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	121.8978	121.8978	5.9900e-003	1.2400e-003	122.4167
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	121.8978	121.8978	5.9900e-003	1.2400e-003	122.4167
NaturalGas Mitigated	5.7900e-003	0.0527	0.0442	3.2000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	57.3261	57.3261	1.1000e-003	1.0500e-003	57.6667
NaturalGas Unmitigated	5.7900e-003	0.0527	0.0442	3.2000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	57.3261	57.3261	1.1000e-003	1.0500e-003	57.6667

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	1.07425e+006	5.7900e-003	0.0527	0.0442	3.2000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	57.3261	57.3261	1.1000e-003	1.0500e-003	57.6667
Total		5.7900e-003	0.0527	0.0442	3.2000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	57.3261	57.3261	1.1000e-003	1.0500e-003	57.6667

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	1.07425e+006	5.7900e-003	0.0527	0.0442	3.2000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	57.3261	57.3261	1.1000e-003	1.0500e-003	57.6667
Total		5.7900e-003	0.0527	0.0442	3.2000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	57.3261	57.3261	1.1000e-003	1.0500e-003	57.6667

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	455250	121.8978	5.9900e-003	1.2400e-003	122.4167
Total		121.8978	5.9900e-003	1.2400e-003	122.4167

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	455250	121.8978	5.9900e-003	1.2400e-003	122.4167
Total		121.8978	5.9900e-003	1.2400e-003	122.4167

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1109	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Unmitigated	0.1109	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0993					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Total	0.1109	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0993					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004
Total	0.1109	0.0000	3.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.2000e-004	7.2000e-004	0.0000	0.0000	7.7000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.8115	2.1600e-003	1.2100e-003	8.2265
Unmitigated	7.8115	2.1600e-003	1.2100e-003	8.2265

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.76593	4.4664	2.2000e-004	5.0000e-005	4.4855
Racquet Club	1.47858 / 0.906226	3.3450	1.9400e-003	1.1700e-003	3.7411
Total		7.8115	2.1600e-003	1.2200e-003	8.2265

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Land Use	Mgal	MT/yr			
City Park	0 / 4.76593	4.4664	2.2000e-004	5.0000e-005	4.4855
Racquet Club	1.47858 / 0.906226	3.3450	1.9400e-003	1.1700e-003	3.7411
Total		7.8115	2.1600e-003	1.2200e-003	8.2265

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
	MT/yr			
Mitigated	28.9952	1.7136	0.0000	71.8345
Unmitigated	28.9952	1.7136	0.0000	71.8345

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.34	0.0690	4.0800e-003	0.0000	0.1710
Racquet Club	142.5	28.9262	1.7095	0.0000	71.6635
Total		28.9952	1.7136	0.0000	71.8345

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.34	0.0690	4.0800e-003	0.0000	0.1710
Racquet Club	142.5	28.9262	1.7095	0.0000	71.6635
Total		28.9952	1.7136	0.0000	71.8345

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	4.00	Acre	4.00	174,240.00	0
Racquet Club	25.00	1000sqft	0.57	25,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2022
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

Project Characteristics -

Land Use - Estimated building/facility operations using recreational racquet club land use.

Construction Phase - Construction anticipated to begin in September 2020, and last approximately 22 months.

Off-road Equipment - Construction equipment based on CalEEMod defaults.

Grading - Balanced site.

Demolition - Demolition site is approximately 1,465 square feet.

Trips and VMT - Construction trips and VMT based upon CalEEMod defaults.

Vehicle Trips - Potential increased use of park complex estimated at 20% increase in daily operational mobile trips.

Water And Wastewater -

Energy Use - Potential increased use of park complex estimated at 20% increase in daily operational energy use.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	36.00
tblConstructionPhase	NumDays	230.00	350.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	8.00	16.00
tblConstructionPhase	NumDays	18.00	36.00
tblConstructionPhase	PhaseEndDate	10/22/2021	6/30/2022
tblConstructionPhase	PhaseEndDate	9/2/2021	3/22/2022
tblConstructionPhase	PhaseEndDate	9/28/2020	10/26/2020
tblConstructionPhase	PhaseEndDate	10/15/2020	11/17/2020
tblConstructionPhase	PhaseEndDate	9/28/2021	5/11/2022
tblConstructionPhase	PhaseStartDate	9/29/2021	5/12/2022
tblConstructionPhase	PhaseStartDate	10/16/2020	11/18/2020
tblConstructionPhase	PhaseStartDate	10/6/2020	10/27/2020
tblConstructionPhase	PhaseStartDate	9/3/2021	3/23/2022
tblEnergyUse	LightingElect	4.57	5.48
tblEnergyUse	NT24E	7.20	8.64
tblEnergyUse	NT24NG	12.42	14.90
tblEnergyUse	T24E	3.41	4.09
tblEnergyUse	T24NG	23.39	28.07
tblGrading	AcresOfGrading	8.00	4.00
tblVehicleTrips	ST_TR	22.75	27.30
tblVehicleTrips	ST_TR	21.35	25.62
tblVehicleTrips	SU_TR	16.74	20.09
tblVehicleTrips	SU_TR	17.40	20.88
tblVehicleTrips	WD_TR	1.89	2.27
tblVehicleTrips	WD_TR	14.03	16.84

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

2.0 Emissions Summary

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	3.4001	34.2903	22.4182	0.0427	6.4013	1.6633	7.6755	3.3691	1.5462	4.5414	0.0000	4,155.231 5	4,155.231 5	1.0792	0.0000	4,182.2116
2021	2.3190	21.0140	19.7002	0.0405	0.8376	0.9726	1.8102	0.2266	0.9145	1.1411	0.0000	3,959.503 7	3,959.503 7	0.6822	0.0000	3,976.557 6
2022	6.7007	19.0044	19.2342	0.0403	0.8375	0.8217	1.6592	0.2266	0.7731	0.9998	0.0000	3,932.757 3	3,932.757 3	0.6751	0.0000	3,949.634 4
Maximum	6.7007	34.2903	22.4182	0.0427	6.4013	1.6633	7.6755	3.3691	1.5462	4.5414	0.0000	4,155.231 5	4,155.231 5	1.0792	0.0000	4,182.211 6

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	3.4001	34.2903	22.4182	0.0427	6.4013	1.6633	7.6755	3.3691	1.5462	4.5414	0.0000	4,155.231 5	4,155.231 5	1.0792	0.0000	4,182.2116
2021	2.3190	21.0140	19.7002	0.0405	0.8376	0.9726	1.8102	0.2266	0.9145	1.1411	0.0000	3,959.503 7	3,959.503 7	0.6822	0.0000	3,976.557 6
2022	6.7007	19.0044	19.2342	0.0403	0.8375	0.8217	1.6592	0.2266	0.7731	0.9998	0.0000	3,932.757 3	3,932.757 3	0.6751	0.0000	3,949.634 4
Maximum	6.7007	34.2903	22.4182	0.0427	6.4013	1.6633	7.6755	3.3691	1.5462	4.5414	0.0000	4,155.231 5	4,155.231 5	1.0792	0.0000	4,182.211 6

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

[illegible]

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Energy	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
Mobile	0.9437	3.9864	9.8734	0.0253	2.2212	0.0244	2.2455	0.5938	0.0228	0.6166		2,562.3147	2,562.3147	0.1438		2,565.9103
Total	1.5832	4.2750	10.1188	0.0270	2.2212	0.0463	2.2675	0.5938	0.0447	0.6385		2,908.5740	2,908.5740	0.1505	6.3500e-003	2,914.2277

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Energy	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
Mobile	0.9437	3.9864	9.8734	0.0253	2.2212	0.0244	2.2455	0.5938	0.0228	0.6166		2,562.3147	2,562.3147	0.1438		2,565.9103
Total	1.5832	4.2750	10.1188	0.0270	2.2212	0.0463	2.2675	0.5938	0.0447	0.6385		2,908.5740	2,908.5740	0.1505	6.3500e-003	2,914.2277

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2020	10/26/2020	5	40	
2	Grading	Grading	10/27/2020	11/17/2020	5	16	
3	Building Construction	Building Construction	11/18/2020	3/22/2022	5	350	
4	Paving	Paving	3/23/2022	5/11/2022	5	36	
5	Architectural Coating	Architectural Coating	5/12/2022	6/30/2022	5	36	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 4****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 37,500; Non-Residential Outdoor: 12,500; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	145.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	84.00	33.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.2 Demolition - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0284	1.0469	0.2457	2.8300e-003	0.0631	3.8000e-003	0.0669	0.0173	3.6300e-003	0.0209		302.9933	302.9933	0.0183		303.4496
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	0.0879	1.0893	0.6650	3.8800e-003	0.1772	4.5900e-003	0.1818	0.0475	4.3600e-003	0.0519		407.5266	407.5266	0.0213		408.0580

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.2 Demolition - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0284	1.0469	0.2457	2.8300e-003	0.0631	3.8000e-003	0.0669	0.0173	3.6300e-003	0.0209		302.9933	302.9933	0.0183		303.4496
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	0.0879	1.0893	0.6650	3.8800e-003	0.1772	4.5900e-003	0.1818	0.0475	4.3600e-003	0.0519		407.5266	407.5266	0.0213		408.0580

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2872	0.0000	6.2872	3.3389	0.0000	3.3389			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.2872	1.2734	7.5606	3.3389	1.1716	4.5104		2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2872	0.0000	6.2872	3.3389	0.0000	3.3389			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.2872	1.2734	7.5606	3.3389	1.1716	4.5104	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084

3.4 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.4 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1311	3.6976	1.1203	8.0100e-003	0.1986	0.0195	0.2181	0.0572	0.0187	0.0758		847.8106	847.8106	0.0534		849.1445
Worker	0.3333	0.2375	2.3484	5.8800e-003	0.6390	4.4400e-003	0.6434	0.1695	4.0900e-003	0.1736		585.3864	585.3864	0.0168		585.8071
Total	0.4644	3.9350	3.4687	0.0139	0.8376	0.0240	0.8616	0.2267	0.0228	0.2494		1,433.1969	1,433.1969	0.0702		1,434.9516

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.4 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1311	3.6976	1.1203	8.0100e-003	0.1986	0.0195	0.2181	0.0572	0.0187	0.0758		847.8106	847.8106	0.0534		849.1445
Worker	0.3333	0.2375	2.3484	5.8800e-003	0.6390	4.4400e-003	0.6434	0.1695	4.0900e-003	0.1736		585.3864	585.3864	0.0168		585.8071
Total	0.4644	3.9350	3.4687	0.0139	0.8376	0.0240	0.8616	0.2267	0.0228	0.2494		1,433.1969	1,433.1969	0.0702		1,434.9516

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1080	3.3691	0.9816	7.9400e-003	0.1986	9.6600e-003	0.2082	0.0571	9.2400e-003	0.0664		840.6818	840.6818	0.0511		841.9586
Worker	0.3100	0.2129	2.1434	5.6800e-003	0.6390	4.3100e-003	0.6433	0.1695	3.9700e-003	0.1735		565.4580	565.4580	0.0151		565.8347
Total	0.4181	3.5819	3.1250	0.0136	0.8376	0.0140	0.8515	0.2266	0.0132	0.2399		1,406.1398	1,406.1398	0.0661		1,407.7933

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1080	3.3691	0.9816	7.9400e-003	0.1986	9.6600e-003	0.2082	0.0571	9.2400e-003	0.0664		840.6818	840.6818	0.0511		841.9586
Worker	0.3100	0.2129	2.1434	5.6800e-003	0.6390	4.3100e-003	0.6433	0.1695	3.9700e-003	0.1735		565.4580	565.4580	0.0151		565.8347
Total	0.4181	3.5819	3.1250	0.0136	0.8376	0.0140	0.8515	0.2266	0.0132	0.2399		1,406.1398	1,406.1398	0.0661		1,407.7933

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1003	3.1974	0.9053	7.8600e-003	0.1986	8.4800e-003	0.2070	0.0571	8.1200e-003	0.0653		833.2120	833.2120	0.0496		834.4526
Worker	0.2899	0.1914	1.9655	5.4700e-003	0.6390	4.2000e-003	0.6432	0.1695	3.8700e-003	0.1734		545.2117	545.2117	0.0135		545.5496
Total	0.3902	3.3888	2.8708	0.0133	0.8375	0.0127	0.8502	0.2266	0.0120	0.2386		1,378.4237	1,378.4237	0.0631		1,380.0022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1003	3.1974	0.9053	7.8600e-003	0.1986	8.4800e-003	0.2070	0.0571	8.1200e-003	0.0653		833.2120	833.2120	0.0496		834.4526
Worker	0.2899	0.1914	1.9655	5.4700e-003	0.6390	4.2000e-003	0.6432	0.1695	3.8700e-003	0.1734		545.2117	545.2117	0.0135		545.5496
Total	0.3902	3.3888	2.8708	0.0133	0.8375	0.0127	0.8502	0.2266	0.0120	0.2386		1,378.4237	1,378.4237	0.0631		1,380.0022

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0456	0.4680	1.3000e-003	0.1521	1.0000e-003	0.1531	0.0404	9.2000e-004	0.0413		129.8123	129.8123	3.2200e-003		129.8928
Total	0.0690	0.0456	0.4680	1.3000e-003	0.1521	1.0000e-003	0.1531	0.0404	9.2000e-004	0.0413		129.8123	129.8123	3.2200e-003		129.8928

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0456	0.4680	1.3000e-003	0.1521	1.0000e-003	0.1531	0.0404	9.2000e-004	0.0413		129.8123	129.8123	3.2200e-003		129.8928
Total	0.0690	0.0456	0.4680	1.3000e-003	0.1521	1.0000e-003	0.1531	0.0404	9.2000e-004	0.0413		129.8123	129.8123	3.2200e-003		129.8928

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.4375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	6.6420	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0587	0.0387	0.3978	1.1100e-003	0.1293	8.5000e-004	0.1302	0.0343	7.8000e-004	0.0351		110.3405	110.3405	2.7400e-003		110.4089
Total	0.0587	0.0387	0.3978	1.1100e-003	0.1293	8.5000e-004	0.1302	0.0343	7.8000e-004	0.0351		110.3405	110.3405	2.7400e-003		110.4089

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.4375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	6.6420	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0587	0.0387	0.3978	1.1100e-003	0.1293	8.5000e-004	0.1302	0.0343	7.8000e-004	0.0351		110.3405	110.3405	2.7400e-003		110.4089
Total	0.0587	0.0387	0.3978	1.1100e-003	0.1293	8.5000e-004	0.1302	0.0343	7.8000e-004	0.0351		110.3405	110.3405	2.7400e-003		110.4089

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9437	3.9864	9.8734	0.0253	2.2212	0.0244	2.2455	0.5938	0.0228	0.6166		2,562.314 7	2,562.314 7	0.1438		2,565.910 3
Unmitigated	0.9437	3.9864	9.8734	0.0253	2.2212	0.0244	2.2455	0.5938	0.0228	0.6166		2,562.314 7	2,562.314 7	0.1438		2,565.910 3

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.08	109.20	80.36	61,927	61,927
Racquet Club	421.00	640.50	522.00	616,357	616,357
Total	430.08	749.70	602.36	678,284	678,284

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Racquet Club	10.00	5.00	6.50	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
Racquet Club	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
NaturalGas Unmitigated	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	2943.15	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
Total		0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	2.94315	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
Total		0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106

6.0 Area Detail**6.1 Mitigation Measures Area**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Unmitigated	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0635					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Total	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0635					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Total	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	4.00	Acre	4.00	174,240.00	0
Racquet Club	25.00	1000sqft	0.57	25,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2022
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MW hr)	590.31	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

Project Characteristics -

Land Use - Estimated building/facility operations using recreational racquet club land use.

Construction Phase - Construction anticipated to begin in September 2020, and last approximately 22 months.

Off-road Equipment - Construction equipment based on CalEEMod defaults.

Grading - Balanced site.

Demolition - Demolition site is approximately 1,465 square feet.

Trips and VMT - Construction trips and VMT based upon CalEEMod defaults.

Vehicle Trips - Potential increased use of park complex estimated at 20% increase in daily operational mobile trips.

Water And Wastewater -

Energy Use - Potential increased use of park complex estimated at 20% increase in daily operational energy use.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	36.00
tblConstructionPhase	NumDays	230.00	350.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	8.00	16.00
tblConstructionPhase	NumDays	18.00	36.00
tblConstructionPhase	PhaseEndDate	10/22/2021	6/30/2022
tblConstructionPhase	PhaseEndDate	9/2/2021	3/22/2022
tblConstructionPhase	PhaseEndDate	9/28/2020	10/26/2020
tblConstructionPhase	PhaseEndDate	10/15/2020	11/17/2020
tblConstructionPhase	PhaseEndDate	9/28/2021	5/11/2022
tblConstructionPhase	PhaseStartDate	9/29/2021	5/12/2022
tblConstructionPhase	PhaseStartDate	10/16/2020	11/18/2020
tblConstructionPhase	PhaseStartDate	10/6/2020	10/27/2020
tblConstructionPhase	PhaseStartDate	9/3/2021	3/23/2022
tblEnergyUse	LightingElect	4.57	5.48
tblEnergyUse	NT24E	7.20	8.64
tblEnergyUse	NT24NG	12.42	14.90
tblEnergyUse	T24E	3.41	4.09
tblEnergyUse	T24NG	23.39	28.07
tblGrading	AcresOfGrading	8.00	4.00
tblVehicleTrips	ST_TR	22.75	27.30
tblVehicleTrips	ST_TR	21.35	25.62
tblVehicleTrips	SU_TR	16.74	20.09
tblVehicleTrips	SU_TR	17.40	20.88
tblVehicleTrips	WD_TR	1.89	2.27
tblVehicleTrips	WD_TR	14.03	16.84

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

2.0 Emissions Summary

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	3.4043	34.2411	22.4726	0.0429	6.4013	1.6632	7.6755	3.3691	1.5461	4.5414	0.0000	4,174.451 5	4,174.451 5	1.0788	0.0000	4,201.421 6
2021	2.3396	20.9190	19.9345	0.0415	0.8376	0.9720	1.8096	0.2266	0.9140	1.1406	0.0000	4,060.083 4	4,060.083 4	0.6803	0.0000	4,077.0911
2022	6.7056	18.9218	19.4574	0.0412	0.8375	0.8212	1.6587	0.2266	0.7726	0.9993	0.0000	4,030.436 4	4,030.436 4	0.6732	0.0000	4,047.265 0
Maximum	6.7056	34.2411	22.4726	0.0429	6.4013	1.6632	7.6755	3.3691	1.5461	4.5414	0.0000	4,174.451 5	4,174.451 5	1.0788	0.0000	4,201.421 6

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	3.4043	34.2411	22.4726	0.0429	6.4013	1.6632	7.6755	3.3691	1.5461	4.5414	0.0000	4,174.451 5	4,174.451 5	1.0788	0.0000	4,201.421 6
2021	2.3396	20.9190	19.9345	0.0415	0.8376	0.9720	1.8096	0.2266	0.9140	1.1406	0.0000	4,060.083 4	4,060.083 4	0.6803	0.0000	4,077.091 0
2022	6.7056	18.9218	19.4574	0.0412	0.8375	0.8212	1.6587	0.2266	0.7726	0.9993	0.0000	4,030.436 4	4,030.436 4	0.6732	0.0000	4,047.265 0
Maximum	6.7056	34.2411	22.4726	0.0429	6.4013	1.6632	7.6755	3.3691	1.5461	4.5414	0.0000	4,174.451 5	4,174.451 5	1.0788	0.0000	4,201.421 6

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

[illegible]

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Energy	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
Mobile	1.3144	3.8003	9.9582	0.0280	2.2212	0.0238	2.2450	0.5938	0.0223	0.6160		2,833.3608	2,833.3608	0.1404		2,836.8710
Total	1.9539	4.0889	10.2035	0.0297	2.2212	0.0458	2.2669	0.5938	0.0442	0.6380		3,179.6202	3,179.6202	0.1471	6.3500e-003	3,185.1884

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Energy	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
Mobile	1.3144	3.8003	9.9582	0.0280	2.2212	0.0238	2.2450	0.5938	0.0223	0.6160		2,833.3608	2,833.3608	0.1404		2,836.8710
Total	1.9539	4.0889	10.2035	0.0297	2.2212	0.0458	2.2669	0.5938	0.0442	0.6380		3,179.6202	3,179.6202	0.1471	6.3500e-003	3,185.1884

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2020	10/26/2020	5	40	
2	Grading	Grading	10/27/2020	11/17/2020	5	16	
3	Building Construction	Building Construction	11/18/2020	3/22/2022	5	350	
4	Paving	Paving	3/23/2022	5/11/2022	5	36	
5	Architectural Coating	Architectural Coating	5/12/2022	6/30/2022	5	36	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 4****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 37,500; Non-Residential Outdoor: 12,500; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	145.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	84.00	33.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.2 Demolition - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0275	1.0058	0.2296	2.8700e-003	0.0631	3.6800e-003	0.0667	0.0173	3.5200e-003	0.0208		307.7197	307.7197	0.0175		308.1558
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	0.0922	1.0401	0.7194	4.0700e-003	0.1772	4.4700e-003	0.1816	0.0475	4.2500e-003	0.0518		426.7466	426.7466	0.0209		427.2680

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.2 Demolition - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0275	1.0058	0.2296	2.8700e-003	0.0631	3.6800e-003	0.0667	0.0173	3.5200e-003	0.0208		307.7197	307.7197	0.0175		308.1558
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	0.0922	1.0401	0.7194	4.0700e-003	0.1772	4.4700e-003	0.1816	0.0475	4.2500e-003	0.0518		426.7466	426.7466	0.0209		427.2680

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2872	0.0000	6.2872	3.3389	0.0000	3.3389			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	6.2872	1.2734	7.5606	3.3389	1.1716	4.5104		2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2872	0.0000	6.2872	3.3389	0.0000	3.3389			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	2.4288	26.3859	16.0530	0.0297	6.2872	1.2734	7.5606	3.3389	1.1716	4.5104	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122

3.4 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.4 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1244	3.6235	0.9739	8.2200e-003	0.1986	0.0189	0.2175	0.0572	0.0181	0.0752		870.0629	870.0629	0.0493		871.2955
Worker	0.3622	0.1922	2.7426	6.7000e-003	0.6390	4.4400e-003	0.6434	0.1695	4.0900e-003	0.1736		666.5509	666.5509	0.0191		667.0283
Total	0.4867	3.8158	3.7165	0.0149	0.8376	0.0233	0.8609	0.2267	0.0222	0.2488		1,536.6138	1,536.6138	0.0684		1,538.3237

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.4 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1244	3.6235	0.9739	8.2200e-003	0.1986	0.0189	0.2175	0.0572	0.0181	0.0752		870.0629	870.0629	0.0493		871.2955
Worker	0.3622	0.1922	2.7426	6.7000e-003	0.6390	4.4400e-003	0.6434	0.1695	4.0900e-003	0.1736		666.5509	666.5509	0.0191		667.0283
Total	0.4867	3.8158	3.7165	0.0149	0.8376	0.0233	0.8609	0.2267	0.0222	0.2488		1,536.6138	1,536.6138	0.0684		1,538.3237

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1020	3.3145	0.8464	8.1400e-003	0.1986	9.0900e-003	0.2077	0.0571	8.6900e-003	0.0658		862.8771	862.8771	0.0472		864.0561
Worker	0.3367	0.1723	2.5129	6.4700e-003	0.6390	4.3100e-003	0.6433	0.1695	3.9700e-003	0.1735		643.8424	643.8424	0.0171		644.2707
Total	0.4387	3.4869	3.3593	0.0146	0.8376	0.0134	0.8510	0.2266	0.0127	0.2393		1,506.7195	1,506.7195	0.0643		1,508.3268

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1020	3.3145	0.8464	8.1400e-003	0.1986	9.0900e-003	0.2077	0.0571	8.6900e-003	0.0658		862.8771	862.8771	0.0472		864.0561
Worker	0.3367	0.1723	2.5129	6.4700e-003	0.6390	4.3100e-003	0.6433	0.1695	3.9700e-003	0.1735		643.8424	643.8424	0.0171		644.2707
Total	0.4387	3.4869	3.3593	0.0146	0.8376	0.0134	0.8510	0.2266	0.0127	0.2393		1,506.7195	1,506.7195	0.0643		1,508.3268

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0946	3.1512	0.7798	8.0700e-003	0.1986	7.9600e-003	0.2065	0.0571	7.6200e-003	0.0648		855.3501	855.3501	0.0458		856.4951
Worker	0.3143	0.1550	2.3142	6.2300e-003	0.6390	4.2000e-003	0.6432	0.1695	3.8700e-003	0.1734		620.7526	620.7526	0.0154		621.1376
Total	0.4089	3.3062	3.0940	0.0143	0.8375	0.0122	0.8497	0.2266	0.0115	0.2381		1,476.1028	1,476.1028	0.0612		1,477.6328

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0946	3.1512	0.7798	8.0700e-003	0.1986	7.9600e-003	0.2065	0.0571	7.6200e-003	0.0648		855.3501	855.3501	0.0458		856.4951
Worker	0.3143	0.1550	2.3142	6.2300e-003	0.6390	4.2000e-003	0.6432	0.1695	3.8700e-003	0.1734		620.7526	620.7526	0.0154		621.1376
Total	0.4089	3.3062	3.0940	0.0143	0.8375	0.0122	0.8497	0.2266	0.0115	0.2381		1,476.1028	1,476.1028	0.0612		1,477.6328

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0369	0.5510	1.4800e-003	0.1521	1.0000e-003	0.1531	0.0404	9.2000e-004	0.0413		147.7983	147.7983	3.6700e-003		147.8899
Total	0.0748	0.0369	0.5510	1.4800e-003	0.1521	1.0000e-003	0.1531	0.0404	9.2000e-004	0.0413		147.7983	147.7983	3.6700e-003		147.8899

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0369	0.5510	1.4800e-003	0.1521	1.0000e-003	0.1531	0.0404	9.2000e-004	0.0413		147.7983	147.7983	3.6700e-003		147.8899
Total	0.0748	0.0369	0.5510	1.4800e-003	0.1521	1.0000e-003	0.1531	0.0404	9.2000e-004	0.0413		147.7983	147.7983	3.6700e-003		147.8899

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.4375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	6.6420	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0314	0.4684	1.2600e-003	0.1293	8.5000e-004	0.1302	0.0343	7.8000e-004	0.0351		125.6285	125.6285	3.1200e-003		125.7064
Total	0.0636	0.0314	0.4684	1.2600e-003	0.1293	8.5000e-004	0.1302	0.0343	7.8000e-004	0.0351		125.6285	125.6285	3.1200e-003		125.7064

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.4375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	6.6420	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0314	0.4684	1.2600e-003	0.1293	8.5000e-004	0.1302	0.0343	7.8000e-004	0.0351		125.6285	125.6285	3.1200e-003		125.7064
Total	0.0636	0.0314	0.4684	1.2600e-003	0.1293	8.5000e-004	0.1302	0.0343	7.8000e-004	0.0351		125.6285	125.6285	3.1200e-003		125.7064

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3144	3.8003	9.9582	0.0280	2.2212	0.0238	2.2450	0.5938	0.0223	0.6160		2,833.3608	2,833.3608	0.1404		2,836.8710
Unmitigated	1.3144	3.8003	9.9582	0.0280	2.2212	0.0238	2.2450	0.5938	0.0223	0.6160		2,833.3608	2,833.3608	0.1404		2,836.8710

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.08	109.20	80.36	61,927	61,927
Racquet Club	421.00	640.50	522.00	616,357	616,357
Total	430.08	749.70	602.36	678,284	678,284

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Racquet Club	10.00	5.00	6.50	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865
Racquet Club	0.559527	0.038733	0.206173	0.118029	0.019040	0.005245	0.018552	0.023249	0.002031	0.002054	0.005884	0.000619	0.000865

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
NaturalGas Unmitigated	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	2943.15	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
Total		0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	2.94315	0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106
Total		0.0317	0.2885	0.2424	1.7300e-003		0.0219	0.0219		0.0219	0.0219		346.2530	346.2530	6.6400e-003	6.3500e-003	348.3106

6.0 Area Detail**6.1 Mitigation Measures Area**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Unmitigated	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0635					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Total	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0635					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003
Total	0.6078	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.3500e-003	6.3500e-003	2.0000e-005		6.7700e-003

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Fair Oaks Plaza Park, Village Park, and Community Clubhouse Project - Sacramento County, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX B

Noise Modeling Data

**Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet**



Project: 60609005 - FairOaks Plaza+Village Park

Date: Thursday, July 25, 2019 to Friday, July 26, 2019

Site: LT-01

Hour	Leq	Lmax	L50	L90
14:00	66.5	93.8	52.5	47.3
15:00	57.3	77.7	51.8	46.7
16:00	54.2	76.6	50.2	46.0
17:00	56.2	75.7	53.3	48.7
18:00	73.4	85.8	63.4	53.6
19:00	74.0	84.7	72.3	58.1
20:00	74.8	85.3	73.6	67.1
21:00	57.6	77.8	54.1	48.6
22:00	48.8	63.4	44.6	41.0
23:00	51.4	76.3	42.6	39.7
0:00	44.5	59.8	40.7	38.6
1:00	48.5	70.5	43.8	39.7
2:00	48.8	65.7	38.9	36.8
3:00	50.6	67.0	39.9	36.8
4:00	55.5	73.8	51.0	41.0
5:00	58.8	75.0	55.4	48.0
6:00	61.3	81.0	55.7	49.6
7:00	60.2	81.5	54.0	48.1
8:00	60.5	81.5	51.8	46.9
9:00	62.4	85.5	52.8	46.4
10:00	65.7	88.5	53.3	47.3
11:00	63.1	86.6	52.5	47.7
12:00	63.1	89.1	51.6	46.7
13:00	62.2	83.0	51.6	47.1

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Averages			
Leq	Lmax	L50	L90
68.1	83.5	55.9	49.8
55.2	70.3	45.8	41.2

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Uppermost-Level			
Leq	Lmax	L50	L90
74.8	93.8	73.6	67.1
61.3	81.0	55.7	49.6

Percentage of Energy	
Daytime	97%
Nighttime	3%

Calculated L _{dn} , dBA
67.2

**Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet**



Project: 60609005 - FairOaks Plaza+Village Park

Date: Friday, July 26, 2019 to Saturday, July 27, 2019

Site: LT-01

Hour	Leq	Lmax	L50	L90
14:00	66.7	92.0	52.0	47.5
15:00	55.4	73.9	51.2	46.1
16:00	61.5	79.8	53.6	47.6
17:00	58.8	86.2	52.3	46.7
18:00	56.8	73.2	52.1	46.2
19:00	55.8	73.5	53.0	47.2
20:00	53.6	67.3	51.4	48.6
21:00	51.1	71.6	47.7	44.2
22:00	49.4	73.5	44.0	41.2
23:00	50.4	66.9	44.1	40.9
0:00	45.6	62.3	40.7	38.9
1:00	43.8	61.1	40.4	38.4
2:00	44.5	61.2	38.6	36.5
3:00	51.5	71.0	39.9	36.4
4:00	53.2	72.7	45.6	40.1
5:00	59.5	76.8	55.4	46.5
6:00	61.2	82.1	55.3	49.2
7:00	65.1	86.7	53.8	47.5
8:00	66.4	92.4	51.7	46.6
9:00	62.6	84.4	52.1	48.0
10:00	64.2	86.0	54.6	49.8
11:00	67.1	91.2	53.6	49.0
12:00	60.7	84.5	52.5	48.3
13:00	55.6	75.0	51.2	47.3

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Averages			
Leq	Lmax	L50	L90
62.6	81.2	52.2	47.4
55.0	69.7	44.9	40.9

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Uppermost-Level			
Leq	Lmax	L50	L90
67.1	92.4	54.6	49.8
61.2	82.1	55.4	49.2

Percentage of Energy	
Daytime	91%
Nighttime	9%

Calculated L _{dn} , dBA
63.6

**Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet**



Project: 60609005 - FairOaks Plaza+Village Park

Date: Saturday, July 27, 2019 to Sunday, July 28, 2019

Site: LT-01

Hour	Leq	Lmax	L50	L90
14:00	54.3	70.3	50.7	47.0
15:00	55.4	82.3	50.2	46.6
16:00	58.3	79.9	53.1	48.0
17:00	56.2	74.1	52.2	47.4
18:00	56.8	75.1	52.1	47.9
19:00	58.9	80.8	55.2	50.0
20:00	59.7	86.8	56.4	51.2
21:00	55.5	66.9	54.5	50.1
22:00	53.5	66.6	51.8	49.4
23:00	48.9	67.4	45.3	43.0
0:00	48.0	61.4	43.7	39.8
1:00	44.5	63.0	40.2	38.2
2:00	48.3	65.9	40.0	38.1
3:00	50.5	66.4	39.5	36.5
4:00	53.6	71.5	50.4	39.8
5:00	59.2	74.2	55.9	48.1
6:00	64.8	84.9	57.2	49.6
7:00	64.8	86.2	55.7	47.9
8:00	62.5	90.4	53.1	46.7
9:00	57.4	78.6	50.0	44.2
10:00	65.5	91.3	51.1	45.8
11:00	64.5	85.8	51.1	45.2
12:00	56.3	75.9	51.3	46.4
13:00	58.8	82.9	50.2	45.1

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Averages			
Leq	Lmax	L50	L90
60.6	80.5	52.5	47.3
57.1	69.0	47.1	42.5

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Uppermost-Level			
Leq	Lmax	L50	L90
65.5	91.3	56.4	51.2
64.8	84.9	57.2	49.6

Percentage of Energy	
Daytime	79%
Nighttime	21%

Calculated L _{dn} , dBA
64.2

**Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet**



Project: 60609005 - FairOaks Plaza+Village Park

Date: Sunday, July 28, 2019 to Monday, July 29, 2019

Site: LT-01

Hour	Leq	Lmax	L50	L90
14:00	51.7	66.5	49.0	45.0
15:00	56.2	76.5	52.0	46.3
16:00	54.7	76.7	52.2	48.0
17:00	55.8	73.0	52.6	49.0
18:00	56.1	76.2	51.5	46.6
19:00	57.4	80.0	51.4	45.7
20:00	53.6	70.9	51.0	46.8
21:00	53.4	72.5	50.6	44.0
22:00	49.4	71.4	42.9	41.1
23:00	49.3	71.4	41.8	39.5
0:00	44.8	63.7	39.9	38.2
1:00	40.2	56.6	39.4	37.6
2:00	44.4	63.5	40.7	38.6
3:00	50.5	66.4	39.9	37.2
4:00	53.2	71.6	48.3	40.8
5:00	58.9	73.5	56.2	49.0
6:00	60.6	76.8	57.1	50.3
7:00	61.3	77.4	57.7	51.7
8:00	59.2	76.3	54.6	48.0
9:00	72.5	94.9	56.2	50.1
10:00	62.9	83.5	55.2	48.4
0:00	0.0	0.0	0.0	0.0
0:00	0.0	0.0	0.0	0.0
0:00	0.0	0.0	0.0	0.0

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Averages			
Leq	Lmax	L50	L90
62.1	77.0	52.8	47.5
54.4	51.2	33.9	31.0

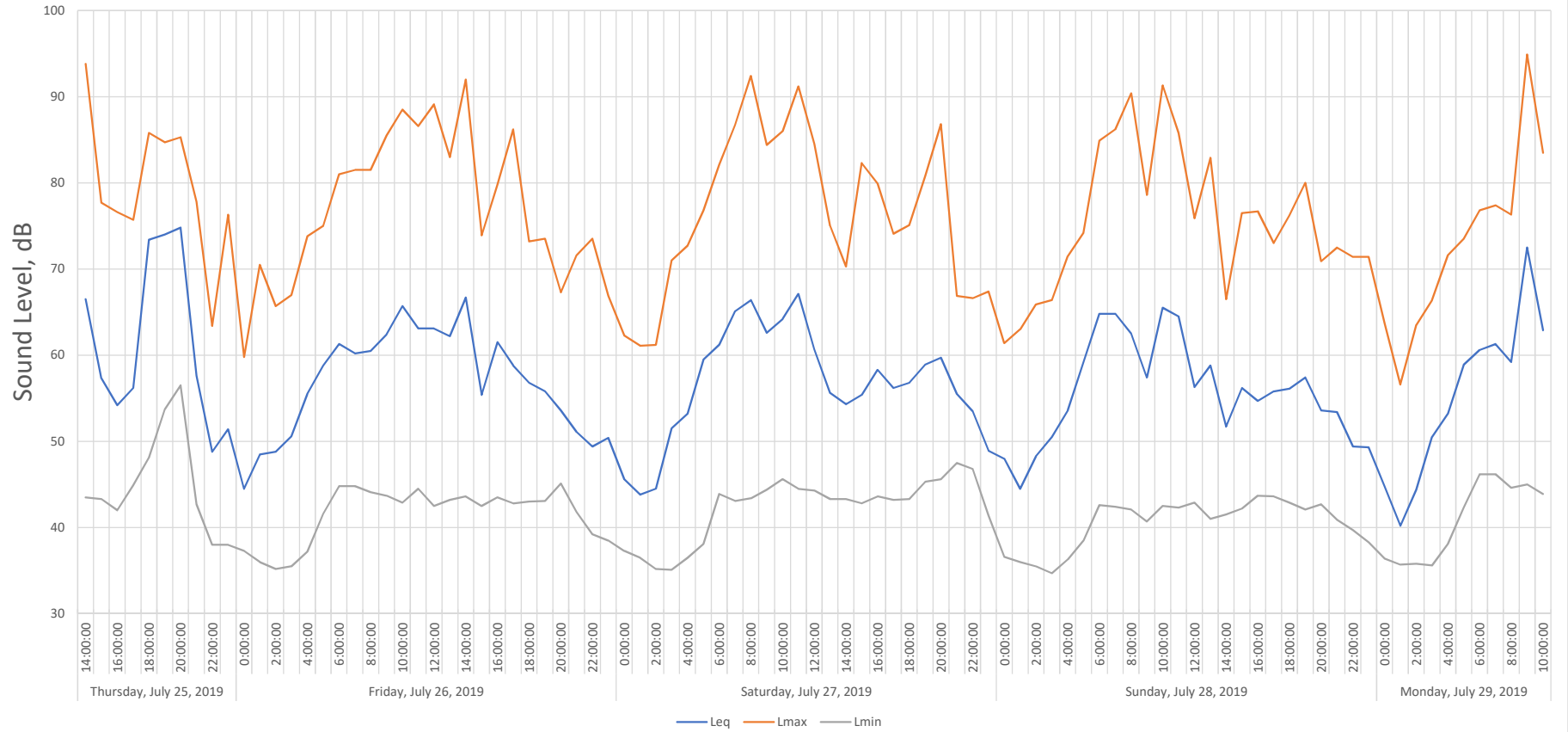
Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Uppermost-Level			
Leq	Lmax	L50	L90
72.5	94.9	57.7	51.7
60.6	76.8	57.1	50.3

Percentage of Energy	
Daytime	91%
Nighttime	9%

Calculated L _{dn} , dBA
63.1

LT-01 - By Village Park at Old Fair Oaks Library Building (4200 Temescal St)



**Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet**



Project: 60609005 - FairOaks Plaza+Village Park

Date: Thursday, July 25, 2019 to Friday, July 26, 2019

Site: LT-02

Hour	Leq	Lmax	L50	L90
15:00	57.9	85.0	50.9	47.7
16:00	54.6	72.0	49.6	46.5
17:00	55.8	75.2	50.4	47.2
18:00	55.4	76.1	52.0	48.9
19:00	55.8	73.6	52.5	49.2
20:00	52.4	63.6	51.1	48.5
21:00	54.3	73.7	50.9	47.6
22:00	50.8	71.2	49.2	44.2
23:00	54.9	82.5	45.8	42.3
0:00	51.3	71.3	43.0	39.0
1:00	50.3	75.2	40.9	38.9
2:00	50.3	72.8	38.6	36.6
3:00	49.3	71.3	38.9	37.0
4:00	55.4	74.1	46.5	39.6
5:00	60.3	75.9	55.4	47.0
6:00	65.8	88.0	57.1	51.1
7:00	57.0	74.7	53.1	48.7
8:00	58.1	82.0	50.9	47.2
9:00	53.7	72.2	50.3	46.6
10:00	52.0	67.2	49.5	46.4
11:00	54.8	71.5	51.2	47.9
12:00	56.6	73.8	52.3	47.5
13:00	56.9	73.8	51.1	47.2
14:00	54.1	74.6	49.5	46.6

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Averages			
Leq	Lmax	L50	L90
55.6	73.9	51.0	47.6
58.3	75.8	46.2	41.7

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Uppermost-Level			
Leq	Lmax	L50	L90
58.1	85.0	53.1	49.2
65.8	88.0	57.1	51.1

Percentage of Energy	
Daytime	47%
Nighttime	53%

Calculated L _{dn} , dBA
64.4

**Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet**



Project: 60609005 - FairOaks Plaza+Village Park

Date: Friday, July 26, 2019 to Saturday, July 27, 2019

Site: LT-02

Hour	Leq	Lmax	L50	L90
15:00	54.7	72.7	49.7	46.1
16:00	57.5	77.3	51.4	47.2
17:00	62.7	88.0	51.2	47.4
18:00	60.1	85.3	51.8	47.1
19:00	59.8	75.7	54.9	50.4
20:00	61.3	94.3	50.9	48.4
21:00	53.7	73.4	50.5	48.2
22:00	55.2	76.4	50.1	47.4
23:00	51.6	76.7	45.7	42.8
0:00	50.1	72.9	44.8	42.0
1:00	48.7	70.3	41.6	39.2
2:00	49.4	72.5	39.8	38.2
3:00	44.8	62.5	38.5	37.0
4:00	53.8	70.7	44.2	38.4
5:00	60.6	80.4	54.7	45.5
6:00	64.3	86.3	55.6	49.4
7:00	64.4	88.8	55.8	49.1
8:00	57.4	84.5	50.6	46.1
9:00	53.5	72.0	49.6	46.1
10:00	56.8	74.4	51.9	47.0
11:00	55.9	74.1	51.8	47.5
12:00	55.4	74.5	50.1	47.0
13:00	54.4	71.9	50.1	47.1
14:00	54.0	70.6	49.2	46.6

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Averages			
Leq	Lmax	L50	L90
58.9	78.5	51.3	47.4
57.3	74.3	46.1	42.2

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Uppermost-Level			
Leq	Lmax	L50	L90
64.4	94.3	55.8	50.4
64.3	86.3	55.6	49.4

Percentage of Energy	
Daytime	70%
Nighttime	30%

Calculated L _{dn} , dBA
64.0

**Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet**



Project: 60609005 - FairOaks Plaza+Village Park

Date: **Saturday, July 27, 2019** to **Sunday, July 28, 2019**

Site: LT-02

Hour	Leq	Lmax	L50	L90
15:00	53.5	70.8	48.7	45.8
16:00	58.2	74.2	50.5	46.6
17:00	67.8	87.5	52.9	46.6
18:00	55.2	76.8	50.5	47.3
19:00	72.5	81.0	61.2	49.8
20:00	73.9	81.0	74.3	54.1
21:00	72.5	80.2	67.4	52.0
22:00	52.1	68.7	50.1	47.2
23:00	51.5	71.9	46.6	43.8
0:00	52.5	71.5	44.8	41.1
1:00	52.5	74.0	45.4	41.3
2:00	51.0	79.4	40.9	38.6
3:00	48.4	72.6	40.2	38.5
4:00	54.6	72.3	45.5	39.4
5:00	60.4	76.3	55.5	46.6
6:00	66.6	87.2	57.5	51.3
7:00	61.3	82.3	55.3	50.9
8:00	58.5	85.2	53.6	52.0
9:00	58.4	85.7	53.8	52.2
10:00	57.3	74.4	54.4	52.3
11:00	56.5	75.1	53.4	52.1
12:00	55.2	69.3	54.2	52.5
13:00	56.5	78.4	50.6	46.1
14:00	52.2	68.0	48.1	45.3

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Averages			
Leq	Lmax	L50	L90
66.8	78.0	55.3	49.7
58.8	74.9	47.4	43.1

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Uppermost-Level			
Leq	Lmax	L50	L90
73.9	87.5	74.3	54.1
66.6	87.2	57.5	51.3

Percentage of Energy	
Daytime	91%
Nighttime	9%

Calculated L_{dn}, dBA
67.7

**Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet**



Project: 60609005 - FairOaks Plaza+Village Park

Date: Sunday, July 28, 2019 to Monday, July 29, 2019

Site: LT-02

Hour	Leq	Lmax	L50	L90
15:00	55.1	75.8	48.3	45.3
16:00	60.1	82.5	49.4	46.8
17:00	52.2	70.2	47.0	44.2
18:00	55.8	74.0	52.0	47.7
19:00	58.1	70.7	52.6	47.5
20:00	65.2	87.0	56.5	49.0
21:00	65.4	81.1	60.2	49.3
22:00	49.8	76.6	45.1	42.3
23:00	51.0	75.8	43.6	41.1
0:00	51.9	72.5	41.4	38.9
1:00	45.6	66.1	39.1	37.6
2:00	49.0	69.9	40.3	38.3
3:00	51.9	71.5	40.4	38.7
4:00	53.4	70.4	46.8	41.0
5:00	60.8	77.3	55.7	48.3
6:00	63.7	83.8	56.9	51.1
7:00	57.5	77.2	53.6	49.3
8:00	54.5	74.2	50.7	47.2
9:00	56.3	72.2	52.8	48.8
10:00	59.6	85.3	52.8	48.6
0:00	0.0	0.0	0.0	0.0
0:00	0.0	0.0	0.0	0.0
0:00	0.0	0.0	0.0	0.0
0:00	0.0	0.0	0.0	0.0

Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Averages			
Leq	Lmax	L50	L90
58.8	77.3	52.4	47.6
56.9	51.1	31.5	29.0

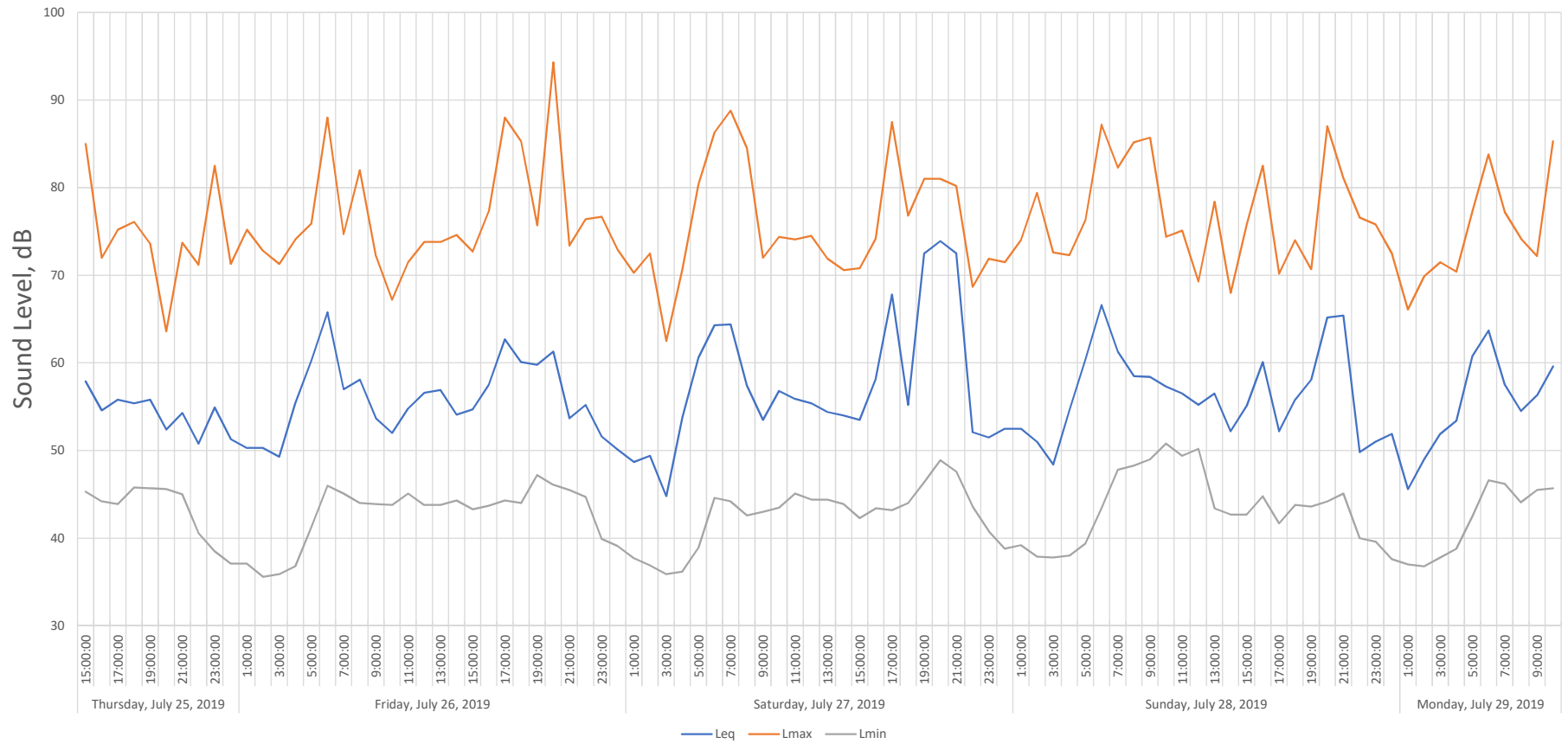
Daytime (7 a.m. - 10 p.m.)
Nighttime (10 p.m. - 7 a.m.)

Uppermost-Level			
Leq	Lmax	L50	L90
65.4	87.0	60.2	49.3
63.7	83.8	56.9	51.1

Percentage of Energy	
Daytime	72%
Nighttime	28%

Calculated L _{dn} , dBA
63.7

LT-02 - By Amphitheater at Plaza Park



Project-Generated Construction Source Noise Prediction Model

60609005 - FairOaks Plaza+Village Park



Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{eq} dBA)	Assumptions:	Reference Emission Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Threshold*	1,371	60	Excavator	85	0.4
	50	89	Grader	85	0.4
East	100	83	Crane	85	0.16
North	100	83	Man Lift	85	0.2
			Dump Truck	84	0.4
			Pickup Truck	55	0.4
			Paver	85	0.5
			Concrete Mixer Truck	85	0.4

Ground Type Hard
Ground Factor 0.00

Predicted Noise Level ²	L _{eq} dBA at 50 feet ²
Excavator	81.0
Grader	81.0
Crane	77.0
Man Lift	78.0
Dump Truck	80.0
Pickup Truck	51.0
Paver	82.0
Concrete Mixer Truck	81.0
Combined Predicted Noise Level (L_{eq} dBA at 50 feet)	
	88.8

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, Janua² Based on the following from the Federal Transit Noise and Vibration

$$L_{eq}(\text{equip}) = E.L. + 10 \log(U.F.) - 20 \log(D/50) - 10 \log(G/10)$$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Parking Lot Noise Prediction Model
60609005 - FairOaks Plaza+Village Park



Ref SEL: 71

Metric: Leq

Description	# of Stalls	Trip Multiplier	Trips /Period	Lp @ 50'	Distance to Rec.	Shielding Offset	Lp at Rec.
Parking Lots	20	1	20	48.4	100		42

ST-01, Along Park Drive North of Amphitheater

