## Draft

# OPUS AT FOLSOM AND ELVAS

Addendum to the 65<sup>th</sup> Street Station Area Plan EIR (State Clearinghouse # 2008052069)

Prepared for City of Sacramento

August 2021



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Prepared for City of Sacramento and Opus Development Company, L.L.C. August 2021

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# **CHAPTER 1**

# Background

## 1.1 Introduction

This addendum is prepared in accordance with the California Environmental Quality Act (CEQA) Statute and Guidelines. This addendum to the previously certified 65<sup>th</sup> Street Station Area Plan Environmental Impact Report (State Clearinghouse [SCH] # 2008052069) analyzes potential environmental impacts that could result from the proposed Opus at Folsom and Elvas project. The City of Sacramento (City) is the lead agency for environmental review of the proposed project.

The original 65<sup>th</sup> Street Station Area Plan was approved on October 26, 2010 and the EIR was certified (Resolution No. 2010-621) concurrently. The 65<sup>th</sup> Street Station Area Plan provides guidance for development of an overall circulation network for the area that supports the goals and vision of the previously approved 65<sup>th</sup> Street/University Transit Village Plan and South 65<sup>th</sup> Street Area Plan. The 65<sup>th</sup> Street Station Area Plan comprehensively addresses how to implement transportation and circulation improvements in the project area.

The 65<sup>th</sup> Street Station Area Plan Draft EIR analyzed three potential scenarios for the development and implementation of circulation elements: Scenario A, Scenario B, and Scenario C. The City Council adopted Scenario C-Prime, as described in the 65<sup>th</sup> Street Station Area Plan Final EIR. Scenario C-Prime was comprised of all of the circulation elements from Scenario C for facilities north of Highway 50 and all of the circulation elements from Scenario B for facilities south of Highway 50. The scenario identified as the staff-recommended option (Scenario C-Prime) was not specifically identified in the EIR. However, the environmental impacts of Scenario C-Prime were determined by the City Council to be similar to the impacts identified for Scenarios B and C in the EIR and no additional significant impacts would occur nor would additional mitigation measures be required beyond those identified in the EIR.

The Opus at Folsom and Elvas project site is located at the northwest corner of Folsom Boulevard and Elvas Avenue, near the University/65<sup>th</sup> Street Sacramento Regional Transit (SacRT) light rail station. The project site is currently occupied by a car wash, a gymnasium, a take-out restaurant, and a gravel parking lot. The proposed Opus at Folsom and Elvas project would develop two parcels totaling 1.9 acres with a 6-story, 137-unit student housing complex. The project would also revise the way that the future 67<sup>th</sup> Street between Folsom Boulevard and Elvas Avenue functions, changing the segment from a

planned 2-lane roadway into an open space corridor or a future bike/pedestrian/tram corridor as described in further detail below.

# 1.2 Purpose of an Addendum

The purpose of this addendum to the 65<sup>th</sup> Street Station Area Plan EIR is to revise the environmental analysis to address the proposed minor modifications to the 65<sup>th</sup> Street Station Area Plan. This addendum to the EIR evaluates potential differences between the environmental effects identified as part of the approved project and the potential environmental effects resulting from the proposed Opus at Folsom and Elvas project.

As part of this evaluation, the addendum considers changes in the circumstances under which the modified project would be developed, examines whether the proposed project modifications would result in any new significant effects, and discloses whether all feasible mitigation measures have been identified.

This addendum to the 65<sup>th</sup> Street Station Area Plan EIR, in conjunction with the 65<sup>th</sup> Street Station Area Plan EIR, will be used by staff, the Planning Commission, and the City Council when considering approval of the proposed project modifications (Public Resources Code (PRC) section 21166; CEQA Guidelines section 15164).

## 1.3 CEQA Framework for an Addendum

According to CEQA Guidelines section 15162, once an EIR has been certified, no subsequent or supplemental EIR shall be prepared for a project unless the lead agency determines that one or more of the following occurs:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
  - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
  - b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

- c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

An addendum may be prepared if some changes or additions are necessary to a certified EIR and none of the above-stated conditions apply (CEQA Guidelines section 15164).

# 1.4 Proposed Modifications to the Project

The approved 65<sup>th</sup> Street Station Area Plan identifies specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station, with the goal of increasing access to transit and creating a safer and more connected environment for pedestrians and bicyclists.

The 65<sup>th</sup> Street Station Area Plan and the East Sacramento Community Plan within the Sacramento 2035 General Plan anticipate a future 2-lane vehicular roadway that would extend through the project site between Folsom Boulevard and Elvas Avenue. The roadway is planned as a future 67<sup>th</sup> Street. The proposed project would eliminate the planned future 67<sup>th</sup> Street roadway connection and in its place reserve an open space corridor on the project site by an irrevocable offer of dedication to the City that would be sized to accommodate bike and pedestrian movement as well as tram operations in the future if and when Sacramento State creates a planned new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. This project element would require approval of an amendment to the 2035 General Plan (East Sacramento Community Plan) to revise the future planned roadway cross-section of 67<sup>th</sup> Street between Folsom Boulevard and Elvas Avenue to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations.

The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation.

# 1.5 Structure of the Addendum

This addendum to the 65<sup>th</sup> Street Station Area Plan EIR is organized as follows:

**Chapter 1: Introduction** provides the background of the approved 65<sup>th</sup> Street Station Area Plan, the certified EIR, context for the proposed modifications under this addendum according to the CEQA Guidelines sections 15162 and 15164. The proposed

modifications are summarized, and supplemented with the structure of the addendum and definitions used in the checklist.

Chapter 2: Project Description provides the applicable general plan and zoning information, adjacent land uses, and further describes the proposed modifications, proposed land use, development intensity, and number of residential units.

**Chapter 3: Environmental Analysis** examines individual CEQA subjects. Each CEQA subject is organized with a summary of the analysis, impacts, and mitigation measures from the prior certified EIR.

Thereafter the analysis examines the proposed modifications to the project under the criteria for the current CEQA Guidelines sections 15162-15164 and Appendix G.

**Chapter 4: Other CEQA Topics** examines the additional subjects of Tribal Cultural Resources and Wildfire in accordance with the current CEQA Guidelines Appendix G. These topics were not analyzed in the previous EIR, although the information could have been examined and disclosed at that time.

The following definitions apply to the addendum checklist:

- A finding of "Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts" means that the proposed project could have potentially substantial changes that trigger the need for major revisions to the EIR.
- A finding of "Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts" means that substantial changes in circumstances have occurred since the certification of the EIR and these changes in turn require major revisions to the EIR.
- A finding of "New Information of Substantial Importance" means that there is new information that has the potential for greater significant effects than what was shown in the prior EIR.
- A finding of "Prior Environmental Documents Mitigations Implemented or Address Impacts" means that the previously certified EIR analyzed and applied mitigation measures to address the impacts, or any potential impacts are otherwise found to be less than significant or of no impact as compared to the certified EIR.

# 1.6 Conclusion

Based on the analysis of the proposed project modifications and the surrounding circumstances (i.e., the Environmental Setting), this addendum concludes the following:

1. There is no substantial change proposed that would require major revisions to the previous 65<sup>th</sup> Street Station Area Plan EIR;

- 2. The proposed project as revised, and as described in this addendum, does not create any of the conditions described in section 15162 of the CEQA Guidelines that call for the preparation of a subsequent EIR;
- 3. There is no new information of substantial importance that identifies new or substantially more severe significant impacts;
- 4. There is no substantial change in circumstances as a result of project modifications that would cause new or substantially more severe significant impacts (see Section 3, Impacts and Mitigation);
- 5. No new significant impacts would occur, and no previously examined significant effects would be substantially more severe than shown in the 65<sup>th</sup> Street Station Area Plan EIR; and
- 6. There are no mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR that would substantially reduce one or more significant effects on the environment; nor that the project proponents decline to adopt the mitigation measure or alternative.

Therefore, no subsequent or supplemental EIR is required (CEQA Guidelines sections 15162 and 15164(e)). Thus, an addendum to the adopted 65<sup>th</sup> Street Station Area Plan EIR is the appropriate environmental documentation to analyze the potential environmental impacts that would result from the refinement and modification to the project.

# 1.7 Issues Determined to be Less than Significant

The issue areas identified below were found not to be significant and therefore are not addressed in detail in this addendum. Pursuant to CEQA Guidelines section 15128, the reasons these issues were determined not to be significant are described below.

# **Agricultural and Forestry Resources**

There is no area within the proposed project site that is under a Williamson Act contract or land that has been designated as agricultural land, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. No existing zoning for forest land, timberland or timberland zoned Timberland Production exists within the project footprint. The proposed project would not contribute to the conversion of farmland to non-agricultural uses and implementation of the project would not create any conflicts with existing agricultural uses. This impact is not discussed further.

#### Mineral Resources

The proposed project site is located in a disturbed environment, surrounded by urban uses. No risk of impact to important mineral resources is expected. Therefore, implementation of the proposed project would not result in the potential to cause loss of a local or regionally identified mineral resource and this impact is not discussed further.

1. Background

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August 2021

# **CHAPTER 2**

# **Project Description**

# 2.1 Project Location

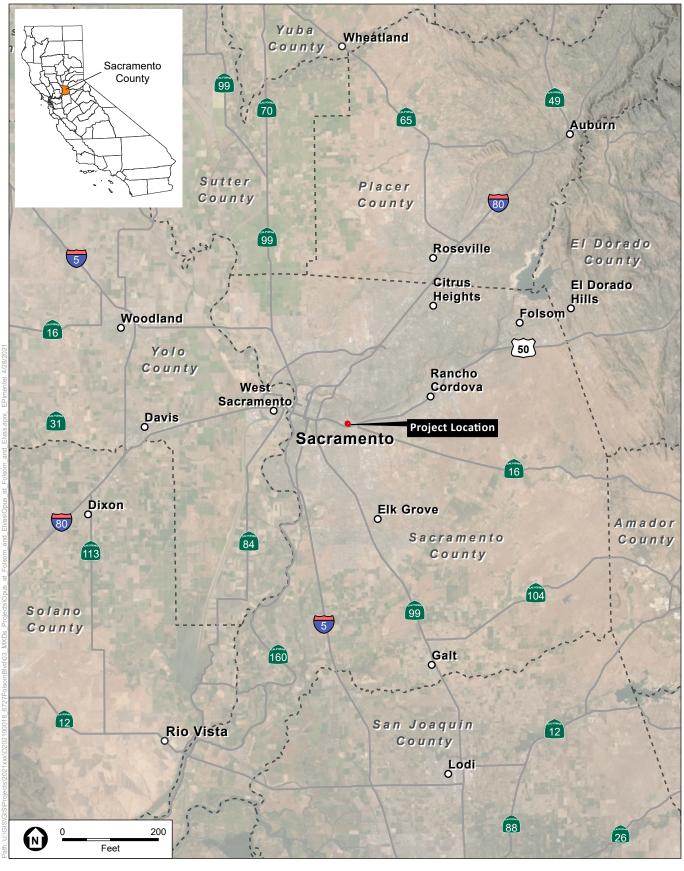
The 65<sup>th</sup> Street Station Area is generally bounded by the Union Pacific Railroad (UPRR) right-of-way and Folsom Boulevard to the north, Power Inn Road to the east, 14<sup>th</sup> Avenue to the south, and 59<sup>th</sup> Street to the west (see **Figure 1** and **Figure 2**). The California State University, Sacramento (CSUS or Sacramento State) campus is north of the project area. Granite Regional Park and commercial office uses are east of the project area, and established residential neighborhoods lie to the south and west. Major regional roadways and national highways bisect the project area including US Highway 50 (US-50); Folsom Boulevard, which becomes part of State Highway 16 east of Power Inn Road; 65<sup>th</sup> Street; and Power Inn Road/Howe Avenue. Rail lines that bisect the 65<sup>th</sup> Street Station Area include Union Pacific Railroad (UPRR) and the SacRT Folsom Corridor light rail line.

The Opus at Folsom and Elvas project is located at 6661 Folsom Boulevard and 6670 Elvas Avenue (APNs 008-0392-012 and -013) at the intersection of Folsom Boulevard and Elvas Avenue (see **Figure 3**). The triangular-shaped site is within one half mile of the Sacramento State campus to the north and within one quarter mile of the University/65<sup>th</sup> Street SacRT transit station to the south.

# General Plan and Zoning

The project site is designated as Urban Center Low in the 2035 General Plan. This designation allows a minimum density of 20 units/acre and a maximum density of 150 units/acre. Building heights generally range from two to seven stories.

The project site is zoned RMX-TO (Residential Mixed Use – Transit Overlay). The purpose of the RMX zone is to allow a mix of residential and commercial uses as a matter of right. The maximum allowable height is 45 feet. The TO designation indicates that the property is located within a one-half mile radius of an existing or proposed light rail transit station. The TO zone allows a mix of moderate- to high-density residential and nonresidential uses by right, within walking distance of an existing or proposed light rail transit station, to promote transit ridership. Residential projects in the TO zone shall have a minimum of 15 units/acre and shall not exceed 100 units/acre.



SOURCE: Esri, 2020; ESA, 2021

Opus at Folsom and Elvas

Figure 1
Regional Location





SOURCE: Google Earth Pro, basemap

Opus at Folsom and Elvas

Figure 2 65th Street Station Area





SOURCE: Google Earth Pro, basemap

Opus at Folsom and Elvas

Figure 3
Opus at Folsom and Elvas Project Site



# 2.2 Existing and Adjacent Land Uses

The project site is currently occupied by Car Wash on Folsom, a self-serve car wash; Hyperthrive Athletics, a gymnasium located within a 3,000-square-foot warehouse-style facility; Taqueria Santos Laguna, a take-out restaurant with a drive-thru; and an asphalt and gravel parking lot. Access to the project site is provided by driveways along Folsom Boulevard and Elvas Avenue.

The project site is surrounded by industrial uses to the northeast; commercial uses to the south; and commercial, residential, and industrial uses to the west. There is one single-family residence immediately northeast of the project site at 6671 Elvas Avenue.

The area roughly bound by 65<sup>th</sup> Street, Elvas Avenue, 69<sup>th</sup> Street, and Q Street is transforming from a largely industrial and commercial area into an area with a more complete mix of uses. Several multi-unit residential projects intended for Sacramento State students have been proposed, are under construction, or have been constructed in this area.

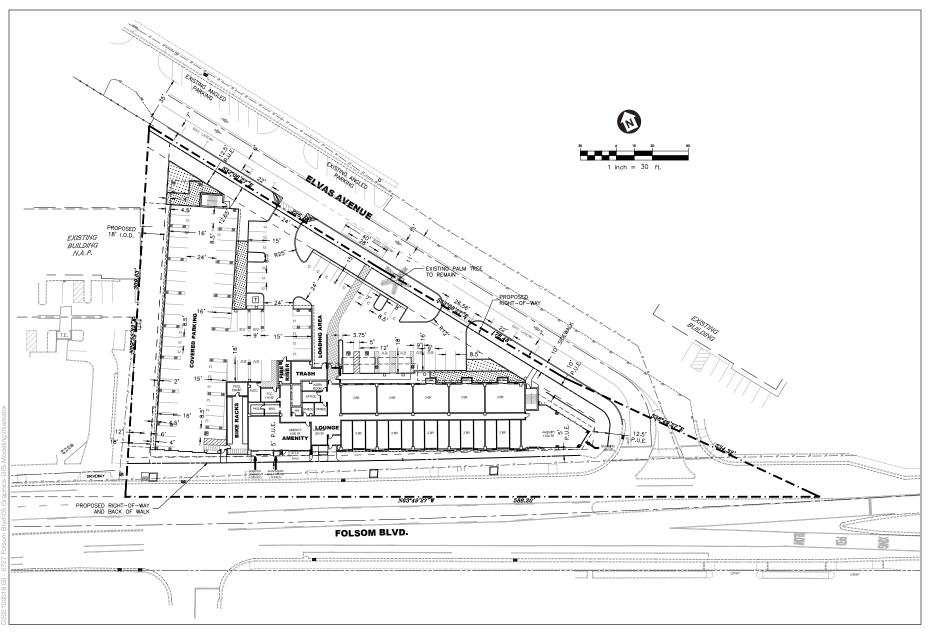
# 2.3 Proposed Project Characteristics

The proposed project would develop a 6-story residential building intended to house students at nearby Sacramento State (see **Figure 4**). The project would develop approximately 137 units, with a mix of studio, one-bedroom, two-bedroom, three-bedroom, and four-bedroom units. As a result, a total of 372 beds would be provided (see **Table 1**). Each unit would have exterior windows in the shared living space as well as in each bedroom. Certain units would have private balconies off their living space. Units would include a full kitchen and private bathrooms for each bedroom (see **Figures 5**, 6, and 7). Development of 137 units on 1.9 acres would result in a density of 72 units/acre. This density is consistent with the maximum density of 150 units/acre General Plan Urban Center Low designation and the maximum density of 100 units/acre in the TO zone.

The proposed building would be oriented in an L-shape on the site, with the building fronting the western property line and Folsom Boulevard (see **Figure 8**). The building would be approximately 74 feet tall from the ground to the top of the parapet. This is a deviation from the current zoning height limit of 45 feet.

# Circulation and Parking

Vehicular access to the project site would be provided via two driveways along Elvas Avenue. The proposed building would be set back from Elvas Avenue, allowing for vehicular access, access to a loading dock, and access to a small surface parking lot with 24 parking spaces.



SOURCE: The Opus Group, 2021

Opus at Folsom and Elvas

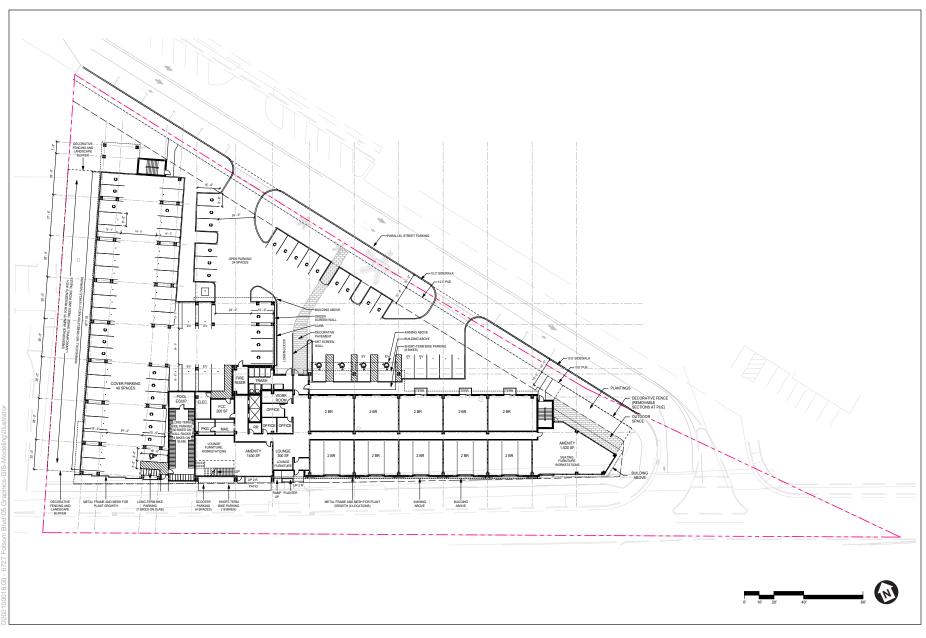
Figure 4
Preliminary Site Plan



Table 1
Project Characteristics

Level	Amenity/ Lobby	Common Area	Studio	Beds	1 Bedroom	Beds	2 Bedroom	Beds	3 Bedroom	Beds	4 Bedroom	Beds	Total Units	Total Beds
6		2,786 sf	2	2	2	2	9	18	2	6	11	44	26	72
5		2,786 sf	2	2	2	2	9	18	2	6	11	44	26	72
4		2,786 sf	2	2	2	2	9	18	2	6	11	44	26	72
3		2,786 sf	2	2	2	2	9	18	2	6	11	44	26	72
2	2,680 sf	2,952 sf	2	2	2	2	7	14	2	6	10	40	23	64
1	5,321 sf	3,010 sf	0	0	0	0	10	20	0	0	0	0	10	20
Total	8,001 sf	17,106 sf	10	10	10	10	53	106	10	30	54	216	137	372

Source: Opus Development Company, LLC, 2021

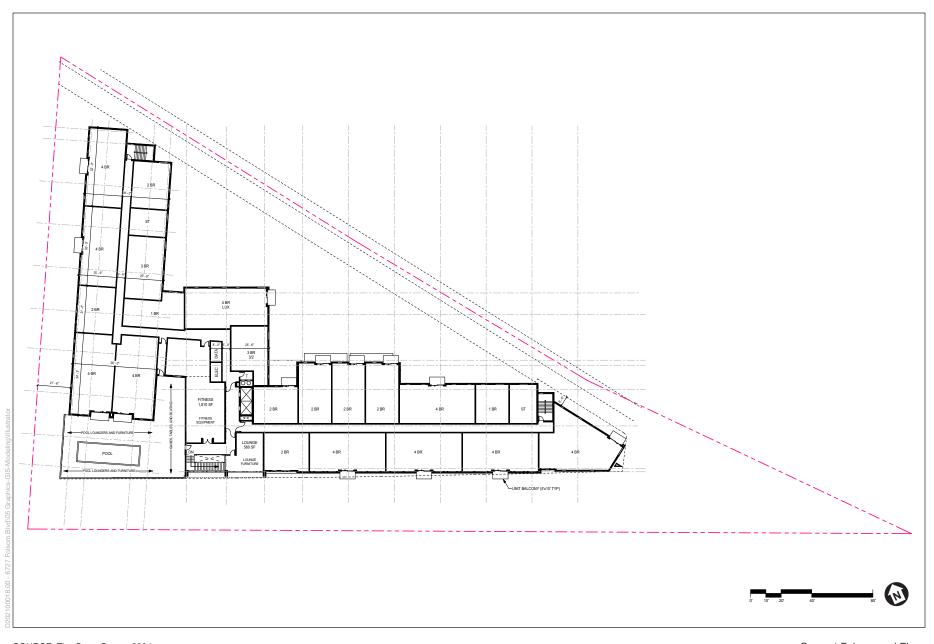


SOURCE: The Opus Group, 2021

Opus at Folsom and Elvas

Figure 5 Level 1 Floor Plan

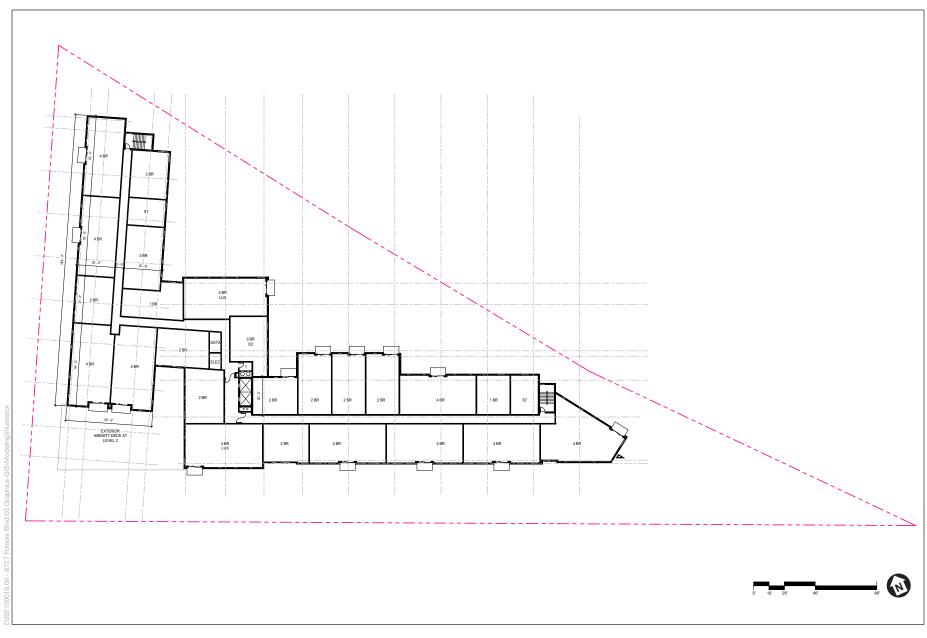




SOURCE: The Opus Group, 2021 Opus at Folsom and Elvas

Figure 6 Level 2 Floor Plan





SOURCE: The Opus Group, 2021

Opus at Folsom and Elvas

Figure 7 Levels 3-6 Floor Plan









SOURCE: The Opus Group, 2021

Opus at Folsom and Elvas

Figure 8
Concept Renderings



The proposed project would construct a parking garage on the ground floor of the western wing of the building. The parking garage would provide 49 parking spaces. Together, with the surface parking lot, 73 parking spaces would be provided, meeting the City's parking requirement. Eight of those parking spots would be exclusively for electric vehicles, and charging stations would be provided.

# Bicycle and Pedestrian Amenities

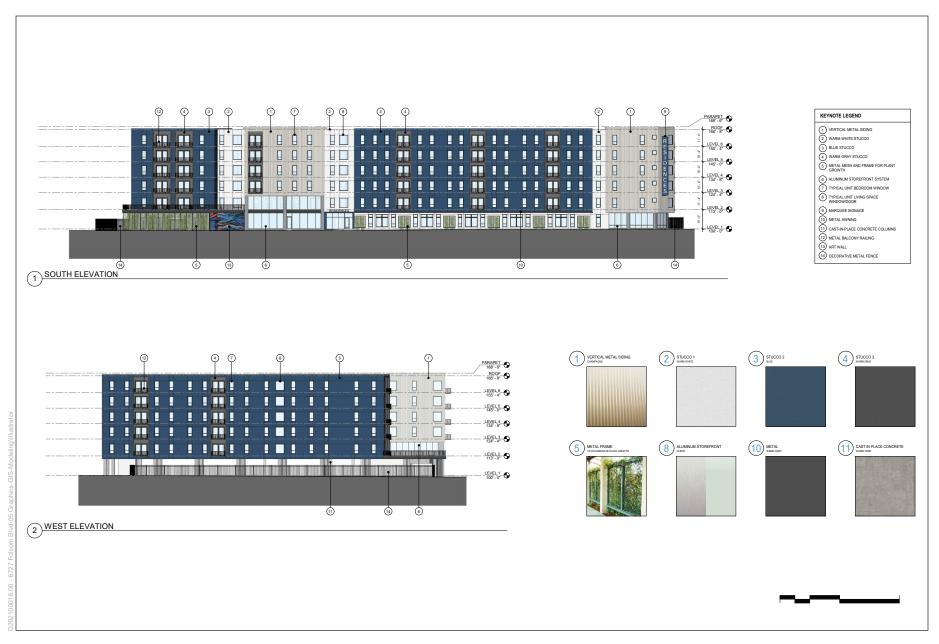
The proposed project would include 106 long-term bicycle parking spaces and storage lockers for residents. Access to the bicycle storage area would be through the parking garage. The proposed project would also provide 24 short-term bicycle parking spaces. Pedestrian access to the project site would be from Folsom Boulevard and Elvas Avenue. A 10-foot-wide sidewalk would from the project site along Elvas Avenue.

# **Open Space Corridor**

As previously discussed, the 65<sup>th</sup> Street Station Area Plan and the East Sacramento Community Plan anticipate a future 2-lane vehicular roadway that would extend through the project site between Folsom Boulevard and Elvas Avenue as 67<sup>th</sup> Street. The proposed project would eliminate the planned future 67<sup>th</sup> Street connection and reserve an open space corridor on the project site by an irrevocable offer of dedication to the City that would be sized to accommodate bike and pedestrian movement as well as tram operations in the future if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. This project element would require approval of an amendment to the 2035 General Plan (East Sacramento Community Plan) to revise the future planned roadway cross-section of 67<sup>th</sup> Street between Folsom Boulevard and Elvas Avenue.

# **Building Design**

Exterior building materials would consist primarily of dark-blue and soft-white stucco, with key portions of the building clad in champagne-finish vertical metal panels. Dark frames would highlight stacks of balconies to provide horizontal scale along the street, as well as to frame and announce building entrances. Large areas of glass and metal-clad columns would be included to activate the streetscape and highlight the building's amenity spaces. Living green screens and art walls would be included to provide pedestrian-scaled accents along Folsom Boulevard and at the building entrance from Elvas Avenue (see **Figure 9** and **Figure 10**).



SOURCE: The Opus Group, 2021 Opus at Folsom and Elvas

Figure 9 Concept Renderings, South and West Elevations





SOURCE: The Opus Group, 2021 Opus at Folsom and Elvas

Figure 10 Concept Renderings, North and East Elevations



# Landscaping

Two bioretention areas and adjoining flow-thru planters are proposed between the northern side of the building and the proposed sidewalk along Elvas Avenue. A third flow-thru planter would be located between the building and the internal parking area. The Low Impact Development (LID) measures would be a combination of flow-thru planters and bioretention facilities that would serve to absorb and filter runoff before percolating into a proposed onsite underdrain system and into a stormwater drain line that would connect to the existing 10-inch storm drain pipe section located within Elvas Avenue in one location at the middle of the site and also connect to the existing 12-inch storm drain pipe section located within Elvas Avenue at the north end of the site (see Figure 11).

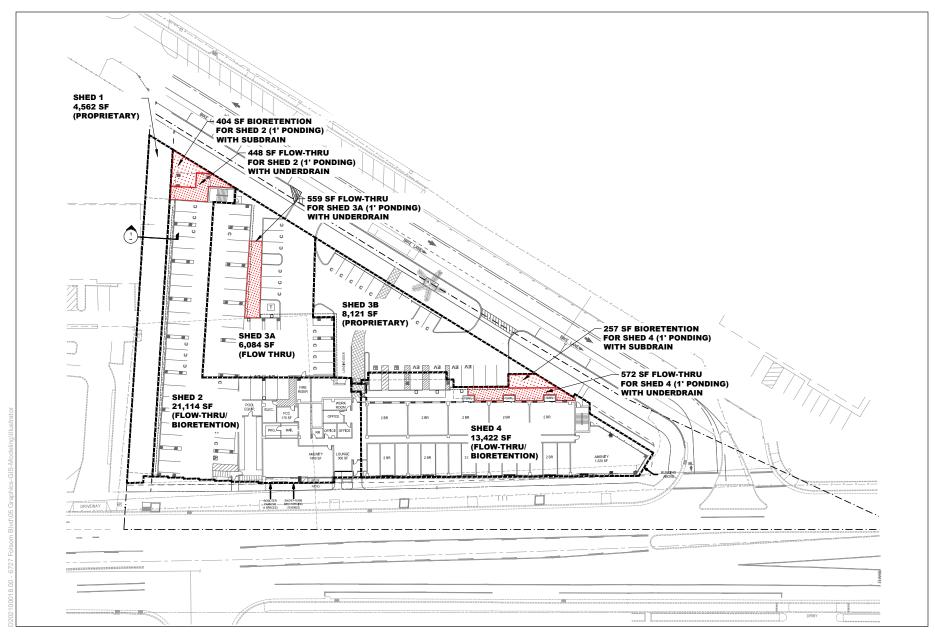
Deciduous shade and accent trees would be planted along the street frontage of Elvas Avenue. Accent evergreen trees would be planted to break up the building façade along Folsom Boulevard. Four existing trees along Folsom Boulevard and one existing palm tree along Elvas Avenue would remain. Three additional street trees would be added in tree wells along Folsom Boulevard to maintain the existing rhythm. Vines would be planted adjacent to a metal-mesh trellis that would obscure visibility from the street and sidewalk to the first-floor parking garage and along the building façade. A patio at the corner of Elvas Avenue and Folsom Boulevard would be fenced and screened by evergreen shrubs to provide privacy for the residents (see **Figure 12**).

# Signage and Lighting

A signature marquee sign is proposed for the easternmost façade of the building, at the intersection of Folsom Boulevard and Elvas Avenue. The vertical marquee sign, attached to the building façade, would be lit to provide wayfinding. Additional branding and wayfinding signage may be used at auto and pedestrian entries. Security lighting would be placed around the building, in the surface parking lot, within the parking structure, and at all building entrances. Security lighting and lighting in the parking areas would be shielded and pointed downward to illuminate ground-level pedestrian areas.

## **Utilities**

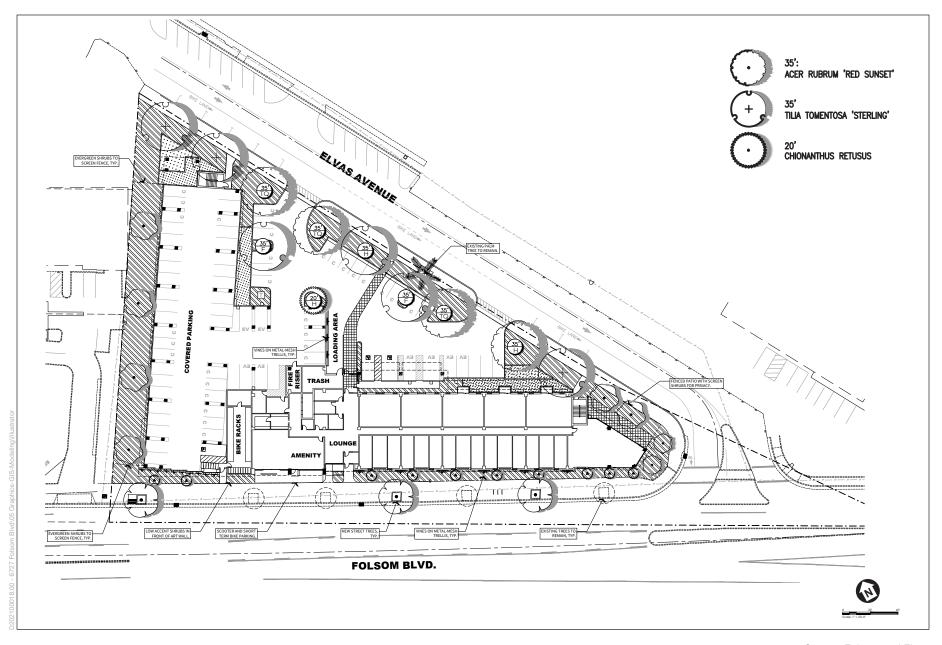
The proposed project would connect water, wastewater, stormwater drainage, electricity, and natural gas utility infrastructure to the existing lines within Folsom Boulevard and Elvas Avenue right-of-ways (see **Figure 13**). Water, wastewater, and stormwater drainage services are provided by the City of Sacramento. Electricity and natural gas service would be provided by the Sacramento Municipal Utility District (SMUD) and Pacific Gas & Electric (PG&E), respectively.



SOURCE: The Opus Group, 2020 Opus at Folsom and Elvas

Figure 11 Proposed Bioretention Features



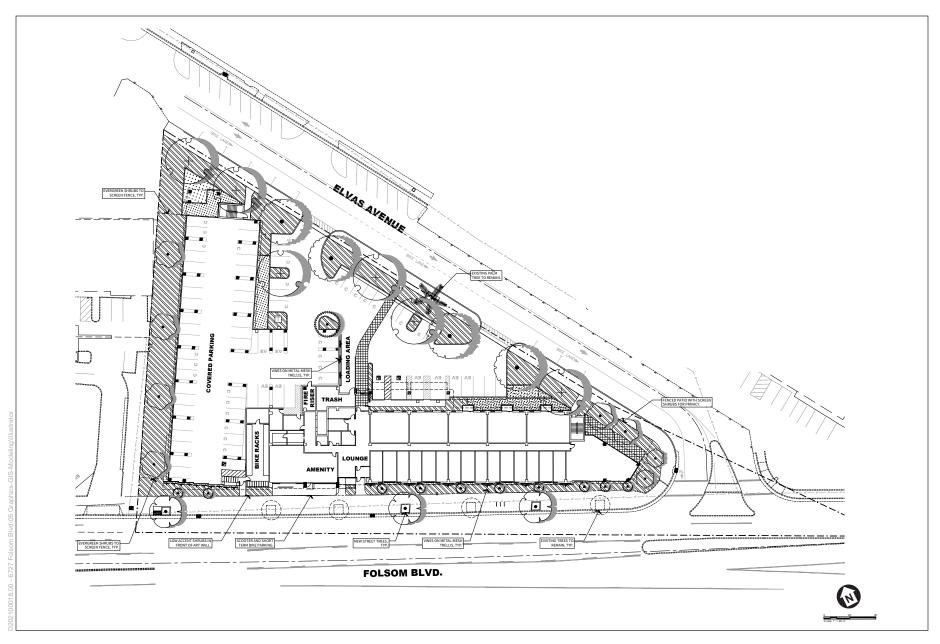


SOURCE: The Opus Group, 2021

Opus at Folsom and Elvas







SOURCE: The Opus Group, 2021

Opus at Folsom and Elvas

Figure 13
Preliminary Utility Plan



## Construction

Construction of the proposed project would occur over a period of approximately 18 months. Construction would occur between the hours of 7 a.m. and 6 p.m. on Monday through Saturday, and between 9 a.m. and 6 p.m. on Sunday. Construction of the proposed project would begin with the demolition of existing onsite structures and the asphalt and gravel parking lot. Site grading would occur prior to vertical construction.

# **Discretionary Actions**

The City would need to take the following actions to approve the proposed project:

- Modification to the 65<sup>th</sup> Street Station Area Plan to revise the future planned roadway cross-section of 67<sup>th</sup> Street between Folsom Boulevard and Elvas Avenue.
- Amend the 2035 General Plan to revise the future planned roadway cross-section of 67<sup>th</sup> Street between Folsom Boulevard and Elvas Avenue. Specifically, the General Plan includes the East Sacramento Community Plan for the project site, which includes a street grid that extends 67<sup>th</sup> Street through the project site.
- Establishment of a new public utility easement (PUE) setback along Folsom Boulevard.
- Site Plan and Design Review with:
  - a deviation to exceed the maximum height of 45 feet in the RMX-TO zone;
  - a deviation for front setbacks of less than the 10-foot required minimum setback in the RMX zone; and
  - a deviation for rear setbacks of less than the 15-foot required minimum setback in the RMX zone.

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2. Project Description

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# **CHAPTER 3**

# **Environmental Analysis**

## 3.1 Aesthetics

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Have a substantial adverse effect on a scenic vista?	No	No	No	Yes
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No	No	No	Yes
c)	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?	No	No	No	Yes
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No	No	No	Yes

## **Discussion**

### Relevant Changes to Environmental Setting

Potential impacts related to aesthetics, light, and glare were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The project site evaluated in the EIR and the Initial Study comprised the approximately 1,025-acre 65<sup>th</sup> Street Station Area Plan, which is generally bounded by the UPRR right-of-way and Folsom Boulevard to the north, Power Inn Road to the east, 14<sup>th</sup>Avenue to the south, and 59<sup>th</sup> Street to the west. The aesthetics, light, and glare section of the Initial Study identified that the project site for the 65<sup>th</sup> Street Station Area Plan is located in a developed area within the eastern portion of the city. The evaluation identified that existing views from the project site for

the 65<sup>th</sup> Street Station Area Plan are limited by the existing built-up environment. The Initial Study determined that the project site for the 65<sup>th</sup> Street Station Area Plan is not within a scenic vista or an adopted view corridor.

The Opus at Folsom and Elvas project site is located within the 65<sup>th</sup> Street Station Area Plan at the intersection of Folsom Boulevard and Elvas Avenue. The triangular-shaped project site is currently occupied by a self-serve car wash, a gymnasium, a take-out restaurant, and an asphalt and gravel parking lot. The car wash and gymnasium buildings are low-rise structures of modern utilitarian construction. The take-out restaurant is a one-story building with a rectangular footprint. The south two-thirds of the building is of wood-frame construction, and the north one-third is constructed of concrete masonry units. The building is capped by a sweeping roof formed by curved timber beams with deep eaves on the northeast, southeast, and southwest sides and covered with built-up roofing.

As described in the Initial Study, the project site is in a developed area within the eastern portion of the city and is not located within scenic vista or an adopted view corridor. There have been no substantial changes to the visual setting of the project site or vicinity that would result in the proposed project having new significant impacts related to aesthetics, light, and glare that were not previously considered or that would substantially increase the severity of previously identified impacts.

#### Relevant Changes to Project Related to Aesthetics

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. The goals of the transportation network improvements are to increase access to transit and create a safer, more connected environment for pedestrians and bicyclists. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and General Plan Master EIR. The EIR also assumes all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would eliminate the planned future 67<sup>th</sup> Street connection and reserve an open space corridor on the project site that would be sized to accommodate bike and pedestrian movement as well as tram operations in the future if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/ University light rail station to the university. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

## **Comparative Impacts Discussion**

#### **Scenic Resources**

As is the case with the project evaluated in the Initial Study of the EIR, the proposed project site is not located within a scenic vista or an adopted view corridor. There have been no substantial changes to the visual setting of the project site or vicinity that would result in the proposed project having new significant impacts related to a scenic vista, including scenic resources within a state scenic highway.

#### **Visual Character**

The evaluation of potential effects to visual character in the Initial Study of the EIR determined that the roadway improvements proposed in the 65<sup>th</sup> Street Station Area Plan would not degrade the existing visual character or quality of the project area and its surroundings because the area is presently urbanized and contains roadways, buildings, and streetlights. Therefore, the evaluation determined that the proposed improvements would not have a demonstrable negative aesthetic effect, and impacts to visual character would be less than significant.

The proposed project would eliminate the planned future 67<sup>th</sup> Street connection and reserve an open space corridor on the project site that would be sized to accommodate bike and pedestrian movement as well as tram operations in the future if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university.

The proposed project would also develop a 6-story residential building intended to house students at nearby Sacramento State. The proposed building would be 74 feet tall, from the ground to the top of the building parapet. Exterior building materials would consist primarily of dark-blue and soft-white stucco, with key portions of the building clad in champagne-finish vertical metal panels. Dark frames would highlight stacks of balconies to provide horizontal scale along the street, as well as to frame and announce building entrances. Large areas of glass and metal-clad columns would be included to activate the streetscape and highlight the building's amenity spaces. Living green screens and art walls would be included to provide pedestrian-scaled accents along Folsom Boulevard and at the building entrance from Elvas Avenue (see Figure 9 and Figure 10).

Deciduous shade and accent trees would be planted along the street frontage of Elvas Avenue. Accent evergreen trees would be planted to break up the building façade along Folsom Boulevard. Four existing trees along Folsom Boulevard and one existing palm tree along Elvas Avenue would remain. Three additional street trees would be added in tree wells along Folsom Boulevard to maintain the existing rhythm. Vines would be planted adjacent to a metal-mesh trellis that would obscure visibility from the street and sidewalk to the first-floor parking garage and along the building façade. A patio at the corner of Elvas Avenue and Folsom Boulevard would be fenced and screened by evergreen shrubs to provide privacy for the residents (see Figure 12).

As is the case with the project evaluated in the Initial Study of the EIR, the proposed project would not degrade the existing visual character or quality of the project area and its surroundings. The reasons for this conclusion are detailed below.

The proposed alteration to the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations would have similar or lesser aesthetic impacts compared to the roadway improvements evaluated in the Initial Study that were determined to have a less-than-significant impact on visual character. The change from a vehicular roadway to an open space corridor or a future bike/pedestrian/tram corridor would result in no material or adverse effect to visual character or quality. Consequently, this project change would not result in new significant adverse impacts to the visual character of the site or its surroundings or result in significant impacts that are substantially more severe than impacts previously disclosed.

The proposed student housing would alter the existing visual character of the project site by replacing a car wash, a gymnasium, a take-out restaurant, and an asphalt and gravel parking lot with a new 6-story, 74-foot-tall building. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR. In addition, the proposed project would be subject to the City's Site Plan and Design Review permit process to ensure development is consistent with City design standards, is of high quality, and is compatible with surrounding development, thus avoiding adverse impacts to visual character within the context of a built-up urban setting. Consequently, changes introduced by the proposed project would not result in new significant adverse impacts to the visual character of the site or its surroundings or result in significant impacts that are substantially more severe than impacts previously disclosed.

#### **Light and Glare**

The evaluation of effects related to light and glare in the Initial Study determined that the street lights and traffic signals installed as part of the roadway improvements proposed in the 65<sup>th</sup> Street Station Area Plan would, in accordance with adopted City standards, be limited to the amount required to safely light roadways, sidewalks and pathways. Lighting would be installed at the lowest allowable height and would be screened and directed away from sensitive uses (e.g., residential uses). The evaluation also identified that the project does not propose the installation or construction of elements with

reflective surfaces and therefore would not result in glare that causes public hazards or annoyance for a sustained period of time. For these reasons, the Initial Study concluded that project impacts related to light and glare would be less than significant.

As is the case with the project evaluated in the Initial Study of the EIR, the proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The proposed alteration to the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations would have similar or lesser light and glare impacts compared to the roadway improvements evaluated in the Initial Study that were determined to have a less-than-significant impact related to light and glare.

The proposed student housing would introduce increased lighting on the project site compared to existing conditions. A signature marquee sign is proposed for the easternmost façade of the building, at the intersection of Folsom Boulevard and Elvas Avenue. The vertical marquee sign, attached to the building facade, would be lit to provide wayfinding. Additional branding and wayfinding signage may be used at auto and pedestrian entries. Security lighting would be placed around the building, in the surface parking lot, within the parking structure, and at all building entrances. Security lighting and lighting in the parking areas would be shielded and pointed downward to illuminate ground-level pedestrian areas. As described above, the proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the General Plan Master EIR. The proposed project would also be subject to the City's Site Plan and Design Review permit process to ensure development in consistent with City design standards to reduce potential lighting impacts to surrounding areas through appropriate site design and configuration.

In addition, the Sacramento 2035 General Plan includes Policy ER 7.1.3, which requires projects to minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, and requiring light for development to be directed downward to minimize spill-over onto adjacent properties and reduce vertical glare. Compliance with General Plan Policy ER 7.1.3 would further ensure that the proposed project would not create a new source of substantial light. In addition, the Sacramento 2035 General Plan includes Policy ER 7.1.4, which prohibits new development from (1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors, (2) using mirrored glass, (3) using black glass that exceeds 25 percent of any surface of a building, (4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building, and (5) using exposed concrete that exceeds 50 percent of any building. Required adherence to the requirements of the general plan would ensure that the proposed project would not create glare that could

result in a public hazard or a substantial annoyance to nearby land uses. Consequently, changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant adverse impacts related to production of adverse light or glare in significant impacts that are substantially more severe than impacts previously disclosed. Compliance with City policies would minimize the impacts of light and glare on nighttime views such that no mitigation is required.

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

No applicable mitigation measures.

#### Additional Opus at Folsom and Elvas Mitigation Measures

None required.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to aesthetics, light, and glare, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to aesthetics, light, and glare from the proposed project would not require the preparation of a subsequent EIR.

## 3.2 Air Quality

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Conflict with or obstruct implementation of the applicable air quality plan?	No	No	No	Yes
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?	No	No	No	Yes
c)	Expose sensitive receptors to substantial pollutant concentrations?	No	No	No	Yes
d)	Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	No	No	No	Yes

#### **Discussion**

## Relevant Changes to Environmental Setting

With the exception of the changes noted below, the environmental setting for impacts related to air quality in the 65<sup>th</sup> Street Station Area Plan EIR remains accurate for the proposed project. The climate and topography, air quality background, criteria air pollutants, and toxic air containments discussions remain applicable to the proposed project.

The description of sensitive receptors identified in the 65<sup>th</sup> Street Station Area Plan EIR remain applicable to the proposed project. However, the area roughly bound by 65<sup>th</sup> Street, Elvas Avenue, 69<sup>th</sup> Street, and Q Street is transforming from a largely industrial and commercial area into an area with a more complete mix of uses. Several multi-unit residential projects intended for Sacramento State students have been proposed, are under construction, or have been constructed in this area and have increased the number of sensitive receptors in the project area.

## Relevant Changes to Project Related to Air Quality

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and Master EIR. The EIR also

assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

## Comparative Impacts Discussion

#### **Applicable Air Quality Plans**

An evaluation of consistency with applicable air quality plans was not completed for the 65<sup>th</sup> Street Station Area Plan EIR. Significance was determined by applying quantitative significance thresholds for ozone, particulate matter, carbon monoxide, and toxic air contaminants. Although the approach for determining significance has been updated since the 65<sup>th</sup> Street Station Area Plan EIR was certified, the EIR demonstrated consistency with applicable air quality plans through application of the aforementioned thresholds.

The Sacramento Regional 2008 National Ambient Air Quality Standards (NAAQS) 8-Hour Ozone Attainment and Reasonable Further Progress Plan, which addresses attainment of the federal 8-hour ozone standard, and the 2014 Triennial Report and Plan Revision, are the current plans required by the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) and issued by the Sacramento Metropolitan Air Quality Management District (SMAQMD), in conjunction with other regional air districts, to meet attainment. These plans demonstrate reasonable progress towards attainment as required by the State Implementation Plan (SIP) and the California Clean Air Act (CCAA). To demonstrate the proposed project's compliance with applicable air quality plans, a conformational analysis is required. In the case of the proposed project, the appropriate analysis incorporates land use assumptions and travel demand modeling from the Sacramento Area Council of Governments (SACOG). To determine compliance with the applicable air quality plans, SMAQMD recommends comparing the project's vehicle miles traveled (VMT) and population growth rate to the SACOG growth projections included in the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS).

SACOG is required to consider adopted local land use plans, including the current City of Sacramento General Plan, in the formulation of the land use forecast and growth projections in the MTP/SCS. Therefore, if a proposed project is consistent with the VMT and population growth projections in the City's 2035 General Plan, the project would also be consistent with the SACOG MTP/SCS. Although SACOG ultimately decides whether a project is consistent with the MTP/SCS, the residential nature of the proposed student

housing combined with the project site's proximity to employment centers and transit options supports a conclusion that the proposed project is consistent with the MTP/SCS.

The City's 2035 General Plan includes the assumption that the project site would be developed with a commercial land use, which would generate more vehicle trips, and therefore higher VMT than the proposed residential land use. Therefore, the proposed project would not generate VMT that would exceed the projections in the 2035 General Plan. Additionally, the 2035 General Plan projects that by the year 2035, the City's population would have grown to 640,381 people. The most recently published data from the California Department of Finance state that the population of the city of Sacramento was approximately 508,172 people in 2019. The student housing component of the proposed project includes 372 beds, which would not be anticipated to contribute to an exceedance of the population projections in the 2035 General Plan. In addition, the project site is designated as Urban Center Low in the 2035 General Plan Land Use and Urban Form Diagram, which allows multi-family residential uses. For these reasons, the proposed project would be consistent with the City of Sacramento's 2035 General Plan and would therefore be within the growth projections provided by SACOG and thereby consistent with the MTP/SCS.

In addition to the proposed project's consistency with the SACOG 2020 MTP/SCS, as discussed below, the proposed project would not generate operational emissions of reactive organic gas (ROG), nitrogen oxide (NOx), or particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>) that would exceed the SMAQMD thresholds of significance for project operational emissions. Therefore, the proposed project would not conflict with or obstruct implementation of applicable air quality plans. Consequently, changes introduced by the proposed project would not result in a new significant adverse impact related to consistency with applicable air quality plans or result in significant impacts that are substantially more severe than impacts previously disclosed.

#### **Criteria Pollutants**

#### Construction

The 65<sup>th</sup> Street Station Area Plan EIR quantified construction emissions associated with the transportation network improvements for each phase. The EIR determined that, because construction phases could overlap, there would be a potential for the NOx threshold and the PM<sub>10</sub> threshold to be exceeded, which would be considered a potentially significant impact. The EIR determined that implementation of Mitigation Measures 4.1-1(a) through (e) and Mitigation Measure 4.1-2 (provided in the identification of applicable EIR mitigation measures below) would reduce the impact to a less-than-significant level.

Construction activities to develop an open space corridor on the project site that would be sized to accommodate potential future bike/pedestrian/tram operations would be similar to the construction activities required to develop a future 67<sup>th</sup> Street roadway connection within the same footprint. Consequently, this project change would not result in new significant adverse impacts related to construction emissions of criteria pollutants or

result in significant impacts that are substantially more severe than impacts previously disclosed.

Construction of the proposed student housing would produce short-term emissions from operation of heavy equipment, employee vehicles, excavation for infrastructure and building foundations, application of architectural coatings, and paving.

Construction emissions were estimated using the methods contained in SMAQMD's *Guide* to Air Quality Assessment in Sacramento County. CalEEMod version 2016.3.2 was used to quantify construction emissions from off-road equipment, haul trucks, on-road worker vehicle emissions, and vendor delivery trips. The unmitigated and mitigated construction emissions for the worst-case day for each construction year can be found in **Tables AQ-1** and **AQ-2**, respectively. The tables compare emissions from the construction schedule for the proposed student housing to SMAQMD's NOx, PM<sub>10</sub>, and PM<sub>2.5</sub> construction thresholds.

Table AQ-1
UNMITIGATED PROJECT CONSTRUCTION EMISSIONS<sup>1,2</sup>

Construction Year	NO <sub>x</sub> (ppd)	PM <sub>10</sub> (ppd)	PM <sub>2.5</sub> (ppd)	PM <sub>10</sub> (tpy)	PM <sub>2.5</sub> (tpy)
2021	20.28	6.63	3.67	0.09	0.05
2022	14.19	1.47	0.81	0.19	0.10
2023	13.15	1.40	0.74	0.01	0.01
SMAQMD Thresholds <sup>3</sup>	85	0	0	0	0
Maximum Emissions	20.28	6.63	3.67	0.19	0.10
Significant (Yes or No)?	No	Yes	Yes	Yes	Yes

#### NOTES:

ppd = pounds per day; tpy = tons per year

SOURCE: ESA, 2021.

As shown in Table AQ-1, maximum daily unmitigated construction NO<sub>X</sub> emissions would not exceed the SMAQMD significance thresholds during the any year of construction activity. Unmitigated maximum daily and annual construction PM<sub>10</sub> and PM<sub>2.5</sub> emissions would exceed the SMAQMD significance thresholds for each year of construction.

<sup>1</sup> Project construction emissions estimates were made using CalEEMod version 2016.3.2. See Appendix A for model outputs and more detailed assumptions.

<sup>2</sup> Values in **bold** are in excess of the applicable SMAQMD significance threshold.

<sup>3</sup> SMAQMD has established a zero emissions threshold for PM<sub>10</sub> and PM<sub>2.5</sub> when projects do not implement SMAQMD's Best Available Control Technology/Best Management Practices.

Sacramento Metropolitan Air Quality Management District, 2019. Guide to Air Quality Assessment. Updated July 2019.

Table AQ-2
MITIGATED PROJECT CONSTRUCTION EMISSIONS <sup>1</sup>

Construction Year	NO <sub>x</sub> (ppd)	PM <sub>10</sub> (ppd)	PM <sub>2.5</sub> (ppd)	PM <sub>10</sub> (tpy)	PM <sub>2.5</sub> (tpy)
2021	16.22	3.64	2.02	0.05	0.03
2022	11.35	0.81	0.45	0.10	0.06
2023	10.52	0.77	0.41	0.01	0.00
SMAQMD Thresholds	85	80	82	14.6	15
Maximum Emissions	16.22	3.64	2.02	0.10	0.06
Significant (Yes or No)?	No	No	No	No	No

#### NOTES:

ppd = pounds per day; tpy = tons per year.

SOURCE: ESA, 2021.

As shown in Table AQ-2, maximum mitigated daily construction emissions of  $NO_X$ ,  $PM_{10}$ , and  $PM_{2.5}$ , as well as maximum annual mitigated emissions of  $PM_{10}$  and  $PM_{2.5}$ , would be reduced to below the significance thresholds with Implementation Mitigation Measures 4.1-1(a) through (e) and 4.1-2 in the  $65^{th}$  Street Station Area Plan EIR. These mitigation measures would be implemented for the proposed project. Therefore, the short-term construction impact associated with the net increase of criteria pollutants would not result in a new significant adverse impact or result in significant impacts that are substantially more severe than impacts previously disclosed.

#### Operations

The proposed alteration of the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations would result in a redistribution of traffic that might otherwise have used this corridor. However, redistribution of traffic is a localized impact and would not change the regional operational emissions associated with traffic. Consequently, this project change would not result in new significant adverse impacts related to operational emissions of criteria pollutants or result in significant impacts that are substantially more severe than impacts previously disclosed.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and Master EIR. The EIR also assumes all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

<sup>1</sup> Project construction emissions estimates were made using CalEEMod version 2016.3.2. See Appendix A model outputs and more detailed assumptions. NO<sub>X</sub> and Particulate emissions account for implementation of Mitigation Measures 4.1-1(a) through (e) and Mitigation Measure 4.1-2 from the 65<sup>th</sup> Street Station Area Plan EIR.

Because the proposed student housing would be consistent with the 2035 General Plan, it is therefore consistent with the General Plan assumptions with regard to cumulative growth and vehicle trip generation. Therefore, the proposed student housing would not result in new significant adverse impacts from operational traffic emissions or result in significant impacts that are substantially more severe than impacts previously disclosed.

The proposed student housing would produce emissions from operation of the building. To calculate emissions, CalEEMod was used to estimate operational pounds per day emissions of ROG, NOx, PM<sub>10</sub>, and PM<sub>2.5</sub>, and tons per year emissions of PM<sub>10</sub> and PM<sub>2.5</sub>. The results of this analysis are summarized in **Table AQ-3**. Estimated emissions are compared to SMAQMD significance thresholds. As shown in Table AQ-3, emissions of ROG, NOx, PM<sub>10</sub>, and PM<sub>2.5</sub> would not exceed SMAQMD's significance thresholds. Therefore, the proposed student housing would not result in new significant adverse impacts from operational emissions or result in significant impacts that are substantially more severe than impacts previously disclosed.

TABLE AQ-3
PROJECT OPERATIONAL EMISSIONS<sup>1</sup>

Source	ROG (ppd)	NO <sub>x</sub> (ppd)	PM <sub>10</sub> (ppd)	PM <sub>2.5</sub> (ppd)	PM <sub>10</sub> (tpy)	PM <sub>2.5</sub> (tpy)
Area	0.97	0.14	0.07	0.07	0.01	0.01
Energy	0.04	0.35	0.03	0.03	<0.01	0.01
Total Emissions	1.01	0.49	0.09	0.09	0.01	0.01
SMAQMD Thresholds <sup>2</sup>	65	65	80	82	14.6	15
Significant (Yes or No)?	No	No	No	No	No	No

#### NOTES:

ppd = pounds per day; tpy = tons per year

#### **Exposure to Sensitive Receptors**

#### Construction

The 65<sup>th</sup> Street Station Area Plan EIR determined that construction of the proposed transportation network improvements would be short-term and occur in phases. The EIR identified that construction activities would occur in numerous locations throughout the project area. Because of the dispersed and short-term duration of exposure during construction, the EIR determined that construction-related emissions of toxic air contaminants (TACs) in proximity to residential uses would be small relative to TAC exposure from existing sources, such as diesel truck traffic on local roads and freeways.

Rather than the dispersed and phased construction activities evaluated in the 65<sup>th</sup> Street Station Area Plan EIR, construction of the proposed project, including the proposed alteration of the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard

<sup>1</sup> Project operational emissions estimates were made using CalEEMod version 2016.3.2. See Appendix A for model outputs and more detailed assumptions.

<sup>2</sup> SMAQMD has established a zero emissions threshold for PM<sub>10</sub> and PM<sub>2.5</sub> when projects do not implement their Best Available Control Technology/Best Management Practices. However, the project would implement sustainable features consistent with the SMAQMD's best management practices; therefore, the non-zero emissions thresholds are used to assess impact significance.

and the proposed student housing, would produce TAC emissions from operation of heavy equipment in one location for a period of up to 18 months.

Within a 1,000 feet of the project site exists single family residences west of 64<sup>th</sup> Street as well as one single-family residence immediately northeast of the project site at 6671 Elvas Avenue. In addition to this existing single-family residence immediately adjacent to the project site, development of residential uses in the general vicinity of the proposed project site subsequent to certification of the 65<sup>th</sup> Street Station Area Plan EIR has increased the number of sensitive receptors. As noted previously, the area roughly bound by 65<sup>th</sup> Street, Elvas Avenue, 69<sup>th</sup> Street, and Q Street is transforming from a largely industrial and commercial area into an area with a more complete mix of uses. Several multi-unit residential projects intended for Sacramento State students have been proposed, are under construction, or have been constructed in this area. Specifically, the nearest residents are located on the northeast corner of 66<sup>th</sup> and the Folsom Boulevard, approximately 30 feet from the proposed project site. These residential units did not exist when the 65<sup>th</sup> Street Station Area Plan EIR was prepared and therefore could not have been evaluated.

Construction of the proposed project would result in the short-term generation of diesel particulate matter (DPM) emissions from the use of off-road diesel equipment. DPM is a complex mixture of chemicals and particulate matter that has been identified by the State of California as a TAC with potential cancer and chronic non-cancer effects. The dose to which receptors are exposed is the primary factor affecting health risk from TACs. Dose is a function of the concentration of a substance in the environment and the duration of exposure to the substance. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments (HRAs), which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period when assessing TACs (such as DPM) that have only cancer or chronic non-cancer health effects.<sup>2</sup>

As identified above, residences within 1,000 feet of the proposed project site were evaluated as part of the HRA. The increase in lifetime cancer risk and chronic non-cancer hazard index from exposure to DPM emissions generated by construction activities associated with the proposed project at the maximum exposed individual off-site sensitive receptor are shown in **Table AQ-4**. Table AQ-4 also presents the non-cancer chronic hazard index, which is used for evaluation of health risk impacts. Details of modeling assumptions and model outputs are included in Appendix A.

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Office of Environmental Health Hazard Assessment, 2015. Guidance Manual for Preparation of Health Risk Assessments. February 2015.

TABLE AQ-4

MAXIMUM INCREASE IN CANCER RISK AND HAZARD INDEX FOR OFF-SITE SENSITIVE RECEPTORS<sup>1</sup>

	Unmitigated		Mitiga	ated <sup>2</sup>	Mitigated AQ2 <sup>3</sup>	
Sensitive Receptor	Lifetime Excess Cancer Risk (per million)	Chronic Non-Cancer Hazard Index	Lifetime Excess Cancer Risk (per million)	Chronic Non-Cancer Hazard Index	Lifetime Excess Cancer Risk (per million)	Chronic Non-Cancer Hazard Index
Off-site Residence	29.47	0.04	16.21	0.02	9.45	0.01
SMAQMD Threshold	10.0	1.0	10.0	1.0	10.0	1.0
Exceeds Threshold?	Yes	No	Yes	No	No	No

#### NOTES:

- 1 The maximum exposed individual off-site sensitive receptor is located at 6671 Elvas Avenue
- 2 Mitigated particulate (DPM) emissions account for implementation of Mitigation Measures 4.1-1(a) through (e)
- 3 Mitigated particulate (DPM) emissions account for implementation of Mitigation Measures AQ-2

See Appendix A for model outputs and more detailed calculation.

As shown in Table AQ-4, the proposed project would exceed the SMAQMD threshold of significance for lifetime excess cancer risk. With Implementation Mitigation Measures 4.1-1(a) through (e) and 4.1-2 in the 65<sup>th</sup> Street Station Area Plan EIR, the lifetime excess cancer risk significance threshold. An additional Mitigation Measure, MM AQ-2, would be required to reduce the lifetime excess cancer risk to below the SMAQMD threshold of significance. Therefore, with the additional of Mitigation Measure AQ-2, the proposed project would not result in new significant adverse impacts from construction TAC emissions or result in significant impacts that are substantially more severe than impacts previously disclosed.

#### Operations

For operational TAC sources, the 65<sup>th</sup> Street Station Area Plan EIR determined that because the proposed transportation network improvements would not generate new vehicle trips, the increased TAC exposure to residents would be considered less-than significant.

The proposed alteration of the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations would result in a redistribution of traffic that might otherwise have used this corridor. The 65<sup>th</sup> Street Station Area Plan EIR determined that although the proposed project could result in a redistribution of vehicles closer to residents and/or result in an increase in traffic volumes on select area roadways, the proposed project's impact related to increased TAC exposure to residents would be considered less-than significant. Given its relatively short distance and the fact that the roadway would not continue beyond Folsom Boulevard as envisioned in the EIR, and given that existing traffic volumes, any traffic redistribution would not be sufficient to result in a new or more significant roadway TAC impacts. Consequently, this project change would not result in new significant adverse impacts

related to operational emissions of TACs or result in significant impacts that are substantially more severe than impacts previously disclosed.

Because the proposed student housing would be consistent with the General Plan, it is therefore consistent with the General Plan assumptions with regard to cumulative growth and vehicle trip generation. Therefore, the proposed student housing not result in new significant adverse impacts from operational TAC emissions or result in significant impacts that are substantially more severe than impacts previously disclosed.

#### **Adverse Odors**

The evaluation of the potential impacts related to adverse odors was not completed for the 65<sup>th</sup> Street Station Area Plan EIR.

An odor analysis typically evaluates the potential for a project to generate odors and for the project to be affected by odors from nearby sources of odors. The SMAQMD CEQA Guide identifies wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants as land use types that typically generate odor impacts. The land uses that would be developed under the proposed project are not typically considered sources of adverse odors. Therefore, the proposed project would not result significant adverse impacts related to odors

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

#### 4.1-1

- a) The project contractor shall provide a plan, for approval by the SMAQMD, demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, would achieve a project wide fleet-average 20% NOx reduction and 45% particulate reduction compared to the most recent CARB fleet average at time of construction.
- b) The project contractor shall submit to SMAQMD a comprehensive inventory of all offroad construction equipment, equal to or greater than 50 horsepower, that shall be used an aggregate of 40 or more hours during any phase of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project developer and/or contractor shall provide SMAQMD with the anticipated construction timeline, including start date and name and phone number of the project manager and onsite foreman. Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, particulate matter

- traps, engine retrofit technology, after treatment products, and/or such other options as become available.
- c) The project contractor shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40% opacity (or Ringelmann 2.0) shall be repaired immediately and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly by contractor personnel certified to perform opacity readings, and a monthly summary of the visual survey results shall be submitted to the SMAQMD throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The above shall not supersede other SMAQMD or state rules and regulations.
- d) Limit vehicle idling time to five minutes or less.
- e) The City shall pay into the SMAQMD's construction mitigation fund to offset construction-generated emissions of NOx for construction of any project components or group of components with concurrent construction that exceed daily emission threshold of 85 lbs/day. The project developer shall coordinate with the SMAQMD for payment of fees into the Heavy-Duty Low-Emission Vehicle Program designed to reduce construction related emissions within the region. Fees shall be paid based upon the then current SMAQMD Fee (dollars per ton of NOx emissions generated) at the time of ground disturbance. This fee shall be paid prior to the issuance of grading or other permits or at a date acceptable to the SMAQMD. The City shall keep track of actual equipment use and their NOx emissions on a monthly basis and reported to the SMAQMD. Based on these monthly NOx emissions reports, mitigation fees can be adjusted accordingly for payment to the SMAQMD.

#### 4.1-2

Future project components shall comply with SMAQMD Rule 403, Fugitive Dust, for demolition and construction phases to reduce emissions of fugitive dust. To ensure compliance with Rule 403, approval to commence project construction shall not be given until the contractor submits a construction dust mitigation plan deemed satisfactory by the City and the SMAQMD. This plan shall specify control measures that shall be implemented to ensure that emissions of fugitive dust from being airborne beyond the property line from which the emission originates, demonstrate the availability of needed equipment and personnel, and identify a responsible individual who, if needed, can authorize the implementation of additional measures.

The following measures shall be included, at a minimum, to reduce fugitive dust emissions in compliance with Rule 403:

- All disturbed areas, including storage piles that are not being actively used for construction purposes, shall be watered with sufficient frequency as to maintain soil moistness.
- b) All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer or suppressant.
- c) When materials are transported off-site, they shall be covered, effectively wetted to limit visible dust emissions, or maintained with at least 6 inches of freeboard space from the top of the container.
- d) All operations shall limit or expeditiously remove the accumulation of projectgenerated mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring.
- e) Following the addition of materials to, or the removal of materials from, the surfaces of outdoor storage piles, the storage piles shall be effectively stabilized of fugitive dust emissions using sufficient water or a chemical stabilizer or suppressant.
- f) On-site vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph)
- g) Wheel washers shall be installed for all trucks and equipment exiting from unpaved areas or wheels shall be washed manually to remove accumulated dirt prior to leaving the site.
- h) Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1 percent.
- i) Excavation and grading activities shall be suspended when winds exceed 20 mph.
- j) The extent of areas simultaneously subject to excavation and grading shall be limited, wherever possible, to the minimum area feasible.

#### Additional Opus at Folsom and Elvas Mitigation Measures

#### AQ-1

Portions of Mitigation Measures approved in the 65<sup>th</sup> Street Station Area Plan EIR have superseding requirements as revised by SMAQMD since its publication. SMAQMD's Basic Construction Emission Control Practices (Best Management Practices) was updated in July 2019. District Rule 403, Fugitive Dust, is still applicable to Mitigation Measure 4.1-2, with the following revisions and additional requirements:

c) When materials are transported off-site, they shall be covered, effectively wetted to limit visible dust emissions, or maintained with at least 6 inches two feet of freeboard space from the top of the container.

- k) 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.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- m) 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.

#### AO-2

Prior to the issuance of any demolition, grading, or building permits (whichever occurs the earliest), the project applicant shall prepare a construction operations plan that demonstrates that the off-road equipment used on-site to construct the project would at minimum achieve a fleet-wide average 95-percent reduction in mass of exhaust emissions of diesel particulate matter (DPM). Specifically, this plan shall include, but is not limited to, the measures identified below:

- a) All diesel-powered off-road equipment larger than 25 horsepower operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 4 engines with CARB-certified Level 3 Diesel Particulate Filters, or equivalent. Exceptions could be made for equipment that includes CARB-certified Level 3 Diesel Particulate Filters or equivalent. Equipment that is electrically powered or uses non-diesel fuels would also meet this requirement
- b) Provide electric power to avoid use of diesel-powered generator sets and other portable equipment.

Off-road equipment descriptions and information shall be provided, including, but not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number. Prior to the issuance of the any demolition, grading, or building permit (whichever comes first), the project applicant shall submit the construction operations plan and records of compliance SMAQMD.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to air quality, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to

be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to air quality from the proposed project would not require the preparation of a subsequent EIR.

## 3.3 Biological Resources

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
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 U.S. Fish and Wildlife Service?	No	No	No	Yes
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	No	No	No	Yes
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	No	No	Yes
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?	No	No	No	Yes
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No	No	No	Yes
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	No	No	No

## **Discussion**

## Relevant Changes to Environmental Setting

Potential impacts related to biological resources were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Initial Study identified that the project site for the 65<sup>th</sup> Street Station Area Plan is situated in an urban setting developed with

buildings, roadways, and impervious surface area that is generally considered to have low habitat value. The Initial Study identified that, while some parcels are vacant and underutilized, these areas often have been substantially disturbed and have been used for illegal dumping and surface parking, are frequently traversed by pedestrians, are constantly exposed to urban noise, and are surrounded on all sides by urban development. However, the Initial Study identified that some of these undeveloped areas contain mature trees that may quality as heritage trees under the City's Heritage Tree Ordinance.<sup>3</sup>

The Initial Study identified that trees within the project site for the 65<sup>th</sup> Street Station Area Plan may provide potential nesting and marginal foraging habitat for special-status wildlife species such as the white-tailed kite, Swainson's hawk, western burrowing owl, purple martin, and other birds protected under the Migratory Bird Treaty Act (MBTA). The evaluation also identified that special-status bats, such as Townsend's big-eared bat (*Plecotus townsendii*), small-footed myotis bat (*Myotis ciliolabrum*), long-legged myotis bat (*Myotis volans*), and Yuma myotis bat (*Myotis yumanensis*) could roost in buildings in the project area and under bridges or roadway over-crossings.

The Initial Study determined that the project site for the 65<sup>th</sup> Street Station Area Plan includes several drainage ditches which may represent potential waters of the United States. Additionally, the Initial Study identified that wetlands located along the UPRR tracks could also represent potential waters of the United States and could support special-status vernal pool crustaceans, including vernal pool fairy shrimp (*Branchinecta lynchi*), a federally listed species. The evaluation also identified that special-status plants, including rose-mallow (*Hibiscus lasiocarpus*) and Sandford's arrowhead (*Sagittaria sanfordii*), were determined to have the potential to occur in the roadside drainages in the project area.

The Opus at Folsom and Elvas project site consists of developed, urban land with three structures and an asphalt and gravel parking lot. A small number of ornamental trees and shrubs are located along the perimeter of the site, including four ornamental trees along Folsom Boulevard and three palm trees on the northeastern perimeter of the project site along Elvas Avenue. There are no drainage ditches or other water features on or immediately adjacent to the project site. The project site is surrounded by industrial uses to the northeast; commercial uses to the south; and commercial, residential, and industrial uses to the west. There is one single-family residence immediately northeast of the project site at 6671 Elvas Avenue. While there are no trees on the project site that would be expected to provide potential nesting or foraging habitat for special-status wildlife species, there are mature trees in the project vicinity that may provide potential nesting and marginal foraging habitat, including mature trees on the property of the aforementioned single-family residence immediately northeast of the project site.

The City's Heritage Tree Ordinance (City Code 12.64.040), which was in effect at the time the 65<sup>th</sup> Street Station Area Plan EIR was prepared, was subsequently replaced by Sacramento City Code Chapter 12.56, *Tree Planting, Maintenance, and Conservation*, which provides the City's standards for protection, removal, and replacement of city trees and private protected trees, as defined in the chapter. The term "heritage tree" is no longer used by the City.

There have been no substantial changes to the environmental setting that would result in the proposed project having new significant impacts to biological resources that were not considered in the prior environmental documents or that substantially increase the severity of previously identified impacts.

## Relevant Changes to Project Related to Biological Resources

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing in the form of a new 6-story, 74-foot-tall building with associated landscaping, utilities, and other site improvements. These relevant changes are discussed in detail below.

## Comparative Impacts Discussion

#### Impacts to Special-Status Species and/or Habitat

The Initial Study of the EIR determined that proposed roadway improvements, including street extensions, sidewalks and bike lanes/trails, intersection realignments, and grade-separated under-crossings, could result in the loss or temporary disturbance of special-status plant and animal species

The Initial Study identified that wetlands within the project site for the 65<sup>th</sup> Street Station Area Plan could provide habitat for special-status plant species and federally listed invertebrates under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS).

The evaluation identified that the project site for the 65<sup>th</sup> Street Station Area Plan provides potential nesting and marginal foraging habitat for special-status wildlife species such as the white-tailed kite, Swainson's hawk, western burrowing owl, and purple martin. The evaluation also determined that trees within the project area may also provide marginal nesting habitat for migratory birds, which are protected under the MBTA. The analysis identified that project construction activities could result in the direct removal of migratory bird nests, the locations of which have not yet been determined. The analysis determined that removal of buildings could also result in adverse impacts to habitat for special-status bat species.

The Initial Study determined that implementation of Mitigation Measures MM-4 through MM-7 in the Initial Study would ensure that potential impacts to special-status species and/or their habitat would be minimized. Mitigation Measure MM-4 requires plant surveys to be conducted prior to any construction activities, and either avoidance measures or the development of additional measures in consultation with the USFWS and California Department of Fish and Game (now the California Department of Fish and Wildlife [CDFW]) to offset impacts. Mitigation Measure MM-5 requires either pre-

construction surveys for vernal pool crustaceans, or the assumption of presence in suitable habitat, and implementation avoidance and conservation measures to reduce or offset impacts to these species. Mitigation Measure MM-6 requires preconstruction surveys for special-status bat species in buildings and exclusion techniques to ensure the bats would not be present prior to demolition. Mitigation Measure MM-7 ensures that potential impacts to migratory birds are minimized through the identification and avoidance of any nests. The Initial Study determined that impacts to special-status species and their habitat would be less than significant with implementation of the mitigation measures identified above.

Consistent with the project evaluated in the 65<sup>th</sup> Street Station Area Plan EIR, the project site is situated in an urban setting developed with buildings, roadways, and impervious surface area that is generally considered to have low habitat value.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations and construct off-campus housing in the form of a new 6-story, 74-foot-tall building with associated landscaping, utilities, and other site improvements. Construction of the proposed project would occur over a period of approximately 18 months and include demolition of existing onsite structures and the asphalt and gravel parking lot followed by vertical construction.

There are no wetlands, drainage ditches, or other water features on or immediately adjacent to the project site. Therefore, the proposed project would not result in new significant adverse impacts or substantially more severe impacts than previously disclosed to wetlands or aquatic special-status plant or invertebrate species. Mitigation Measure MM-5, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, which requires either surveys for vernal pool crustaceans or the assumption of presence in suitable habitat and avoidance and conservation measures to reduce or offset impacts on these species, would not be required for the proposed project.

While, construction of the proposed project would not be anticipated to result in impacts to special-status plant species and their habitat, Mitigation Measure MM-4, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would be implemented as part of the proposed project to ensure that impacts to special-status plant species and their habitat would be less than significant.

As previously described, a small number of ornamental trees and shrubs are located along the perimeter of the Opus at Folsom and Elvas project site, including four ornamental trees along Folsom Boulevard and three palm trees on the northeastern perimeter of the project site along Elvas Avenue. These trees would remain with implementation of the proposed project. While there are no trees or vegetation on the project site that would be expected to provide potential nesting or foraging habitat for special-status wildlife species, there are mature trees in the project vicinity that may provide potential nesting

and marginal foraging habitat and which could be subject to disturbance from project construction activities, including construction noise. Implementation of Mitigation Measure MM-7, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would be implemented as part of the proposed project and would ensure that impacts to protected bird species and their habitat would be less than significant.

Construction of the proposed project would include demolition of existing onsite structures, which could result in adverse impacts to habitat for special-status bat species. Implementation of Mitigation Measure MM-7, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would be implemented as part of the proposed project to ensure that impacts to special-status bat species would be less than significant.

#### Impacts to State or Federally Protected Wetlands

As discussed above, there are no wetlands, drainage ditches, or other water features on or immediately adjacent to the project site. Therefore, the proposed project would not result in new significant adverse impacts or substantially more severe impacts than previously disclosed to state or federally protected wetlands.

# Conflicts with Local Policies or Ordinances Protecting Biological Resources, such as a Tree Preservation Policy or Ordinance

The Initial Study of the EIR determined that implementation of proposed circulation improvements within the project site for the 65<sup>th</sup> Street Station Area Plan could impact trees protected under the City of Sacramento tree ordinance. The evaluation determined that implementation of Mitigation Measure MM-8, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would ensure that potential impacts to protected trees would be less than significant by first requiring a survey to determine if protected trees would be affected by the improvements, avoidance of protected trees where feasible, and compliance with the City's current tree ordinance.

As previously described, a small number of ornamental trees and shrubs are located along the perimeter of the Opus at Folsom and Elvas project site, including four ornamental trees along Folsom Boulevard and three palm trees on the northeastern perimeter of the project site along Elvas Avenue. These trees would remain with implementation of the proposed project. While the proposed project would not be anticipated to result in removal of trees protected under the current City of Sacramento tree ordinance, construction of the proposed project could include grading, clearing, excavating, adding fill soil, trenching, boring, compacting, paving, or placing or storing construction equipment or construction material within the tree protection zone of a city tree or private protected tree as defined in Sacramento City Code Chapter 12.56, *Tree Planting, Maintenance, and Conservation*. Implementation of **Mitigation Measure BIO-1**, which is included in this addendum to replace 65<sup>th</sup> Street Station Area Plan EIR Mitigation Measure MM-8 to reflect current City tree protection requirements, would ensure that impacts to protected trees would be less than significant.

# Conflicts with the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

The evaluation of potential impacts related to biological resources in Appendix C, Initial Study, of the 65<sup>th</sup> Street Station Area Plan EIR did not address potential project conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. However, the project site is not within an area that is subject to the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. There would be no impact related to this significance criterion.

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

#### **MM-4**

The City of Sacramento shall ensure that any ground disturbance (outside of existing rights-of-way) associated with installation or construction of any project component shall comply with the following requirements:

- a) Prior to the initiation of any ground-disturbing or vegetation-clearing activities or issuance of a grading permit, the City of Sacramento shall retain a qualified botanist to conduct surveys for special-status plant species and their habitat in the area of disturbance.
- b) The botanist shall conduct surveys for these special-status plant species at the appropriate time of year when the target species would be in flower and therefore clearly identifiable (i.e., blooming periods). Surveys shall be conducted following the California Department of Fish and Wildlife (CDFW) and California Native Plant Society (CNPS) approved protocol for surveying for special-status plant species.
- c) If no special-status plants or their habitat are found during focused surveys, the botanist shall document the findings in a letter report to the City of Sacramento, and no further mitigation shall be required.
- d) If special-status plants are found, the following measures shall be implemented:
  - If the populations can be avoided, they shall be clearly marked in the field, using pin flags, by a qualified botanist for avoidance during construction activities. After the area has been marked, orange exclusion fencing shall be installed a minimum of one foot away from the pin-flagged locations. The location of the plant population shall also be recorded on construction plans and specs.
  - If special-status plant populations cannot be avoided, consultations with CDFW and/or U.S. Fish and Wildlife Service (USFWS) shall be required

depending on the listing status of the species present. These consultations shall determine appropriate mitigation measures for any populations that would be affected by implementation of the proposed project. Appropriate measures may include the creation of offsite populations through seed collection or transplanting, preservation and enhancement of existing populations, or restoration or creation of suitable habitat in sufficient quantities to compensate for the impact. The results of the consultation with CDFW and/or the USFWS shall be provided to the City.

#### **MM-6**

The City of Sacramento shall ensure that construction of all project improvements comply with the following requirements:

- a) Prior to any building demolition, the City of Sacramento shall retain a qualified biologist to conduct a focused survey for bats and potential roosting sites in buildings to be demolished and/or buildings located within 50 feet of construction activities. If no roosting sites or bats are found within the project area, a letter report confirming absence shall be sent to the City of Sacramento and no further mitigation is required.
- b) If bats are found roosting at the site outside of nursery season (May 1 through October 1), then they shall be evicted as described under (c) below. If bats are found roosting during the nursery season, then they shall be monitored to determine if the roost site is a maternal roost. This could occur by either visual inspection of the roost bat pups, if possible, or monitoring the roost after the adults leave for the night to listen for bat pups. If the roost is determined to not be a maternal roost, then the bats shall be evicted as described under (c). Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. A 250-foot (or as determined in consultation with CDFW) buffer zone shall be established around the roosting site within which no construction shall occur. This boundary shall be added to the construction plans and specs. Depending on the location, and in order to not adversely affect ongoing residential and commercial activities, the boundary shall be marked using stakes and environmental flagging, or another method determined to be appropriate in consultation with CDFW.
- c) Eviction of bats shall be conducted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFW, that allow the bats to exit the roosting site but prevent re-entry to the site. This would include but not be limited to the installation of one-way exclusion devices. The devices shall remain in place for seven days and then the exclusion points and any other potential entrances shall be sealed. This work shall be completed by a BCI recommended exclusion professional.

#### **MM-7**

The City of Sacramento shall ensure that all project improvements comply with the following requirements:

- a) For construction activities proposed within 500 feet of a potential nesting tree, undeveloped habitat, or under US-50 during the nesting season (February 1 through August 31), the City shall retain a qualified biologist to conduct focused preconstruction surveys for protected birds, including, burrowing owl, Swainson's hawk, white tailed kite and purple martin and other birds protected under the Migratory Bird Treaty Act. Surveys shall occur within 30 days before the onset of construction. A pre-construction survey report shall be submitted to CDFW and the City of Sacramento that includes, at a minimum: (1) a description of the methodology including dates of field visits, the names of survey personnel with resumes, and a list of references cited and persons contacted; and (2) a map showing the location(s) of any bird nests observed on the project area. If no active nests of MBTA, CDFW, or USFWS covered species are identified then no further mitigation is required.
- b) Should active nests of protected bird species be identified during the survey conducted in accordance with Mitigation Measure MM-7(a), the City of Sacramento in consultation with the CDFW, shall delay construction in the vicinity of active nest sites during the breeding season (February 1 through August 31) while the nest is occupied with adults and/or young. A qualified biologist shall monitor any occupied nest to determine when the nest is no longer used. If construction cannot be delayed, avoidance shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone shall be determined in consultation with the CDFW, but shall be a minimum of 200 feet. The buffer zone shall be delineated by highly visible temporary construction fencing.
- c) If demolition/construction activities are unavoidable within the buffer zone, the City of Sacramento shall retain a qualified biologist to monitor the nest site to determine if construction activities are disturbing the adult or young birds. If abandonment occurs the biologist shall consult with CDFW or USFWS for the appropriate salvage measures. This could include taking any nestlings to a local wildlife rehabilitation center.

## Additional Opus at Folsom and Elvas Mitigation Measures

## **Mitigation Measure BIO-1**

Prior to the initiation of project construction, the project applicant shall obtain a tree permit from the City pursuant to the requirements identified in Section 12.56.050, Tree Permits, of the Sacramento City Code.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to biological resources, or significant impacts that are substantially more severe than impacts previously disclosed. There is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous EIR. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to biological resources from the proposed project would not require the preparation of a subsequent EIR.

## 3.4 Cultural Resources

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	No	No	No	Yes
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	No	No	No	Yes
c)	Disturb any human remains, including those interred outside of formal cemeteries?	No	No	No	Yes

#### Discussion

## Relevant Changes to Environmental Setting

#### **Archaeological Resources and Human Remains**

Potential impacts related to cultural resources were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Initial Study identified that the project site for the 65<sup>th</sup> Street Station Area Plan is situated in an urban setting developed with buildings, roadways, and impervious surface area that is considered to have low sensitivity for archaeological resources, unique ethnic cultural values, and human remains.

The Opus at Folsom and Elvas project site is located within the 65<sup>th</sup> Street Station Area Plan. The project site is currently occupied by a self-serve car wash, a gymnasium, a take-out restaurant, and an asphalt and gravel parking lot. Consistent with the setting for the 65<sup>th</sup> Street Station Area Plan, the project site is developed with buildings and impervious surface area considered to have low sensitivity for archaeological resources and human remains. There have been no substantial changes to the physical setting of the project site or vicinity that would result in the proposed project having new significant impacts related to archaeological resources and human remains that were not previously considered or that would substantially increase the severity of previously identified impacts.

#### **Historical Resources**

The Initial Study identified that there are no protected historic structures or resources within the project site for the 65<sup>th</sup> Street Station Area Plan. The Initial Study identified that the Sacramento Valley Railroad (SVRR) rail line within the project area is eligible for inclusion in the National Register of Historic Places (NRHP).

The Initial Study identified that several buildings within the project site for the 65<sup>th</sup> Street Station Area Plan are older than 45 years and therefore could potentially qualify as historical resources pursuant to CEQA. The Initial Study identified that the commercial

building at 6655 Elvas Avenue (immediately northeast of the Opus at Folsom and Elvas project site) constructed circa 1952 could potentially qualify as a historical resource based on its age.

As previously noted, the Opus at Folsom and Elvas project site is currently occupied by a car wash, a gymnasium, a take-out restaurant, and a gravel parking lot. The car wash at 6661 Folsom Boulevard (Car Wash on Folsom) was constructed in 1965, the gymnasium and 6670 Elvas Avenue (Hyperthrive Athletics) was constructed circa 1965, and the take-out restaurant at 6727 Folsom Boulevard (Taqueria Santos Laguna) was constructed and opened to the public as a Dairy Queen restaurant in 1965.

In coordination with City of Sacramento Historic Preservation staff, an ESA architectural historian who meets the Secretary of the Interior's professional qualifications standards for architectural history conducted an evaluation of the take-out restaurant building at 6727 Folsom Boulevard to determine if the building meets any of the criteria for significance that would make it eligible for listing in the NRHP, the California Register of Historical Resources (CRHR), or the Sacramento Register of Historic and Cultural Resources. Preservation staff determined that historic resource evaluations were not required for the car wash and gymnasium buildings on the project site.

The historic evaluation of the building at 6727 Folsom Boulevard conducted in January 2021 determined that the building does not meet any of the criteria for significance that would make it eligible for listing in the NRHP, the CRHR, or the Sacramento Register.<sup>4</sup> Preservation staff concurred with this finding. Consequently, there are no historical resources on the Opus at Folsom and Elvas project site, and there have been no substantial changes to the physical setting of the project site or vicinity that would result in the proposed project having new significant impacts related to historical resources that were not previously considered or that would substantially increase the severity of previously identified impacts.

### Relevant Changes to Project Related to Cultural Resources

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing in the form of a new 6-story, 74-foot-tall building with associated landscaping, utilities, and other site improvements. These relevant changes are discussed in detail below.

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Environmental Science Associates, 2021. 6727 Folsom Boulevard, Sacramento CA – Historic Resources Evaluation. Prepared for Opus Development Company L.L.C. January 15, 2021.

## **Comparative Impacts Discussion**

#### **Archaeological Resources and Human Remains**

The Initial Study of the EIR determined that although the project site for the 65<sup>th</sup> Street Station Area Plan is not known to contain archeological resources, tribal cultural resources, or human remains, earthwork associated with the proposed transportation improvements, including street extensions, pathways, intersection realignments, and grade-separated under crossings could uncover previously unknown resources. The analysis determined that implementation of Mitigation Measure MM-12, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would ensure that impacts to archeological resources, tribal cultural resources, or human remains would be less than significant.

While unlikely due to the developed and disturbed setting of the project site, construction of the proposed project would include ground-disturbing activities (e.g., grading, trenching) that could encounter or damage previously unknown subsurface archeological resources, tribal cultural resources, or human remains. Implementation of Mitigation Measure MM-7, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would be implemented as part of the proposed project to ensure that impacts to these resources would be less than significant.

#### **Historical Resources**

The Initial Study of the EIR determined that several buildings within the project site for the 65<sup>th</sup> Street Station Area Plan would be demolished as a result of the proposed project The analysis determined that buildings that are currently 45 years of age or older or buildings that would be 45 years of age or older at project buildout would need to be evaluated prior to demolition. If these buildings are determined to be eligible for listing in the NRHP, the CRHR, or the Sacramento Register, any damage or destruction to the buildings associated with project construction activities would represent a significant impact. The analysis determined that, although, demolition of these buildings would constitute a substantial change in the significance of a historical resource, implementation of Mitigation Measure MM-13 included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR would ensure that potentially eligible historic resources are documented and/or preserved. Therefore, the analysis determined that implementation of Mitigation Measure MM-13 would reduce the project's impacts on historic resources to a less-than-significant level with mitigation incorporated.

As discussed above, the historic evaluation conducted for the proposed Opus at Folsom and Elvas project determined that there are no historical resources on the Opus at Folsom and Elvas project site. Consequently, the proposed project would have no impact on historical resources, and Mitigation Measure MM-13 included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, which requires a professional evaluation to determine if any historical resources would be affected by the project, and recordation of any historical resources prior to demolition, would not be required for the proposed Opus at Folsom and Elvas project.

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

#### **MM-12**

- a) In the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 100 feet of the resource shall be halted, and the City shall consult with a qualified archeologist to assess the significance of the find. Archeological test excavations shall be conducted by a qualified archeologist to aid in determining the nature and integrity of the find. If the find is determined to be significant by the qualified archeologist, representatives of the City and the qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. In addition, a report shall be prepared by the qualified archeologist according to current professional standards.
- b) If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.

If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.

In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.

c) If a human bone or bone of unknown origin is found during construction, all work shall stop within 100 feet the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.

## Additional Opus at Folsom and Elvas Mitigation Measures

None required.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to cultural resources, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to cultural resources from the proposed project would not require the preparation of a subsequent EIR.

## 3.5 Energy

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation??	No	No	No	Yes
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No	No	No	Yes

## **Discussion**

## Relevant Changes to Environmental Setting

Potential impacts related to energy were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Initial Study identified that established and reliable municipal energy providers serve the project site for the 65<sup>th</sup> Street Station Area Plan. Gas service is provided by Pacific Gas and Electric Company (PG&E) and electric service is provided by the Sacramento Municipal Utility District (SMUD). The Initial Study identified that service from both providers is available within the project area and no known constraints or capacity problems exist.

There have been no substantial changes to the physical setting of the project site or vicinity that would result in the proposed project having new significant impacts related to energy that were not previously considered or that would substantially increase the severity of previously identified impacts.

## Relevant Changes to Project Related to Energy

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing in the form of a new 6-story, 74-foot-tall building with associated landscaping, utilities, and other site improvements. These relevant changes are discussed in detail below.

## **Comparative Impacts Discussion**

The Initial Study of the EIR determined that some electrical power could be required to supply street lights that could be constructed as part of roadway extensions or sidewalk improvements. The analysis determined that the energy required for that operational use would be minimal, and the construction of these new street lights would not cause significant environmental effects. The analysis determined that natural gas would not be used for either the construction or operation of the proposed transportation facilities. The analysis identified that the 65<sup>th</sup> Street Station Area Plan involves transportation and circulation improvements and would not result in new land uses that require additional natural gas or electricity. Therefore, the analysis determined that impacts on natural gas and electric facilities would be less than significant.

The proposed alteration to the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations would have similar or lesser energy-related impacts compared to the roadway improvements evaluated in the Initial Study that were determined to have a less-than-significant impact related to energy. The change from a vehicular roadway to an open space corridor or a future bike/pedestrian/tram corridor would result in no new or greater consumption of energy resources than what was evaluated in the EIR. Consequently, this project change would not result in new significant adverse impacts related to energy or result in significant impacts that are substantially more severe than impacts previously disclosed.

The proposed project would also develop a 6-story residential building intended to house students at nearby Sacramento State. The project would develop approximately 137 new residential units. While the 65th Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site and energy consumption evaluated in the 2035 General Plan Master EIR, which determined that development pursuant to the General Plan would not result in the inefficient, wasteful, or unnecessary consumption energy resources. Specifically, the 2035 General Plan includes numerous policies and programs that would promote energy conservation, renewable energy generation, and reduction in vehicle miles travelled (VMT) and reduction of greenhouse gas (GHG) emissions. Analysis for these specific energy sectors as it pertains to the proposed project are described in detail in sections 3.2 (Air Quality), 3.7 (Greenhouse Gas Emissions) and 3.15 (Transportation) of this addendum.

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

No applicable mitigation measures.

#### Additional Opus at Folsom and Elvas Mitigation Measures

None required.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to energy, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to energy from the proposed project would not require the preparation of a subsequent EIR.

# 3.6 Geology and Soils

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	No	No	No	Yes
	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 Division of Mines and Geology Special Publication 42.	No	No	No	Yes
	ii) Strong seismic ground shaking?	No	No	No	Yes
	iii) Seismic-related ground failure, including liquefaction?	No	No	No	Yes
	iv) Landslides?	No	No	No	Yes
b)	Result in substantial soil erosion or the loss of topsoil?	No	No	No	Yes
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 honor off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No	No	No	Yes
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No	No	No	Yes
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	No	No	Yes
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No	No	No	Yes

#### **Discussion**

## Relevant Changes to Environmental Setting

Potential impacts related to geology and soils were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Initial Study identified that there are no known faults with the city of Sacramento or the Sacramento region, and no unique geological features have been identified in the project site for the 65<sup>th</sup> Street Station Area Plan. The Initial Study identified that, although all of California is typically regarded as seismically active, the Central Valley region does not commonly experience strong ground shaking resulting from earthquakes, and the potential for ground-shaking hazards within the city is low. The Initial Study also identified that the project site for the 65<sup>th</sup> Street Station Area Plan is not located within an area of poorly consolidated to unconsolidated soils that could result in seismic hazards such as liquefaction.

The Opus at Folsom and Elvas project site is located within the 65<sup>th</sup> Street Station Area Plan. There have been no substantial changes to the physical setting of the project site or vicinity that would result in the proposed project having new significant impacts related to geology and soils that were not previously considered or that would substantially increase the severity of previously identified impacts.

## Relevant Changes to Project Related to Geology and Soils

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing in the form of a new 6-story, 74-foot-tall building with associated landscaping, utilities, and other site improvements. These relevant changes are discussed in detail below.

## Comparative Impacts Discussion

The Initial Study of the EIR determined that, due to the project site for the 65<sup>th</sup> Street Station Area Plan's location in an area with a low ground-shaking and liquefaction risk, impacts resulting from seismic ground shaking would not be expected to occur. The analysis determined that the proposed circulation improvements identified in the plan would not increase the possible risks from seismic activity. The analysis determined that erosion control during construction would be subject to the guidelines set forth in the City Code and implementation of best management practices. Due to the low probability for subsidence to occur due to dewatering in the project area, the analysis determined that the risk of structural damage due to subsidence in is considered minimal. The analysis determined that there are no unique geological or topographical features in the project site for the 65<sup>th</sup> Street Station Area Plan that would be adversely affected by construction

or operation of the plan, and, therefore, impacts resulting from seismic, soils, or geologic conditions would be less than significant, and no mitigation would be required.

The proposed alteration to the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations would have similar or lesser physical effects compared to the roadway improvements evaluated in the Initial Study that were determined to have a less-than-significant impact related to geology and soils. The change from a vehicular roadway to an open space corridor or a future bike/pedestrian/tram corridor would result in no new or greater potential impacts related to seismic, soils, or geologic conditions than what was evaluated in the EIR. Consequently, this project change would not result in new significant adverse impacts related to geology and soils or result in significant impacts that are substantially more severe than impacts previously disclosed.

The proposed project would also develop a 6-story residential building intended to house students at nearby Sacramento State. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed development of the project site evaluated in the 2035 General Plan Master EIR.

The 2035 General Plan Master EIR indicates that ground shaking could occur periodically in Sacramento as a result of distant earthquakes. The Master EIR further states that the earthquake resistance of any building is dependent on an interaction of seismic frequency, intensity, and duration with the structure's height, condition, and construction materials. Although the project site is not located near any active or potentially active faults, strong ground shaking could occur at the project site during a major earthquake on any of the major regional faults.

The State of California provides minimum standards for building design through the California Building Standards Code (CBSC) (Title 24 of the California Code of Regulations). The CBSC is based on the federal Uniform Building Code (UBC) but is more detailed and stringent than the federal UBC. Specific minimum seismic safety requirements are set forth in Chapter 23 of the CBSC. The state earth protection law (California Health and Safety Code Section 19100 et seq.) requires that buildings be designed to resist stresses produced by lateral forces caused by earthquakes. Earthquake resistant design and materials are required to meet or exceed the current seismic engineering standards of the CBSC Seismic Risk Zone 3 improvements. The proposed project would be required to comply with CBSC requirements and the City's 2035

General Plan and Master EIR, which require project applicants to prepare site-specific geotechnical evaluations and conformance with Title 24 of the California Code of Regulations. The proposed residential building would be constructed in accordance with these requirements.

Portions of the city, including the project site, are underlain by artificial fill and alluvial deposits that, in their present states, could become unstable during seismic ground motion. To reduce the primary and secondary risks associated with seismically-induced groundshaking, it is necessary to take the location and type of subsurface materials into consideration when designing foundations and structures. In Sacramento, commercial, institutional, and large residential buildings and all associated infrastructure are required to reduce the exposure to potentially damaging seismic vibrations through seismic resistant design, in conformance with Chapter 16, Structural Design Requirements of the CBSC. Further, adherence to the site-specific soil and foundation seismic design requirements in Chapters 16 and 18 of the CBSC and the grading requirements in Chapters 18 of the CBSC, as required by City and state law, ensures the maximum practicable protection available from soil failures under static or dynamic conditions for structures and their associated infrastructure, trenches, temporary slopes, and foundations.

Based on an existing regulatory framework that addresses earthquake safety issues and requires adherence to the requirements of the CBSC and design standards, seismically-induced groundshaking and liquefaction would not be a substantial hazard in the project site. In view of the above, the proposed project would have a less-than-significant impact regarding exposure of people or structures to seismic hazards, such as surface rupture, groundshaking, and liquefaction, and no additional significant environmental effects would occur beyond those previously analyzed in the Master EIR.

Construction activities would involve excavating, filling, moving, grading, and temporarily stockpiling soils onsite, which would expose site soils to erosion from wind and surface water runoff. The City has adopted standard measures to control erosion and sediment during construction, and all projects in the City are required to comply with the City's Standard Construction Specifications for Erosion and Sediment Control. The proposed project would comply with the City's standards set forth in the "Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control." The proposed project would also comply with the City's grading ordinance, which specifies construction standards to minimize erosion and runoff.

Because the proposed project would be required to comply with federal, state, and local construction standards, it would not expose people or structures to the risk of loss, injury, or death due to geologic or seismic hazards. However, per City requirements (2035 Master EIR Policy EC 1.1.2), a geotechnical investigation of the site is required. Since the geotechnical investigation has not been completed to verify onsite geologic conditions, the impact with respect to geology and soils is potentially significant. Implementation of Mitigation Measure GEO-1 described below would reduce the impact to less than significant.

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

No applicable mitigation measures.

## Additional Opus at Folsom and Elvas Mitigation Measures

Mitigation Measure GEO-1

Prior to issuance of a building permit, the project applicant shall conduct a geotechnical investigation of the project site to determine the potential for ground rupture, earth shaking, and liquefaction due to seismic events, as well as expansive soils problems. As required by the City, recommendations identified in the geotechnical report for the proposed development shall be implemented.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts related to geology and soils, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to geology and soils from the proposed project would not require the preparation of a subsequent EIR.

# 3.7 Greenhouse Gas Emissions

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	No	No	No	Not Applicable*
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No	No	No	Not Applicable*

#### **Discussion**

## Relevant Changes to Environmental Setting

The project site, which is a within the region of project sites addressed in the 65<sup>th</sup> Street Station Area Plan EIR, has remained largely unchanged since the certification of the EIR in 2010. There have been no substantial changes to the 65<sup>th</sup> Street Station Area Plan EIR area or the project site that would result in the proposed project having new significant impacts to related to greenhouse gas (GHG) emissions that were not considered in the prior environmental documents or that substantially increase the severity of a previously identified impacts.

# Relevant Changes to Project Related to Greenhouse Gas Emissions

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

## Comparative Impacts Discussion

#### **Greenhouse Gas Emissions**

#### **Construction**

The 65<sup>th</sup> Street Station Area Plan EIR did not quantify construction related greenhouse gas emissions associated with the transportation network improvements.

Construction activities to develop an open space corridor on the project site that would be sized to accommodate potential future bike/pedestrian/tram operations would be similar to the construction activities required to develop a future 67<sup>th</sup> Street roadway connection within the same footprint. Consequently, this project change would not result in new significant adverse impacts related to construction emissions of greenhouse gases or result in significant impacts that are substantially more severe than impacts previously disclosed.

Construction of the proposed student housing would produce short-term emissions from operation of heavy equipment, employee vehicles, excavation for infrastructure and building foundations, application of architectural coatings, and paving.

Construction emissions were estimated using the methods contained in SMAQMD's *Guide to Air Quality Assessment in Sacramento County*. <sup>5</sup> CalEEMod version 2016.3.2 was used to quantify construction emissions from off-road equipment, haul trucks, on-road worker vehicle emissions, and vendor delivery trips. The annual construction greenhouse gas emissions for each construction year can be found in **Table GHG-1**. The table compares emissions from the construction schedule for the proposed student housing to SMAQMD's GHG construction thresholds.

TABLE GHG-1
PROJECT CONSTRUCTION EMISSIONS<sup>1,2</sup>

Construction Year	CO₂e (metric tons/year)
2021	109.36
2022	363.70
2023	32.24
SMAQMD Thresholds	1,100
Maximum Emissions	363.70
Significant (Yes or No)?	No

#### NOTES

ppd = pounds per day; tpy = tons per year

SOURCE: ESA. 2021.

As shown in Table GHG-1, construction GHG emissions would not exceed the SMAQMD significance thresholds during the any year of construction activity. Therefore, the construction impact associated with the increase of greenhouse gas emissions would not result in a new significant adverse impact or result in significant impacts that are substantially more severe than impacts previously disclosed.

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<sup>1</sup> Project construction emissions estimates were made using CalEEMod version 2016.3.2. See Appendix A for model outputs and more detailed assumptions.

<sup>2</sup> Values in **bold** are in excess of the applicable SMAQMD significance threshold.

Sacramento Metropolitan Air Quality Management District, 2019. Guide to Air Quality Assessment. Updated July 2019.

#### **Operations**

The proposed alteration of the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor would result in a redistribution of traffic that might otherwise have used this corridor. However, redistribution of traffic is a localized impact and would not change the regional operational GHG emissions associated with traffic. Consequently, this project change would not result in new significant adverse impacts related to operational emissions of greenhouse gases or result in significant impacts that are substantially more severe than impacts previously disclosed.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumes all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

Because the proposed student housing would be consistent with the 2035 General Plan, it is therefore consistent with the General Plan assumptions with regard to cumulative growth and vehicle trip generation. Therefore, the proposed student housing would not result in new significant adverse impacts from operational traffic emissions or result in significant impacts that are substantially more severe than impacts previously disclosed.

The proposed student housing would produce emissions from operation of the building. To calculate emissions, CalEEMod was used to estimate annual operational greenhouse gas emissions from direct sources such as use consumer products, application of architectural coatings, natural gas use and from indirect sources such as energy consumption, water use, and wastewater generation. The results of this analysis are summarized in **Table GHG-2**. Estimated emissions are compared to SMAQMD significance thresholds.

TABLE GHG-2
PROJECT OPERATIONAL EMISSIONS<sup>1</sup>

Source	CO₂e (metric tons/year)
Area	2.47
Energy	238.50
Waste	33.08
Water	23.73
Total Emissions	297.78
SMAQMD Thresholds <sup>2</sup>	1,100
Significant (Yes or No)?	No

#### NOTES:

ppd = pounds per day; tpy = tons per year

<sup>1</sup> Project operational emissions estimates were made using CalEEMod version 2016.3.2. See Appendix A for model outputs and more detailed assumptions.

As shown in Table GHG-2, emissions of greenhouse gases would not exceed SMAQMD's significance thresholds, however, SMAQMD requires all projects to demonstrate consistency with the Climate Change Scoping Plan by implementing applicable Best Management Practices (BMP), or equivalent on-site or off-site mitigation. All projects must implement tier 1 Best Management Practices:

- BMP 1 projects shall be designed and constructed without natural gas infrastructure.
- BMP 2 projects shall meet the current CalGreen Tier 2 standards, except all electric vehicle capable spaces shall instead be electric vehicle ready.

Because the proposed student housing would implement BMP 1 and BMP 2. Therefore, the proposed student housing would not result in new significant adverse impacts from operational emissions or result in significant impacts that are substantially more severe than impacts previously disclosed.

## Consistency with Plans, Policies, and Regulations

The 65<sup>th</sup> Street Station Area Plan EIR did not evaluate the proposed project for consistency with applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gas emissions associated with the transportation network improvements.

CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. As described below, the project would be consistent with the following plans and regulations:

- 2017 Scoping Plan Update;
- California Assembly Bill 1826;
- The policies and programs as presented in Appendix B of the 2035 General Plan and Climate Action Plan;
- The Mayors' Commission on Climate Change's Achieving Carbon Zero in Sacramento and West Sacramento by 2045 Draft Report;
- The City of Sacramento Pedestrian Master Plan;
- The City of Sacramento Bicycle Master Plan; and
- The City of Sacramento Zoning Requirements for Bicycle Parking.

#### Consistency with 2017 Scoping Plan Update

The 2017 Scoping Plan Update establishes the framework for achieving the 2030 statewide GHG reduction target of 40 percent below 1990 levels. The plan update details local actions that land use development projects and municipalities can implement to support the statewide goal. For project-level CEQA analyses, the 2017 Scoping Plan Update states that projects should implement feasible mitigation, preferably measures

that can be implemented onsite. Many of the project features align with these actions and would contribute to direct and indirect reduction of GHG emissions.

The Scoping Plan Update incorporates a broad array of regulations, policies, and state plans designed to reduce GHG emissions. Those that are applicable to the construction and operation of the proposed project are listed in **Table GHG-3**. As shown below, the proposed project would implement sustainability features and incorporate characteristics to reduce energy use, conserve water, reduce waste generation, and reduce vehicle travel consistent with statewide strategies and regulations. As a result, the proposed project would not conflict with applicable Climate Change Scoping Plan strategies and regulations to reduce GHG emissions.

#### Consistency with California Assembly Bill 1826

Assembly Bill (AB) 1826 requires multi-family complexes, which applies to the proposed off-campus housing element, that generate specified amounts of organic waste (compost) to arrange for organics collection service. If the proposed project were to generate four or more cubic yards of organic materials, the project applicant would arrange for organics collection, therefore, the project would be compliant with AB 1826.

TABLE GHG-3
CONSISTENCY WITH APPLICABLE GREENHOUSE GAS REDUCTION ACTIONS IN 2017 SCOPING PLAN UPDATE

Sector / Source	Category / Description	Consistency Analysis
Energy and Water		
California Renewables Portfolio Standard (RPS)	SB 100 requires that the proportion of electricity from renewable sources be 60 percent renewable power by 2030 and 100 percent renewable power by 2045.	Consistent. The proposed project's electricity will be provided by SMUD. SMUD is required to comply with SB 100 and the RPS.
California Renewables Portfolio Standard and SB 350	SB 350 requires that the proportion of electricity from renewable sources be 50 percent renewable power by 2030 (superseded by SB 100). It also requires the state to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.	Consistent. The proposed project's electricity will be provided through SMUD. SMUD is required to comply with both the RPS and SB 350 and will meet these standards.
California Building Efficiency Standards (CCR, Title 24, Part 6)	Energy Efficiency Standards for Residential and Nonresidential Buildings.	Consistent. Buildings constructed within the project site would be designed to comply with the applicable Title 24 Building Energy Efficiency Standards.
California Green Building Standards Code (CCR, Title 24, Part 11 - CALGreen)	California's Green Building Standards (CALGreen) Code includes energy and water efficiency requirements, as well as waste management and other design regulations that apply to residential buildings.	<b>Consistent.</b> Buildings constructed within the project site would comply with mandatory CalGreen measures.
Senate Bill X7-7	The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020.  Each urban retail water supplier shall develop water use targets to meet this goal.	Consistent. Water delivered to the project site would be supplied by the City of Sacramento Department of Utilities, which is required to comply with SB X7-7 and would meet these standards.

# TABLE GHG-3 CONSISTENCY WITH APPLICABLE GREENHOUSE GAS REDUCTION ACTIONS IN 2017 SCOPING PLAN UPDATE

Sector / Source	Category / Description	Consistency Analysis
Mobile Sources		
Advanced Clean Cars Program (ACC) and Mobile Source Strategy (MSS)	In 2012, CARB adopted the Advanced Clean Cars (ACC) program to reduce criteria pollutants and GHG emissions for model year vehicles 2015 through 2025. ACC includes the that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years. The Mobile Source Strategy (2106) calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) on the road by 2025, and 4.2 million ZEVs by 2030.	Consistent. The standards would apply to all vehicles used by the residents and employees of the proposed project, and to construction workers traveling to and from the project site as required by CalGreen. The proposed project would include slow charging units in each garage (90), rapid chargers in the parking lot, and additional infrastructure in the parking lot to accommodate future EV charging stations (30).
SB 375 and the SACOG MTP/SCS	SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector 2035. SACOG's MTP/SCS calls for GHG reductions from passenger vehicles and light-duty trucks of 19 percent below 2005 levels by 2035.	Consistent. The proposed project appears to be consistent with SACOG MTP/SCS goals and objectives under SB 375 to implement "smart growth." The proposed project would construct off-campus housing for students and support the 65 <sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation.
Solid Waste		
California Integrated Waste Management Act (IWMA) of 1989 and Assembly Bill (AB) 341	The IWMA mandated that state agencies develop and implement an integrated waste management plan which outlines the steps to be taken to divert at least 50 percent of their solid waste from disposal facilities. AB 341 directs CalRecycle to develop and adopt regulations for mandatory commercial recycling and sets a statewide goal for 75 percent disposal reduction by the year 2020.	Consistent. The proposed project would be served by a solid waste collection and recycling service that may include mixed waste processing, and that yields waste diversion results comparable to source separation and consistent with Citywide recycling targets. The City of Sacramento has a goal to achieve 75 percent waste diversion by 2020 and zero waste to landfills by 2040.

#### Consistency with the City of Sacramento 2035 General Plan and Climate Action Plan

The 2035 General Plan incorporated the City's Climate Action Plan strategies, measures, and actions that reduce GHG emissions. Those policies that are applicable to the construction and operation of the proposed project are listed in **Table GHG-4**. As shown below, the proposed project would implement sustainability features and incorporate characteristics to reduce energy use, conserve water, and promote the use of alternative modes of transportation consistent with the City of Sacramento's policies. As a result, the project would not conflict with applicable 2035 General Plan and Climate Action Plan policies to reduce GHG emissions.

SOURCE: ESA 2021.

TABLE GHG-4
CONSISTENCY WITH CITY OF SACRAMENTO GENERAL PLAN AND CLIMATE ACTION PLAN

General Plan Policy	Description	Consistency Analysis
Policy LU 5.5.1	Urban Centers. The City shall promote the development of a series of urban centers, as designated in the Land Use & Urban Form Diagram, that create significant opportunities for employment, housing, and commercial activity in areas outside of the Central Business District	Consistent. The proposed project would develop approximately 137 off-campus student dwelling units in close proximity to commercial retail development. As the proposed project would be built on underutilized land and would be located near to SacRT's light rail, it would encourage the use of public transportation that could reduce vehicle trips.
Policy LU 5.1.2	Centers Served by Transit. The City shall promote the development of commercial mixed-use centers that are located on existing or planned transit stops in order to facilitate and take advantage of transit service, reduce vehicle trips, and enhance community access	Consistent. The proposed project would develop off-campus housing in close proximity to California State University, Sacramento. The proposed project would also located near to SacRT's light rail, which could reduce vehicle trips and commute times.
Policy M 5.1.5	Motorists, Bicyclists, and Pedestrian Conflicts. City shall develop safe and convenient bikeways, streets, roadways, and intersections that reduce conflicts between bicyclists and motor vehicles on streets, between bicyclists and pedestrians on multi-use trails and sidewalks, and between all users at intersections.	<b>Consistent.</b> The proposed project would alter the cross section of 67 <sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor.
Policy U 2.1.10	Water Conservation Standards. The City shall achieve a 20 percent reduction in per-capita water use by 2020 consistent with the State's 20x2020 Water Conservation Plan (California Water Resources Control Board, 2010).	<b>Consistent.</b> The proposed project would be required to be consistent with the State's 20x2020 Water Conservation Plan.
Policy U 2.1.15	Landscaping. The City shall continue to require the use of water-efficient and river-friendly landscaping in all new development, and shall use water conservation gardens (e.g., Glen Ellen Water Conservation Office) to demonstrate and promote water conserving landscapes.	Consistent. Project landscaping would include plants that are drought tolerant, native to California or other Mediterranean climates, or other low water use species. High efficiency irrigation systems with water-efficient sprinkler heads, and smart controllers will be used.
Policy U 6.1.16	Energy Efficiency Appliances. The City shall encourage builders to supply Energy STAR appliances and HVAC systems in all new residential developments.	Consistent. All residences would be equipped with Energy Star certified appliances (dishwashers and refrigerators). Energy efficient LED light fixtures would be installed within the residences and office suites and for exterior lighting.

# Consistency with the Mayors' Commission on Climate's Achieving Carbon Zero in Sacramento and West Sacramento by 2045 Draft Report

As discussed above, the Mayors' Commission on Climate published the Achieving Carbon Zero in Sacramento and West Sacramento by 2045 Draft Report, which aims to reduce contributions to climate change by achieving "Carbon Zero" in the City of Sacramento and the City of West Sacramento. The report includes various recommendations, which would reduce carbon emissions from the built environment and the transportation sector, as well as through community health and resiliency efforts. The proposed project would be consistent with the recommendations included in the

Achieving Carbon Zero in Sacramento and West Sacramento by 2045 Draft Report as it is characterized as infill development, located in close proximity to commercial retail development and alternative transit opportunities, including SacRT's light rail. In addition, the proposed project design includes landscaping which would contribute to urban greening and forestry within the community. These project characteristics and project design features make the proposed project consistent with the applicable recommendations described in the Mayors' Commission on Climate's Achieving Carbon Zero in Sacramento and West Sacramento by 2045 Draft Report.

## **Consistency with the City of Sacramento Pedestrian Master Plan**

The City of Sacramento Pedestrian Master Plan includes goals and policies to improve the pedestrian environment throughout the City. The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor. Therefore, the proposed project would not conflict with the goals to create a walkable pedestrian environment, increase walking awareness, and increase pedestrian safety; and the proposed project would be consistent with the Pedestrian Master Plan.

#### Consistency with the City of Sacramento Bicycle Master Plan

The Bicycle Master Plan includes four main goals to enhance the bikeway system throughout the City, encourage bicycle use, and decrease VMT per capita. **Table GHG-5**, below, demonstrates the proposed project's consistency with the goals of the Bicycle Master Plan. The proposed project would not conflict with the four goals of the Bicycle Master Plan, therefore, the proposed project would be considered consistent with the Bicycle Master Plan.

#### Consistency with the City of Sacramento Zoning Code for Bicycle Requirements

The City of Sacramento's Zoning Code establishes bicycle parking requirements by both land use and parking district. The proposed project is located in the Folsom parking district, which identifies the project site as having a "center" urban form designation. According to the City of Sacramento City Council Zoning Code Parking Update Report, the proposed project would be required to provide 0.10 short-term bicycle parking spaces per dwelling unit on the project site.<sup>6</sup> The project would include the required amount of bicycle parking spaces, therefore, the proposed project would be consistent with the City of Sacramento Zoning Code for Bicycle Requirements.

The proposed project would implement sustainability measures so that it would be consistent with all applicable GHG reduction strategies. Therefore, the impact would be considered less than significant.

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<sup>6</sup> City of Sacramento, 2012. Zoning Code Parking Update (LR11-005) (Passed for publication on 10-23-12, published on 10-26-12). Available at https://www.cityofsacramento.org/-/media/Corporate/Files/CDD/Planning/Zoning/Council\_Report\_1031121.pdf?la=en. Accessed May 4, 2021.

# TABLE GHG-5 CONSISTENCY WITH THE CITY OF SACRAMENTO BICYCLE MASTER PLAN

Goal	Description	Consistency Analysis
Increase Ridership	7% bicycle mode share for commuting by 2020	Consistent. As shown in the Bicycle Master Plan, the project site is located near Class I Bike Paths and Class II Bike Lanes. Additionally, the proposed project is located near California State University, Sacramento which should encourage bicycle ridership.
Increase Safety	Zero bicyclist fatalities by 2020	Consistent. The proposed project is located an area with a low number of bicycle collisions, as shown in the Bicycle Master Plan. In addition, the proposed project would alter the cross section of 67 <sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor.
Increase connectivity	Double the percentage of residents that can conveniently reach a continuous low-traffic-stress bikeway network by 2025	Consistent. The proposed project site is located near Class I Bike Paths and Class II Bike Lanes. Further, the proposed project would alter the cross section of 67th Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor.
Increase equity	Equitable investments in bicycling facilities and programs for all neighborhoods by 2020	<b>Consistent.</b> The Bicycle Master Plan prioritizes bicycle facility improvements to improve accessibility for all Sacramentans. As discussed, the proposed project would add a bike corridor.

#### SOURCES:

City of Sacramento, 2018. City of Sacramento Bicycle Master Plan. Approved August 16, 2016; Amended August 14, 2018. Available: http://www.cityofsacramento.org/-/media/Corporate/Files/Public-Works/Transportation/Active-Transportation/Sacramento-BMP-Amended-201808.pdf?la=en. Accessed May 4, 2021.

ESA 2021.

## **Mitigation Measures**

# 65th Street Station Area Plan EIR Mitigation Measures

No applicable mitigation measures.

## Additional Opus at Folsom and Elvas Mitigation Measures

None required.

# **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to greenhouse gas or climate change, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially

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reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to greenhouse gas or climate change from the proposed project would not require the preparation of a subsequent EIR.

# 3.8 Hazards and Hazardous Materials

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No	No	No	Yes
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No	No	No	Yes
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No	No	No	Yes
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?	No	No	No	Yes
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	No	No	Yes
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No	No	No	Yes
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No	No	No	Yes

## **Discussion**

## Relevant Changes to Environmental Setting

Potential impacts related to hazards and hazardous materials were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Initial Study identified that the project site for the 65<sup>th</sup> Street Station Area Plan contains a range of uses, including light industrial, residential, office, warehouse, open storage yards, park land,

and vacant areas. Hazardous materials within the project area include fuel in aboveground and underground storage tanks, oil, waste oil, solvents, paints and thinners, printing materials, office materials, pesticides, and household maintenance materials. In addition, the analysis identified that SMUD transformers within the project area may contain polychlorinated biphenyls (PCBs), and older buildings within the project area are likely to contain asbestos-containing materials (ACMs) and/or lead-based paint. The analysis identified that several sites in the project area have been identified by the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), the California Environmental Protection Agency (Cal EPA) or the State Water Resources Control Board (SWRCB) as having hazardous substance releases or Leaking Underground Storage Tanks (LUSTs).

The Opus at Folsom and Elvas project site is located within the project site for the 65<sup>th</sup> Street Station Area Plan at the northwest corner of Folsom Boulevard and Elvas Avenue. The project site is currently occupied by a car wash, a gymnasium, a take-out restaurant, and a gravel parking lot. Information relating to hazardous materials on the project site was collected by conducting a review of the Cal EPA Cortese List Data Resources (Cortese List). The Cortese list includes the following data resources that provide information regarding the facilities or sites identified as meeting the Cortese list requirements: the list of Hazardous Waste and Substances sites from the California Department of Toxic Substances Control (DTSC) EnviroStor database; the list of LUST sites from GeoTracker database; the list of solid waste disposal sites identified by the SWRCB; the list of active Cease and Desist Orders and Cleanup and Abatement Orders from the SWRCB; and the list of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code identified by DTSC. The Cortese List is a reporting document used by the state, local agencies, and developers to comply with CEOA requirements in providing information about the location of hazardous materials release sites. The Cortese List is updated at least annually, in compliance with California regulations (California Code Section 65964.6(a)(4)). The Cortese List includes federal superfund sites, state response sites, non-operating hazardous waste sites, voluntary cleanup sites, and school cleanup sites. Based on a review of the Cortese List conducted on August 18, 2021, neither the project site nor any other site within approximately 0.5 miles of the project site is on the list.<sup>7</sup>

There have been no substantial changes to the project site or vicinity that would result in the proposed project having new significant impacts related to hazards and hazardous materials that were not previously considered or that would substantially increase the severity of previously identified impacts.

## Relevant Changes to Project Related to Hazards and Hazardous Materials

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail

California Department of Toxic Substances Control, 2021. EnviroStor Database. California Department of Toxic Substances Control. DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List). Available: https://www.envirostor.dtsc.ca.gov/public/. Accessed August 18, 2021.

station. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

## Comparative Impacts Discussion

#### **Accidental Release**

The Initial Study of the EIR determined that construction of the proposed transportation improvements would involve the use of various products that could contain materials classified as hazardous (e.g., solvents, adhesives and cements, certain paints, cleaning agents and degreasers). Fuels, such as gasoline and diesel, would also be used in heavy equipment and other construction vehicles.

The analysis identified that the potential for spills or inadvertent releases of hazardous materials during construction that could adversely affect people or the environment would be minimal. The use and storage of such products is subject to applicable hazardous materials regulations. Standard contract specifications would also contain specific provisions regarding the use of these products and compliance with applicable regulations and standards. Because applicable hazardous materials laws and regulations would be implemented as standard procedure for the proposed project through contractor specifications and monitored by the contractor and City staff, the analysis determined that the impact of construction-related hazardous chemical use and storage would be less than significant with no mitigation required.

The analysis identified that operation of the transportation improvements over the long-term would not result in any additional risks along area roadways than what currently exists because additional traffic carrying hazardous materials is not expected to occur as a result of the proposed transportation improvements. Current traffic volumes along project area roadways would remain approximately the same as under existing conditions. The percentage of vehicles transporting hazardous materials would be approximately the same under the proposed project as under existing conditions because the proposed project would not change land uses in the project area. The analysis determined that potential impacts resulting from accidental release of hazardous materials would be less than significant with no mitigation required.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluated the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumed that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR.

The Master EIR evaluated effects of development on hazardous materials. The Master EIR determined that development pursuant to the General Plan may result in the exposure of people to hazards and hazardous materials during construction activities, and exposure of people to hazards and hazardous materials during the life of the general plan. Impacts identified related to construction activities and operations were found to be less than significant. Policies included in the 2035 General Plan, including PHS 3.1.1 (investigation of sites for contamination) and PHS 3.1.2 (preparation of hazardous materials actions plans when appropriate) were determined to be effective in reducing the identified impacts.

Consistent with the project evaluated in the 65<sup>th</sup> Street Station Area Plan EIR construction activities on the project site would involve the transport and use of fuels, lubricants, paint, solvents, and other potentially hazardous materials to the project site during construction. Relatively small amounts of these commonly used hazardous substances would be used on site for construction and equipment maintenance. An array of federal, state, and local laws regulate the transport, management, storage, and use of hazardous materials. These laws are enforced by various City, County, and State departments. Consequently, use of these materials during project construction, for their intended purpose, in compliance with federal, state, and local laws, would not pose a significant risk to the public or environment.

During project operations, the transport, storage, use, and/or disposal of hazardous materials would be limited to common hazardous materials, typical of residential uses (e.g., cleaning agents, paints and thinners, fuels, insecticides, herbicides, etc.). Although limited quantities of hazardous materials can be found in most residential buildings, the use of such substances would not occur in quantities that would present a significant

hazard to the environment or the public. Therefore, construction and operation of the project, in compliance with existing regulations, would not expose people (e.g., pedestrians, construction workers) to asbestos-containing materials or other hazardous materials. This impact is considered to be less than significant, and no additional significant environmental effects would occur beyond those previously analyzed in the 65<sup>th</sup> Street Station Area Plan EIR.

### **Emergency Access**

The Initial Study identified that during project construction it may be necessary to restrict travel on certain roadways within the project area to facilitate construction activities such as demolition, material hauling, construction, equipment staging, and modifications to existing infrastructure. Such restrictions could include lane closures, lane narrowing, and detours, which would be temporary, but could continue for extended periods of time. Lane restrictions, closures, and/or detours could cause an increase in traffic volumes on adjacent roadways. In the event of an emergency, emergency response access or response times could be adversely affected. To prevent interference with emergency response, the City requires all development projects to prepare Traffic Management Plans for construction activities, as required by sections 12.20.020 and 12.20.030 of the Sacramento City Code. Compliance would ensure that construction impacts interfering with emergency response are minimized by identifying alternative emergency routes, if necessary, during construction.

The analysis also noted that operational conditions with implementation of the 65<sup>th</sup> Street Station Area Plan are expected to enhance emergency evacuation routes by extending roadways and providing more evacuation options. The analysis determined that potential impacts related to emergency evacuation would be less than significant with no mitigation required.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluated the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumed that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR.

The proposed project must comply with all building, fire, and safety codes and specific development plans would be subject to review and approval by the City's Public Works Department and the Sacramento Fire Department (SFD). Required review by these departments would ensure that the proposed circulation system for the project site would provide adequate emergency access. This impact is considered less than significant, and

no additional significant environmental effects would occur beyond those previously analyzed in the 65<sup>th</sup> Street Station Area Plan EIR.

#### **Health Hazards**

The Initial Study identified that construction and operation of the proposed project could increase the amount of oil, grease, gasoline, and other contaminants on roadways, and stormwater runoff could carry these contaminants into local waterways including surface water and groundwater. The analysis referred the reader to Item 5, Water, in the Initial Study for a full discussion regarding water quality. Water quality is addressed in Section 3.9, Hydrology and Water Quality, of this addendum.

The Initial Study identified that asbestos and lead-based paint are substances that have been proven to cause deleterious health effects and were prohibited for use as construction materials by federal regulations starting in 1981. Because the project area contains many buildings constructed before 1981, the analysis determined that buildings in the project area may contain asbestos and/or lead-based paint, and implementation of the 65<sup>th</sup> Street Station Area Plan could result in the demolition of some of those structures. The analysis noted that the extension of 67th Street to the Sacramento State campus for a pedestrian/tram tunnel would remove two buildings along Elvas Avenue. The analysis identified that various regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos and lead have been adopted for demolition activities, including Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 902 pertaining to asbestos abatement, Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the California Code of Regulation (CCR), Part 61, Subpart M of the CFR (pertaining to asbestos), and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development (HUD). In California, asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the State Department of Health Services. In addition, the analysis identified that the California Occupational Safety and Health Administration (Cal/OSHA) has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

The Initial Study identified that implementation of the 65<sup>th</sup> Street Station Area Plan would involve excavation, which could expose workers or the public to soil that may have been contaminated by hazardous substance releases or leaking underground fuel tanks. The analysis identified that the deepest excavation expected to occur as a result of the proposed transportation improvements would be the railroad under crossings from Elvas Avenue to Sacramento State, from the Broadway extension to Ramona Avenue, and San Joaquin Street to Ramona Avenue. The analysis identified that none of these improvements would extend through an area where there is a known LUST. Construction of the Ramona Avenue extension from the Ramona Avenue elbow to 14<sup>th</sup> Avenue would extend through the former 14<sup>th</sup> Avenue Landfill site. The analysis identified that the

exposure of the waste to moisture would cause the production of potentially harmful gases such as methane, carbon dioxide, nitrogen, and hydrogen sulfide. Excavation of soils contaminated by the landfill waste could also pose a health risk to the public. The analysis determined that if any unidentified sources of contamination are encountered during demolition, grading, or excavation or if construction through the former 14<sup>th</sup> Avenue Landfill occurs, Mitigation Measures MM-10 and MM-11 would be implemented to reduce this impact to a less-than-significant level with mitigation incorporated.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluated the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumed that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR.

As discussed above, there are no active hazardous materials sites within the project site. Therefore, excavation and earth moving activities during construction are not anticipated to expose construction workers and/or the general public to unusual or excessive risks related to contaminated soils. However, the absence of chemicals of concern on the project site cannot be entirely discounted without further study. As a result, it is still possible that construction workers and/or the general public could be exposed to unusual or excessive risks related to contaminated soils. Mitigation Measure MM-10, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would be implemented as part of the proposed project to ensure that impacts to these resources would be less than significant.

MM-11, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, is applicable to work occurring on the site of the former 14<sup>th</sup> Avenue Landfill, including the extension of Ramona Avenue from the Ramona Avenue elbow south to 14<sup>th</sup> Avenue. This location is approximately 1 mile southeast of the Opus at Folsom and Elvas project site. Therefore, MM-11 is not applicable to the Opus at Folsom and Elvas project.

#### Wildfire Risks

The Initial Study identified that the project area is located in an existing urban environment which does not include open wildlands subject to wildfires, and impacts would be less than significant with no mitigation required. This conclusion remains applicable for the Opus at Folsom and Elvas project.

#### **Airports**

The 65<sup>th</sup> Street Station Area Plan EIR did not address impacts related safety hazards or excessive noise projects located within an airport land use plan or within two miles of a public airport or public use airport. However, the Opus at Folsom and Elvas project site is not located within an airport land use plan or within two miles of a public airport or public use airport. There would be no impact under this significance criterion.

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

#### **MM-10**

If discolored soil, storage tanks, or other evidence of potential soil contamination is unearthed during construction-related earthwork, or if noxious odors are encountered during such earthwork, construction activities shall immediately cease at the construction site, and a qualified firm shall be called in by the applicant to collect and analyze soil samples from the construction site. If contaminants are identified in the samples, the applicant shall coordinate with the Sacramento County Hazardous Materials Division, or the appropriate agencies, for direction on appropriate remediation measures and procedures before construction activities are continued.

#### Additional Opus at Folsom and Elvas Mitigation Measures

None required.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to hazards and hazardous materials, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to hazards and hazardous materials from the proposed project would not require the preparation of a subsequent EIR.

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# 3.9 Hydrology and Water Quality

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	No	No	No	Yes
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No	No	No	Yes
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:	No	No	No	Yes
	i) result in substantial erosion or siltation on- or off-site;	No	No	No	Yes
	ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No	No	No	Yes
	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	No	No	No	Yes
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No	No	No	Yes
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No	No	No	Yes

## **Discussion**

## Relevant Changes to Environmental Setting

Potential impacts related to hydrology and water quality were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Initial Study identified that the project site for the 65<sup>th</sup> Street Station Area Plan is located less than a quarter mile from the American River, one of the largest sources of surface water in the city of Sacramento. The American River watershed encompasses approximately 1,900 square miles and is a

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tributary of the Sacramento River. The city is located within the North and South American River groundwater subbasins, within the larger Central Valley groundwater basin. In general, groundwater levels in the vicinity of the city are reported to be stable, between 20 feet above and 40 feet below sea level, and have fluctuated less than ten feet since the 1970s.

The Initial Study identified that recharge to the local aquifer system occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly the American and Sacramento river channels. Other sources of recharge within the city include inflow of groundwater generally from the northeast; subsurface recharge from fractured geologic formations to the east; and deep percolation from applied surface water and precipitation on open space areas and small streams.

The Initial Study identified that ambient water quality in the Sacramento and American rivers is influenced by numerous natural and artificial sources, including soil erosion, discharges from industrial and residential wastewater plants, stormwater runoff, agriculture, recreation activities, mining, timber harvesting, and flora and fauna. The Initial Study identified that the City of Sacramento has obtained a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board (SWRCB) under the requirements of the Environmental Protection Agency and Section 402 of the Clean Water Act. The goal of the permit is to reduce pollutants found in urban stormwater runoff. The general permit requires the permittee to employ "Best Management Practices" (BMPs) before, during, and after construction. The primary objective of the BMPs is to reduce non-point source pollution into waterways. These practices include BMPs for construction sites.

The Initial Study identified that BMP mechanisms minimize erosion and sedimentation, and prevent pollutants such as oil and grease from entering the stormwater drains. BMPs are approved by City of Sacramento Department of Utilities before projects begin construction.

#### Components of BMPs include:

- Maintenance of structures and roads;
- Flood control management;
- Comprehensive development plans;
- Grading, erosion and sediment control ordinances;
- Inspection and enforcement procedures;
- Educational programs for toxic material management;
- Reduction of pesticide use; and
- Site specific structural and non-structural control measures.

The Initial Study identified that the Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRM) that delineate flood hazard zones for communities. The entire project site for the 65<sup>th</sup> Street Station Area Plan is designated as Zone X, which are areas protected from the 100-year flood by levee, dike, or other structures subject to possible failure or overtopping during larger floods.

The Opus at Folsom and Elvas project site is located within the project site for the 65<sup>th</sup> Street Station Area Plan at the northwest corner of Folsom Boulevard and Elvas Avenue. The project site is currently occupied by a car wash, a gymnasium, a take-out restaurant, and a gravel parking lot. There have been no substantial changes to the project site or vicinity that would result in the proposed project having new significant impacts related to hydrology and water quality that were not previously considered or that would substantially increase the severity of previously identified impacts.

## Relevant Changes to Project Related to Hydrology and Water Quality

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

#### **Comparative Impacts Discussion**

#### **Drainage and Runoff**

The Initial Study identified that future construction of the proposed transportation improvements identified in the 65<sup>th</sup> Street Station Area Plan would involve soildisturbing construction activities, such as grading and excavation. The Initial Study identified that future development projects and associated construction activities would be addressed in more detail in subsequent environmental review. However, the Initial Study stated that, for the purposes of the analysis, it is anticipated that during construction of the project elements, soils that are currently covered by vegetation or impervious surfaces (i.e., parking lots) would be exposed to wind or rain, depending on the time of year that construction would occur. Runoff from construction could increase over existing conditions due to the increased soil exposure. Runoff during construction

would be limited by complying with City Code (Ordinance 15.88.250) which requires the contractor to show erosion and sediment control methods, including methods to control urban runoff pollution, on the improvement plans. Also, as a matter of standard practice, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared prior to construction of any project element and implemented throughout construction activities.

In addition, the Initial Study identified that operation of the proposed project would introduce additional impervious surfaces to the area by providing new roadway segments, widened roadways, sidewalks, and vehicular and/or bicycle under crossings. As a result of the increase in impervious surfaces there would be an increase in runoff, but it is anticipated that runoff patterns and volumes would remain substantially unchanged. All new roadway extensions or connections would be designed to city standards and include stormwater drainage features built into the street section including curbs, gutters, and stormwater facilities.

The Initial Study identified that the project site for the 65<sup>th</sup> Street Station Area Plan is within a drainage area served by City Sump 31 and City Sump 113. The analysis determined that Sump 31 and its trunk pipeline have adequate capacity for both existing and future project conditions. The analysis determined that Sump 113 has adequate capacity for existing conditions, but lacks reliability, including, most importantly, a backup pumping unit. The analysis determined that changes in the amount of impervious surface near Sump 113 could introduce more runoff into Sump 113 and could adversely affect the sump's ability to operate correctly. Specifically, the proposed realignment of 69<sup>th</sup> Street to connect Elvas Avenue directly with Redding Avenue with the addition of a signalized intersection at Folsom Boulevard would add additional impervious surfaces and would directly contribute to additional runoff to Sump 113. The analysis determined that Increased runoff to Sump 113 could result in inadequate stormwater drainage capacity.

The Initial Study identified that the majority of the project site for the 65<sup>th</sup> Street Station Area Plan is built out and the addition of new impervious surfaces would be served by new storm drainage facilities. The analysis anticipated that the addition of new impervious surfaces to the area would not substantially disrupt existing groundwater recharge because recharge to the local aquifer system primarily occurs along active river and stream channels where extensive sand and gravel deposits exist. The new stormwater facilities would be constructed as part of the roadway extensions and widenings would convey the runoff from the new impervious surfaces to stormwater facilities. The analysis anticipated that the increase in impervious surface area, and therefore runoff, would be served by existing and new stormwater facilities. The analysis determined that runoff patterns would be substantially unchanged and water quality impacts would be minimized during construction through compliance with City Code and the SWPPP. However, the analysis determined that the realignment of 69<sup>th</sup> Street to connect Elvas Avenue directly with Redding Avenue with the addition of a signalized intersection at Folsom Boulevard would add additional runoff to Sump 113 and could result in a potentially significant impact. The analysis determined that implementation of Mitigation Measure MM-1 included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area

Plan EIR, would ensure that appropriate upgrades to Sump 113 occur, and implementation of the mitigation measure would reduce runoff impacts to a less-than significant level.

Realignment of 69<sup>th</sup> Street to connect Elvas Avenue directly with Redding Avenue is not a component of the Opus at Folsom and Elvas project. Consequently, Measure MM-1 included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR is not applicable to the proposed project.

#### **Flooding**

The Initial Study identified that, based on the FEMA Zone X designation, the project site for the 65<sup>th</sup> Street Station Area Plan is not subject to flooding from the 100-year storm event. However, the analysis identified that the UPRR railroad embankment serves as a redundant levee, and the extension of a roadway through the railroad embankment/ redundant levee could compromise the structural integrity of the levee. The analysis identified that three proposed roadway extensions through the railroad embankment are possible: 1) the extension of 65<sup>th</sup> Street to Sacramento State, 2) Broadway to Ramona Avenue, or 3) San Joaquin Street to Ramona Avenue. Because the extension of these roadways could compromise the levee redundancy for the area, the impact was determined to be potentially significant. The analysis determined that implementation of Mitigation Measure MM-2 included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would ensure that flood protection remains in place, and implementation of the mitigation measure would reduce flooding impacts to a less-than significant level.

The aforementioned proposed roadway extensions through the railroad embankment are not a component of the Opus at Folsom and Elvas project. Consequently, Measure MM-2 included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR is not applicable to the proposed Opus at Folsom and Elvas project.

#### **Discharges or Alterations of Surface Water Quality**

The Initial Study identified that construction related activities associated with the proposed roadway improvements identified in the 65<sup>th</sup> Street Station Area Plan have the potential to impact water quality. Fuel, oil, grease, solvents, concrete wash, and other chemicals used in construction activities have the potential of creating toxic problems if allowed to enter a waterway. The degree of construction related impacts to water quality is partially determined by the duration of various construction activities, timing of construction, and rainfall distribution. The project is required to comply with the City's Code Ordinance 15.88.250, Erosion and Sediment Control, which requires that an erosion and sediment control plan be prepared for all projects to control surface runoff and erosion. In addition, projects must retain sediment on or within the area of disturbance and prevent pollution of site runoff during the period beginning when any preconstruction-or construction-related grading or soil storage first occurs, until all final improvements and permanent structures are complete. The City shall also require BMPs be employed before, during, and after construction. The Initial Study identified that compliance with

BMP provisions would assure that development and use of the site would result in a less-than significant impact to surface waters and would not result in the alteration of surface water quality. Furthermore, as stated in the Standard Specifications for Public Works Construction, the Contractor is responsible for controlling erosion and sedimentation within the limits of the project site at all times during the course of construction. The Contractor shall implement measures to prevent sediment and construction debris from entering City of Sacramento storm drain systems and shall provide protection around any drain inlets that receive runoff from the limits of the construction zone. For these reasons, construction impacts to water quality would be less than significant.

The Initial Study identified that operational activities could also affect water quality. Stormwater runoff could carry oil, grease, gasoline, and other contaminants from roadways into local waterways. This stormwater runoff is not expected to alter surface water quality or currents of local waterways because the proposed project would be required to upgrade and install necessary storm drain infrastructure to ensure that there would be no adverse impact to surface waters. The project would also be required to adhere to City regulations regarding stormwater runoff volumes and quality.

Existing and new stormwater facilities (i.e., curbs, gutters) included as part of the proposed project would collect and direct stormwater from the roadways to drainage facilities to prevent it from draining to nearby wetlands near the proposed Ramona Avenue extension. If the wetlands near the Ramona Avenue extension are not under the Corps jurisdiction, the project applicant would be required to obtain a report of waste discharge from the State Water Resources Control Board (SWRCB). A report of waste discharge from the SWRCB would further determine potential environmental impacts on the wetlands. Although stormwater facilities would be in place, some contaminants could still enter the stormwater system. Therefore, operation of the project would result in a potentially significant impact. The analysis determined that implementation of Mitigation Measure MM-3 included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would limit the introduction of contaminants into local waterways, either during construction or operation of projects, and implementation of the mitigation measure would reduce water quality impacts to a less-than significant level. Mitigation Measure MM-3 would be implemented as part of the Opus at Folsom and Elvas project.

#### Groundwater

The Initial Study identified that the project site for the 65<sup>th</sup> Street Station Area Plan is largely built out with impervious surfaces dominating the area. There are few opportunities in the project area for groundwater recharge. Groundwater recharge typically occurs near streams and rivers. However, the analysis identified the project area does support one large undeveloped area of wetlands near the Ramona Avenue extension. The analysis identified that construction and operation of the proposed project could introduce additional contaminants to the area. However, the analysis determined that compliance with NPDES requirements, implementation of a Spill Prevention and Control Program (SPCP), compliance with the City's Land Grading and Erosion Control Ordinance and Stormwater Management and Discharge Control Code, and compliance

with General Plan policies would reduce the potential for groundwater contamination to a less-than-significant level. In addition, the analysis noted that the General Plan Master EIR concluded that implementation of the General Plan would not adversely affect groundwater levels, as the City relies on surface water for its potable water supply. The analysis concluded that because the proposed project was assumed in the Master EIR, impacts related to the development of the proposed project would also be less than significant, and no mitigation would be required.

#### **Opus at Folsom and Elvas Project**

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluated the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumed that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR.

Chapter 4.7 of the Master EIR evaluates the potential effects of the 2035 General Plan as they relate to surface water, groundwater, flooding, storm water, and water quality. Policies included in the 2035 General Plan, including a directive for regional cooperation (Policies ER 1.1.2, EC 2.1.1), comprehensive flood management (Policy EC 2.1.23), and construction of adequate drainage facilities with new development (Policy ER 1.1.1 to ER 1.1.10) were identified in the Master EIR as being able to reduce all impacts to a less-than-significant level.

Conformance with City regulations and permit requirements along with implementation of BMPs would ensure that construction activities associated with the proposed project would result in a less-than-significant impact related to drainage, runoff, and water quality, and there would be no additional significant environmental effects beyond those previously analyzed in the 65<sup>th</sup> Street Station Area Plan EIR.

After construction, the project would be required to use source control, runoff reduction, and treatment control measures set forth in the Storm Water Quality Design Manual for the Sacramento Region. These include storm water treatment measures, such as swales,

filter strips, media filters and infiltration, and spill prevention and cleanup measures. Furthermore, the Storm Water Management and Discharge Control Code include requirements for reducing storm water pollutants. The proposed project includes several storm water treatment measures, including, but not limited to, bioretention areas and adjoining flow-thru planters, which would comply with the City's Stormwater Quality Improvement Program (SQIP) and Storm Water Quality Design Manual. Therefore, the proposed project would result in a less-than-significant impact related to drainage, runoff, and water quality during operation, and no additional significant environmental effects would occur beyond those previously analyzed in the 65<sup>th</sup> Street Station Area Plan EIR.

The project site is located within Zone X as mapped by FEMA. Accordingly, the project site is outside the area having a 0.2 percent chance of a flood. Based on these designations, the project site is not subject to flooding from the 100 or 500-year storm events. Because the project site is located outside the FEMA 100-year floodplain, the proposed project would not place people and/or property within a 100-year flood hazard, expose people to significant risk, or impede flood flows. This impact is less-than-significant, and no additional significant environmental effects would occur beyond those previously analyzed in the 65<sup>th</sup> Street Station Area Plan EIR.

The proposed project would also be subject to compliance with NPDES requirements, implementation of a Spill Prevention and Control Program (SPCP), compliance with the City's Land Grading and Erosion Control Ordinance and Stormwater Management and Discharge Control Code, and compliance with General Plan policies, which would reduce the potential for groundwater contamination to a less-than-significant level. This impact is less-than-significant, and no additional significant environmental effects would occur beyond those previously analyzed in the 65<sup>th</sup> Street Station Area Plan EIR.

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

#### **MM-3**

Prior to issuance of a grading permit, the City of Sacramento Department of Transportation shall prepare a water quality mitigation plan for each project component to be reviewed and approved by the City of Sacramento Department of Utilities. This plan shall provide details regarding construction and operational Best Management Practices (BMPs), in compliance with the City's NPDES permit, which reduce urban contaminants in stormwater runoff.

#### Additional Opus at Folsom and Elvas Mitigation Measures

None required.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to hydrology and water quality, or significant impacts that are substantially more severe than impacts previously

disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to hydrology and water quality from the proposed project would not require the preparation of a subsequent EIR.

# 3.10 Land Use and Planning

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Physically divide an established community?	No	No	No	Yes
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?	No	No	No	Yes

## **Discussion**

## Relevant Changes to Environmental Setting

Potential impacts related to land use and planning were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Opus at Folsom and Elvas project site is located within the project site for the 65<sup>th</sup> Street Station Area Plan at the northwest corner of Folsom Boulevard and Elvas Avenue. The area roughly bounded by 65<sup>th</sup> Street, Elvas Avenue, 69<sup>th</sup> Street, and Q Street is transforming from a largely industrial and commercial area into an area with a more complete mix of uses. Several multi-unit residential projects intended for Sacramento State students have been proposed, are under construction, or have been constructed in this area since certification of the 65<sup>th</sup> Street Station Area Plan EIR in 2010. While development in the project area has increased since certification of the EIR, there have been no substantial changes to the project site or vicinity that would result in the proposed project having new significant impacts related to land use and planning that were not previously considered or that would substantially increase the severity of previously identified impacts.

## Relevant Changes to Project Related to Land Use and Planning

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento

State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

## Comparative Impacts Discussion

The Initial Study identified that roadway widenings and extensions identified in the 65<sup>th</sup> Street Station Area Plan would require the removal of several buildings. However, the analysis determined that removal of those buildings would not affect the overall land use plan for the area because the overall land use distribution within the project area would not change. The analysis determined that the proposed 65<sup>th</sup> Street Station Area Plan would not result in land use redesignations or zoning changes. The analysis determined that, although roadways would be extended within the project area to provide connections between neighborhoods and eliminate barriers, the roadway extensions would not alter any of the approved land use plans.

The land use analyses in the Initial Study evaluated whether the 65<sup>th</sup> Street Station Area Plan would result in a substantial alteration of the present or planned use of an area. The analysis did not, consistent with current CEQA Guidelines Appendix G, evaluate whether the 65<sup>th</sup> Street Station Area Plan would physically divide an established community or 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. These significance criteria are addressed below for the Opus at Folsom and Elvas project.

The Opus at Folsom and Elvas project site is located within the project site for the 65<sup>th</sup> Street Station Area Plan at the northwest corner of Folsom Boulevard and Elvas Avenue. The project site is currently occupied by a car wash, a gymnasium, a take-out restaurant, and a gravel parking lot. The project site is surrounded by industrial uses to the northeast; commercial uses to the south; and commercial, residential, and industrial uses to the west. There is one single-family residence immediately northeast of the project site at 6671 Elvas Avenue.

The project site is designated as Urban Center Low in the 2035 General Plan. This designation allows a minimum density of 20 units/acre and a maximum density of 150 units/acre. Building heights generally range from two to seven stories. The project site is zoned RMX-TO (Residential Mixed Use – Transit Overlay). The purpose of the RMX zone is to allow a mix of residential and commercial uses as a matter of right. The maximum allowable height is 45 feet. The TO designation indicates that the property is located within a one-half mile radius of an existing or proposed light rail transit station. The TO zone allows a mix of moderate- to high-density residential and nonresidential uses by right, within walking distance of an existing or proposed light rail transit station, to promote transit ridership. Residential projects in the TO zone shall have a minimum of 15 units/acre and shall not exceed 100 units/acre.

The proposed project would develop a 6-story residential building intended to house students at nearby Sacramento State. The project would develop approximately 137 units, with a mix of studio, one-bedroom, two-bedroom, three-bedroom, and four-bedroom units. As a result, a total of 372 beds would be provided. Development of 137 units on 1.9 acres would result in a density of 72 units/acre. This density is consistent with the maximum density of 150 units/acre General Plan Urban Center Low designation and the maximum 100 units/acre in the TO zone.

The 65<sup>th</sup> Street Station Area Plan and the East Sacramento Community Plan within the Sacramento 2035 General Plan anticipate a future 2-lane vehicular roadway that would extend through the project site between Folsom Boulevard and Elvas Avenue. The roadway is planned as a future 67<sup>th</sup> Street. The proposed project would eliminate the planned future 67<sup>th</sup> Street roadway connection and in its place reserve an open space corridor on the project site by an irrevocable offer of dedication to the City that would be sized to accommodate bike and pedestrian movement as well as tram operations in the future if and when Sacramento State creates a planned new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. This project element would require approval of an amendment to the 2035 General Plan (East Sacramento Community Plan) to revise the future planned roadway cross-section of 67<sup>th</sup> Street between Folsom Boulevard and Elvas Avenue to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations.

The proposed project would develop a 6-story residential building intended to house students at nearby Sacramento State on a site that currently occupied by commercial amongst other developed uses. The proposed project would not physically divide an established community.

The proposed project would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR. In addition, the proposed project would be subject to the City's Site Plan and Design Review permit process to ensure development is consistent with City design standards, is of high quality, and is compatible with surrounding development. Consequently, the proposed project would not physically divide an established community or 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.

# **Mitigation Measures**

65th Street Station Area Plan EIR Mitigation Measures

None applicable.

Additional Opus at Folsom and Elvas Mitigation Measures

None required.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to land use and planning, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to land use and planning from the proposed project would not require the preparation of a subsequent EIR.

## **3.11 Noise**

Environmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
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?	No	No	No	Yes
Generation of excessive groundborne vibration or groundborne noise levels?	No	No	No	Yes
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	No	No	Yes

#### Discussion

## Relevant Changes to Environmental Setting

Potential impacts related to noise and vibration were addressed in Section 4.2, Noise, of the 65<sup>th</sup> Street Station Area Plan EIR. The analysis determined that temporary increases in noise from construction activity would have a less than significant impact on because construction activities would be required to comply with the City's noise ordinance, and would occur within allowable exemption time windows. The EIR also determined that the vibration levels from construction and demolition equipment would be well below the City's threshold for structural damage and impacts related to construction-generated vibration would be a less than significant with no mitigation required.

With respect to permanent increases in operational noise from increased traffic levels, the Noise section of the EIR determined that these increases would be less than significant with the project but that there would be a significant and unavoidable cumulative noise increase along Folsom Boulevard at 63<sup>rd</sup> Street.

The Opus at Folsom and Elvas project site is located within the 65<sup>th</sup> Street Station Area Plan at the intersection of Folsom Boulevard and Elvas Avenue. The triangular-shaped project site is currently occupied by a self-serve car wash, a gymnasium, a take-out restaurant, and an asphalt and gravel parking lot. There have been no substantial changes to the noise setting of the project site or vicinity that would result in the proposed project having new significant impacts related to noise and vibration that were not previously considered or that would substantially increase the severity of previously identified impacts.

## Relevant Changes to Project Related to Noise

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. The goals of the transportation network improvements are to increase access to transit and create a safer, more connected environment for pedestrians and bicyclists. While the 65<sup>th</sup> Street Station Area Plan EIR evaluated the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumed that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

## **Comparative Impacts Discussion**

#### **Construction Noise**

As is the case with the project evaluated in the 65<sup>th</sup> Street Station Area Plan EIR, construction for the proposed project would occur between the hours of 7 a.m. and 6 p.m. on Monday through Saturday, and between 9 a.m. and 6 p.m. on Sunday. Section 8.68.080(E) of the City Code exempts noise associated with construction that occurs between these hours because these hours are outside of the recognized sleep hours for residents and outside of evening and early morning hours and time periods where residents are most sensitive to exterior noise. Therefore, the proposed would be exempt from complying with the City's noise standards during these hours. Consequently, changes introduced by the proposed project would not result in new significant adverse impacts from construction-related noise or result in significant impacts that are substantially more severe than impacts previously disclosed.

#### **Construction Vibration**

Similar to the project evaluated in the 65<sup>th</sup> Street Station Area Plan EIR, construction for the proposed project would generate vibrations that could affect buildings within close proximity to certain types of equipment (e.g., hoe rams and vibratory rollers). As shown in the Table 4.2-6 of the 65<sup>th</sup> Street Station Area Plan EIR, even at a close distance (25 feet), vibration levels from all the equipment shown would be well below the City's threshold for structural damage of 0.5 inches per second. Therefore, changes introduced by the proposed project would not result in new significant adverse impacts from construction-related vibration or result in significant impacts that are substantially more severe than impacts previously disclosed.

#### Operational Traffic - Project Level

The approved 65<sup>th</sup> Street Station Area Plan identified specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station, with the goal of increasing access to transit and creating a safer, more connected environment for pedestrians and bicyclists.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor. While altering this approximately 235-foot section of 67<sup>th</sup> Street would result in a redistribution of traffic that might otherwise have used this corridor. The 65<sup>th</sup> Street Station Area Plan EIR determined that the increase in noise along Folsom Boulevard would be less than significant with the project. Given its relatively short distance and the fact that the roadway would not continue beyond Folsom Boulevard as envisioned in the EIR, and given that existing traffic volumes along Folsom Boulevard are substantial (1,919 vehicles in the peak hour), any traffic redistribution would not be sufficient to result in a new or more significant roadway noise impact.

The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. This proposed new use would result in additional vehicle trips in the project vicinity. However, the cumulative roadway noise analysis in the 65<sup>th</sup> Street Station Area Plan EIR assumed that the cumulative context for traffic noise associated with the proposed project consists of all existing and future development assumed under the City's 2035 General Plan and associated traffic that could affect the project area or surrounding uses.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumes all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

Therefore, vehicle trip generation for the proposed project has already been considered in the 65<sup>th</sup> Street Station Area Plan EIR, and the changes introduced by the proposed project would not result in new significant adverse impacts from operational traffic noise or result in significant impacts that are substantially more severe than previously disclosed.

## **Mitigation Measures**

## 65th Street Station Area Plan EIR Mitigation Measures

None applicable.

## Additional Opus at Folsom and Elvas Mitigation Measures

None required.

## **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to noise or vibration, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to noise and vibration from the proposed project would not require the preparation of a subsequent EIR.

# 3.12 Population and Housing

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
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)?	No	No	No	Yes
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No	No	No	Yes

# **Discussion**

# Relevant Changes to Environmental Setting

Potential impacts related to population and housing were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Initial Study identified that the This project site for the 65<sup>th</sup> Street Station Area Plan is largely built out and previously adopted land use plans anticipate some intensification and new housing development within the project area.

The Opus at Folsom and Elvas project site is located within the project site for the 65<sup>th</sup> Street Station Area Plan at the northwest corner of Folsom Boulevard and Elvas Avenue. The area roughly bound by 65<sup>th</sup> Street, Elvas Avenue, 69<sup>th</sup> Street, and Q Street is transforming from a largely industrial and commercial area into an area with a more complete mix of uses. Several multi-unit residential projects intended for Sacramento State students have been proposed, are under construction, or have been constructed in this area since certification of the 65<sup>th</sup> Street Station Area Plan EIR in 2010. While development in the project area has increased since certification of the EIR, there have been no substantial changes to the project site or vicinity that would result in the proposed project having new significant impacts related to population and housing that were not previously considered or that would substantially increase the severity of previously identified impacts.

#### Relevant Changes to Project Related to Population and Housing

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and Master EIR. The EIR also

assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations if and when Sacramento State creates a new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

# **Comparative Impacts Discussion**

The Initial Study identified that the proposed transportation improvements identified in the 65<sup>th</sup> Street Station Area Plan would not alter the location, overall distribution, density, or growth rate in the project area. The analysis identified that the proposed 65<sup>th</sup> Street Station Area Plan is designed to respond to growth already planned for in the project area and seeks to connect existing and planned neighborhoods and provide opportunities for alternative transportation modes. In addition, the analysis identified that East Sacramento is an existing urbanized area and the proposed 65<sup>th</sup> Street Station Area Plan does not introduce new housing or population to the area. The proposed 65<sup>th</sup> Street Station Area Plan identifies roadway, bicycle, and pedestrian improvements, including roadway extensions and widenings, that respond to development already planned for in the project area. The analysis identified that proposed 65<sup>th</sup> Street Station Area Plan would not introduce new vehicle trips to the area. The analysis determined that, since the proposed 65<sup>th</sup> Street Station Area Plan would not induce new growth, and since the surrounding neighborhoods are largely developed, the proposed 65<sup>th</sup> Street Station Area Plan is not anticipated to contribute to new population or housing demand and growth.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluated the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumed that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR.

The 2035 General Plan includes assumptions for the amount of growth that will occur within the Policy Area over the next 20 years. The General Plan assumes the City will grow by approximately 165,000 new residents, 86,483 new jobs, and 68,347 new housing units. The 2035 General Plan Master EIR identifies, estimates, and evaluates population and housing changes that would be caused by development of the 2035 General Plan that

have the potential to cause physical environmental effects. The Land Use, Population, and Housing analysis in the 2035 General Plan Master EIR (Chapter 3) provides a detailed discussion of how the City reached these assumptions and the methodology used to determine a realistic level of growth for the City.

The project would be consistent with the General Plan land use designation (Urban Center Low), which permits residential units. In addition, it would not require any change to the current zoning (RMX-TO). The proposed project includes 137 residential units and a total of 372 beds. As a result, the proposed project is expected to add approximately 372 residents to the City. This projected population is consistent with the cumulative population growth assumed in the General Plan and Master EIR. There are no existing houses or residential uses on the project site. Therefore, people and housing units would not be displaced as a result of project construction and implementation.

# **Mitigation Measures**

65th Street Station Area Plan EIR Mitigation Measures

None applicable.

### Additional Opus at Folsom and Elvas Mitigation Measures

None required.

# **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to population and housing, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to population and housing from the proposed project would not require the preparation of a subsequent EIR.

# 3.13 Public Services

Environmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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:	No	No	No	Yes
Fire protection	No	No	No	Yes
Police protection?	No	No	No	Yes
Schools?	No	No	No	Yes
Parks?	No	No	No	Yes
Other public facilities?	No	No	No	Yes

## **Discussion**

## Relevant Changes to Environmental Setting

Potential impacts related to public services were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The public services section of the Initial Study identified that the project would not generate a new population in the project area. The Initial Study determined that the 65<sup>th</sup> Street Station Area Plan project would not require new public services or result in the need for new maintenance facilities.

The Opus at Folsom and Elvas project site is located within the 65<sup>th</sup> Street Station Area Plan. There have been no substantial changes to the public services at the project site or in the vicinity that would result in the proposed project having new significant impacts related to public services that were not previously considered or that would substantially increase the severity of previously identified impacts.

#### Relevant Changes to Project Related to Public Services

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not

necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

#### **Comparative Impacts Discussion**

#### **Fire Protection**

Fire protection and emergency medical services to the project area are provided by the Sacramento Fire Department (SFD). First-response service is provided by the following stations:

- Station 8, located at 5990 H Street, approximately 0.9 miles north of the project site;
- Station 9, located at 2101 Stockton Blvd, approximately 1.6 miles southwest of the project site; and
- Station 60, located at 3301 Julliard Drive, approximately 1.8 miles east of the project site.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed project would be served by the same SFD locations, which already serve the project site. Additionally, construction of the proposed project would not require the construction of new SFD facilities to serve the proposed project. For these reasons, impacts to fire protection services from the proposed project, would remain less than significant, as described in the 65<sup>th</sup> Street Station Area Plan EIR.

#### **Police Protection**

Police protection services to the project site are provided by the Sacramento City Police Department (SPD). The project area is serviced by the Police Facility operating at 5303 Franklin Blvd, approximately 3.2 miles southwest of the project site. In addition to the SPD, the Sacramento County Sheriff's Department, California Highway Patrol (CHP), UC Davis Police Department, and the Regional Transit Police Department aid the SPD to provide protection for the City. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to,

existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed student housing would be served by the same SPD locations, which already serve the project site and construction of the proposed project would not require the construction of new SPD facilities to serve the proposed project. For these reasons, impacts to police protection services from the proposed project, would remain less than significant, as described in the 65<sup>th</sup> Street Station Area Plan EIR.

#### **Schools**

The proposed project would develop a 137-unit residential building intended to house 372 students at nearby Sacramento State. The proposed project does not include multifamily housing and would not increase demand at local schools. Therefore, impacts to schools would remain less than significant, as described in the 65<sup>th</sup> Street Station Area Plan EIR.

#### **Parks**

The nearest parks to the project site include Tahoe Park, located approximately 0.9 miles southwest of the project site, and Fourth Avenue Park, located approximately 1.9 miles west of the project site. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The proposed student housing would be served by the same park locations, which already serve the project site. The proposed project includes 137 residential units and a total of 372 beds. As a result, the proposed project is expected to add approximately 372 residents to the City. The proposed residential units would add demand for parks to the project site. The proposed project would be subject to park development impact fees pursuant to section 18.56.220 of the Sacramento City Code. The City would determine the park development impact fee at the time of development and payment of the fees is required at the time of application for building permits. Park development impact fees are used by the City to finance construction of new neighborhood and community parks and address the impacts on existing parks caused by development in the City. Based on the payment of park development impact fees, the proposed project would not adversely affect the capacity or physical conditions of local parks and recreation facilities. Further, no aspect of the project would cause or accelerate the physical deterioration of area parks and recreation facilities, and would not create the need for construction or expansion of parks or recreation facilities. For this reason, impacts to parks from the proposed project, would remain less than significant, as described in the 65th Street Station Area Plan EIR.

# **Mitigation Measures**

65th Street Station Area Plan EIR Mitigation Measures

No applicable mitigation measures.

Additional Opus at Folsom and Elvas Mitigation Measures

None required.

# **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to public services, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to public services from the proposed project would not require the preparation of a subsequent EIR.

# 3.14 Recreation

Environmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No	No	No	Yes
Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No	No	No	Yes

## **Discussion**

Potential impacts related to recreation were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The Initial Study identified that the proposed roadway improvements identified in the 65<sup>th</sup> Street Station Area Plan would not increase population or housing in the area or increase demand for recreation and park space, and no new recreation facilities or expansion of existing recreation facilities would be necessary as a result of the proposed project. The Initial Study identified that no public parklands or recreational facilities would be removed, deteriorated, or altered and would not be directly or indirectly impacted by the project. Impacts would be less than significant.

The nearest parks to the Opus at Folsom and Elvas project site include Tahoe Park, located approximately 0.9 miles southwest of the project site, and Fourth Avenue Park, located approximately 1.9 miles west of the project site. The project site is approximately 0.5-mile southwest of the American River Parkway, an open space, riparian, recreational corridor that extends 29 miles from the confluence of the Sacramento River east to Folsom Dam.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluated the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumed that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR.

The proposed project includes 137 residential units and a total of 372 beds. As a result, the proposed project is expected to add approximately 372 residents to the City. The proposed residential units would add demand for parks to the project site. The proposed project would be subject to park development impact fees pursuant to section 18.56.220 of the Sacramento City Code. The City would determine the park development impact fee at the time of development and payment of the fees is required at the time of application for building permits. Park development impact fees are used by the City to finance construction of new neighborhood and community parks and address the impacts on existing parks caused by development in the City. Based on the payment of park development impact fees, the proposed project would not adversely affect the capacity or physical conditions of local parks and recreation facilities. Further, no aspect of the project would cause or accelerate the physical deterioration of area parks and recreation facilities, and would not create the need for construction or expansion of parks or recreation facilities. This impact would be less than significant, and no additional significant environmental effects would occur beyond those previously analyzed.

# **Mitigation Measures**

65th Street Station Area Plan EIR Mitigation Measures

None applicable.

# Additional Opus at Folsom and Elvas Mitigation Measures

None required.

# **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to recreation, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to recreation from the proposed project would not require the preparation of a subsequent EIR.

# 3.15 Transportation

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Conflict with an applicable program, plan, ordinance or policy establishing measures of effectiveness for the performance of addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No	No	No	Yes
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	No	No	No	Yes
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No	No	No	Yes
d)	Result in inadequate emergency access?	No	No	No	Yes

#### **Discussion**

# Relevant Changes to Environmental Setting

Potential impacts related to transportation were addressed in Section 4.3, Transportation and Circulation, of the 65<sup>th</sup> Street Station Area Plan EIR. The section addressed potential traffic and circulation impacts, including changes to automobile traffic, travel times, operations of roadway segments and intersections, bicycle movement, pedestrian movement, and transit, that could be generated by the project.

The Opus at Folsom and Elvas project site is located within the project site for the 65<sup>th</sup> Street Station Area Plan at the northwest corner of Folsom Boulevard and Elvas Avenue. The area roughly bounded by 65<sup>th</sup> Street, Elvas Avenue, 69<sup>th</sup> Street, and Q Street is transforming from a largely industrial and commercial area into an area with a more complete mix of uses. Several multi-unit residential projects intended for Sacramento State students have been proposed, are under construction, or have been constructed in this area since certification of the 65<sup>th</sup> Street Station Area Plan EIR in 2010. While development in the project area has increased since certification of the EIR, there have been no substantial changes to the project site or vicinity that would result in the proposed Opus at Folsom and Elvas project having new significant impacts related to transportation that were not previously considered or that would substantially increase the severity of previously identified impacts.

# Relevant Changes to Project Related to Transportation

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. The goals of the transportation network improvements are to increase access to transit and create a safer, more connected environment for pedestrians and bicyclists. While the 65<sup>th</sup> Street Station Area Plan EIR evaluated the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumed that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed Opus at Folsom and Elvas project would alter the future-planned cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

# **Comparative Impacts Discussion**

As previously discussed, the 65<sup>th</sup> Street Station Area Plan and the East Sacramento Community Plan within the Sacramento 2035 General Plan anticipate a future 2-lane vehicular roadway that would extend as 67<sup>th</sup> Street through the currently proposed Opus at Folsom and Elvas project site between Folsom Boulevard and Elvas Avenue. The aforementioned plans also anticipate the addition of a future planned bicycle/pedestrian/ tram tunnel extension of 67<sup>th</sup> Street north of Elvas Avenue to the Sacramento State campus. Accordingly, the transportation analysis in the 65<sup>th</sup> Street Station Area Plan EIR assumed future implementation of the 2-lane vehicular roadway and the future planned bicycle/pedestrian/tram tunnel extension.

While the transportation analysis in the 65<sup>th</sup> Street Station Area Plan EIR did not identify specific impacts attributed to future implementation of the 2-lane vehicular extension of 67<sup>th</sup> Street and the future planned bicycle/pedestrian/tram tunnel extension, the analysis identified significant impacts related to operation of several roadway segments and intersections in the 65<sup>th</sup> Street Station Area Plan project area, and significant impacts to US-50 freeway operations that would occur with implementation of the 65<sup>th</sup> Street Station Area Plan. To varying degrees, these impacts were identified to occur under both existing-plus-project and cumulative conditions.

Impacted roadway segments in the vicinity of the currently proposed Opus at Folsom and Elvas project site included (but were not limited to):

- Elvas Avenue J Street to 65<sup>th</sup> Street
- Folsom Boulevard Ramona Avenue to State University Drive

• Folsom Boulevard – 59<sup>th</sup> Street to 65<sup>th</sup> Street

Impacted intersections in the vicinity of the currently proposed Opus at Folsom and Elvas project site included (but were not limited to):

- Folsom Boulevard/Elvas Avenue
- Folsom Boulevard/59<sup>th</sup> Street
- Folsom Boulevard/64<sup>th</sup> Street
- Folsom Boulevard/State University Drive

To mitigate impacts to the local transportation system, the EIR identified that all of the impacted roadway segments would have to be widened to provide a continuous four-lane or six-lane section with a median. The EIR identified that these improvements are considered infeasible, because it would require increasing the number of travel lanes planned for each street, which would be inconsistent with the City of Sacramento General Plan as well as the goals and objectives of the 65<sup>th</sup> Station Area Plan to create pedestrianfriendly streets and Smart Growth policies. However, the EIR identified that implementation of Intelligent Transportation System (ITS) improvements (such as advanced signal systems, transit signal priority, traveler information, and parking information systems) as well as pedestrian and bicycle facilities would improve the efficiency of the existing transportation system and reduce future impacts. The EIR identified that Mitigation Measures 4.3-1(a) and (b) would require all future development within the plan area to participate in whatever financing mechanism is in place at the time of issuance of building permits to fund, on a fair-share basis, the cost of the City of Sacramento Traffic Operations Center to implement ITS improvements as well as pedestrian and bicycle facilities. The EIR determined, however, that these measures would not reduce the significance of the roadway and intersection impacts to a less-thansignificant level, and impacts would remain significant and unavoidable.

The EIR also identified that implementation of Mitigation Measure 4.3-3 would improve traffic operation in the westbound off ramp of US-50 but would not reduce the significance of the freeway mainline impact to a less-than-significant level. Therefore, the impact would remain significant and unavoidable.

The EIR also identified that construction activities for the 65<sup>th</sup> Street Station Area Plan would include short-term or temporary disruptions to the transportation network in the project area, including the possibility of temporary lane closures, street closures, sidewalk closures, and bikeway closures. The analysis identified that transit access may also be disrupted due to road and lane closures and as bus stops are reconstructed. The EIR identified that these activities could result in degraded roadway, intersection, bicycle, pedestrian, and transit conditions. The EIR determined that implementation of Mitigation Measure 4.3-7, which would require development and City Traffic Engineer approval of a Construction Traffic and Parking Management Plan for any improvement projects within the project area, would reduce the impact to a less-than-significant level.

# Proposed Change to 67th Street

As described above, the proposed Opus at Folsom and Elvas project would eliminate the planned future 67<sup>th</sup> Street roadway connection and in its place reserve an open space corridor on the project site by an irrevocable offer of dedication to the City that would be sized to accommodate bike and pedestrian movement as well as tram operations in the future if and when Sacramento State creates a planned new tunnel link and tram system from the 65<sup>th</sup> Street/University light rail station to the university. This project element would require approval of an amendment to the 2035 General Plan (East Sacramento Community Plan) to revise the future planned roadway cross-section of 67<sup>th</sup> Street between Folsom Boulevard and Elvas Avenue to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations.

The proposed alteration of the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor that would be sized to accommodate potential future bike/pedestrian/tram operations would result in a redistribution of assumed future traffic that might otherwise have used this corridor. However, this change to assumed future circulation at this location would be localized and would not be anticipated to change the assumptions or conclusions of the transportation impact analysis in the 65<sup>th</sup> Street Station Area Plan EIR. In addition, applicable mitigation measures identified in the 65<sup>th</sup> Street Station Area Plan EIR to address impacts to the transportation system would be implemented as required in the 65<sup>th</sup> Street Station Area Plan EIR if this change is approved. Consequently, this project change would not result in new significant adverse impacts related to transportation and circulation or result in significant impacts that are substantially more severe than impacts previously disclosed.

In addition, construction activities to develop an open space corridor on the project site that would be sized to accommodate potential future bike/pedestrian/tram operations would be similar to the construction activities required to develop a future 67<sup>th</sup> Street roadway connection within the same footprint. Applicable mitigation measures identified in the EIR to address construction-related impacts to the transportation system would be implemented under the modified project. Consequently, this project change would not result in new significant adverse impacts related to construction traffic or result in significant impacts that are substantially more severe than impacts previously disclosed.

#### **Proposed Student Housing**

As previously discussed, the 65<sup>th</sup> Street Station Area Plan identifies specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station, with the goal of increasing access to transit and creating a safer and more connected environment for pedestrians and bicyclists. The transportation improvements include new streets, street widenings, street extensions, bicycle and pedestrian facilities, and grade-separated under crossings. The transportation improvements of the 65<sup>th</sup> Street Station Area Plan do not directly generate new vehicular/transit/bicycle/pedestrian trips, but rather accommodate an increase in future trips that would be generated by development

planned for the area and/or growth projected in local and regional plans, such as the City of Sacramento General Plan and the SACOG MTP/SCS.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted Sacramento General Plan and Master EIR. The EIR also assumes that all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed student housing would be consistent with the development standards of the Urban Center Low designation in the 2035 General Plan and is therefore consistent with the proposed physical development of the project site evaluated in the 2035 General Plan Master EIR.

The Master EIR analyzed the potential impacts to existing intersections and roadway segments from development pursuant to the 2035 General Plan. As described in the Master EIR, although traffic volumes are projected to increase, the 2035 General Plan goals, policies, and implementation measures would ensure that implementation of the 2035 General Plan would not result in significant LOS impacts. As previously established, the proposed student housing would be consistent with the development assumptions and policies of the 2035 General Plan. Therefore, impacts from the proposed student housing were analyzed in a prior EIR and would not result in any new effects not addressed in the Master EIR.

The 2035 General Plan Master EIR also analyzed the potential for implementation of the 2035 General Plan to adversely affect pedestrian, bicycle, transit, and other non-auto mobility in conjunction with planned future development in the region. The 2035 General Plan includes a policy framework focused on promoting, improving, and facilitating non-auto transportation. The City determined in the Master EIR that implementation of the 2035 General Plan would not disrupt existing transit, pedestrian, bicycle, or aviation facilities, nor would it interfere with planned facilities. As previously established, the proposed student housing would be consistent with the development assumptions and policies of the 2035 General Plan. Therefore, impacts to pedestrian, bicycle, transit, and other non-auto mobility from the proposed student housing were analyzed in a prior EIR.

Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor are presumed to cause a less-than-significant transportation impact, as they would result in a decrease in VMT. The proposed student housing is located within 0.5 mile of the 65<sup>th</sup> Street/University light rail station, which is served by several SacRT routes with service intervals no longer than 15 minutes during peak commute hours. For this reason, the proposed student housing would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and this impact is less than significant.

The proposed student housing would connect to existing roadways and would be subject to City regulations and design requirements intended to maintain roadway safety. The proposed student housing would result in no impact from the introduction of design features or incompatible uses that would increase hazards. The proposed student housing would not include design features that would prevent emergency vehicles or personnel from accessing the project site or adjacent properties. For these reasons, there would be no new or more severe impacts related to emergency access than previously analyzed and disclosed.

# **Mitigation Measures**

# 65th Street Station Area Plan EIR Mitigation Measures

#### 4.3-1

- a) At the time of issuance of building permits, all future development within the project area shall be required to participate in the 65<sup>th</sup> Street Station Area Finance plan or whatever financing mechanism is in place to fund, on a fair-share basis, the cost of the City of Sacramento Traffic Operations Center to implement ITS improvements on all major streets including Elvas Avenue, Folsom Boulevard, and 65<sup>th</sup> Street.
- b) All future development within the project area shall be required to participate in the 65<sup>th</sup> Street Station Area Finance plan or whatever financing mechanism is in place to fund, on a fair-share basis, the cost of designated pedestrian and bicycle improvements in the study area.

#### 4.3-3

All future development within the project area shall be required to participate in the 65<sup>th</sup> Street Station Area Finance plan or whatever financing mechanism is in place to fund, on a fair-share basis, the cost of widening the westbound US-50 off-ramp at 65<sup>th</sup> Street.

#### 4.3-7

Before issuance of construction permits for any transportation improvements or any development projects in the project area, the City/developers shall prepare a detailed Traffic Management Plan that would be subject to review and approval by the City Department of Transportation, Regional Transit, and local emergency service providers, including the City of Sacramento fire and police departments. The plan shall ensure maintenance of acceptable operating conditions on local roadways and transit routes during all construction activities. At a minimum, the plan shall include:

- The number of truck trips, time, and day of street closures;
- Time of day of arrival and departure of trucks;
- Limitations on the size and type of trucks; provision of a staging area with a limitation on the number of trucks that can be waiting;

- Provision of a truck circulation pattern;
- Provision of an access plan to maintain safe vehicular, pedestrian, and bicycle movements (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas);
- Safe and efficient access routes for emergency vehicles;
- Efficient and convenient transit routes;
- Manual traffic control when necessary;
- Proper advance warning and posted signage concerning street closures;
- Provisions for pedestrian safety; and
- Provisions for temporary bus stops, if necessary.

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

# Additional Opus at Folsom and Elvas Mitigation Measures

None required.

# **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to transportation, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to transportation from the proposed project would not require the preparation of a subsequent EIR.

# 3.16 Utilities and Service Systems

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No	No	No	Yes
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No	No	No	Yes
c)	Result in a determination by the wastewater treatment provider which 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?	No	No	No	Yes
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?	No	No	No	Yes
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No	No	No	Yes

## **Discussion**

# Relevant Changes to Environmental Setting

Potential impacts related to public services were addressed in the 65<sup>th</sup> Street Station Area Plan EIR, Appendix C: Initial Study. The utilities and service systems section of the Initial Study identified that the project would not create an increased demand for water, wastewater treatment, electricity or solid waste disposal. However, the Initial Study determined that the 65<sup>th</sup> Street Station Area Plan project would increase impervious surfaces and would therefore require stormwater drainage facilities.

The Opus at Folsom and Elvas project site is located within the 65<sup>th</sup> Street Station Area Plan Water, wastewater, and stormwater drainage services at the project site are provided by the City of Sacramento. Existing water, wastewater, stormwater drainage, electricity,

and natural gas utility infrastructure lines are present within Folsom Boulevard and Elvas Avenue right-of-ways.

As described in the Initial Study, the project site is in a developed area within the eastern portion of the city. There have been no substantial changes to the utilities and service systems at the project site or in the vicinity that would result in the proposed project having new significant impacts related to utilities and services that were not previously considered or that would substantially increase the severity of previously identified impacts.

## Relevant Changes to Project Related to Utilities and Service Systems

The 65<sup>th</sup> Street Station Area Plan EIR evaluated the potential environmental effects of specific transportation network improvements near the 65<sup>th</sup> Street/University light rail station. While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. The EIR also assumed all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, existing City General Plan policies, laws, and requirements or recommendations of the City of Sacramento.

The proposed project would alter the cross section of 67<sup>th</sup> Street between Elvas Avenue and Folsom Boulevard from a 2-lane street to an open space corridor or a future bike/pedestrian/tram corridor. The project also proposes to construct off-campus housing for students and to support the 65<sup>th</sup> Street Station Area Plan's vision for a mix of uses that support multi-modal transportation. These relevant changes are discussed in detail below.

#### **Comparative Impacts Discussion**

#### **Communication Systems**

No communication system components are located on or adjacent to the project site. Since preparation of the 65<sup>th</sup> Street Station Area Plan Initial Study, no communication system components have been constructed on or adjacent to the project site. The proposed project would construct a six-story student housing residential building. The proposed project would not construct buildings of sufficient height to interfere with communication equipment in the greater vicinity. For these reasons, impacts from the proposed project would remain less than significant and no mitigation would be required.

#### **Sewer or Septic Tanks**

The project site would be served by the Sacramento Regional County Sanitation District (RegionalSan). Development at the project site would be conveyed through existing lines within Folsom Boulevard and Elvas Avenue right-of-ways.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be

governed by the adopted City General Plan and Master EIR. Therefore, anticipated flows from the proposed project would not exceed the capacity of conveyance infrastructure. Required developer financing and proposed infrastructure to provide wastewater collection and treatment to the project site by the RegionalSan would ensure that wastewater infrastructure would be adequate to meet project demand. For these reasons, the proposed project would not substantially increase demand for wastewater conveyance beyond the amount anticipated in the 65<sup>th</sup> Street Station Area Plan Initial Study, and the proposed project would have a less than significant impact on sewers and septic tanks.

#### **Local or Regional Water Supplies**

The 65<sup>th</sup> Street Station Area Plan Initial Study determined that the project would have a less-than-significant impact related to water supply. Since adoption of the 65<sup>th</sup> Street Station Area Plan EIR, the City of Sacramento has adopted the 2035 General Plan and two Urban Water Management Plans (UWMPs). The most recent 2015 UWMP was adopted by the City Council on June 21, 2016.<sup>8</sup> The 2015 UWMP is based on the development assumptions in the 2035 General Plan. The 2015 UWMP concluded that the City would have adequate water supply to serve the total anticipated demand associated with City buildout, even in multiple dry year scenarios, out to 2040.

While the 65<sup>th</sup> Street Station Area Plan EIR evaluates the environmental effects of transportation network improvements and did not evaluate land uses or specific development projects, the EIR assumes that development in the project area would be governed by the adopted City General Plan and Master EIR. Therefore, sufficient water supplies are available to the City and for the proposed project, as demonstrated in the 2015 UWMP, City General Plan, and Master EIR.

The proposed project would access existing water supply infrastructure and would not include offsite improvements. Connections would be made to existing water supply lines along Folsom Boulevard and Elvas Avenue.

As described above, the proposed project would not increase water demand beyond the amount anticipated in the UWMP or require substantial offsite improvements that would constitute new or more significant impacts. The proposed project would not have more significant effects that were not discussed in the 65<sup>th</sup> Street Station Area Plan Initial Study. For these reasons, similar to the impacts evaluated in the Initial Study, the proposed project would have a less-than-significant impact on local or regional water supplies.

## **Stormwater Drainage**

The project site is currently occupied by Car Wash on Folsom, a self-serve car wash; Hyperthrive Athletics, a gymnasium located within a 3,000-square-foot warehouse-style facility; Taqueria Santos Laguna, a take-out restaurant with a drive-thru; and an asphalt

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City of Sacramento, 2016. 2015 Urban Water Management Plan. Available: https://www.cityofsacramento.org/~/media/Corporate/Files/DOU/2015%20UWMP%20June%202016Appendices.pdf. Accessed June 21, 2016.

and gravel parking lot. As described in the 65<sup>th</sup> Street Station Area Plan Initial Study, the proposed project would increase impervious surfaces at the project site, increasing runoff at the site.

As described in Section 2.3, two bioretention areas and adjoining flow-thru planters are proposed between the northern side of the building and the proposed sidewalk along Elvas Avenue. A third flow-thru planter would be located between the building and the internal parking area. Low Impact Development (LID) measures would be a combination of flow-thru planters and bioretention facilities that would serve to absorb and filter runoff before percolating into an underdrain system and into the stormwater drain line out to the street.

With the development of on-site drainage infrastructure, as described above, the proposed project would have a less-than-significant impact on existing drainage facilities, similar to the 65<sup>th</sup> Street Station Area Plan EIR. No mitigation would be required.

#### Solid Waste Disposal

The City provides solid waste and recycling collection and disposal services to the project site. Waste generated by the proposed project would be collected and transported to local landfills by the City and/or private haulers, and either recycled in accordance with City programs and requirements or land filled at Kiefer Landfill or transported and landfilled at the Lockwood Landfill in Sparks, Nevada. The Lockwood Landfill has adequate capacity through the next fifty years, which is sufficient capacity to serve the project site. These facilities together currently have approximately 180 million cubic yards in available capacity.

Waste from the proposed project would represent a fraction of a percentage of the available capacity from those facilities. Because there would be no need to expand or create new landfill or solid waste management facilities, there would be no related physical environmental effects. Similar to the impacts evaluated in the Initial Study, the proposed project would have a less than significant effect on solid waste disposal.

# **Mitigation Measures**

65th Street Station Area Plan EIR Mitigation Measures

No applicable mitigation measures

Additional Opus at Folsom and Elvas Mitigation Measures

Not applicable.

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Sacramento County, 2017. SacCounty News. Kiefer Landfill Celebrates Major Milestone. Available: https://www.saccounty.net/news/latest-news/Pages/Kiefer-Landfill-Celebrates-Major-Milestone.aspx. Accessed August 11, 2021.

Nevada Division of Environmental Protection (NDEP), 2012. Lockwood Regional Landfill. Available: http://www.trpa.org/documents/rseis/3.13%20Public%20Services%20and%20Utilities/3.13\_NDEP%202012.pdf. Accessed August 11, 2021.

# **Findings**

Changes introduced by the proposed project and/or new circumstances relevant to the project would not result in new significant impacts relating to public services, or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative. For these reasons, impacts related to utilities and service systems from the proposed project would not require the preparation of a subsequent EIR.

# 3.17 Mandatory Findings of Significance

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	No	No	No	Yes
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	No	No	No	Yes
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No	No	No	Yes

#### **Discussion**

With the incorporation of mitigation measures, the proposed project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or eliminate important examples of the major periods of California history or prehistory.

The analysis in this addendum demonstrates there would be no new or more severe project-specific or cumulative significant and unavoidable impacts to aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards, hydrology and water quality, land use, noise, public services, recreation, transportation, tribal cultural resources, or utilities than shown in the previous applicable EIRs.

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The proposed project would not have significant adverse effects on humans. Changes introduced by the proposed project and/or new circumstances relevant to the project would not result new significant impacts or significant impacts that are substantially more severe than impacts previously disclosed. In addition, there is no new information of substantial importance showing that the project would have one or more significant effects not previously discussed or that any previously examined significant effects would be substantially more severe than significant effects shown in the previous applicable EIRs. Nor is there new information of substantial importance showing (i) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative or (ii) that mitigation measures or alternatives considerably different from those analyzed in the previous EIRs would substantially reduce one or more significant effects, but the proponents decline to adopt the mitigation measure or alternative.

3. Environmental Analysis

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# **CHAPTER 4**

# Environmental Analysis – Other CEQA Topics

The following impact discussions were not required topics of analysis when the 65<sup>th</sup> Street Station Area Plan EIR was certified in 2010. Current CEQA analysis includes the evaluation of potential environmental impacts resulting from potential effects on tribal cultural resources and potential to expose individuals or property to wildfires. The following analysis is provided for discussion purposes. None of the following constitute information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete. Therefore, any potential impacts do not require a subsequent or supplemental EIR pursuant to CEQA Guidelines section 15162. (See *Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4<sup>th</sup> 1301, 1319-1320; *Fort Mojave Indian Tribe v. Department of Health Services* (1995) 38 Cal.App.4<sup>th</sup> 1574, 1605-1606.)

# 4.1 Tribal Cultural Resources

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
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	No	No	No	Yes
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.	No	No	No	Not Applicable*

<sup>\*</sup> Current CEQA Appendix G questions that were not part of the CEQA Guidelines during the 2010 EIR preparation.

#### **Discussion**

The 65<sup>th</sup> Street Station Area Plan EIR released its Notice of Preparation (NOP) in 2008, prior to July 2015 when Assembly Bill 52 (AB 52) took effect. Therefore, the proposed project is not subject to AB 52.

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The subject of tribal cultural resources as a dedicated of analysis was not required when the 65<sup>th</sup> Street Station Area Plan EIR was certified in 2010, though tribal resources were discussed in the cultural resources section of the Initial Study that was included as Appendix C to the EIR. The proposed modifications to the approved project do not change the level of impacts from that analyzed in the approved 65<sup>th</sup> Street Station Area Plan EIR.

Using the current CEQA Guidelines Appendix G, the proposed modifications are further examined in terms of the changes to the level of significance for criteria under CEQA Guidelines section 15162.

Tribal cultural resources are: (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing in the California Register of Historical Resources (California Register), or local register of historical resources, as defined in PRC section 5020.1(k); or, (2) a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC section 5024.1(c). For a cultural landscape to be considered a tribal cultural resource, it must be geographically defined in terms of the size and scope of the landscape (PRC section 21074[b]). A historical resource, as defined in PRC section 21084.1, unique archaeological resource, as defined in PRC section 21083.2(g), or non-unique archaeological resource, as defined in PRC section 21083.2(h), may also be a tribal cultural resource.

The Initial Study of the EIR determined that although the project site for the 65<sup>th</sup> Street Station Area Plan is not known to contain archeological resources, tribal cultural resources, or human remains, earthwork associated with the proposed transportation improvements, including street extensions, pathways, intersection realignments, and grade-separated under crossings could uncover previously unknown resources. The analysis determined that implementation of Mitigation Measure MM-12, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would ensure that impacts to archeological resources, tribal cultural resources, or human remains would be less than significant.

While unlikely due to the developed and disturbed setting of the project site, construction of the proposed project would include ground-disturbing activities (e.g., grading, trenching) that could encounter or damage previously unknown subsurface archeological resources, tribal cultural resources, or human remains. Implementation of Mitigation Measure MM-12, included in Appendix C (Initial Study) of the 65<sup>th</sup> Street Station Area Plan EIR, would be implemented as part of the proposed project to ensure that impacts to these resources would be less than significant.

The proposed project would not substantially alter the construction footprint and would not result in any more severe impacts to tribal cultural resources. Implementation of 65<sup>th</sup> Street Station Area Plan EIR Mitigation Measure MM-12 would require compliance

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with measures to follow in the event that subsurface cultural resources are discovered during construction, including contacting Native American tribes. Mitigation Measure MM-12 also provides for accidental discovery provisions for Native American tribal resources.

# **Mitigation Measures**

# 65th Street Station Area Plan EIR Mitigation Measures

#### **MM-12**

- a) In the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 100 feet of the resource shall be halted, and the City shall consult with a qualified archeologist to assess the significance of the find. Archeological test excavations shall be conducted by a qualified archeologist to aid in determining the nature and integrity of the find. If the find is determined to be significant by the qualified archeologist, representatives of the City and the qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. In addition, a report shall be prepared by the qualified archeologist according to current professional standards.
- b) If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.

If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.

In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.

c) If a human bone or bone of unknown origin is found during construction, all work shall stop within 100 feet the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human

remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.

# Additional Opus at Folsom and Elvas Mitigation Measures

None required.

# **Findings**

Based on the above analysis, implementation of the proposed project would continue to have a less-than-significant impacts on tribal cultural resources. The modification would not have any significant effects relating to tribal cultural resources that either have not already been analyzed in the EIR or that are substantially more significant than previously analyzed.

There is no new information of substantial importance that identifies new or substantially more severe significant impacts. There is no substantial change in circumstances as a result of project modifications that would cause new or substantially more severe significant impacts. And, no new significant impacts would occur, and no previously examined significant effects would be substantially more severe than shown in the 65th Street Station Area Plan EIR.

The conclusions of the 65<sup>th</sup> Street Station Area Plan EIR and its Initial Study remain valid, and implementation of the proposed project modifications would not result in new or substantially more severe significant impacts related to tribal cultural resources.

# 4.2 Wildfires

Env	ironmental Issue Area	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance?	Prior Environmental Documents Mitigations Implemented or Address Impacts?
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	No	No	No	Not Applicable*
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	No	No	Not Applicable*
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	No	No	Not Applicable*
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	No	No	Not Applicable*

<sup>\*</sup> Current CEQA Appendix G questions that were not part of the CEQA Guidelines during the 2004 EIR preparation.

#### **Discussion**

The project site is located in a highly urbanized area that does not pose a substantial risk due to wildfire hazards. The project site is not located in a state responsibility area or lands classified as very high fire hazard severity zones.

The subject of wildfires as a dedicated topic of analysis was not required when the 65<sup>th</sup> Street Station Area Plan EIR was certified in 2010. The potential for fires was discussed under Hazards topic in the prior certified EIR's Initial Study. The proposed project would not change the level of impacts from that analyzed in the approved 65<sup>th</sup> Street Station Area Plan EIR for potential exposure to wildfires.

Using the current CEQA Guidelines Appendix G, the proposed modifications are further examined in terms of the changes to the level of significance for criteria under CEQA Guidelines section 15162.

Development of the proposed project would not occur in an area that is designated as high risk for the occurrence of wildfires. The project site is an urbanized area and development of residential land uses and circulation elements will not impair any adopted emergency response plan, evacuation plan, nor would it exacerbate fire risk or expose people and structures to significant fire and fire-associated secondary risks.

Based on the location of the project site, there would be a less-than-significant wildfire-related impact from the implementation of the proposed project.

# **Mitigation Measures**

65th Street Station Area Plan EIR Mitigation Measures

None.

### Additional Opus at Folsom and Elvas Mitigation Measures

None required.

# **Findings**

Based on the above analysis, implementation of the proposed project would result in no impacts or continue to have a less-than-significant impacts related to wildfire. These modifications would not have any significant effects relating to wildfire that either have not already been analyzed in the EIR or that are substantially more significant than previously analyzed.

There is no new information of substantial importance that identifies new or substantially more severe significant impacts. There is no substantial change in circumstances as a result of project modifications that would cause new or substantially more severe significant impacts. And, no new significant impacts would occur, and no previously examined significant effects would be substantially more severe than shown in the 65<sup>th</sup> Street Station Area Plan EIR.

The conclusions of the 65<sup>th</sup> Street Station Area Plan EIR and its Initial Study remain valid, and implementation of the proposed project modifications would not result in new or substantially more severe significant impacts related to wildfire.

# Appendix A Air Quality Modeling

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# Opus at Folson and Elvas - Sacramento County, Annual

# Opus at Folson and Elvas Sacramento County, Annual

# 1.0 Project Characteristics

# 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	143.00	Dwelling Unit	1.90	24,596.00	376

# 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2023
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

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# Opus at Folson and Elvas - Sacramento County, Annual

Project Characteristics - Conservatively assume early construction/operational dates

Land Use - from PD

Construction Phase - Adjusted Default schedule to match 18 mo construction from PD

Demolition -

Grading -

Vehicle Trips - VMT captured from General Plan

Woodstoves - Student housing

Energy Use -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	14.00
tblConstructionPhase	NumDays	200.00	320.00
tblConstructionPhase	NumDays	20.00	33.00
tblConstructionPhase	NumDays	4.00	7.00
tblConstructionPhase	NumDays	10.00	14.00
tblConstructionPhase	NumDays	2.00	3.00
tblFireplaces	NumberNoFireplace	143.00	0.00
tblLandUse	LandUseSquareFeet	143,000.00	24,596.00
tblLandUse	LotAcreage	3.76	1.90
tblLandUse	Population	382.00	376.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00

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# Opus at Folson and Elvas - Sacramento County, Annual

# 2.0 Emissions Summary

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# Opus at Folson and Elvas - Sacramento County, Annual

2.1 Overall Construction
<u>Unmitigated Construction</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr									MT/yr						
2021	0.0907	0.7574	0.6392	1.2600e- 003	0.0550	0.0362	0.0913	0.0202	0.0343	0.0544	0.0000	108.8755	108.8755	0.0193	0.0000	109.3591
2022	0.2634	1.8420	2.0150	4.2400e- 003	0.1097	0.0777	0.1875	0.0295	0.0750	0.1045	0.0000	362.5555	362.5555	0.0456	0.0000	363.6965
2023	0.1745	0.1517	0.1930	3.7000e- 004	8.0800e- 003	6.5800e- 003	0.0147	2.1600e- 003	6.2700e- 003	8.4400e- 003	0.0000	32.1104	32.1104	5.3000e- 003	0.0000	32.2429
Maximum	0.2634	1.8420	2.0150	4.2400e- 003	0.1097	0.0777	0.1875	0.0295	0.0750	0.1045	0.0000	362.5555	362.5555	0.0456	0.0000	363.6965

# **Mitigated Construction**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr									MT/yr						
2021	0.0907	0.7574	0.6392	1.2600e- 003	0.0550	0.0362	0.0913	0.0202	0.0343	0.0544	0.0000	108.8754	108.8754	0.0193	0.0000	109.3590
2022	0.2634	1.8420	2.0150	4.2400e- 003	0.1097	0.0777	0.1875	0.0295	0.0750	0.1045	0.0000	362.5552	362.5552	0.0456	0.0000	363.6962
2023	0.1745	0.1517	0.1930	3.7000e- 004	8.0800e- 003	6.5800e- 003	0.0147	2.1600e- 003	6.2700e- 003	8.4400e- 003	0.0000	32.1104	32.1104	5.3000e- 003	0.0000	32.2428
Maximum	0.2634	1.8420	2.0150	4.2400e- 003	0.1097	0.0777	0.1875	0.0295	0.0750	0.1045	0.0000	362.5552	362.5552	0.0456	0.0000	363.6962

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#### Opus at Folson and Elvas - Sacramento County, Annual

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	9-1-2021	11-30-2021	0.6187	0.6187
2	12-1-2021	2-28-2022	0.5379	0.5379
3	3-1-2022	5-31-2022	0.5328	0.5328
4	6-1-2022	8-31-2022	0.5324	0.5324
5	9-1-2022	11-30-2022	0.5274	0.5274
6	12-1-2022	2-28-2023	0.4920	0.4920
7	3-1-2023	5-31-2023	0.0084	0.0084
		Highest	0.6187	0.6187

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#### Opus at Folson and Elvas - Sacramento County, Annual

# 2.2 Overall Operational Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	√yr		
Area	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Energy	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003	 	5.1900e- 003	5.1900e- 003	0.0000	237.3666	237.3666	9.4300e- 003	3.0200e- 003	238.5024
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	13.3528	0.0000	13.3528	0.7891	0.0000	33.0809
Water						0.0000	0.0000		0.0000	0.0000	3.2964	17.9349	21.2313	0.0122	7.3500e- 003	23.7275
Total	0.1634	0.0812	1.5024	4.9000e- 004	0.0000	0.0134	0.0134	0.0000	0.0134	0.0134	16.6491	257.7104	274.3595	0.8131	0.0104	297.7776

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#### Opus at Folson and Elvas - Sacramento County, Annual

### 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Energy	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	237.3666	237.3666	9.4300e- 003	3.0200e- 003	238.5024
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste			,			0.0000	0.0000		0.0000	0.0000	13.3528	0.0000	13.3528	0.7891	0.0000	33.0809
Water			1 1 1 1 1			0.0000	0.0000		0.0000	0.0000	3.2964	17.9349	21.2313	0.0122	7.3500e- 003	23.7275
Total	0.1634	0.0812	1.5024	4.9000e- 004	0.0000	0.0134	0.0134	0.0000	0.0134	0.0134	16.6491	257.7104	274.3595	0.8131	0.0104	297.7776

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	9/1/2021	10/15/2021	5	33	
2	Site Preparation	Site Preparation	10/18/2021	10/20/2021	5	3	
3	Grading	Grading	10/21/2021	10/29/2021	5	7	
4	Building Construction	Building Construction	11/1/2021	1/20/2023	5	320	
5	Paving	Paving	1/23/2023	2/9/2023	5	14	
6	Architectural Coating	Architectural Coating	2/10/2023	3/1/2023	5	14	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 2.63

Acres of Paving: 0

Residential Indoor: 49,807; Residential Outdoor: 16,602; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**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	5	13.00	0.00	68.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	103.00	15.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

#### 3.2 Demolition - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust	11 11 11				7.7000e- 003	0.0000	7.7000e- 003	1.1700e- 003	0.0000	1.1700e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0329	0.3250	0.2391	4.0000e- 004	 	0.0172	0.0172	 	0.0160	0.0160	0.0000	34.7677	34.7677	8.8900e- 003	0.0000	34.9900
Total	0.0329	0.3250	0.2391	4.0000e- 004	7.7000e- 003	0.0172	0.0249	1.1700e- 003	0.0160	0.0172	0.0000	34.7677	34.7677	8.8900e- 003	0.0000	34.9900

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3.2 Demolition - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	2.4000e- 004	8.9700e- 003	2.0500e- 003	3.0000e- 005	5.7000e- 004	3.0000e- 005	6.0000e- 004	1.6000e- 004	3.0000e- 005	1.9000e- 004	0.0000	2.5712	2.5712	1.5000e- 004	0.0000	2.5749
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	7.4000e- 004	4.9000e- 004	5.4300e- 003	1.0000e- 005	1.5800e- 003	1.0000e- 005	1.5900e- 003	4.2000e- 004	1.0000e- 005	4.3000e- 004	0.0000	1.3483	1.3483	4.0000e- 005	0.0000	1.3492
Total	9.8000e- 004	9.4600e- 003	7.4800e- 003	4.0000e- 005	2.1500e- 003	4.0000e- 005	2.1900e- 003	5.8000e- 004	4.0000e- 005	6.2000e- 004	0.0000	3.9195	3.9195	1.9000e- 004	0.0000	3.9241

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					7.7000e- 003	0.0000	7.7000e- 003	1.1700e- 003	0.0000	1.1700e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0329	0.3250	0.2391	4.0000e- 004		0.0172	0.0172		0.0160	0.0160	0.0000	34.7677	34.7677	8.8900e- 003	0.0000	34.9899
Total	0.0329	0.3250	0.2391	4.0000e- 004	7.7000e- 003	0.0172	0.0249	1.1700e- 003	0.0160	0.0172	0.0000	34.7677	34.7677	8.8900e- 003	0.0000	34.9899

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3.2 Demolition - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	2.4000e- 004	8.9700e- 003	2.0500e- 003	3.0000e- 005	5.7000e- 004	3.0000e- 005	6.0000e- 004	1.6000e- 004	3.0000e- 005	1.9000e- 004	0.0000	2.5712	2.5712	1.5000e- 004	0.0000	2.5749
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	7.4000e- 004	4.9000e- 004	5.4300e- 003	1.0000e- 005	1.5800e- 003	1.0000e- 005	1.5900e- 003	4.2000e- 004	1.0000e- 005	4.3000e- 004	0.0000	1.3483	1.3483	4.0000e- 005	0.0000	1.3492
Total	9.8000e- 004	9.4600e- 003	7.4800e- 003	4.0000e- 005	2.1500e- 003	4.0000e- 005	2.1900e- 003	5.8000e- 004	4.0000e- 005	6.2000e- 004	0.0000	3.9195	3.9195	1.9000e- 004	0.0000	3.9241

### 3.3 Site Preparation - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					8.7000e- 003	0.0000	8.7000e- 003	4.4300e- 003	0.0000	4.4300e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e- 003	0.0261	0.0113	3.0000e- 005		1.1500e- 003	1.1500e- 003	1 1 1	1.0600e- 003	1.0600e- 003	0.0000	2.2678	2.2678	7.3000e- 004	0.0000	2.2861
Total	2.3300e- 003	0.0261	0.0113	3.0000e- 005	8.7000e- 003	1.1500e- 003	9.8500e- 003	4.4300e- 003	1.0600e- 003	5.4900e- 003	0.0000	2.2678	2.2678	7.3000e- 004	0.0000	2.2861

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3.3 Site Preparation - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	4.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0754	0.0754	0.0000	0.0000	0.0755
Total	4.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0754	0.0754	0.0000	0.0000	0.0755

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					8.7000e- 003	0.0000	8.7000e- 003	4.4300e- 003	0.0000	4.4300e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e- 003	0.0261	0.0113	3.0000e- 005		1.1500e- 003	1.1500e- 003	1 1 1	1.0600e- 003	1.0600e- 003	0.0000	2.2678	2.2678	7.3000e- 004	0.0000	2.2861
Total	2.3300e- 003	0.0261	0.0113	3.0000e- 005	8.7000e- 003	1.1500e- 003	9.8500e- 003	4.4300e- 003	1.0600e- 003	5.4900e- 003	0.0000	2.2678	2.2678	7.3000e- 004	0.0000	2.2861

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#### Opus at Folson and Elvas - Sacramento County, Annual

3.3 Site Preparation - 2021 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	4.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0754	0.0754	0.0000	0.0000	0.0755
Total	4.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0754	0.0754	0.0000	0.0000	0.0755

#### 3.4 Grading - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0172	0.0000	0.0172	8.8400e- 003	0.0000	8.8400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	4.5100e- 003	0.0502	0.0222	5.0000e- 005		2.2300e- 003	2.2300e- 003		2.0500e- 003	2.0500e- 003	0.0000	4.3343	4.3343	1.4000e- 003	0.0000	4.3693
Total	4.5100e- 003	0.0502	0.0222	5.0000e- 005	0.0172	2.2300e- 003	0.0194	8.8400e- 003	2.0500e- 003	0.0109	0.0000	4.3343	4.3343	1.4000e- 003	0.0000	4.3693

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#### Opus at Folson and Elvas - Sacramento County, Annual

3.4 Grading - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.0000e- 004	6.0000e- 005	7.1000e- 004	0.0000	2.1000e- 004	0.0000	2.1000e- 004	5.0000e- 005	0.0000	6.0000e- 005	0.0000	0.1760	0.1760	0.0000	0.0000	0.1761
Total	1.0000e- 004	6.0000e- 005	7.1000e- 004	0.0000	2.1000e- 004	0.0000	2.1000e- 004	5.0000e- 005	0.0000	6.0000e- 005	0.0000	0.1760	0.1760	0.0000	0.0000	0.1761

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0172	0.0000	0.0172	8.8400e- 003	0.0000	8.8400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5100e- 003	0.0502	0.0222	5.0000e- 005		2.2300e- 003	2.2300e- 003	1 1 1	2.0500e- 003	2.0500e- 003	0.0000	4.3343	4.3343	1.4000e- 003	0.0000	4.3693
Total	4.5100e- 003	0.0502	0.0222	5.0000e- 005	0.0172	2.2300e- 003	0.0194	8.8400e- 003	2.0500e- 003	0.0109	0.0000	4.3343	4.3343	1.4000e- 003	0.0000	4.3693

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#### Opus at Folson and Elvas - Sacramento County, Annual

3.4 Grading - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.0000e- 004	6.0000e- 005	7.1000e- 004	0.0000	2.1000e- 004	0.0000	2.1000e- 004	5.0000e- 005	0.0000	6.0000e- 005	0.0000	0.1760	0.1760	0.0000	0.0000	0.1761
Total	1.0000e- 004	6.0000e- 005	7.1000e- 004	0.0000	2.1000e- 004	0.0000	2.1000e- 004	5.0000e- 005	0.0000	6.0000e- 005	0.0000	0.1760	0.1760	0.0000	0.0000	0.1761

#### 3.5 Building Construction - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0408	0.3068	0.2902	5.0000e- 004		0.0154	0.0154		0.0149	0.0149	0.0000	40.8482	40.8482	7.2900e- 003	0.0000	41.0305
Total	0.0408	0.3068	0.2902	5.0000e- 004		0.0154	0.0154		0.0149	0.0149	0.0000	40.8482	40.8482	7.2900e- 003	0.0000	41.0305

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# 3.5 Building Construction - 2021 Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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
1	1.0600e- 003	0.0345	9.2300e- 003	8.0000e- 005	1.9700e- 003	1.0000e- 004	2.0700e- 003	5.7000e- 004	9.0000e- 005	6.6000e- 004	0.0000	7.9193	7.9193	4.5000e- 004	0.0000	7.9306
1	8.0200e- 003	5.2400e- 003	0.0587	1.6000e- 004	0.0170	1.2000e- 004	0.0171	4.5300e- 003	1.1000e- 004	4.6400e- 003	0.0000	14.5673	14.5673	3.8000e- 004	0.0000	14.5769
Total	9.0800e- 003	0.0398	0.0679	2.4000e- 004	0.0190	2.2000e- 004	0.0192	5.1000e- 003	2.0000e- 004	5.3000e- 003	0.0000	22.4866	22.4866	8.3000e- 004	0.0000	22.5075

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0408	0.3068	0.2902	5.0000e- 004		0.0154	0.0154	 	0.0149	0.0149	0.0000	40.8482	40.8482	7.2900e- 003	0.0000	41.0305
Total	0.0408	0.3068	0.2902	5.0000e- 004		0.0154	0.0154		0.0149	0.0149	0.0000	40.8482	40.8482	7.2900e- 003	0.0000	41.0305

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3.5 Building Construction - 2021 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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
1	1.0600e- 003	0.0345	9.2300e- 003	8.0000e- 005	1.9700e- 003	1.0000e- 004	2.0700e- 003	5.7000e- 004	9.0000e- 005	6.6000e- 004	0.0000	7.9193	7.9193	4.5000e- 004	0.0000	7.9306
1	8.0200e- 003	5.2400e- 003	0.0587	1.6000e- 004	0.0170	1.2000e- 004	0.0171	4.5300e- 003	1.1000e- 004	4.6400e- 003	0.0000	14.5673	14.5673	3.8000e- 004	0.0000	14.5769
Total	9.0800e- 003	0.0398	0.0679	2.4000e- 004	0.0190	2.2000e- 004	0.0192	5.1000e- 003	2.0000e- 004	5.3000e- 003	0.0000	22.4866	22.4866	8.3000e- 004	0.0000	22.5075

#### 3.5 Building Construction - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.2143	1.6254	1.6544	2.8700e- 003		0.0766	0.0766		0.0740	0.0740	0.0000	236.0500	236.0500	0.0411	0.0000	237.0778
Total	0.2143	1.6254	1.6544	2.8700e- 003		0.0766	0.0766		0.0740	0.0740	0.0000	236.0500	236.0500	0.0411	0.0000	237.0778

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# 3.5 Building Construction - 2022 Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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
	5.6900e- 003	0.1894	0.0492	4.7000e- 004	0.0114	4.8000e- 004	0.0119	3.2900e- 003	4.6000e- 004	3.7600e- 003	0.0000	45.3535	45.3535	2.5400e- 003	0.0000	45.4170
Worker	0.0433	0.0272	0.3114	9.0000e- 004	0.0983	6.7000e- 004	0.0990	0.0262	6.2000e- 004	0.0268	0.0000	81.1520	81.1520	1.9900e- 003	0.0000	81.2016
Total	0.0490	0.2166	0.3606	1.3700e- 003	0.1097	1.1500e- 003	0.1109	0.0295	1.0800e- 003	0.0305	0.0000	126.5055	126.5055	4.5300e- 003	0.0000	126.6187

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.2143	1.6254	1.6544	2.8700e- 003		0.0766	0.0766		0.0740	0.0740	0.0000	236.0497	236.0497	0.0411	0.0000	237.0775
Total	0.2143	1.6254	1.6544	2.8700e- 003		0.0766	0.0766		0.0740	0.0740	0.0000	236.0497	236.0497	0.0411	0.0000	237.0775

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3.5 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					ton	s/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
1	5.6900e- 003	0.1894	0.0492	4.7000e- 004	0.0114	4.8000e- 004	0.0119	3.2900e- 003	4.6000e- 004	3.7600e- 003	0.0000	45.3535	45.3535	2.5400e- 003	0.0000	45.4170
Worker	0.0433	0.0272	0.3114	9.0000e- 004	0.0983	6.7000e- 004	0.0990	0.0262	6.2000e- 004	0.0268	0.0000	81.1520	81.1520	1.9900e- 003	0.0000	81.2016
Total	0.0490	0.2166	0.3606	1.3700e- 003	0.1097	1.1500e- 003	0.1109	0.0295	1.0800e- 003	0.0305	0.0000	126.5055	126.5055	4.5300e- 003	0.0000	126.6187

#### 3.5 Building Construction - 2023

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0114	0.0878	0.0946	1.7000e- 004		3.8600e- 003	3.8600e- 003		3.7300e- 003	3.7300e- 003	0.0000	13.6199	13.6199	2.3100e- 003	0.0000	13.6778
Total	0.0114	0.0878	0.0946	1.7000e- 004		3.8600e- 003	3.8600e- 003		3.7300e- 003	3.7300e- 003	0.0000	13.6199	13.6199	2.3100e- 003	0.0000	13.6778

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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					ton	s/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	2.6000e- 004	9.2400e- 003	2.5100e- 003	3.0000e- 005	6.6000e- 004	1.0000e- 005	6.7000e- 004	1.9000e- 004	1.0000e- 005	2.0000e- 004	0.0000	2.5682	2.5682	1.3000e- 004	0.0000	2.5715
Worker	2.3400e- 003	1.4100e- 003	0.0165	5.0000e- 005	5.6700e- 003	4.0000e- 005	5.7100e- 003	1.5100e- 003	3.0000e- 005	1.5400e- 003	0.0000	4.5060	4.5060	1.0000e- 004	0.0000	4.5086
Total	2.6000e- 003	0.0107	0.0190	8.0000e- 005	6.3300e- 003	5.0000e- 005	6.3800e- 003	1.7000e- 003	4.0000e- 005	1.7400e- 003	0.0000	7.0742	7.0742	2.3000e- 004	0.0000	7.0801

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0114	0.0878	0.0946	1.7000e- 004		3.8600e- 003	3.8600e- 003		3.7300e- 003	3.7300e- 003	0.0000	13.6199	13.6199	2.3100e- 003	0.0000	13.6777
Total	0.0114	0.0878	0.0946	1.7000e- 004		3.8600e- 003	3.8600e- 003		3.7300e- 003	3.7300e- 003	0.0000	13.6199	13.6199	2.3100e- 003	0.0000	13.6777

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3.5 Building Construction - 2023 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	2.6000e- 004	9.2400e- 003	2.5100e- 003	3.0000e- 005	6.6000e- 004	1.0000e- 005	6.7000e- 004	1.9000e- 004	1.0000e- 005	2.0000e- 004	0.0000	2.5682	2.5682	1.3000e- 004	0.0000	2.5715
Worker	2.3400e- 003	1.4100e- 003	0.0165	5.0000e- 005	5.6700e- 003	4.0000e- 005	5.7100e- 003	1.5100e- 003	3.0000e- 005	1.5400e- 003	0.0000	4.5060	4.5060	1.0000e- 004	0.0000	4.5086
Total	2.6000e- 003	0.0107	0.0190	8.0000e- 005	6.3300e- 003	5.0000e- 005	6.3800e- 003	1.7000e- 003	4.0000e- 005	1.7400e- 003	0.0000	7.0742	7.0742	2.3000e- 004	0.0000	7.0801

# 3.6 Paving - 2023

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	<sup>-</sup> /yr		
	4.5100e- 003	0.0437	0.0616	9.0000e- 005		2.1600e- 003	2.1600e- 003		1.9900e- 003	1.9900e- 003	0.0000	8.2407	8.2407	2.6100e- 003	0.0000	8.3060
	0.0000		1 1 1			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.5100e- 003	0.0437	0.0616	9.0000e- 005		2.1600e- 003	2.1600e- 003		1.9900e- 003	1.9900e- 003	0.0000	8.2407	8.2407	2.6100e- 003	0.0000	8.3060

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#### Opus at Folson and Elvas - Sacramento County, Annual

3.6 Paving - 2023

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	1.7000e- 004	1.9400e- 003	1.0000e- 005	6.7000e- 004	0.0000	6.7000e- 004	1.8000e- 004	0.0000	1.8000e- 004	0.0000	0.5308	0.5308	1.0000e- 005	0.0000	0.5311
Total	2.8000e- 004	1.7000e- 004	1.9400e- 003	1.0000e- 005	6.7000e- 004	0.0000	6.7000e- 004	1.8000e- 004	0.0000	1.8000e- 004	0.0000	0.5308	0.5308	1.0000e- 005	0.0000	0.5311

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	4.5100e- 003	0.0437	0.0616	9.0000e- 005		2.1600e- 003	2.1600e- 003		1.9900e- 003	1.9900e- 003	0.0000	8.2407	8.2407	2.6100e- 003	0.0000	8.3060
Paving	0.0000					0.0000	0.0000	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.5100e- 003	0.0437	0.0616	9.0000e- 005		2.1600e- 003	2.1600e- 003		1.9900e- 003	1.9900e- 003	0.0000	8.2407	8.2407	2.6100e- 003	0.0000	8.3060

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#### Opus at Folson and Elvas - Sacramento County, Annual

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	1.7000e- 004	1.9400e- 003	1.0000e- 005	6.7000e- 004	0.0000	6.7000e- 004	1.8000e- 004	0.0000	1.8000e- 004	0.0000	0.5308	0.5308	1.0000e- 005	0.0000	0.5311
Total	2.8000e- 004	1.7000e- 004	1.9400e- 003	1.0000e- 005	6.7000e- 004	0.0000	6.7000e- 004	1.8000e- 004	0.0000	1.8000e- 004	0.0000	0.5308	0.5308	1.0000e- 005	0.0000	0.5311

### 3.7 Architectural Coating - 2023

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.1539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3400e- 003	9.1200e- 003	0.0127	2.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	1.7873	1.7873	1.1000e- 004	0.0000	1.7900
Total	0.1552	9.1200e- 003	0.0127	2.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	1.7873	1.7873	1.1000e- 004	0.0000	1.7900

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# 3.7 Architectural Coating - 2023 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	2.7000e- 004	3.1400e- 003	1.0000e- 005	1.0800e- 003	1.0000e- 005	1.0900e- 003	2.9000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8575	0.8575	2.0000e- 005	0.0000	0.8580
Total	4.5000e- 004	2.7000e- 004	3.1400e- 003	1.0000e- 005	1.0800e- 003	1.0000e- 005	1.0900e- 003	2.9000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8575	0.8575	2.0000e- 005	0.0000	0.8580

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.1539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3400e- 003	9.1200e- 003	0.0127	2.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	1.7873	1.7873	1.1000e- 004	0.0000	1.7900
Total	0.1552	9.1200e- 003	0.0127	2.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	1.7873	1.7873	1.1000e- 004	0.0000	1.7900

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3.7 Architectural Coating - 2023 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
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	2.7000e- 004	3.1400e- 003	1.0000e- 005	1.0800e- 003	1.0000e- 005	1.0900e- 003	2.9000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8575	0.8575	2.0000e- 005	0.0000	0.8580
Total	4.5000e- 004	2.7000e- 004	3.1400e- 003	1.0000e- 005	1.0800e- 003	1.0000e- 005	1.0900e- 003	2.9000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8575	0.8575	2.0000e- 005	0.0000	0.8580

# 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

#### Opus at Folson and Elvas - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Crimingatou	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

#### **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Pass-by	
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	МН
Apartments Mid Rise	0.562895	0.037862	0.207220	0.115570	0.017815	0.005092	0.018559	0.023754	0.002009	0.001969	0.005819	0.000618	0.000817

# 5.0 Energy Detail

Historical Energy Use: N

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#### Opus at Folson and Elvas - Sacramento County, Annual

#### **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					ton	s/yr							MT	-/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	162.9786	162.9786	8.0100e- 003	1.6600e- 003	163.6724
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	162.9786	162.9786	8.0100e- 003	1.6600e- 003	163.6724
NaturalGas Mitigated	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003	<del></del>   	5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300
NaturalGas Unmitigated	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300

# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	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					ton	s/yr							МТ	/yr		
Apartments Mid Rise	1.39398e +006	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300
Total		7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300

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# **5.2 Energy by Land Use - NaturalGas Mitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
Apartments Mid Rise	1.39398e +006	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300
Total		7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300

# 5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	-/yr	
Apartments Mid Rise	608674	162.9786	8.0100e- 003	1.6600e- 003	163.6724
Total		162.9786	8.0100e- 003	1.6600e- 003	163.6724

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5.3 Energy by Land Use - Electricity Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	-/yr	
Apartments Mid Rise	608674	162.9786	8.0100e- 003	1.6600e- 003	163.6724
Total		162.9786	8.0100e- 003	1.6600e- 003	163.6724

#### 6.0 Area Detail

### **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/уг		
Mitigated	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Unmitigated	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668

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# 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	0.0154					0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0961	 		   		0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0444	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003	 	8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Total	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668

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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	0.0154			 		0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0961			 		0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0444	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003	 	8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Total	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668

#### 7.0 Water Detail

## 7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		МТ	√yr	
Mitigated	1 21.2010	0.0122	7.3500e- 003	23.7275
Jgatou	. 21.2010	0.0122	7.3500e- 003	23.7275

# 7.2 Water by Land Use Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
Apartments Mid Rise	9.31703 / 5.87378	21.2313	0.0122	7.3500e- 003	23.7275
Total		21.2313	0.0122	7.3500e- 003	23.7275

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7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	√yr	
Apartments Mid Rise	9.31703 / 5.87378	21.2313	0.0122	7.3500e- 003	23.7275
Total		21.2313	0.0122	7.3500e- 003	23.7275

#### 8.0 Waste Detail

#### **8.1 Mitigation Measures Waste**

#### Category/Year

	Total CO2	CH4	N2O	CO2e
		МТ	/yr	
wiiigatod	13.3528	0.7891	0.0000	33.0809
Ommigatod	13.3528	0.7891	0.0000	33.0809

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8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Apartments Mid Rise	65.78	13.3528	0.7891	0.0000	33.0809
Total		13.3528	0.7891	0.0000	33.0809

#### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	-/yr	
Apartments Mid Rise	65.78	13.3528	0.7891	0.0000	33.0809
Total		13.3528	0.7891	0.0000	33.0809

# 9.0 Operational Offroad

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

#### Opus at Folson and Elvas - 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

#### **Boilers**

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

#### **User Defined Equipment**

Equipment Type	Number
----------------	--------

### 11.0 Vegetation

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# Opus at Folson and Elvas Sacramento County, Annual

### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	143.00	Dwelling Unit	1.90	24,596.00	376

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58							
Climate Zone	6			Operational Year	2023							
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

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#### Opus at Folson and Elvas - Sacramento County, Annual

Project Characteristics - Conservatively assume early construction/operational dates

Land Use - from PD

Construction Phase - Adjusted Default schedule to match 18 mo construction from PD

Demolition -

Grading -

Vehicle Trips - VMT captured from General Plan

Woodstoves - Student housing

Energy Use -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Construction Off-road Equipment Mitigation - Mitigation

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
Tier	No Change	Tier 4 Final
NumDays	20.00	33.00
NumDays	2.00	3.00
NumDays	4.00	7.00
NumDays	200.00	320.00
NumDays	10.00	14.00
NumDays	10.00	14.00
NumberNoFireplace	143.00	0.00
LandUseSquareFeet	143,000.00	24,596.00
LotAcreage	3.76	1.90
Population	382.00	376.00
ST_TR	6.39	0.00
SU_TR	5.86	0.00
WD_TR	6.65	0.00
	Tier Tier Tier Tier Tier Tier Tier Tier	Tier         No Change           NumDays         20.00           NumDays         2.00           NumDays         4.00           NumDays         10.00           NumDays         10.00           NumDays         10.00           NumberNoFireplace         143.00           LandUseSquareFeet         143,000.00           LotAcreage         3.76           Population         382.00           ST_TR         6.39           SU_TR         5.86

# 2.0 Emissions Summary

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2.1 Overall Construction
<u>Unmitigated Construction</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr									MT/yr						
2021	0.0907	0.7574	0.6392	1.2600e- 003	0.0550	0.0362	0.0913	0.0202	0.0343	0.0544	0.0000	108.8755	108.8755	0.0193	0.0000	109.3591
2022	0.2634	1.8420	2.0150	4.2400e- 003	0.1097	0.0777	0.1875	0.0295	0.0750	0.1045	0.0000	362.5555	362.5555	0.0456	0.0000	363.6965
2023	0.1745	0.1517	0.1930	3.7000e- 004	8.0800e- 003	6.5800e- 003	0.0147	2.1600e- 003	6.2700e- 003	8.4400e- 003	0.0000	32.1104	32.1104	5.3000e- 003	0.0000	32.2429
Maximum	0.2634	1.8420	2.0150	4.2400e- 003	0.1097	0.0777	0.1875	0.0295	0.0750	0.1045	0.0000	362.5555	362.5555	0.0456	0.0000	363.6965

#### **Mitigated Construction**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr								MT/yr							
2021	0.0398	0.1910	0.6676	1.2600e- 003	0.0550	6.4900e- 003	0.0615	0.0202	6.4700e- 003	0.0267	0.0000	108.8754	108.8754	0.0193	0.0000	109.3590
2022	0.1780	0.8782	2.1443	4.2400e- 003	0.1097	0.0289	0.1386	0.0295	0.0288	0.0583	0.0000	362.5552	362.5552	0.0456	0.0000	363.6962
2023	0.1658	0.0560	0.2100	3.7000e- 004	8.0800e- 003	1.7200e- 003	9.8000e- 003	2.1600e- 003	1.7100e- 003	3.8800e- 003	0.0000	32.1104	32.1104	5.3000e- 003	0.0000	32.2428
Maximum	0.1780	0.8782	2.1443	4.2400e- 003	0.1097	0.0289	0.1386	0.0295	0.0288	0.0583	0.0000	362.5552	362.5552	0.0456	0.0000	363.6962

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	27.43	59.10	-6.13	0.00	0.00	69.23	28.44	0.00	68.00	46.95	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	9-1-2021	11-30-2021	0.6187	0.1298
2	12-1-2021	2-28-2022	0.5379	0.2665
3	3-1-2022	5-31-2022	0.5328	0.2676
4	6-1-2022	8-31-2022	0.5324	0.2672
5	9-1-2022	11-30-2022	0.5274	0.2651
6	12-1-2022	2-28-2023	0.4920	0.3044
7	3-1-2023	5-31-2023	0.0084	0.0079
		Highest	0.6187	0.3044

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## Opus at Folson and Elvas - Sacramento County, Annual

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					ton	ıs/yr							МТ	√yr		
Area	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Energy	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	237.3666	237.3666	9.4300e- 003	3.0200e- 003	238.5024
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	13.3528	0.0000	13.3528	0.7891	0.0000	33.0809
Water						0.0000	0.0000		0.0000	0.0000	3.2964	17.9349	21.2313	0.0122	7.3500e- 003	23.7275
Total	0.1634	0.0812	1.5024	4.9000e- 004	0.0000	0.0134	0.0134	0.0000	0.0134	0.0134	16.6491	257.7104	274.3595	0.8131	0.0104	297.7776

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## Opus at Folson and Elvas - Sacramento County, Annual

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					ton	s/yr							МТ	/yr		
Area	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Energy	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	237.3666	237.3666	9.4300e- 003	3.0200e- 003	238.5024
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste			1 ! ! !			0.0000	0.0000		0.0000	0.0000	13.3528	0.0000	13.3528	0.7891	0.0000	33.0809
Water	**************************************		,			0.0000	0.0000		0.0000	0.0000	3.2964	17.9349	21.2313	0.0122	7.3500e- 003	23.7275
Total	0.1634	0.0812	1.5024	4.9000e- 004	0.0000	0.0134	0.0134	0.0000	0.0134	0.0134	16.6491	257.7104	274.3595	0.8131	0.0104	297.7776

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	9/1/2021	10/15/2021	5	33	
2	Site Preparation	Site Preparation	10/18/2021	10/20/2021	5	3	
3	Grading	Grading	10/21/2021	10/29/2021	5	7	
4	Building Construction	Building Construction	11/1/2021	1/20/2023	5	320	
5	Paving	Paving	1/23/2023	2/9/2023	5	14	
6	Architectural Coating	Architectural Coating	2/10/2023	3/1/2023	5	14	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 2.63

Acres of Paving: 0

Residential Indoor: 49,807; Residential Outdoor: 16,602; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**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	5	13.00	0.00	68.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	103.00	15.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

#### 3.2 Demolition - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					7.7000e- 003	0.0000	7.7000e- 003	1.1700e- 003	0.0000	1.1700e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0329	0.3250	0.2391	4.0000e- 004		0.0172	0.0172		0.0160	0.0160	0.0000	34.7677	34.7677	8.8900e- 003	0.0000	34.9900
Total	0.0329	0.3250	0.2391	4.0000e- 004	7.7000e- 003	0.0172	0.0249	1.1700e- 003	0.0160	0.0172	0.0000	34.7677	34.7677	8.8900e- 003	0.0000	34.9900

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3.2 Demolition - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	2.4000e- 004	8.9700e- 003	2.0500e- 003	3.0000e- 005	5.7000e- 004	3.0000e- 005	6.0000e- 004	1.6000e- 004	3.0000e- 005	1.9000e- 004	0.0000	2.5712	2.5712	1.5000e- 004	0.0000	2.5749
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	7.4000e- 004	4.9000e- 004	5.4300e- 003	1.0000e- 005	1.5800e- 003	1.0000e- 005	1.5900e- 003	4.2000e- 004	1.0000e- 005	4.3000e- 004	0.0000	1.3483	1.3483	4.0000e- 005	0.0000	1.3492
Total	9.8000e- 004	9.4600e- 003	7.4800e- 003	4.0000e- 005	2.1500e- 003	4.0000e- 005	2.1900e- 003	5.8000e- 004	4.0000e- 005	6.2000e- 004	0.0000	3.9195	3.9195	1.9000e- 004	0.0000	3.9241

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust			1 1 1		7.7000e- 003	0.0000	7.7000e- 003	1.1700e- 003	0.0000	1.1700e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6400e- 003	0.0201	0.2429	4.0000e- 004		6.2000e- 004	6.2000e- 004		6.2000e- 004	6.2000e- 004	0.0000	34.7677	34.7677	8.8900e- 003	0.0000	34.9899
Total	4.6400e- 003	0.0201	0.2429	4.0000e- 004	7.7000e- 003	6.2000e- 004	8.3200e- 003	1.1700e- 003	6.2000e- 004	1.7900e- 003	0.0000	34.7677	34.7677	8.8900e- 003	0.0000	34.9899

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3.2 Demolition - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	2.4000e- 004	8.9700e- 003	2.0500e- 003	3.0000e- 005	5.7000e- 004	3.0000e- 005	6.0000e- 004	1.6000e- 004	3.0000e- 005	1.9000e- 004	0.0000	2.5712	2.5712	1.5000e- 004	0.0000	2.5749
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	7.4000e- 004	4.9000e- 004	5.4300e- 003	1.0000e- 005	1.5800e- 003	1.0000e- 005	1.5900e- 003	4.2000e- 004	1.0000e- 005	4.3000e- 004	0.0000	1.3483	1.3483	4.0000e- 005	0.0000	1.3492
Total	9.8000e- 004	9.4600e- 003	7.4800e- 003	4.0000e- 005	2.1500e- 003	4.0000e- 005	2.1900e- 003	5.8000e- 004	4.0000e- 005	6.2000e- 004	0.0000	3.9195	3.9195	1.9000e- 004	0.0000	3.9241

## 3.3 Site Preparation - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					8.7000e- 003	0.0000	8.7000e- 003	4.4300e- 003	0.0000	4.4300e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e- 003	0.0261	0.0113	3.0000e- 005		1.1500e- 003	1.1500e- 003	1 1 1	1.0600e- 003	1.0600e- 003	0.0000	2.2678	2.2678	7.3000e- 004	0.0000	2.2861
Total	2.3300e- 003	0.0261	0.0113	3.0000e- 005	8.7000e- 003	1.1500e- 003	9.8500e- 003	4.4300e- 003	1.0600e- 003	5.4900e- 003	0.0000	2.2678	2.2678	7.3000e- 004	0.0000	2.2861

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3.3 Site Preparation - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	4.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0754	0.0754	0.0000	0.0000	0.0755
Total	4.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0754	0.0754	0.0000	0.0000	0.0755

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					8.7000e- 003	0.0000	8.7000e- 003	4.4300e- 003	0.0000	4.4300e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e- 004	1.3700e- 003	0.0130	3.0000e- 005		4.0000e- 005	4.0000e- 005	1 1 1	4.0000e- 005	4.0000e- 005	0.0000	2.2678	2.2678	7.3000e- 004	0.0000	2.2861
Total	3.2000e- 004	1.3700e- 003	0.0130	3.0000e- 005	8.7000e- 003	4.0000e- 005	8.7400e- 003	4.4300e- 003	4.0000e- 005	4.4700e- 003	0.0000	2.2678	2.2678	7.3000e- 004	0.0000	2.2861

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3.3 Site Preparation - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	4.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0754	0.0754	0.0000	0.0000	0.0755
Total	4.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0754	0.0754	0.0000	0.0000	0.0755

## 3.4 Grading - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0172	0.0000	0.0172	8.8400e- 003	0.0000	8.8400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5100e- 003	0.0502	0.0222	5.0000e- 005		2.2300e- 003	2.2300e- 003	1 1 1	2.0500e- 003	2.0500e- 003	0.0000	4.3343	4.3343	1.4000e- 003	0.0000	4.3693
Total	4.5100e- 003	0.0502	0.0222	5.0000e- 005	0.0172	2.2300e- 003	0.0194	8.8400e- 003	2.0500e- 003	0.0109	0.0000	4.3343	4.3343	1.4000e- 003	0.0000	4.3693

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3.4 Grading - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.0000e- 004	6.0000e- 005	7.1000e- 004	0.0000	2.1000e- 004	0.0000	2.1000e- 004	5.0000e- 005	0.0000	6.0000e- 005	0.0000	0.1760	0.1760	0.0000	0.0000	0.1761
Total	1.0000e- 004	6.0000e- 005	7.1000e- 004	0.0000	2.1000e- 004	0.0000	2.1000e- 004	5.0000e- 005	0.0000	6.0000e- 005	0.0000	0.1760	0.1760	0.0000	0.0000	0.1761

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0172	0.0000	0.0172	8.8400e- 003	0.0000	8.8400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e- 004	2.6200e- 003	0.0250	5.0000e- 005		8.0000e- 005	8.0000e- 005	i i	8.0000e- 005	8.0000e- 005	0.0000	4.3343	4.3343	1.4000e- 003	0.0000	4.3693
Total	6.0000e- 004	2.6200e- 003	0.0250	5.0000e- 005	0.0172	8.0000e- 005	0.0173	8.8400e- 003	8.0000e- 005	8.9200e- 003	0.0000	4.3343	4.3343	1.4000e- 003	0.0000	4.3693

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3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
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
1	1.0000e- 004	6.0000e- 005	7.1000e- 004	0.0000	2.1000e- 004	0.0000	2.1000e- 004	5.0000e- 005	0.0000	6.0000e- 005	0.0000	0.1760	0.1760	0.0000	0.0000	0.1761
Total	1.0000e- 004	6.0000e- 005	7.1000e- 004	0.0000	2.1000e- 004	0.0000	2.1000e- 004	5.0000e- 005	0.0000	6.0000e- 005	0.0000	0.1760	0.1760	0.0000	0.0000	0.1761

## 3.5 Building Construction - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0408	0.3068	0.2902	5.0000e- 004		0.0154	0.0154		0.0149	0.0149	0.0000	40.8482	40.8482	7.2900e- 003	0.0000	41.0305
Total	0.0408	0.3068	0.2902	5.0000e- 004		0.0154	0.0154		0.0149	0.0149	0.0000	40.8482	40.8482	7.2900e- 003	0.0000	41.0305

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## 3.5 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					ton	s/yr							МТ	/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	1.0600e- 003	0.0345	9.2300e- 003	8.0000e- 005	1.9700e- 003	1.0000e- 004	2.0700e- 003	5.7000e- 004	9.0000e- 005	6.6000e- 004	0.0000	7.9193	7.9193	4.5000e- 004	0.0000	7.9306
Worker	8.0200e- 003	5.2400e- 003	0.0587	1.6000e- 004	0.0170	1.2000e- 004	0.0171	4.5300e- 003	1.1000e- 004	4.6400e- 003	0.0000	14.5673	14.5673	3.8000e- 004	0.0000	14.5769
Total	9.0800e- 003	0.0398	0.0679	2.4000e- 004	0.0190	2.2000e- 004	0.0192	5.1000e- 003	2.0000e- 004	5.3000e- 003	0.0000	22.4866	22.4866	8.3000e- 004	0.0000	22.5075

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0241	0.1176	0.3103	5.0000e- 004		5.4900e- 003	5.4900e- 003		5.4900e- 003	5.4900e- 003	0.0000	40.8482	40.8482	7.2900e- 003	0.0000	41.0305
Total	0.0241	0.1176	0.3103	5.0000e- 004		5.4900e- 003	5.4900e- 003		5.4900e- 003	5.4900e- 003	0.0000	40.8482	40.8482	7.2900e- 003	0.0000	41.0305

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3.5 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					ton	s/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	1.0600e- 003	0.0345	9.2300e- 003	8.0000e- 005	1.9700e- 003	1.0000e- 004	2.0700e- 003	5.7000e- 004	9.0000e- 005	6.6000e- 004	0.0000	7.9193	7.9193	4.5000e- 004	0.0000	7.9306
Worker	8.0200e- 003	5.2400e- 003	0.0587	1.6000e- 004	0.0170	1.2000e- 004	0.0171	4.5300e- 003	1.1000e- 004	4.6400e- 003	0.0000	14.5673	14.5673	3.8000e- 004	0.0000	14.5769
Total	9.0800e- 003	0.0398	0.0679	2.4000e- 004	0.0190	2.2000e- 004	0.0192	5.1000e- 003	2.0000e- 004	5.3000e- 003	0.0000	22.4866	22.4866	8.3000e- 004	0.0000	22.5075

## 3.5 Building Construction - 2022

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.2143	1.6254	1.6544	2.8700e- 003		0.0766	0.0766		0.0740	0.0740	0.0000	236.0500	236.0500	0.0411	0.0000	237.0778
Total	0.2143	1.6254	1.6544	2.8700e- 003		0.0766	0.0766		0.0740	0.0740	0.0000	236.0500	236.0500	0.0411	0.0000	237.0778

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## 3.5 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					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6900e- 003	0.1894	0.0492	4.7000e- 004	0.0114	4.8000e- 004	0.0119	3.2900e- 003	4.6000e- 004	3.7600e- 003	0.0000	45.3535	45.3535	2.5400e- 003	0.0000	45.4170
Worker	0.0433	0.0272	0.3114	9.0000e- 004	0.0983	6.7000e- 004	0.0990	0.0262	6.2000e- 004	0.0268	0.0000	81.1520	81.1520	1.9900e- 003	0.0000	81.2016
Total	0.0490	0.2166	0.3606	1.3700e- 003	0.1097	1.1500e- 003	0.1109	0.0295	1.0800e- 003	0.0305	0.0000	126.5055	126.5055	4.5300e- 003	0.0000	126.6187

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.1289	0.6615	1.7837	2.8700e- 003		0.0277	0.0277	 	0.0277	0.0277	0.0000	236.0497	236.0497	0.0411	0.0000	237.0775
Total	0.1289	0.6615	1.7837	2.8700e- 003		0.0277	0.0277		0.0277	0.0277	0.0000	236.0497	236.0497	0.0411	0.0000	237.0775

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3.5 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					ton	s/yr							МТ	/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
1	5.6900e- 003	0.1894	0.0492	4.7000e- 004	0.0114	4.8000e- 004	0.0119	3.2900e- 003	4.6000e- 004	3.7600e- 003	0.0000	45.3535	45.3535	2.5400e- 003	0.0000	45.4170
Worker	0.0433	0.0272	0.3114	9.0000e- 004	0.0983	6.7000e- 004	0.0990	0.0262	6.2000e- 004	0.0268	0.0000	81.1520	81.1520	1.9900e- 003	0.0000	81.2016
Total	0.0490	0.2166	0.3606	1.3700e- 003	0.1097	1.1500e- 003	0.1109	0.0295	1.0800e- 003	0.0305	0.0000	126.5055	126.5055	4.5300e- 003	0.0000	126.6187

## 3.5 Building Construction - 2023

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0114	0.0878	0.0946	1.7000e- 004		3.8600e- 003	3.8600e- 003		3.7300e- 003	3.7300e- 003	0.0000	13.6199	13.6199	2.3100e- 003	0.0000	13.6778
Total	0.0114	0.0878	0.0946	1.7000e- 004		3.8600e- 003	3.8600e- 003		3.7300e- 003	3.7300e- 003	0.0000	13.6199	13.6199	2.3100e- 003	0.0000	13.6778

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## 3.5 Building Construction - 2023 Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	2.6000e- 004	9.2400e- 003	2.5100e- 003	3.0000e- 005	6.6000e- 004	1.0000e- 005	6.7000e- 004	1.9000e- 004	1.0000e- 005	2.0000e- 004	0.0000	2.5682	2.5682	1.3000e- 004	0.0000	2.5715
Worker	2.3400e- 003	1.4100e- 003	0.0165	5.0000e- 005	5.6700e- 003	4.0000e- 005	5.7100e- 003	1.5100e- 003	3.0000e- 005	1.5400e- 003	0.0000	4.5060	4.5060	1.0000e- 004	0.0000	4.5086
Total	2.6000e- 003	0.0107	0.0190	8.0000e- 005	6.3300e- 003	5.0000e- 005	6.3800e- 003	1.7000e- 003	4.0000e- 005	1.7400e- 003	0.0000	7.0742	7.0742	2.3000e- 004	0.0000	7.0801

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
1	6.9400e- 003	0.0372	0.1025	1.7000e- 004		1.4000e- 003	1.4000e- 003		1.4000e- 003	1.4000e- 003	0.0000	13.6199	13.6199	2.3100e- 003	0.0000	13.6777
Total	6.9400e- 003	0.0372	0.1025	1.7000e- 004		1.4000e- 003	1.4000e- 003		1.4000e- 003	1.4000e- 003	0.0000	13.6199	13.6199	2.3100e- 003	0.0000	13.6777

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3.5 Building Construction - 2023 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	2.6000e- 004	9.2400e- 003	2.5100e- 003	3.0000e- 005	6.6000e- 004	1.0000e- 005	6.7000e- 004	1.9000e- 004	1.0000e- 005	2.0000e- 004	0.0000	2.5682	2.5682	1.3000e- 004	0.0000	2.5715
Worker	2.3400e- 003	1.4100e- 003	0.0165	5.0000e- 005	5.6700e- 003	4.0000e- 005	5.7100e- 003	1.5100e- 003	3.0000e- 005	1.5400e- 003	0.0000	4.5060	4.5060	1.0000e- 004	0.0000	4.5086
Total	2.6000e- 003	0.0107	0.0190	8.0000e- 005	6.3300e- 003	5.0000e- 005	6.3800e- 003	1.7000e- 003	4.0000e- 005	1.7400e- 003	0.0000	7.0742	7.0742	2.3000e- 004	0.0000	7.0801

# 3.6 Paving - 2023

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	4.5100e- 003	0.0437	0.0616	9.0000e- 005		2.1600e- 003	2.1600e- 003		1.9900e- 003	1.9900e- 003	0.0000	8.2407	8.2407	2.6100e- 003	0.0000	8.3060
Paving	0.0000					0.0000	0.0000	1 1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.5100e- 003	0.0437	0.0616	9.0000e- 005		2.1600e- 003	2.1600e- 003		1.9900e- 003	1.9900e- 003	0.0000	8.2407	8.2407	2.6100e- 003	0.0000	8.3060

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## Opus at Folson and Elvas - Sacramento County, Annual

3.6 Paving - 2023
<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	1.7000e- 004	1.9400e- 003	1.0000e- 005	6.7000e- 004	0.0000	6.7000e- 004	1.8000e- 004	0.0000	1.8000e- 004	0.0000	0.5308	0.5308	1.0000e- 005	0.0000	0.5311
Total	2.8000e- 004	1.7000e- 004	1.9400e- 003	1.0000e- 005	6.7000e- 004	0.0000	6.7000e- 004	1.8000e- 004	0.0000	1.8000e- 004	0.0000	0.5308	0.5308	1.0000e- 005	0.0000	0.5311

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	1.4300e- 003	6.7800e- 003	0.0706	9.0000e- 005		2.2000e- 004	2.2000e- 004		2.2000e- 004	2.2000e- 004	0.0000	8.2407	8.2407	2.6100e- 003	0.0000	8.3060
Paving	0.0000	i i	 		 	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.4300e- 003	6.7800e- 003	0.0706	9.0000e- 005		2.2000e- 004	2.2000e- 004		2.2000e- 004	2.2000e- 004	0.0000	8.2407	8.2407	2.6100e- 003	0.0000	8.3060

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## Opus at Folson and Elvas - Sacramento County, Annual

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	1.7000e- 004	1.9400e- 003	1.0000e- 005	6.7000e- 004	0.0000	6.7000e- 004	1.8000e- 004	0.0000	1.8000e- 004	0.0000	0.5308	0.5308	1.0000e- 005	0.0000	0.5311
Total	2.8000e- 004	1.7000e- 004	1.9400e- 003	1.0000e- 005	6.7000e- 004	0.0000	6.7000e- 004	1.8000e- 004	0.0000	1.8000e- 004	0.0000	0.5308	0.5308	1.0000e- 005	0.0000	0.5311

## 3.7 Architectural Coating - 2023

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	<sup>-</sup> /yr		
Archit. Coating	0.1539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
J Cil Roda	1.3400e- 003	9.1200e- 003	0.0127	2.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	1.7873	1.7873	1.1000e- 004	0.0000	1.7900
Total	0.1552	9.1200e- 003	0.0127	2.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	1.7873	1.7873	1.1000e- 004	0.0000	1.7900

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## 3.7 Architectural Coating - 2023 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
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
	4.5000e- 004	2.7000e- 004	3.1400e- 003	1.0000e- 005	1.0800e- 003	1.0000e- 005	1.0900e- 003	2.9000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8575	0.8575	2.0000e- 005	0.0000	0.8580
Total	4.5000e- 004	2.7000e- 004	3.1400e- 003	1.0000e- 005	1.0800e- 003	1.0000e- 005	1.0900e- 003	2.9000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8575	0.8575	2.0000e- 005	0.0000	0.8580

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.1539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e- 004	9.0000e- 004	0.0128	2.0000e- 005	 	3.0000e- 005	3.0000e- 005	 	3.0000e- 005	3.0000e- 005	0.0000	1.7873	1.7873	1.1000e- 004	0.0000	1.7900
Total	0.1541	9.0000e- 004	0.0128	2.0000e- 005		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005	0.0000	1.7873	1.7873	1.1000e- 004	0.0000	1.7900

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3.7 Architectural Coating - 2023 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
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	2.7000e- 004	3.1400e- 003	1.0000e- 005	1.0800e- 003	1.0000e- 005	1.0900e- 003	2.9000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8575	0.8575	2.0000e- 005	0.0000	0.8580
Total	4.5000e- 004	2.7000e- 004	3.1400e- 003	1.0000e- 005	1.0800e- 003	1.0000e- 005	1.0900e- 003	2.9000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.8575	0.8575	2.0000e- 005	0.0000	0.8580

## 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					ton	s/yr							MT	/yr		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Pass-by	
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.562895	0.037862	0.207220	0.115570	0.017815	0.005092	0.018559	0.023754	0.002009	0.001969	0.005819	0.000618	0.000817

## 5.0 Energy Detail

Historical Energy Use: N

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## **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					ton	s/yr							MT	-/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	162.9786	162.9786	8.0100e- 003	1.6600e- 003	163.6724
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	162.9786	162.9786	8.0100e- 003	1.6600e- 003	163.6724
NaturalGas Mitigated	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003	<del></del>   	5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300
NaturalGas Unmitigated	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300

## 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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					ton	s/yr							МТ	/yr		
Apartments Mid Rise	1.39398e +006	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300
Total		7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300

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# **5.2 Energy by Land Use - NaturalGas Mitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
Apartments Mid Rise	1.39398e +006	7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300
Total		7.5200e- 003	0.0642	0.0273	4.1000e- 004		5.1900e- 003	5.1900e- 003		5.1900e- 003	5.1900e- 003	0.0000	74.3880	74.3880	1.4300e- 003	1.3600e- 003	74.8300

## 5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Apartments Mid Rise	608674	162.9786	8.0100e- 003	1.6600e- 003	163.6724
Total		162.9786	8.0100e- 003	1.6600e- 003	163.6724

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5.3 Energy by Land Use - Electricity Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	-/yr	
Apartments Mid Rise	608674	162.9786	8.0100e- 003	1.6600e- 003	163.6724
Total		162.9786	8.0100e- 003	1.6600e- 003	163.6724

## 6.0 Area Detail

## **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	<sup>-</sup> /yr		
Mitigated	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Unmitigated	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668

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## 6.2 Area by SubCategory Unmitigated

	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
Architectural Coating	0.0154			 		0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0961		 	 		0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0444	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003	 	8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Total	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668

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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					ton	s/yr							MT	-/yr		
Architectural Coating	0.0154					0.0000	0.0000	i i	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0961					0.0000	0.0000	·	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	·	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0444	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003	1 1 1 1	8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668
Total	0.1559	0.0170	1.4750	8.0000e- 005		8.1600e- 003	8.1600e- 003		8.1600e- 003	8.1600e- 003	0.0000	2.4089	2.4089	2.3200e- 003	0.0000	2.4668

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		МТ	/yr	
Imagatou	21.2313	0.0122	7.3500e- 003	23.7275
- Crimingatou	21.2313	0.0122	7.3500e- 003	23.7275

## 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	√yr	
Apartments Mid Rise	9.31703 / 5.87378	21.2313	0.0122	7.3500e- 003	23.7275
Total		21.2313	0.0122	7.3500e- 003	23.7275

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## Opus at Folson and Elvas - Sacramento County, Annual

7.2 Water by Land Use Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
Apartments Mid Rise	9.31703 / 5.87378	21.2313	0.0122	7.3500e- 003	23.7275
Total		21.2313	0.0122	7.3500e- 003	23.7275

## 8.0 Waste Detail

## **8.1 Mitigation Measures Waste**

## Category/Year

	Total CO2	CH4	N2O	CO2e				
		MT/yr						
wiiigatod	13.3528	0.7891	0.0000	33.0809				
Ommigatod	13.3528	0.7891	0.0000	33.0809				

## Opus at Folson and Elvas - Sacramento County, Annual

8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Apartments Mid Rise	65.78	13.3528	0.7891	0.0000	33.0809
Total		13.3528	0.7891	0.0000	33.0809

#### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	-/yr	
Apartments Mid Rise	65.78	13.3528	0.7891	0.0000	33.0809
Total		13.3528	0.7891	0.0000	33.0809

# 9.0 Operational Offroad

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

## Opus at Folson and Elvas - 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
-----------------------	-----------	------------	-------------	-------------	-----------

#### **Boilers**

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

## **User Defined Equipment**

Equipment Type	Number

## 11.0 Vegetation

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#### Opus at Folson and Elvas - Sacramento County, Summer

## Opus at Folson and Elvas Sacramento County, Summer

## 1.0 Project Characteristics

## 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	143.00	Dwelling Unit	1.90	24,596.00	376

## 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2023
Utility Company	Sacramento Municipal Util	lity 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

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#### Opus at Folson and Elvas - Sacramento County, Summer

Project Characteristics - Conservatively assume early construction/operational dates

Land Use - from PD

Construction Phase - Adjusted Default schedule to match 18 mo construction from PD

Demolition -

Grading -

Vehicle Trips - VMT captured from General Plan

Woodstoves - Student housing

Energy Use -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	14.00
tblConstructionPhase	NumDays	200.00	320.00
tblConstructionPhase	NumDays	20.00	33.00
tblConstructionPhase	NumDays	4.00	7.00
tblConstructionPhase	NumDays	10.00	14.00
tblConstructionPhase	NumDays	2.00	3.00
tblFireplaces	NumberNoFireplace	143.00	0.00
tblLandUse	LandUseSquareFeet	143,000.00	24,596.00
tblLandUse	LotAcreage	3.76	1.90
tblLandUse	Population	382.00	376.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00

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## Opus at Folson and Elvas - Sacramento County, Summer

# 2.0 Emissions Summary

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## Opus at Folson and Elvas - 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/d	lay				
2021	2.2717	20.2491	16.3654	0.0337	5.8604	1.0434	6.6262	2.9698	0.9739	3.6744	0.0000	3,182.910 3	3,182.910 3	0.6063	0.0000	3,192.903 1
2022	2.0770	14.1255	15.9185	0.0334	0.8738	0.5976	1.4714	0.2338	0.5771	0.8109	0.0000	3,151.499 3	3,151.499 3	0.3883	0.0000	3,161.207 1
2023	22.2512	13.0964	15.5374	0.0330	0.8738	0.5212	1.3950	0.2338	0.5031	0.7369	0.0000	3,115.9304	3,115.9304	0.4135	0.0000	3,125.319 1
Maximum	22.2512	20.2491	16.3654	0.0337	5.8604	1.0434	6.6262	2.9698	0.9739	3.6744	0.0000	3,182.910 3	3,182.910 3	0.6063	0.0000	3,192.903 1

## **Mitigated Construction**

	ROG	NOx	СО	SO2	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/d	lay				
2021	2.2717	20.2491	16.3654	0.0337	5.8604	1.0434	6.6262	2.9698	0.9739	3.6744	0.0000	3,182.910 3	3,182.910 3	0.6063	0.0000	3,192.903 1
2022	2.0770	14.1255	15.9185	0.0334	0.8738	0.5976	1.4714	0.2338	0.5771	0.8109	0.0000	3,151.499 3	3,151.499 3	0.3883	0.0000	3,161.207 1
2023	22.2512	13.0964	15.5374	0.0330	0.8738	0.5212	1.3950	0.2338	0.5031	0.7369	0.0000	3,115.930 4	3,115.9304	0.4135	0.0000	3,125.319 1
Maximum	22.2512	20.2491	16.3654	0.0337	5.8604	1.0434	6.6262	2.9698	0.9739	3.6744	0.0000	3,182.910 3	3,182.910 3	0.6063	0.0000	3,192.903 1

#### Opus at Folson and Elvas - Sacramento County, Summer

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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

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#### Opus at Folson and Elvas - 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/d	day							lb/d	lay		
Area	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537
Energy	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0074	0.4880	11.9501	2.8700e- 003	0.0000	0.0938	0.0938	0.0000	0.0938	0.0938	0.0000	470.5511	470.5511	0.0290	8.2400e- 003	473.7318

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Area	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537
Energy	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285	1       	0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0074	0.4880	11.9501	2.8700e- 003	0.0000	0.0938	0.0938	0.0000	0.0938	0.0938	0.0000	470.5511	470.5511	0.0290	8.2400e- 003	473.7318

#### Opus at Folson and Elvas - Sacramento County, Summer

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	9/1/2021	10/15/2021	5	33	
2	Site Preparation	Site Preparation	10/18/2021	10/20/2021	5	3	
3	Grading	Grading	10/21/2021	10/29/2021	5	7	
4	Building Construction	Building Construction	11/1/2021	1/20/2023	5	320	
5	Paving	Paving	1/23/2023	2/9/2023	5	14	
6	Architectural Coating	Architectural Coating	2/10/2023	3/1/2023	5	14	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 2.63

Acres of Paving: 0

Residential Indoor: 49,807; Residential Outdoor: 16,602; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Opus at Folson and Elvas - Sacramento County, Summer

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

**Trips and VMT** 

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Opus at Folson and Elvas - Sacramento County, Summer

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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	5	13.00	0.00	68.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	103.00	15.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

#### **3.1 Mitigation Measures Construction**

#### 3.2 Demolition - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					0.4665	0.0000	0.4665	0.0706	0.0000	0.0706			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.717 1	2,322.717 1	0.5940		2,337.565 8
Total	1.9930	19.6966	14.4925	0.0241	0.4665	1.0409	1.5074	0.0706	0.9715	1.0421		2,322.717 1	2,322.717 1	0.5940		2,337.565 8

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.2 Demolition - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0145	0.5259	0.1210	1.6100e- 003	0.0358	1.8400e- 003	0.0377	9.8100e- 003	1.7600e- 003	0.0116		172.8988	172.8988	9.7300e- 003		173.1420
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	0.0521	0.0267	0.3889	1.0000e- 003	0.0989	6.7000e- 004	0.0996	0.0262	6.2000e- 004	0.0269		99.6423	99.6423	2.6500e- 003		99.7086
Total	0.0666	0.5525	0.5099	2.6100e- 003	0.1347	2.5100e- 003	0.1372	0.0360	2.3800e- 003	0.0384		272.5411	272.5411	0.0124		272.8506

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					0.4665	0.0000	0.4665	0.0706	0.0000	0.0706			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409	] 	0.9715	0.9715	0.0000	2,322.717 1	2,322.717 1	0.5940		2,337.565 8
Total	1.9930	19.6966	14.4925	0.0241	0.4665	1.0409	1.5074	0.0706	0.9715	1.0421	0.0000	2,322.717 1	2,322.717 1	0.5940		2,337.565 8

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.2 Demolition - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0145	0.5259	0.1210	1.6100e- 003	0.0358	1.8400e- 003	0.0377	9.8100e- 003	1.7600e- 003	0.0116		172.8988	172.8988	9.7300e- 003		173.1420
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	0.0521	0.0267	0.3889	1.0000e- 003	0.0989	6.7000e- 004	0.0996	0.0262	6.2000e- 004	0.0269		99.6423	99.6423	2.6500e- 003		99.7086
Total	0.0666	0.5525	0.5099	2.6100e- 003	0.1347	2.5100e- 003	0.1372	0.0360	2.3800e- 003	0.0384		272.5411	272.5411	0.0124		272.8506

## 3.3 Site Preparation - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.517 4	1,666.517 4	0.5390	       	1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	5.7996	0.7654	6.5650	2.9537	0.7041	3.6578		1,666.517 4	1,666.517 4	0.5390		1,679.992 0

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.3 Site Preparation - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
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	0.0321	0.0164	0.2393	6.2000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		61.3183	61.3183	1.6300e- 003		61.3591
Total	0.0321	0.0164	0.2393	6.2000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		61.3183	61.3183	1.6300e- 003		61.3591

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654	 	0.7041	0.7041	0.0000	1,666.517 4	1,666.517 4	0.5390	 	1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	5.7996	0.7654	6.5650	2.9537	0.7041	3.6578	0.0000	1,666.517 4	1,666.517 4	0.5390		1,679.992 0

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.3 Site Preparation - 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/d	day							lb/d	lay		
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	0.0321	0.0164	0.2393	6.2000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		61.3183	61.3183	1.6300e- 003		61.3591
Total	0.0321	0.0164	0.2393	6.2000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		61.3183	61.3183	1.6300e- 003		61.3591

#### 3.4 Grading - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					4.9150	0.0000	4.9150	2.5257	0.0000	2.5257			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141	       	0.6379	0.6379		0.5869	0.5869		1,365.064 8	1,365.064 8	0.4415		1,376.102 0
Total	1.2884	14.3307	6.3314	0.0141	4.9150	0.6379	5.5529	2.5257	0.5869	3.1126		1,365.064 8	1,365.064 8	0.4415		1,376.102 0

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.4 Grading - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0321	0.0164	0.2393	6.2000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		61.3183	61.3183	1.6300e- 003		61.3591
Total	0.0321	0.0164	0.2393	6.2000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		61.3183	61.3183	1.6300e- 003		61.3591

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					4.9150	0.0000	4.9150	2.5257	0.0000	2.5257			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379	 	0.5869	0.5869	0.0000	1,365.064 8	1,365.064 8	0.4415		1,376.102 0
Total	1.2884	14.3307	6.3314	0.0141	4.9150	0.6379	5.5529	2.5257	0.5869	3.1126	0.0000	1,365.064 8	1,365.064 8	0.4415		1,376.102 0

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.4 Grading - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0321	0.0164	0.2393	6.2000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		61.3183	61.3183	1.6300e- 003		61.3591
Total	0.0321	0.0164	0.2393	6.2000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		61.3183	61.3183	1.6300e- 003		61.3591

#### 3.5 Building Construction - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.220 0	2,001.220 0	0.3573		2,010.151 7
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.220 0	2,001.220 0	0.3573		2,010.151 7

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#### Opus at Folson and Elvas - Sacramento County, Summer

## 3.5 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/d	day							lb/d	lay		
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	0.0464	1.5066	0.3847	3.7000e- 003	0.0903	4.1300e- 003	0.0944	0.0260	3.9500e- 003	0.0299		392.2169	392.2169	0.0214	       	392.7528
Worker	0.4128	0.2113	3.0813	7.9300e- 003	0.7835	5.2900e- 003	0.7888	0.2078	4.8700e- 003	0.2127		789.4734	789.4734	0.0210	       	789.9986
Total	0.4592	1.7179	3.4660	0.0116	0.8738	9.4200e- 003	0.8832	0.2338	8.8200e- 003	0.2426		1,181.690 3	1,181.690 3	0.0425		1,182.751 4

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.220 0	2,001.220 0	0.3573		2,010.151 7
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.220 0	2,001.220 0	0.3573		2,010.151 7

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.5 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/d	day							lb/d	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	0.0464	1.5066	0.3847	3.7000e- 003	0.0903	4.1300e- 003	0.0944	0.0260	3.9500e- 003	0.0299		392.2169	392.2169	0.0214	       	392.7528
Worker	0.4128	0.2113	3.0813	7.9300e- 003	0.7835	5.2900e- 003	0.7888	0.2078	4.8700e- 003	0.2127		789.4734	789.4734	0.0210	     	789.9986
Total	0.4592	1.7179	3.4660	0.0116	0.8738	9.4200e- 003	0.8832	0.2338	8.8200e- 003	0.2426		1,181.690 3	1,181.690 3	0.0425		1,182.751 4

#### 3.5 Building Construction - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.542 9	2,001.542 9	0.3486		2,010.258 1
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.542 9	2,001.542 9	0.3486		2,010.258 1

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#### Opus at Folson and Elvas - Sacramento County, Summer

## 3.5 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/d	day							lb/d	lay		
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	0.0430	1.4324	0.3545	3.6700e- 003	0.0903	3.6200e- 003	0.0939	0.0260	3.4600e- 003	0.0294		388.7955	388.7955	0.0208	       	389.3160
Worker	0.3853	0.1901	2.8376	7.6400e- 003	0.7835	5.1500e- 003	0.7887	0.2078	4.7500e- 003	0.2126		761.1610	761.1610	0.0189	     	761.6331
Total	0.4283	1.6224	3.1921	0.0113	0.8738	8.7700e- 003	0.8825	0.2338	8.2100e- 003	0.2420		1,149.956 5	1,149.956 5	0.0397		1,150.949 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.542 9	2,001.542 9	0.3486		2,010.258 1
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.542 9	2,001.542 9	0.3486		2,010.258 1

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.5 Building Construction - 2022 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0430	1.4324	0.3545	3.6700e- 003	0.0903	3.6200e- 003	0.0939	0.0260	3.4600e- 003	0.0294		388.7955	388.7955	0.0208		389.3160
Worker	0.3853	0.1901	2.8376	7.6400e- 003	0.7835	5.1500e- 003	0.7887	0.2078	4.7500e- 003	0.2126		761.1610	761.1610	0.0189		761.6331
Total	0.4283	1.6224	3.1921	0.0113	0.8738	8.7700e- 003	0.8825	0.2338	8.2100e- 003	0.2420		1,149.956 5	1,149.956 5	0.0397		1,150.949 0

## 3.5 Building Construction - 2023

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.787 7	2,001.787 7	0.3399		2,010.285 8
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.787 7	2,001.787 7	0.3399		2,010.285 8

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#### Opus at Folson and Elvas - Sacramento County, Summer

## 3.5 Building Construction - 2023 Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0340	1.2150	0.3144	3.6000e- 003	0.0902	1.7100e- 003	0.0920	0.0260	1.6300e- 003	0.0276		381.5983	381.5983	0.0187	     	382.0657
Worker	0.3602	0.1711	2.6119	7.3500e- 003	0.7835	5.0300e- 003	0.7886	0.2078	4.6300e- 003	0.2125		732.5445	732.5445	0.0169	       	732.9676
Total	0.3942	1.3861	2.9263	0.0110	0.8738	6.7400e- 003	0.8805	0.2338	6.2600e- 003	0.2401		1,114.142 7	1,114.142 7	0.0356		1,115.033 3

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.787 7	2,001.787 7	0.3399		2,010.285 8
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.787 7	2,001.787 7	0.3399		2,010.285 8

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.5 Building Construction - 2023 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	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	0.0340	1.2150	0.3144	3.6000e- 003	0.0902	1.7100e- 003	0.0920	0.0260	1.6300e- 003	0.0276		381.5983	381.5983	0.0187	, ! ! !	382.0657
Worker	0.3602	0.1711	2.6119	7.3500e- 003	0.7835	5.0300e- 003	0.7886	0.2078	4.6300e- 003	0.2125		732.5445	732.5445	0.0169	,	732.9676
Total	0.3942	1.3861	2.9263	0.0110	0.8738	6.7400e- 003	0.8805	0.2338	6.2600e- 003	0.2401		1,114.142 7	1,114.142 7	0.0356		1,115.033 3

# 3.6 Paving - 2023

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.688 0	1,297.688 0	0.4114		1,307.972 5
Paving	0.0000	       	 			0.0000	0.0000	 	0.0000	0.0000			0.0000			0.0000
Total	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.688 0	1,297.688 0	0.4114		1,307.972 5

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.6 Paving - 2023

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0455	0.0216	0.3297	9.3000e- 004	0.0989	6.3000e- 004	0.0995	0.0262	5.8000e- 004	0.0268		92.4571	92.4571	2.1400e- 003		92.5105
Total	0.0455	0.0216	0.3297	9.3000e- 004	0.0989	6.3000e- 004	0.0995	0.0262	5.8000e- 004	0.0268		92.4571	92.4571	2.1400e- 003		92.5105

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.688 0	1,297.688 0	0.4114		1,307.972 5
Paving	0.0000			 	i i	0.0000	0.0000	i i	0.0000	0.0000		! ! !	0.0000		       	0.0000
Total	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.688 0	1,297.688 0	0.4114		1,307.972 5

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#### Opus at Folson and Elvas - Sacramento County, Summer

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0455	0.0216	0.3297	9.3000e- 004	0.0989	6.3000e- 004	0.0995	0.0262	5.8000e- 004	0.0268		92.4571	92.4571	2.1400e- 003		92.5105
Total	0.0455	0.0216	0.3297	9.3000e- 004	0.0989	6.3000e- 004	0.0995	0.0262	5.8000e- 004	0.0268		92.4571	92.4571	2.1400e- 003		92.5105

## 3.7 Architectural Coating - 2023

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	21.9861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e- 003		0.0708	0.0708	       	0.0708	0.0708		281.4481	281.4481	0.0168	       	281.8690
Total	22.1778	1.3030	1.8111	2.9700e- 003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

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#### Opus at Folson and Elvas - Sacramento County, Summer

## 3.7 Architectural Coating - 2023 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0734	0.0349	0.5325	1.5000e- 003	0.1598	1.0200e- 003	0.1608	0.0424	9.4000e- 004	0.0433		149.3537	149.3537	3.4500e- 003		149.4400
Total	0.0734	0.0349	0.5325	1.5000e- 003	0.1598	1.0200e- 003	0.1608	0.0424	9.4000e- 004	0.0433		149.3537	149.3537	3.4500e- 003		149.4400

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	21.9861		 			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e- 003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	22.1778	1.3030	1.8111	2.9700e- 003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

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#### Opus at Folson and Elvas - Sacramento County, Summer

# 3.7 Architectural Coating - 2023 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	lay		
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	0.0734	0.0349	0.5325	1.5000e- 003	0.1598	1.0200e- 003	0.1608	0.0424	9.4000e- 004	0.0433		149.3537	149.3537	3.4500e- 003		149.4400
Total	0.0734	0.0349	0.5325	1.5000e- 003	0.1598	1.0200e- 003	0.1608	0.0424	9.4000e- 004	0.0433		149.3537	149.3537	3.4500e- 003		149.4400

# 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

#### Opus at Folson and Elvas - 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/d	day							lb/c	day		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

#### **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

#### **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.562895	0.037862	0.207220	0.115570	0.017815	0.005092	0.018559	0.023754	0.002009	0.001969	0.005819	0.000618	0.000817

## 5.0 Energy Detail

Historical Energy Use: N

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#### Opus at Folson and Elvas - Sacramento County, Summer

#### **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/d	day							lb/c	lay		
NaturalGas Mitigated	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
NaturalGas Unmitigated	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781

# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	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/d	day							lb/d	day		
Apartments Mid Rise	3819.12	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
Total		0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781

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#### Opus at Folson and Elvas - Sacramento County, Summer

# **5.2 Energy by Land Use - NaturalGas Mitigated**

	NaturalGa s 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/d	day							lb/c	day		
Apartments Mid Rise	3.81912	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
Total		0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781

## 6.0 Area Detail

## **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Mitigated	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537
Unmitigated	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537

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#### Opus at Folson and Elvas - Sacramento County, Summer

# 6.2 Area by SubCategory Unmitigated

	ROG	NOx	СО	SO2	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/d	day							lb/d	day		
Architectural Coating	0.0843					0.0000	0.0000	i i i	0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5264		       	 		0.0000	0.0000	       	0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3555	0.1360	11.8003	6.2000e- 004		0.0653	0.0653	1   	0.0653	0.0653		21.2430	21.2430	0.0204		21.7537
Total	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537

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#### Opus at Folson and Elvas - 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/d	lb/day										
Architectural Coating	0.0843					0.0000	0.0000	1	0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5264					0.0000	0.0000	1 1 1 1	0.0000	0.0000			0.0000		 	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3555	0.1360	11.8003	6.2000e- 004		0.0653	0.0653	1 1 1 1	0.0653	0.0653		21.2430	21.2430	0.0204		21.7537
Total	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537

#### 7.0 Water Detail

## 7.1 Mitigation Measures Water

#### 8.0 Waste Detail

#### 8.1 Mitigation Measures Waste

# 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

#### Opus at Folson and Elvas - Sacramento County, Summer

#### **Fire Pumps and Emergency Generators**

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

#### **Boilers**

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

#### **User Defined Equipment**

Equipment Type	Number
----------------	--------

# 11.0 Vegetation

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#### Opus at Folson and Elvas - Sacramento County, Winter

# Opus at Folson and Elvas Sacramento County, Winter

## 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	143.00	Dwelling Unit	1.90	24,596.00	376

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2023
Utility Company	Sacramento Municipal Ut	ility 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

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#### Opus at Folson and Elvas - Sacramento County, Winter

Project Characteristics - Conservatively assume early construction/operational dates

Land Use - from PD

Construction Phase - Adjusted Default schedule to match 18 mo construction from PD

Demolition -

Grading -

Vehicle Trips - VMT captured from General Plan

Woodstoves - Student housing

Energy Use -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	14.00
tblConstructionPhase	NumDays	200.00	320.00
tblConstructionPhase	NumDays	20.00	33.00
tblConstructionPhase	NumDays	4.00	7.00
tblConstructionPhase	NumDays	10.00	14.00
tblConstructionPhase	NumDays	2.00	3.00
tblFireplaces	NumberNoFireplace	143.00	0.00
tblLandUse	LandUseSquareFeet	143,000.00	24,596.00
tblLandUse	LotAcreage	3.76	1.90
tblLandUse	Population	382.00	376.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00

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#### Opus at Folson and Elvas - Sacramento County, Winter

# 2.0 Emissions Summary

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#### Opus at Folson and Elvas - 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					
2021	2.2418	20.2757	15.9737	0.0326	5.8604	1.0435	6.6262	2.9698	0.9739	3.6744	0.0000	3,076.707 3	3,076.707 3	0.6065	0.0000	3,086.681 3		
2022	2.0497	14.1911	15.5480	0.0323	0.8738	0.5979	1.4716	0.2338	0.5773	0.8111	0.0000	3,048.809 0	3,048.809 0	0.3877	0.0000	3,058.502 4		
2023	22.2457	13.1487	15.1819	0.0320	0.8738	0.5214	1.3951	0.2338	0.5032	0.7370	0.0000	3,016.973 3	3,016.973 3	0.4133	0.0000	3,026.346 7		
Maximum	22.2457	20.2757	15.9737	0.0326	5.8604	1.0435	6.6262	2.9698	0.9739	3.6744	0.0000	3,076.707 3	3,076.707 3	0.6065	0.0000	3,086.681 3		

#### **Mitigated Construction**

	ROG	NOx	СО	SO2	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/d	day				lb/d	lay					
2021	2.2418	20.2757	15.9737	0.0326	5.8604	1.0435	6.6262	2.9698	0.9739	3.6744	0.0000	3,076.707 3	3,076.707 3	0.6065	0.0000	3,086.681 3
2022	2.0497	14.1911	15.5480	0.0323	0.8738	0.5979	1.4716	0.2338	0.5773	0.8111	0.0000	3,048.809 0	3,048.809 0	0.3877	0.0000	3,058.502 4
2023	22.2457	13.1487	15.1819	0.0320	0.8738	0.5214	1.3951	0.2338	0.5032	0.7370	0.0000	3,016.973 3	3,016.973 3	0.4133	0.0000	3,026.346 7
Maximum	22.2457	20.2757	15.9737	0.0326	5.8604	1.0435	6.6262	2.9698	0.9739	3.6744	0.0000	3,076.707 3	3,076.707 3	0.6065	0.0000	3,086.681 3

#### Opus at Folson and Elvas - Sacramento County, Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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

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#### Opus at Folson and Elvas - 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	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537			
Energy	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781			
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000			
Total	1.0074	0.4880	11.9501	2.8700e- 003	0.0000	0.0938	0.0938	0.0000	0.0938	0.0938	0.0000	470.5511	470.5511	0.0290	8.2400e- 003	473.7318			

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537
Energy	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0074	0.4880	11.9501	2.8700e- 003	0.0000	0.0938	0.0938	0.0000	0.0938	0.0938	0.0000	470.5511	470.5511	0.0290	8.2400e- 003	473.7318

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#### Opus at Folson and Elvas - Sacramento County, Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	9/1/2021	10/15/2021	5	33	
2	Site Preparation	Site Preparation	10/18/2021	10/20/2021	5	3	
3	Grading	Grading	10/21/2021	10/29/2021	5	7	
4	Building Construction	Building Construction	11/1/2021	1/20/2023	5	320	
5	Paving	Paving	1/23/2023	2/9/2023	5	14	
6	Architectural Coating	Architectural Coating	2/10/2023	3/1/2023	5	14	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 2.63

Acres of Paving: 0

Residential Indoor: 49,807; Residential Outdoor: 16,602; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Opus at Folson and Elvas - Sacramento County, Winter

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

**Trips and VMT** 

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Opus at Folson and Elvas - Sacramento County, Winter

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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	5	13.00	0.00	68.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	103.00	15.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

#### 3.2 Demolition - 2021

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.4665	0.0000	0.4665	0.0706	0.0000	0.0706			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409	 	0.9715	0.9715		2,322.717 1	2,322.717 1	0.5940		2,337.565 8
Total	1.9930	19.6966	14.4925	0.0241	0.4665	1.0409	1.5074	0.0706	0.9715	1.0421		2,322.717 1	2,322.717 1	0.5940		2,337.565 8

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## Opus at Folson and Elvas - Sacramento County, Winter

3.2 Demolition - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0149	0.5462	0.1293	1.5900e- 003	0.0358	1.9000e- 003	0.0377	9.8100e- 003	1.8200e- 003	0.0116		170.2194	170.2194	0.0102		170.4736
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	0.0480	0.0329	0.3317	8.8000e- 004	0.0989	6.7000e- 004	0.0996	0.0262	6.2000e- 004	0.0269		87.5114	87.5114	2.3300e- 003		87.5697
Total	0.0629	0.5791	0.4610	2.4700e- 003	0.1347	2.5700e- 003	0.1373	0.0360	2.4400e- 003	0.0385		257.7307	257.7307	0.0125		258.0432

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Fugitive Dust					0.4665	0.0000	0.4665	0.0706	0.0000	0.0706		i i i	0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241	 	1.0409	1.0409	i i	0.9715	0.9715	0.0000	2,322.717 1	2,322.717 1	0.5940	i i	2,337.565 8
Total	1.9930	19.6966	14.4925	0.0241	0.4665	1.0409	1.5074	0.0706	0.9715	1.0421	0.0000	2,322.717 1	2,322.717 1	0.5940		2,337.565 8

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## Opus at Folson and Elvas - Sacramento County, Winter

3.2 Demolition - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0149	0.5462	0.1293	1.5900e- 003	0.0358	1.9000e- 003	0.0377	9.8100e- 003	1.8200e- 003	0.0116		170.2194	170.2194	0.0102		170.4736
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	0.0480	0.0329	0.3317	8.8000e- 004	0.0989	6.7000e- 004	0.0996	0.0262	6.2000e- 004	0.0269		87.5114	87.5114	2.3300e- 003		87.5697
Total	0.0629	0.5791	0.4610	2.4700e- 003	0.1347	2.5700e- 003	0.1373	0.0360	2.4400e- 003	0.0385		257.7307	257.7307	0.0125		258.0432

## 3.3 Site Preparation - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172	       	0.7654	0.7654		0.7041	0.7041		1,666.517 4	1,666.517 4	0.5390	       	1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	5.7996	0.7654	6.5650	2.9537	0.7041	3.6578		1,666.517 4	1,666.517 4	0.5390		1,679.992 0

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## Opus at Folson and Elvas - Sacramento County, Winter

3.3 Site Preparation - 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/d	day							lb/d	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	0.0295	0.0203	0.2041	5.4000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		53.8531	53.8531	1.4400e- 003		53.8890
Total	0.0295	0.0203	0.2041	5.4000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		53.8531	53.8531	1.4400e- 003		53.8890

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654	 	0.7041	0.7041	0.0000	1,666.517 4	1,666.517 4	0.5390	 	1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	5.7996	0.7654	6.5650	2.9537	0.7041	3.6578	0.0000	1,666.517 4	1,666.517 4	0.5390		1,679.992 0

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## Opus at Folson and Elvas - Sacramento County, Winter

3.3 Site Preparation - 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/d	day							lb/d	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	0.0295	0.0203	0.2041	5.4000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		53.8531	53.8531	1.4400e- 003		53.8890
Total	0.0295	0.0203	0.2041	5.4000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		53.8531	53.8531	1.4400e- 003		53.8890

## 3.4 Grading - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					4.9150	0.0000	4.9150	2.5257	0.0000	2.5257			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141	       	0.6379	0.6379		0.5869	0.5869		1,365.064 8	1,365.064 8	0.4415		1,376.102 0
Total	1.2884	14.3307	6.3314	0.0141	4.9150	0.6379	5.5529	2.5257	0.5869	3.1126		1,365.064 8	1,365.064 8	0.4415		1,376.102 0

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## Opus at Folson and Elvas - Sacramento County, Winter

3.4 Grading - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0295	0.0203	0.2041	5.4000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		53.8531	53.8531	1.4400e- 003		53.8890
Total	0.0295	0.0203	0.2041	5.4000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		53.8531	53.8531	1.4400e- 003		53.8890

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust	 				4.9150	0.0000	4.9150	2.5257	0.0000	2.5257		1 1 1	0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379	 	0.5869	0.5869	0.0000	1,365.064 8	1,365.064 8	0.4415		1,376.102 0
Total	1.2884	14.3307	6.3314	0.0141	4.9150	0.6379	5.5529	2.5257	0.5869	3.1126	0.0000	1,365.064 8	1,365.064 8	0.4415		1,376.102 0

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## Opus at Folson and Elvas - Sacramento County, Winter

3.4 Grading - 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/d	day							lb/d	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	0.0295	0.0203	0.2041	5.4000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		53.8531	53.8531	1.4400e- 003		53.8890
Total	0.0295	0.0203	0.2041	5.4000e- 004	0.0609	4.1000e- 004	0.0613	0.0161	3.8000e- 004	0.0165		53.8531	53.8531	1.4400e- 003		53.8890

## 3.5 Building Construction - 2021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.220 0	2,001.220 0	0.3573		2,010.151 7
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.220 0	2,001.220	0.3573		2,010.151 7

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## Opus at Folson and Elvas - Sacramento County, Winter

# 3.5 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/d	day							lb/d	lay		
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	0.0491	1.5314	0.4462	3.6100e- 003	0.0903	4.3900e- 003	0.0947	0.0260	4.2000e- 003	0.0302		382.1281	382.1281	0.0232	       	382.7085
Worker	0.3802	0.2610	2.6282	6.9600e- 003	0.7835	5.2900e- 003	0.7888	0.2078	4.8700e- 003	0.2127		693.3592	693.3592	0.0185	       	693.8211
Total	0.4293	1.7924	3.0744	0.0106	0.8738	9.6800e- 003	0.8835	0.2338	9.0700e- 003	0.2429		1,075.487 3	1,075.487 3	0.0417		1,076.529 6

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.220 0	2,001.220 0	0.3573		2,010.151 7
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.220 0	2,001.220 0	0.3573		2,010.151 7

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## Opus at Folson and Elvas - Sacramento County, Winter

3.5 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/d	day							lb/d	lay		
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	0.0491	1.5314	0.4462	3.6100e- 003	0.0903	4.3900e- 003	0.0947	0.0260	4.2000e- 003	0.0302		382.1281	382.1281	0.0232	       	382.7085
Worker	0.3802	0.2610	2.6282	6.9600e- 003	0.7835	5.2900e- 003	0.7888	0.2078	4.8700e- 003	0.2127		693.3592	693.3592	0.0185	       	693.8211
Total	0.4293	1.7924	3.0744	0.0106	0.8738	9.6800e- 003	0.8835	0.2338	9.0700e- 003	0.2429		1,075.487 3	1,075.487 3	0.0417		1,076.529 6

## 3.5 Building Construction - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.542 9	2,001.542 9	0.3486		2,010.258 1
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.542 9	2,001.542 9	0.3486		2,010.258 1

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## Opus at Folson and Elvas - Sacramento County, Winter

# 3.5 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/d	day							lb/d	lay		
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	0.0456	1.4534	0.4115	3.5700e- 003	0.0903	3.8600e- 003	0.0941	0.0260	3.6900e- 003	0.0297		378.7327	378.7327	0.0226	       	379.2966
Worker	0.3555	0.2346	2.4101	6.7100e- 003	0.7835	5.1500e- 003	0.7887	0.2078	4.7500e- 003	0.2126		668.5334	668.5334	0.0166	       	668.9477
Total	0.4011	1.6880	2.8215	0.0103	0.8738	9.0100e- 003	0.8828	0.2338	8.4400e- 003	0.2422		1,047.266 1	1,047.266 1	0.0391		1,048.244 3

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.542 9	2,001.542 9	0.3486		2,010.258 1
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.542 9	2,001.542 9	0.3486		2,010.258 1

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## Opus at Folson and Elvas - Sacramento County, Winter

3.5 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/d	day							lb/d	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	0.0456	1.4534	0.4115	3.5700e- 003	0.0903	3.8600e- 003	0.0941	0.0260	3.6900e- 003	0.0297		378.7327	378.7327	0.0226	       	379.2966
Worker	0.3555	0.2346	2.4101	6.7100e- 003	0.7835	5.1500e- 003	0.7887	0.2078	4.7500e- 003	0.2126		668.5334	668.5334	0.0166	       	668.9477
Total	0.4011	1.6880	2.8215	0.0103	0.8738	9.0100e- 003	0.8828	0.2338	8.4400e- 003	0.2422		1,047.266 1	1,047.266 1	0.0391		1,048.244 3

## 3.5 Building Construction - 2023

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.787 7	2,001.787 7	0.3399		2,010.285 8
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.787 7	2,001.787 7	0.3399		2,010.285 8

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## Opus at Folson and Elvas - Sacramento County, Winter

# 3.5 Building Construction - 2023 Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
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	0.0361	1.2272	0.3626	3.5000e- 003	0.0902	1.8600e- 003	0.0921	0.0260	1.7700e- 003	0.0277		371.7476	371.7476	0.0202		372.2525
Worker	0.3331	0.2111	2.2082	6.4600e- 003	0.7835	5.0300e- 003	0.7886	0.2078	4.6300e- 003	0.2125		643.4380	643.4380	0.0148	       	643.8085
Total	0.3692	1.4383	2.5708	9.9600e- 003	0.8738	6.8900e- 003	0.8806	0.2338	6.4000e- 003	0.2402		1,015.185 6	1,015.185 6	0.0350		1,016.061 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.787 7	2,001.787 7	0.3399		2,010.285 8
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.787 7	2,001.787 7	0.3399		2,010.285 8

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## Opus at Folson and Elvas - Sacramento County, Winter

3.5 Building Construction - 2023 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	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	0.0361	1.2272	0.3626	3.5000e- 003	0.0902	1.8600e- 003	0.0921	0.0260	1.7700e- 003	0.0277		371.7476	371.7476	0.0202	       	372.2525
Worker	0.3331	0.2111	2.2082	6.4600e- 003	0.7835	5.0300e- 003	0.7886	0.2078	4.6300e- 003	0.2125		643.4380	643.4380	0.0148	       	643.8085
Total	0.3692	1.4383	2.5708	9.9600e- 003	0.8738	6.8900e- 003	0.8806	0.2338	6.4000e- 003	0.2402		1,015.185 6	1,015.185 6	0.0350		1,016.061 0

# 3.6 Paving - 2023

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.688 0	1,297.688 0	0.4114		1,307.972 5
Paving	0.0000		1 1 1 1 1	       	       	0.0000	0.0000	1	0.0000	0.0000			0.0000			0.0000
Total	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.688 0	1,297.688 0	0.4114		1,307.972 5

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## Opus at Folson and Elvas - Sacramento County, Winter

3.6 Paving - 2023

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	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	0.0420	0.0266	0.2787	8.2000e- 004	0.0989	6.3000e- 004	0.0995	0.0262	5.8000e- 004	0.0268		81.2106	81.2106	1.8700e- 003		81.2574
Total	0.0420	0.0266	0.2787	8.2000e- 004	0.0989	6.3000e- 004	0.0995	0.0262	5.8000e- 004	0.0268		81.2106	81.2106	1.8700e- 003		81.2574

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.6446	6.2357	8.8024	0.0136	! !	0.3084	0.3084		0.2846	0.2846	0.0000	1,297.688 0	1,297.688 0	0.4114		1,307.972 5
Paving	0.0000	 	]   			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.688 0	1,297.688 0	0.4114		1,307.972 5

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## Opus at Folson and Elvas - Sacramento County, Winter

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
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	0.0420	0.0266	0.2787	8.2000e- 004	0.0989	6.3000e- 004	0.0995	0.0262	5.8000e- 004	0.0268		81.2106	81.2106	1.8700e- 003		81.2574
Total	0.0420	0.0266	0.2787	8.2000e- 004	0.0989	6.3000e- 004	0.0995	0.0262	5.8000e- 004	0.0268		81.2106	81.2106	1.8700e- 003		81.2574

# 3.7 Architectural Coating - 2023

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Archit. Coating	21.9861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e- 003		0.0708	0.0708	1	0.0708	0.0708		281.4481	281.4481	0.0168	       	281.8690
Total	22.1778	1.3030	1.8111	2.9700e- 003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

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## Opus at Folson and Elvas - Sacramento County, Winter

# 3.7 Architectural Coating - 2023 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	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	0.0679	0.0430	0.4502	1.3200e- 003	0.1598	1.0200e- 003	0.1608	0.0424	9.4000e- 004	0.0433		131.1864	131.1864	3.0200e- 003		131.2619
Total	0.0679	0.0430	0.4502	1.3200e- 003	0.1598	1.0200e- 003	0.1608	0.0424	9.4000e- 004	0.0433		131.1864	131.1864	3.0200e- 003		131.2619

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Archit. Coating	21.9861		i i			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e- 003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	22.1778	1.3030	1.8111	2.9700e- 003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

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## Opus at Folson and Elvas - Sacramento County, Winter

3.7 Architectural Coating - 2023 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
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	0.0679	0.0430	0.4502	1.3200e- 003	0.1598	1.0200e- 003	0.1608	0.0424	9.4000e- 004	0.0433		131.1864	131.1864	3.0200e- 003		131.2619
Total	0.0679	0.0430	0.4502	1.3200e- 003	0.1598	1.0200e- 003	0.1608	0.0424	9.4000e- 004	0.0433		131.1864	131.1864	3.0200e- 003	_	131.2619

# 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

## Opus at Folson and Elvas - 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/d	day							lb/d	day		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

## **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.562895	0.037862	0.207220	0.115570	0.017815	0.005092	0.018559	0.023754	0.002009	0.001969	0.005819	0.000618	0.000817

# 5.0 Energy Detail

Historical Energy Use: N

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## Opus at Folson and Elvas - Sacramento County, Winter

## **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/d	day							lb/c	day		
NaturalGas Mitigated	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
NaturalGas Unmitigated	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781

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

	NaturalGa s Use	ROG	NOx	СО	SO2	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/d	day							lb/d	lay		
Apartments Mid Rise	3819.12	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
Total		0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781

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## Opus at Folson and Elvas - Sacramento County, Winter

# **5.2 Energy by Land Use - NaturalGas Mitigated**

	NaturalGa s 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/d	day							lb/c	day		
Apartments Mid Rise	3.81912	0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781
Total		0.0412	0.3520	0.1498	2.2500e- 003		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.6100e- 003	8.2400e- 003	451.9781

## 6.0 Area Detail

## **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Mitigated	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537
Unmitigated	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537

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## Opus at Folson and Elvas - Sacramento County, Winter

# 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/d	day							lb/d	lay		
	0.0843					0.0000	0.0000	i i i	0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5264		       			0.0000	0.0000	       	0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3555	0.1360	11.8003	6.2000e- 004		0.0653	0.0653	       	0.0653	0.0653		21.2430	21.2430	0.0204		21.7537
Total	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537

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## Opus at Folson and Elvas - Sacramento County, Winter

# 6.2 Area by SubCategory Mitigated

	ROG	NOx	СО	SO2	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/d	day							lb/d	day		
Architectural Coating	0.0843					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5264		1 1 1			0.0000	0.0000	1       	0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3555	0.1360	11.8003	6.2000e- 004		0.0653	0.0653	1       	0.0653	0.0653		21.2430	21.2430	0.0204		21.7537
Total	0.9662	0.1360	11.8003	6.2000e- 004		0.0653	0.0653		0.0653	0.0653	0.0000	21.2430	21.2430	0.0204	0.0000	21.7537

### 7.0 Water Detail

## 7.1 Mitigation Measures Water

### 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

## Opus at Folson and Elvas - Sacramento County, Winter

### **Fire Pumps and Emergency Generators**

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

### **Boilers**

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

## **User Defined Equipment**

Equipment Type	Number
----------------	--------

# 11.0 Vegetation

### Opus and Folsom and Elvas

Criteria Pollutant Summary

# Construction Summary

Inmitigated	

Ommitigatea, Amia	iui															
	ROG	NOx	со	SO2			PM10 Total		Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year						tons/yr							M	T/yr		
2021	0.0907	0.7574	0.6392	1.26E-03	0.055	0.0362	0.0913	0.0202	0.0343	0.0544	0	108.8755	108.8755	0.0193	0	109.36
2022	0.2634	1.842	2.015	4.24E-03	0.1097	0.0777	0.1875	0.0295	0.075	0.1045	0	362.5555	362.5555	0.0456	0	363.70
2023	0.1745	0.1517	0.193	3.70E-04	8.08E-03	6.58E-03	0.0147	2.16E-03	6.27E-03	8.44E-03	0	32.1104	32.1104	5.30E-03	0	32.24
Maximum/Total	0.2634	1.842	2.015	4.24E-03	1.10E-01	7.77E-02	0.1875	2.95E-02	7.50E-02	1.05E-01	0	503.5414	503.5414	7.02E-02	0	505.2985

### Unmitigated, Summer

	ROG	NOx	со						Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year						lb/day							lb/	day		
2021	2.2717	20.2491	16.3654	0.0337	5.8604	1.0434	6.6262	2.9698	0.9739	3.6744	0	3,182.91	3,182.91	0.6063	0	3,192.90
2022	2.077	14.1255	15.9185	0.0334	0.8738	0.5976	1.4714	0.2338	0.5771	0.8109	0	3,151.50	3,151.50	0.3883	0	3,161.21
2023	22.2512	13.0964	15.5374	0.033	0.8738	0.5212	1.395	0.2338	0.5031	0.7369	0	3,115.93	3,115.93	0.4135	0	3,125.32
Maximum/Total	22.2512	20.2491	16.3654	3.37E-02	5.86E+00	1.04E+00	6.6262	2.97E+00	9.74E-01	3.67E+00	0	9450.34	9450.34	1.41E+00	0	9479.4293

### Unmitigated, Winter

	ROG	NOx	со					Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day						lb/day									
2021	2.2418	20.2757	15.9737	0.0326	5.8604	1.0435	6.6262	2.9698	0.9739	3.6744	0	3,076.71	3,076.71	0.6065	0	3,086.68
2022	2.0497	14.1911	15.548	0.0323	0.8738	0.5979	1.4716	0.2338	0.5773	0.8111	0	3,048.81	3,048.81	0.3877	0	3,058.50
2023	22.2457	13.1487	15.1819	0.032	0.8738	0.5214	1.3951	0.2338	0.5032	0.737	0	3,016.97	3,016.97	0.4133	0	3,026.35
Maximum/Total	22.2457	20.2757	15.9737	3.26E-02	5.86E+00	1.04E+00	6.6262	2.97E+00	9.74E-01	3.67E+00	0	9142.4896	9142.4896	1.41E+00	0	9171.5304

### Unmitigated

Construction Year	NO <sub>x</sub> (ppd)	PM <sub>10</sub> (ppd)	PM <sub>2.5</sub> (ppd)	PM <sub>10</sub> (tpy)	PM <sub>2.5</sub> (tpy)
2021	20.28	6.63	3.67	0.09	0.05
2022	14.19	1.47	0.81	0.19	0.10
2023	13.15	1.40	0.74	0.01	0.01
Max	20.28	6.63	3.67	0.19	0.10

### Mitigated

. 0					
Construction Year	NO <sub>x</sub> (ppd)	PM <sub>10</sub> (ppd)	PM <sub>2.5</sub> (ppd)	PM <sub>10</sub> (tpy)	PM <sub>2.5</sub> (tpy)
2021	16.22	3.64	2.02	0.05	0.03
2022	11.35	0.81	0.45	0.10	0.06
2023	10.52	0.77	0.41	0.01	0.00
Max	16.22	3.64	2.02	0.10	0.06

### Mitigation Reduction

TVIICIBUCION	ricuaction
NOX	20%
РМ	45%

### Operational Summary

Unmitigated,	Annual
ommingatea,	Ammuui

Offifficigated, Affilia	u.															
	ROG	NOx	со	SO2		Exhaust PM10	PM10 Total		Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		tons/yr								MT/yr						
Area	0.1559	0.017	1.475	8.00E-05		8.16E-03	8.16E-03	3	8.16E-03	8.16E-03	0	2.4089	2.4089	2.32E-03	0	2.47
Energy	7.52E-03	0.0642	0.0273	4.10E-04		5.19E-03	5.19E-03	8	5.19E-03	5.19E-03	0	237.3666	237.3666	9.43E-03	3.02E-03	238.50
Mobile	0	(	C	0	0	0	(	) (	0	0	0	C	0	C	0	0
Waste		(	0	0	0						13.3528	C	13.3528	0.7891	0	33.08
Water		(	0	0	0						3.2964	17.9349	21.2313	0.0122	7.35E-03	23.73
Total	0.16342	0.0812	1.5023	4.90E-04	0.00E+00	1.34E-02	0.01335	0.00E+00	1.34E-02	1.34E-02	16.6492	257.7104	274.3596	8.13E-01	0.01037	297.78

### Unmitigated, Summer

- manageree, eem																
	ROG	NOx	со				PM10 Total		Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		lb/day								lb/day						
Area	0.9662	0.136	11.8003	6.20E-04		0.0653	0.0653		0.0653	0.0653	0	21.243	21.243	0.0204	0	21.7537
Energy	0.0412	0.352	0.1498	2.25E-03		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.61E-03	8.24E-03	451.9781
Mobile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1.0074	0.488	11.9501	2.87E-03	0.00E+00	9.38E-02	0.0938	0.00E+00	9.38E-02	9.38E-02	0	470.5511	470.5511	2.90E-02	0.00824	473.7318

### Unmitigated, Winter

	ROG	NOx	со	SO2			PM10 Total		Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		lb/day								lb/day						
Area	0.9662	0.136	11.8003	6.20E-04		0.0653	0.0653		0.0653	0.0653	0	21.243	21.243	0.0204	0	21.7537
Energy	0.0412	0.352	0.1498	2.25E-03		0.0285	0.0285		0.0285	0.0285		449.3081	449.3081	8.61E-03	8.24E-03	451.9781
Mobile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1.0074	0.488	11.9501	2.87E-03	0.00E+00	9.38E-02	0.0938	0.00E+00	9.38E-02	9.38E-02	0	470.5511	470.5511	2.90E-02	0.00824	473.7318

### Unmitigated

Source	ROG (ppd)	NO <sub>x</sub> (ppd)	PM <sub>10</sub> (ppd)	PM <sub>2.5</sub> (ppd)	PM <sub>10</sub> (tpy)	PM <sub>2.5</sub> (tpy)
Area	0.97	0.14	0.07	0.07	0.01	0.01
Energy	0.04	0.35	0.03	0.03	0.00	0.01
Total	1.01	0.49	0.00	0.09	0.01	0.01

### Opus Construction

```
************
** AERMOD Input Produced by:
** AERMOD View Ver. 9.8.3
** Lakes Environmental Software Inc.
** Date: 5/3/2021
** File: C:\Model\_SCREENING HRAs\Opus at
Folsom\Opus Construction\Opus Construction.ADI
**************
**
**
*************
** AERMOD Control Pathway
************
**
**
CO STARTING
  TITLEONE C:\Model\_SCREENING HRAs\Opus at Folsom\Opus_Construction\Opus_Const
  MODELOPT DFAULT CONC
  AVERTIME PERIOD
  URBANOPT 2149127 SAC_MSA
  POLLUTID PM 10
  FLAGPOLE 1.50
  RUNORNOT RUN
  ERRORFIL Opus_Construction.err
CO FINISHED
************
** AERMOD Source Pathway
************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION CSTN
                     AREAPOLY 637175.760 4268533.402
                                                          11.880
** DESCRSRC Opus construction
** Source Parameters **
  SRCPARAM CSTN
                     0.0001702971
                                     5.000
                                                 6
  AREAVERT CSTN
                     637175.760 4268533.402 637252.383 4268416.683
  AREAVERT CSTN
                     637241.279 4268409.711 637133.296 4268458.875
  AREAVERT CSTN
                     637146.269 4268484.665 637151.813 4268481.969
  URBANSRC ALL
** Variable Emissions Type: "By Hour / Seven Days (HRDOW7)"
** Variable Emission Scenario: "test"
```

```
Opus Construction
  EMISFACT CSTN
                       HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 1.0
                       HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0
  EMISFACT CSTN
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
  EMISFACT CSTN
                       HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0
                       HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
  EMISFACT CSTN
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
  EMISFACT CSTN
                       HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 1.0
                       HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
  EMISFACT CSTN
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
                       HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0
  EMISFACT CSTN
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
  EMISFACT CSTN
                       HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
  EMISFACT CSTN
                       HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 1.0
                       HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0
  EMISFACT CSTN
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
  EMISFACT CSTN
                       HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
                       HRDOW7 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
  EMISFACT CSTN
  EMISFACT CSTN
                       HRDOW7 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
  SRCGROUP CSTN
                   CSTN
  SRCGROUP ALL
SO FINISHED
**
**************
** AERMOD Receptor Pathway
**************
**
RE STARTING
  INCLUDED Opus_Construction.rou
RE FINISHED
**
************
** AERMOD Meteorology Pathway
*************
**
**
ME STARTING
  SURFFILE ..\14-18.SFC
  PROFFILE ..\14-18.PFL
  SURFDATA 23232 2014 SACRAMENTO/EXECUTIVE ARPT
  UAIRDATA 23230 2014 OAKLAND/WSO AP
  PROFBASE 4.6 METERS
ME FINISHED
**
**************
```

```
Opus Construction
** AERMOD Output Pathway
**************
**
OU STARTING
** Auto-Generated Plotfiles
  PLOTFILE PERIOD ALL Opus_Construction.AD\PE00GALL.PLT 31
  PLOTFILE PERIOD CSTN Opus_Construction.AD\PE00G001.PLT 32
  SUMMFILE Opus Construction.sum
OU FINISHED
 *** Message Summary For AERMOD Model Setup ***
 ----- Summary of Total Messages -----
A Total of
                     0 Fatal Error Message(s)
                     2 Warning Message(s)
A Total of
A Total of
                     0 Informational Message(s)
   ****** FATAL ERROR MESSAGES ******
             *** NONE ***
                               *****
   ******
             WARNING MESSAGES
ME W186
            93
                     MEOPEN: THRESH 1MIN 1-min ASOS wind speed threshold used
    0.50
            93
                     MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
ME W187
***********
*** SETUP Finishes Successfully ***
************
★ *** AERMOD - VERSION 19191 *** *** C:\Model\ SCREENING HRAs\Opus at
Folsom\Opus_Construction\Opus_Const ***
                                           05/03/21
*** AERMET - VERSION 19191 ***
                     ***
                               14:07:45
                               PAGE
                                     1
*** MODELOPTs:
                 RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                                        ***
                                                MODEL SETUP OPTIONS SUMMARY
```

\*\*\*

### Opus Construction

\*\*Model Is Setup For Calculation of Average CONCentration Values.

```
-- DEPOSITION LOGIC
```

- \*\*Model Uses NO DRY DEPLETION. DRYDPLT = F
- \*\*Model Uses NO WET DEPLETION. WETDPLT = F
- \*\*Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s), for Total of 1 Urban Area(s):

Urban Population = 2149127.0; Urban Roughness Length = 1.000 m

### \*\*Model Uses Regulatory DEFAULT Options:

- Stack-tip Downwash.
- 2. Model Accounts for ELEVated Terrain Effects.
- 3. Use Calms Processing Routine.
- 4. Use Missing Data Processing Routine.
- 5. No Exponential Decay.
- 6. Urban Roughness Length of 1.0 Meter Assumed.

### \*\*Other Options Specified:

ADJ U\* - Use ADJ\_U\* option for SBL in AERMET

CCVR\_Sub - Meteorological data includes CCVR substitutions TEMP Sub - Meteorological data includes TEMP substitutions

\*\*The User Specified a Pollutant Type of: PM\_10

\*\*Model Calculates PERIOD Averages Only

\*\*This Run Includes: 1 Source(s); 2 Source Group(s); and 287 Receptor(s)

> 0 POINT(s), including with:

> > 0 POINTCAP(s) and 0 POINTHOR(s)

0 VOLUME Source(s)
1 AREA type source(s) and: and:

and:

and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) w 0 BUOYANT LINE source(s) with 0 line(s)

<sup>\*\*</sup>NO GAS DEPOSITION Data Provided.

<sup>\*\*</sup>NO PARTICLE DEPOSITION Data Provided.

<sup>\*\*</sup>Model Accepts FLAGPOLE Receptor Heights.

<sup>\*\*</sup>Model Set To Continue RUNning After the Setup Testing.

<sup>\*\*</sup>The AERMET Input Meteorological Data Version Date: 19191

```
Opus Construction
**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)
**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and
Missing Hours
**Misc. Inputs:
                 Base Elev. for Pot. Temp. Profile (m MSL) = 4.60; Decay
Coef. =
          0.000
                    ; Rot. Angle =
                 Emission Units = GRAMS/SEC
                                                                           ;
Emission Rate Unit Factor =
                             0.10000E+07
                 Output Units
                                = MICROGRAMS/M**3
**Approximate Storage Requirements of Model = 3.5 MB of RAM.
**Input Runstream File:
                                 aermod.inp
**Output Print File:
                                 aermod.out
**Detailed Error/Message File: Opus_Construction.err
**File for Summary of Results:
                                 Opus_Construction.sum
↑ *** AERMOD - VERSION 19191 ***
                                   *** C:\Model\_SCREENING HRAs\Opus at
Folsom\Opus_Construction\Opus_Const ***
                                              05/03/21
*** AERMET - VERSION 19191 ***
                      ***
                                 14:07:45
                                 PAGE
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                                               *** AREAPOLY SOURCE DATA ***
```

NUMBER EMISSION RATE LOCATION OF AREA BASE RELEASE NUMBER INIT. URBAN EMISSION RATE PART. (GRAMS/SEC Χ Υ ELEV. SOURCE HEIGHT OF VERTS. SOURCE SCALAR VARY CATS. /METER\*\*2) (METERS) (METERS) (METERS) ID BY (METERS)

### Opus\_Construction

```
CSTN
                     0.17030E-03 637175.8 4268533.4
                                                       11.9
                                                                5.00
                                                                          6
                HRDOW7
 1.40
          YES
★ *** AERMOD - VERSION 19191 *** *** C:\Model\_SCREENING HRAs\Opus at
Folsom\Opus_Construction\Opus_Const ***
                                             05/03/21
*** AERMET - VERSION 19191 ***
                      ***
                                 14:07:45
                                 PAGE
                                      3
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***
SRCGROUP ID
                                                        SOURCE IDs
 _____
                                                        -----
 CSTN
            CSTN
 ALL
            CSTN
★ *** AERMOD - VERSION 19191 *** *** C:\Model\ SCREENING HRAs\Opus at
Folsom\Opus_Construction\Opus_Const ***
                                             05/03/21
*** AERMET - VERSION 19191 ***
                      ***
                                 14:07:45
                                 PAGE
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                                         *** SOURCE IDS DEFINED AS URBAN SOURCES
 URBAN ID
            URBAN POP
                                                        SOURCE IDs
             2149127.
                        CSTN
↑ *** AERMOD - VERSION 19191 *** *** C:\Model\_SCREENING HRAs\Opus at
Folsom\Opus_Construction\Opus_Const ***
                                             05/03/21
*** AERMET - VERSION 19191 ***
                      ***
                                 14:07:45
                                 PAGE
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF
WEEK (HRDOW7) *
```

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# Opus\_Construction

SOURCE ID = CSTN HOUR SCALAR HOUR SCALAR HO	HOUR SCALAR I	HOUR SCALAR	HOUR	SCALAR		
				EEK = MONDA		
	2 .0000E+00		4	.0000E+00	5	.0000E+00
6 .0000E+00 7						
9 .1000E+01	10 .1000E+01	11 .1000E+01	12	.1000E+01	13	.1000E+01
14 .1000E+01 15						
17 .1000E+01	18 .1000E+01	19 .0000E+00	20	.0000E+00	21	.0000E+00
22 .0000E+00 23						
	2 .0000E+00	DAY	OF W	EEK = TUESD	AY	
1 .0000E+00	2 .0000E+00	3 .0000E+00	4	.0000E+00	5	.0000E+00
6 .0000E+00 7						
9 .1000E+01	10 .1000E+01	11 .1000E+01	12	.1000E+01	13	.1000E+01
14 .1000E+01 15	.1000E+01 16	.1000E+01				
17 .1000E+01	18 .1000E+01	19 .0000E+00	20	.0000E+00	21	.0000E+00
22 .0000E+00 23	.0000E+00 24	.0000E+00				
		DAY	OF W	EEK = WEDNE	SDY	
1 .0000E+00	2 .0000E+00	3 .0000E+00	4	.0000E+00	5	.0000E+00
6 .0000E+00 7						
9 .1000E+01			12	.1000E+01	13	.1000E+01
14 .1000E+01 15						7
	18 .1000E+01		20	.0000E+00	21	.0000E+00
22 .0000E+00 23						
			OF W	FFK = THURS	DAY	
1 .0000F+00	2 .0000E+00	3 .0000F+00	4	.0000F+00	5	.0000F+00
6 .0000E+00 7			•	.00002:00		.00002.00
	10 .1000E+01		12	1000F+01	13	1000F+01
14 .1000E+01 15				.10001.01		110001.01
	18 .1000E+01		20	aaaaF+aa	21	9999E+99
22 .0000E+00 23			20	.00002100		.00002100
22 .00001.00 23	.00001700 24		OF W	EEK = FRIDA	V	
1 0000F±00	2 .0000E+00	3 0000E±00				0000F±00
6 .0000E+00 7			-	.00002100	,	.00002100
	10 .1000E+01		12	.1000E+01	13	.1000E+01
14 .1000E+01 15			12	.10001101	13	.10001101
	18 .1000E+01		20	.0000E+00	21	0000E±00
22 .0000E+00 23			20	.00001100	21	.00001+00
22 .0000L+00 23	.0000L+00 24		OE M	EEK = SATUR	DAV	
1 0000E±00	2 .0000E+00			.0000E+00		0000E±00
6 .0000E+00 7			4	.000000	٠	.00001700
9 .1000E+01			12	.1000E+01	10	.1000E+01
	.1000E+01 16		12	.100000+01	13	. 100000+01
	18 .1000E+01 16		20	.0000E+00	21	.0000E+00
22 .0000E+00 23			20	.000000	<b>Z</b> I	. 8000 = +00
22 .0000E+00 23	. 6666 + 66 24	.000000				

### Opus Construction

### DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00 9 .0000E+00 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01 20 .0000E+00 17 .1000E+01 18 .1000E+01 19 .0000E+00 21 .0000E+00 .0000E+00 23 .0000E+00 24 .0000E+00 ↑ \*\*\* AERMOD - VERSION 19191 \*\*\* \*\*\* C:\Model\\_SCREENING HRAs\Opus at Folsom\Opus\_Construction\Opus\_Const \*\*\* 05/03/21 \*\*\* AERMET - VERSION 19191 \*\*\*

\*\*\* 14:07:45

### PAGE 6

\*\*\* MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ\_U\*

\*\*\* DISCRETE CARTESIAN RECEPTORS \*\*\*
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

( 637112.1, 4268477.3,	11.8,	11.8,	5.9);	( 637122.1,
4268477.3, 11.9, 11.9,		5.9);		
( 637102.1, 4268487.3,	11.6,	11.6,	5.9);	(637112.1,
4268487.3, 11.7, 11.7,		5.9);		
( 637122.1, 4268487.3,	11.9,	11.9,	5.9);	(637132.1,
4268487.3, 11.9, 11.9,		5.9);		
(637102.1, 4268497.3,	11.6,	11.6,	5.9);	(637112.1,
4268497.3, 11.7, 11.7,		5.9);		
( 637122.1, 4268497.3,			5.9);	(636955.0,
4268335.0, 12.0, 12.0,				
( 636965.0, 4268335.0,	11.9,	11.9,	1.5);	(636925.0,
4268345.0, 12.0, 12.0,				
( 636935.0, 4268345.0,	12.0,	12.0,	1.5);	(636945.0,
4268345.0, 12.1, 12.1,				
( 636955.0, 4268345.0,	11.9,	11.9,	1.5);	(636965.0,
4268345.0, 11.8, 11.8,		1.5);		
( 636895.0, 4268355.0,			1.5);	(636905.0,
4268355.0, 11.8, 11.8,				
( 636915.0, 4268355.0,	12.0,	12.0,	1.5);	(636925.0,
4268355.0, 12.1, 12.1,		1.5);		
( 636935.0, 4268355.0,			1.5);	(636945.0,
4268355.0, 12.0, 12.0,		1.5);		
( 636955.0, 4268355.0,	11.8,	11.8,	1.5);	(636965.0,
4268355.0, 11.8, 11.8,		1.5);		
( 636865.0, 4268365.0,	11.9,	11.9,	1.5);	(636875.0,
4268365.0, 11.9, 11.9,				
( 636885.0, 4268365.0,	11.8,	11.8,	1.5);	(636895.0,
4268365.0, 11.9, 11.9,				
(636905.0, 4268365.0,	12.0,	12.0,	1.5);	(636915.0,

Page 8

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Folsom\Opus_Construction\Opus_Const ***
                                                05/03/21
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                                  14:07:45
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Folsom\Opus Construction\Opus Const ***
                                                05/03/21
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Opus Construction

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Folsom\Opus_Construction\Opus_Const ***
                                                05/03/21
 *** AERMET - VERSION 19191 ***
                                    ***
                                   14:07:45
                                   PAGE
                                          9
 *** MODELOPTs:
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                                              *** DISCRETE CARTESIAN RECEPTORS ***
                                            (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                             (METERS)
     (636995.0, 4268735.0,
                                  12.1,
                                                         1.5);
                                                                        (637005.0,
                                             12.1,
4268735.0,
                                        1.5);
                12.2,
                           12.2,
     (637015.0, 4268735.0,
                                  12.3,
                                             12.3,
                                                         1.5);
                                                                        (637025.0,
                           12.3,
4268735.0,
                12.3,
                                        1.5);
     (636955.0, 4268745.0,
                                             12.5,
                                  12.5,
                                                         1.5);
                                                                        (636965.0,
                           12.4,
4268745.0,
                12.4,
                                        1.5);
                                  12.2,
     (636975.0, 4268745.0,
                                             12.2,
                                                         1.5);
                                                                        (636985.0,
                           12.1,
4268745.0,
                12.1,
                                        1.5);
                                  12.0,
     (636995.0, 4268745.0,
                                             12.0,
                                                         1.5);
                                                                        (637005.0,
4268745.0,
                12.2,
                           12.2,
                                        1.5);
     (637015.0, 4268745.0,
                                                         1.5);
                                                                        (636965.0,
                                  12.3,
                                             12.3,
```

Page 14

```
Opus Construction
4268755.0, 12.5,
                    12.5,
                             1.5);
   (636975.0, 4268755.0,
                                          1.5);
                                                    (636985.0,
                        12.3,
                                 12.3,
                    12.2,
4268755.0,
           12.2,
                             1.5);
                        12.0,
                                 12.0,
   (636995.0, 4268755.0,
                                          1.5); (637005.0,
4268755.0,
            12.2, 12.2,
                             1.5);
   (637255.0, 4268495.0,
                        11.8,
                                 16.1.
                                          1.5);
↑ *** AERMOD - VERSION 19191 *** *** C:\Model\ SCREENING HRAs\Opus at
Folsom\Opus Construction\Opus Const ***
                                   05/03/21
*** AERMET - VERSION 19191 ***
                         14:07:45
                         PAGE 10
*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                                 *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                               (1=YES; 0=NO)
         1111111111 11111111111
                                          1111111111
                                                          1 1 1
1111111 1111111111
         1111111111 1111111111
                                          1 1 1 1 1 1 1 1 1 1
                                                          1 1 1
1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1
         1111111111 1111111111
                                          1 1 1 1 1 1 1 1 1 1
                                                          1 1 1
1111111 11111111111
         1111111111 11111111111
                                          1 1 1 1 1 1 1 1 1 1
                                                          1 1 1
1111111 11111111111
         1111111111
                         111111111
                                          1 1 1 1 1 1 1 1 1 1
                                                          1 1 1
1111111 11111111111
         1 1 1
1111111 11111111111
         1 1 1
1111111 11111111111
         1111111111 11111
            NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.
                         *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                             (METERS/SEC)
                                     1.54, 3.09, 5.14, 8.23,
10.80,
↑ *** AERMOD - VERSION 19191 *** *** C:\Model\_SCREENING HRAs\Opus at
Folsom\Opus_Construction\Opus_Const ***
                                   05/03/21
```

\*\*\* AERMET - VERSION 19191 \*\*\*

14:07:45

PAGE 11

\*\*\* MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ\_U\*

\*\*\* UP TO THE FIRST 24 HOURS OF METEOROLOGICAL

DATA \*\*\*

Surface file: ..\14-18.SFC

Met Version: 19191

Profile file: ..\14-18.PFL

Surface format: FREE

Profile format: FREE

Upper air station no.: Surface station no.: 23232

Name: SACRAMENTO/EXECUTIVE ARPT Name:

OAKLAND/WSO AP

Year: 2014 Year: 2014

First 24 hours of scalar data

YR MO DY JDY HR HØ U\* W\* DT/DZ ZICNV ZIMCH M-O LEN ZØ BOWEN ALBEDO REF WS WD HT REF TA HT

14 01 01 1 01 -1.4 0.061 -9.000 -9.000 -999. 36. 14.2 0.04 1.00 0.62 152. 10.1 274.9 2.0 14 01 01 1 02 -4.9 0.096 -9.000 -9.000 -999. 72. 16.7 0.16 0.93 1.08 107. 10.1 274.2 2.0 1 03 -5.3 0.100 -9.000 -9.000 -999. 76. 17.3 0.16 14 01 01 0.93 1.13 95. 10.1 274.2 2.0 14 01 01 1 04 -2.4 0.075 -9.000 -9.000 -999. 49. 15.4 0.16 0.93 0.70 117. 10.1 273.8 2.0 1 05 -3.8 0.084 -9.000 -9.000 -999. 59. 14.5 0.11 1.03 120. 10.1 273.1 1.00 2.0 14 01 01 1 06 -2.3 0.072 -9.000 -9.000 -999. 46. 14.5 0.11 0.93 0.74 128. 10.1 273.1 2.0 1 07 -1.3 0.061 -9.000 -9.000 -999. 36. 16.0 0.05 14 01 01 0.93 0.53 232. 10.1 273.1 2.0 1 08 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.08 14 01 01 0.00 0. 10.1 273.1 2.0 1 09 -1.5 0.085 -9.000 -9.000 -999. 60. 38.3 0.11 14 01 01 0.93 1.03 133. 10.1 278.1 2.0 1 10 40.2 0.170 0.461 0.019 88. 168. -11.2 0.11 14 01 01 0.93 1.50 122. 10.1 281.4 2.0 14 01 01 1 11 74.7 0.195 0.704 0.017 170. 206. -9.0 0.11

```
Opus Construction
                                  2.0
0.23
       1.67 140.
                    10.1 283.8
14 01 01
           1 12
                 94.4 0.181 0.832 0.016 222. 184.
                                                          -5.7 0.04
                                                                       0.93
0.22
       1.88 157.
                   10.1 286.4
                                  2.0
           1 13
                  97.3 0.170 0.891 0.014
                                                  168.
                                                          -4.6 0.04
14 01 01
                                            265.
                                                                       0.93
0.22
       1.71 173.
                    10.1 287.5
                                  2.0
                                                          -6.1 0.04
14 01 01
           1 14
                  84.1 0.178 0.894 0.013 309.
                                                  181.
                                                                       0.93
0.23
       1.81 202.
                    10.1 289.2
                                  2.0
14 01 01
           1 15
                  54.8 0.119 0.824 0.012
                                                   99.
                                                          -2.8 0.04
                                            371.
                                                                       0.93
       1.08 189.
                    10.1 289.9
0.26
                                  2.0
14 01 01
           1 16
                  12.2 0.060 0.506 0.012 384.
                                                   36.
                                                          -1.6 0.04
                                                                       0.93
0.35
       0.52 169.
                   10.1 288.8
                                  2.0
14 01 01
           1 17
                  -2.3 0.067 -9.000 -9.000 -999.
                                                   42.
                                                          11.9 0.04
                                                                       0.93
       0.96 173. 10.1 286.4
           1 18
                  -1.7 0.066 -9.000 -9.000 -999.
14 01 01
                                                   40.
                                                          15.2 0.09
                                                                       0.93
1.00
       0.62 252.
                    10.1 283.8
                                  2.0
                -1.7 0.069 -9.000 -9.000 -999.
           1 19
14 01 01
                                                   43.
                                                          17.0 0.15
                                                                       0.93
1.00
       0.55
              79.
                    10.1 281.4
                                  2.0
           1 20 -999.0 -9.000 -9.000 -9.000 -999. -999. -9999.0
14 01 01
                                                                0.08
                                                                       0.93
1.00
       0.00
                    10.1 280.4
               0.
                                  2.0
14 01 01
           1 21 -1.7 0.062 -9.000 -9.000 -999.
                                                   37.
                                                          13.4 0.04
                                                                       0.93
1.00
       0.69
               7.
                    10.1 279.2
                                  2.0
           1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0
14 01 01
                                                                0.08
                                                                       0.93
                    10.1 278.1
1.00
       0.00
               0.
                                  2.0
14 01 01
                  -1.3 0.060 -9.000 -9.000 -999.
                                                   35.
           1 23
                                                          14.8 0.04
                                                                       0.93
1.00
       0.58
              28.
                    10.1 277.5
                                  2.0
14 01 01
           1 24
                  -2.2 0.067 -9.000 -9.000 -999.
                                                   42.
                                                          12.2 0.04
                                                                       0.93
              24.
                    10.1 277.5
1.00
       0.87
                                  2.0
First hour of profile data
YR MO DY HR HEIGHT F WDIR
                             WSPD AMB_TMP sigmaA sigmaW sigmaV
14 01 01 01
              10.1 1 152.
                             0.62
                                    274.9
                                            99.0 -99.00 -99.00
F indicates top of profile (=1) or below (=0)
♠ *** AERMOD - VERSION 19191 *** *** C:\Model\_SCREENING HRAs\Opus at
Folsom\Opus_Construction\Opus_Const ***
                                             05/03/21
*** AERMET - VERSION 19191 ***
                      ***
                                14:07:45
                                PAGE 12
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                             *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: CSTN
                                INCLUDING SOURCE(S):
                                                        CSTN
```

\*\*\*

\*\*\* DISCRETE CARTESIAN RECEPTOR POINTS

\*\* CONC OF PM\_10 IN MICROGRAMS/M\*\*3

X-COORD (M) Y-COORD (M) Y-COORD (M) CONC	CONC	X-COORD (M)
637112.09 4268477.30		637122.09
4268477.30 11.58317		
637102.09 4268487.30		637112.09
4268487.30 8.76246 637122.09 4268487.30	12.76632	637132.09
4260407 20 20 62640		00. 20200
637102.09 4268497.30	7.05349	637112.09
4268497.30 9.51579 637122.09 4268497.30	12 45070	636055 00
63/122.09 4268497.30 4268335.00 0.59129	13.450/8	636955.00
636965.00 4268335.00	0.63453	636925.00
4268345.00 0.49360		
636935.00 4268345.00	0.52652	636945.00
4268345.00 0.56293 636955.00 4268345.00	0 60275	636065 88
4268345.00 0.64897	0.00373	636965.00
636895.00 4268355.00	0.41751	636905.00
4268355.00 0.44326		
636915.00 4268355.00		636925.00
4268355.00 0.50197 636935.00 4268355.00	Q E2612	636045 88
		636945.00
4268355.00 0.57399 636955.00 4268355.00	0.61679	636965.00
4268355.00 0.66360		
636865.00 4268365.00	0.35723	636875.00
4268365.00 0.37752 636885.00 4268365.00	a 20069	636895.00
4268365.00 0.42364	0.39900	030893.00
636905.00 4268365.00	0.44988	636915.00
4268365.00 0.47879		
636925.00 4268365.00	0.51074	636935.00
4268365.00 0.54571 636945.00 4268365.00	0.58542	636955.00
4268365.00 0.62955	0.36342	0303.00
636965.00 4268365.00	0.67832	636835.00
4268375.00 0.30935		
636845.00 4268375.00	0.32553	636855.00
4268375.00 0.34323 636865.00 4268375.00	0.36240	636875.00
4268375.00 0.38317	0.30240	030073.00

	Opus_Construction	
636885.00 4268375.00	0.40579	636895.00
4268375.00 0.43028	0.10373	030033.00
636905.00 4268375.00		636915.00
4268375.00 0.48695		
636925.00 4268375.00	0.51987	636935.00
4268375.00 0.55616		
636945.00 4268375.00	0.59711	636955.00
4268375.00 0.64271		
636965.00 4268375.00	0.69335	636815.00
4268385.00 0.28444		
636825.00 4268385.00	0.29857	636835.00
4268385.00 0.31372 636845.00 4268385.00		
	0.33032	636855.00
4268385.00 0.34830	0. 26702	626075 00
636865.00 4268385.00	0.36/93	636875.00
4268385.00 0.38923	0 41227	636895.00
636885.00 4268385.00 4268385.00 0.43760	0.41237	636895.00
636905.00 4268385.00	0 46535	636915.00
4268385.00 0.49582	0.40323	030313.00
636925.00 4268385.00	0 52988	636935.00
4268385.00 0.56723	0.32300	030333.00
636945.00 4268385.00	0.60926	636955.00
4268385.00 0.65665	2,2,2,2	
4268385.00 0.65665 636965.00 4268385.00	0.70957	636815.00
4268395.00 0.28866		
636825.00 4268395.00	0.30297	636835.00
4268395.00 0.31852		
636845.00 4268395.00	0.33554	636855.00
4268395.00 0.35394		
636865.00 4268395.00	0.37393	636875.00
4268395.00 0.39583		
636885.00 4268395.00	0.41959	636895.00
4268395.00 0.44544		42447 00
636905.00 4268395.00	0.47388	636915.00
4268395.00 0.50554	0 54041	626025 00
636925.00 4268395.00 4268405.00 0.30774	0.54041	636825.00
4268405.00 0.30774 636835.00 4268405.00	0.32373	636845.00
4268405.00 0.34106	0.32373	050845.00
↑ *** AERMOD - VERSION 19191 ***	* *** ( · \ Model \ SCRFFNTNG	HRAs\Onus at
Folsom\Opus_Construction\Opus_Cor		
*** AERMET - VERSION 19191 ***	***	
***	14:07:45	

PAGE 13
\*\*\* MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ\_U\*

## \*\*\* THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: CSTN

 $\label{eq:including_source} \mbox{INCLUDING SOURCE(S):} \qquad \mbox{CSTN} \qquad \mbox{,}$ 

\*\*\* DISCRETE CARTESIAN RECEPTOR POINTS

\*\*\*

\*\* CONC OF PM\_10 IN MICROGRAMS/M\*\*3

X-COORD (M) Y-COORD (M) Y-COORD (M) CONC		X-COORD (M)
636855.00 4268405.00		636865.00
4268405.00 0.38045		
636875.00 4268405.00 4268405.00 0.42718	0.40285	636885.00
636895.00 4268405.00	0.45378	636825.00
4268415.00 0.31307		3232233
636835.00 4268415.00	0.32936	636845.00
4268415.00 0.34710	0.26620	626065 00
636855.00 4268415.00 4268415.00 0.38748	0.36638	636865.00
636835.00 4268425.00	0.33548	637055.00
4268555.00 3.87105		
637035.00 4268565.00	2.90350	637045.00
4268565.00 3.36664	2 24224	42747 42
637055.00 4268565.00 4268565.00 4.65499	3.94086	637065.00
637025.00 4268575.00	2.57865	637035.00
4268575.00 2.96027		
637045.00 4268575.00	3.42075	637055.00
4268575.00 3.98295	4 47004	427227 00
637065.00 4268575.00 4268585.00 2.99755	4.6/281	637035.00
637045.00 4268585.00	3.44725	637055.00
4268585.00 3.99841		33.333.33
637065.00 4268585.00	4.65463	637075.00
4268585.00 5.44022	4 44=00	424055 00
636945.00 4268595.00 4268595.00 1.22523	1.11799	636955.00
636965.00 4268595.00	1.34880	637035.00
4268595.00 3.02421	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	33.333.33
637045.00 4268595.00	3.45638	637055.00
4268595.00 3.97878	4 60060	<b>63-3-</b>
637065.00 4268595.00 4268595.00 5.33126	4.60262	637075.00
4200333.00 3.33120		

	Opus Construction	
636925.00 4268605.00	0.95982	636935.00
4268605.00 1.04249		
636945.00 4268605.00	1.13836	636955.00
4268605.00 1.24837 636965.00 4268605.00	1.37331	637045.00
4268605.00 3.45746	1.3/331	03/043.00
637055.00 4268605.00	3.94001	627065 00
	3.94001	637065.00
4268605.00 4.52313	5.19001	(27005 00
637075.00 4268605.00	5.19001	637085.00
4268605.00 5.94536	0.77262	626005 00
636895.00 4268615.00	0.//262	636905.00
4268615.00 0.83356		
636915.00 4268615.00	0.90140	636925.00
4268615.00 0.97734 636935.00 4268615.00		
	1.06080	636945.00
4268615.00 1.15776		
636955.00 4268615.00	1.26979	636965.00
4268615.00 1.39382		
636975.00 4268615.00	1.53612	637045.00
4268615.00 3.43152		
637055.00 4268615.00	3.88928	637065.00
4268615.00 4.42368		
637075.00 4268615.00	5.02538	637085.00
4268615.00 5.69590		
636875.00 4268625.00	0.68132	636885.00
4268625.00 0.73064		
636895.00 4268625.00	0.78509	636905.00
4268625.00 0.84777	0.76565	030303.00
636915.00 4268625.00	0 91526	636925.00
4268625.00 0.99326	0.51520	030323.00
636935.00 4268625.00	1.07876	636945.00
4268625.00 1.17528	1.07870	030343.00
	1 20271	(2(0(5,00
636955.00 4268625.00	1.283/1	636965.00
4268625.00 1.41161	4 55420	627055 00
636975.00 4268625.00	1.55428	637055.00
4268625.00 3.82380	4 22-22	42400 00
637065.00 4268625.00	4.30792	636885.00
4268635.00 0.74285		
636895.00 4268635.00	0.79772	636905.00
4268635.00 0.85928		
636915.00 4268635.00	0.92811	636925.00
4268635.00 1.00744		
636935.00 4268635.00	1.09469	636945.00
4268635.00 1.19027		
636955.00 4268635.00	1.29989	636965.00
4268635.00 1.42542		
↑ *** AERMOD - VERSION 19191 ***	* *** C:\Model\_SCREENING HRA	As∖Opus at
Folsom\Opus_Construction\Opus_Cor		
· <del>-</del>		

\*\*\* AERMET - VERSION 19191 \*\*\* \*\*\*

\*\*\* **14:07:4**5

PAGE 14

\*\*\* MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ\_U\*

\*\*\* THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: CSTN \*\*\*

INCLUDING SOURCE(S): CSTN ,

\*\*\* DISCRETE CARTESIAN RECEPTOR POINTS

\*\*\*

\*\* CONC OF PM\_10 IN MICROGRAMS/M\*\*3

X-COORD (M) Y-COORD (M) Y-COORD (M) CONC	CONC	X-COORD (M)
636975.00 4268635.00 4268635.00 1.73141	1.56810	636985.00
636885.00 4268645.00	0.75411	636895.00
4268645.00 0.81002 636905.00 4268645.00	0.87179	636915.00
4268645.00 0.94083 636925.00 4268645.00	1.01870	636935.00
4268645.00 1.10652 636945.00 4268645.00	1.20371	636955.00
4268645.00 1.31325 636965.00 4268645.00	1.43695	636975.00
4268645.00 1.57867 636985.00 4268645.00	1.74167	636995.00
4268645.00 1.92294 636895.00 4268655.00		636905.00
4268655.00 0.88311 636915.00 4268655.00		636925.00
4268655.00 1.02950		
636935.00 4268655.00 4268655.00 1.21510	1.11663	636945.00
636955.00 4268655.00 4268655.00 1.44581	1.32381	636965.00
636975.00 4268655.00 4268655.00 1.74521	1.58565	636985.00
636995.00 4268655.00	1.92207	636895.00
4268665.00 0.82980 636905.00 4268665.00 4268665.00 0.96214	0.89270	636915.00

	Opus_Construction	
636925.00 4268665.00	1.03888	636935.00
4268665.00 1.12533		
4268665.00 1.12533 636945.00 4268665.00	1.22290	636955.00
4208005.00 1.33080		
636965.00 4268665.00	1.45238	636975.00
4268665.00 1.58866		
636985.00 4268665.00	1.74394	636995.00
4268665.00 1.91527	0.40545	42.400F 00
637005.00 4268665.00	2.10565	636905.00
4268675.00 0.90093	0.07000	636925.00
636915.00 4268675.00	0.97008	636925.00
4268675.00 1.04734 636935.00 4268675.00	1.13305	626045 00
4260675 00 4 22006	1.13305	636945.00
636955.00 4268675.00	1 33619	636965.00
4268675.00 1.45533	1.55016	030303.00
636975.00 4268675.00	1.58824	636985.00
4268675.00 1.73821	1.50024	03030.00
636995.00 4268675.00	1.90427	637005.00
4268675.00 2.08855	1.30427	037003.00
636905.00 4268685.00	0.90721	636915.00
4268685.00 0.97664		
636925.00 4268685.00	1.05307	636935.00
4268685.00 1.13808	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	00000000
636945.00 4268685.00	1.23281	636955.00
4268685.00 1.33832		
636965.00 4268685.00	1.45499	636975.00
4268685.00 1.58440		
636985.00 4268685.00	1.72828	636995.00
4268685.00 1.88884		
637005.00 4268685.00	2.06379	637015.00
4268685.00 2.25425		
636915.00 4268695.00	0.97994	636925.00
4268695.00 1.05489		
636935.00 4268695.00	1.14006	636945.00
4268695.00 1.23453		
636955.00 4268695.00	1.33835	636965.00
4268695.00 1.45258		
636975.00 4268695.00	1.57813	636985.00
4268695.00 1.71531		
636995.00 4268695.00	1.86797	637005.00
4268695.00 2.03375		
637015.00 4268695.00	2.21078	636925.00
4268705.00 1.05859	4 444.55	40.40.4E
636935.00 4268705.00	1.14166	636945.00
4268705.00 1.23381	1 22560	(3(0(5, 00
636955.00 4268705.00	1.33569	636965.00
4268705.00 1.44668		

Opus Construction 636975.00 4268705.00 1.56788 636985.00 4268705.00 1.70006 636995.00 4268705.00 1.84298 637005.00 4268705.00 2.00045 ↑ \*\*\* AERMOD - VERSION 19191 \*\*\* \*\*\* C:\Model\\_SCREENING HRAs\Opus at Folsom\Opus\_Construction\Opus\_Const \*\*\* 05/03/21 \*\*\* AERMET - VERSION 19191 \*\*\* \*\*\* 14:07:45 PAGE 15 \*\*\* MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ\_U\* \*\*\* THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CSTN INCLUDING SOURCE(S): CSTN \*\*\* DISCRETE CARTESIAN RECEPTOR POINTS \*\* CONC OF PM 10 IN MICROGRAMS/M\*\*3 X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC 637015.00 4268705.00 2.16683 637025.00 4268705.00 2.34410 636925.00 4268715.00 1.05948 636935.00 4268715.00 1.14039 636945.00 4268715.00 1.22995 636955.00 4268715.00 1.32942 636965.00 4268715.00 1.43820 636975.00 4268715.00 1.55506 636985.00 4268715.00 1.68099 636995.00 4268715.00 1.81691 637005.00 4268715.00 1.96417 637015.00 4268715.00 2.11917 637025.00 4268715.00 2.28191 637035.00 2.44999 4268715.00 636935.00 4268725.00 636945.00 1.13874 4268725.00 1.22502 636955.00 4268725.00 1.32184 636965.00 4268725.00 1.42614 636975.00 4268725.00 1.53846 636985.00

Page 24

637005.00

636995.00 4268725.00 1.78687

4268725.00 1.65950

4268725.00 1.92399

		s_Construction	
637015.00 42	68725.00	2.06663	637025.00
4268725.00 2.2145 637035.00 42	3	2 27020	626045 00
4260725 00 1 2204	0		636945.00
636955.00 1.2204	68735.00	1.31267	636965.00
4268735.00 1.4120	0		
636975.00 42		1.51935	636985.00
4268735.00 1.6347		1.75511	637005.00
636995.00 42 4268735.00 1.8817		1./5511	637005.00
637015.00 42		2.01244	637025.00
4268735.00 2.1476	9		
636955.00 42		1.30137	636965.00
4268745.00 1.3964 636975.00 42	7	1 40005	626005 00
426974F 00 1 6072	-		636985.00
636995.00 42	68745.00	1.72109	637005.00
4260745 00 1 0274	0		
637015.00 1.8374		1.95747	636965.00
4268755.00 1.3794		4 47642	626005 00
636975.00 42 4268755.00 1.5783		1.47613	636985.00
636995.00 42		1.68461	637005.00
4268755.00 1.7922			
637255.00 42	68495.00	41.33952	
<pre>★ *** AERMOD - VERSION 19191 *** *** C:\Model\_SCREENING HRAs\Opus at Folsom\Opus_Construction\Opus_Const *** 05/03/21 *** AERMET - VERSION 19191 *** ***</pre>			
	ΡΔΟ	GE 16	
*** MODELOPTs: RegDF			ADJ_U*
			_
		•	) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:		CLUDING SOURCE(S):	CSTN
	INC	LEODING SOUNCE(S).	CSTN ,
		*** DISCRET	E CARTESIAN RECEPTOR POINTS
***			
		** CONC OF DM 40	THE MICROCRAMS (M**)
**		** CONC OF PM_10	IN MICROGRAMS/M**3
X-COORD (M) Y-C Y-COORD (M) CONC	OORD (M)	CONC	X-COORD (M)

	Opus_Construction	
637112.09 4268477.30	7.85468	637122.09
4268477.30 11.58317 637102.09 4268487.30		
	6.48218	637112.09
4268487.30 8.76246		
637122.09 4268487.30		637132.09
4268487.30 20.63610	7.05340	627112 00
637102.09 4268497.30 4268497.30 9.51579	7.05349	637112.09
637122.09 4268497.30	12 /15/07/9	636955.00
4268335.00 0.59129		
636965.00 4268335.00	0 63453	636925.00
4268345.00 0.49360		
636935.00 4268345.00	0.52652	636945.00
4260245 00 0 56202		0303 13100
636955.00 4268345.00	0.60375	636965.00
4268345.00 0.64897 636895.00 4268355.00	0.41751	636905.00
4268355.00 0.44326		
636915.00 4268355.00	0.47121	636925.00
4268355.00 0.50197		
636935.00 4268355.00	0.53613	636945.00
4268355.00 0.57399		
636955.00 4268355.00	0.61679	636965.00
4268355.00 0.66360		
636865.00 4268365.00	0.35723	636875.00
4268365.00 0.37752		
636885.00 4268365.00	0.39968	636895.00
4268365.00 0.42364		
636905.00 4268365.00		636915.00
4268365.00 0.47879		626025 00
636925.00 4268365.00	0.51074	636935.00
4268365.00 0.54571 636945.00 4268365.00	0 50543	636955.00
4268365.00 0.62955	0.36342	030933.00
636965.00 4268365.00	0 67832	636835.00
4268375.00 0.30935	0.07032	030033.00
636845.00 4268375.00	0.32553	636855.00
4268375.00 0.34323	0.32333	030033.00
636865.00 4268375.00	0.36240	636875.00
4268375.00 0.38317		
636885.00 4268375.00	0.40579	636895.00
4268375.00 0.43028		
636905.00 4268375.00	0.45722	636915.00
4268375.00 0.48695		
636925.00 4268375.00	0.51987	636935.00
4268375.00 0.55616		
636945.00 4268375.00	0.59711	636955.00
4268375.00 0.64271		

	Opus_Construction 0.69335	
636965.00 4268375.00	0.69335	636815.00
4268385.00 0.28444		
636825.00 4268385.00	0.29857	636835.00
4268385.00 0.31372		
636845.00 4268385.00	0.33032	636855.00
4268385.00 0.34830		
636865.00 4268385.00	0.36793	636875.00
4268385.00 0.38923		
	0.41237	636895.00
4268385.00 0.43760		
636905.00 4268385.00	0.46525	636915.00
4268385.00 0.49582		
636925.00 4268385.00	0.52988	636935.00
4268385.00 0.56723 636945.00 4268385.00		
	0.60926	636955.00
4268385.00 0.65665	0.70057	636045 00
636965.00 4268385.00	0.70957	636815.00
4268395.00 0.28866	0. 20207	(2(025, 00
4268395.00 4268395.00	0.30297	030835.00
4208395.00 0.31852	0.33554	626955 00
4268395.00 0.35394		
636865.00 4268395.00	0.37393	636875 00
4268395.00 0.39583		
636885.00 4268395.00	0.41959	636895 00
4268395.00 0.44544		
636905.00 4268395.00	0.47388	636915.00
4268395.00 0.50554	0.17300	030323.00
636925.00 4268395.00	0.54041	636825.00
4268405.00 0.30774	373.3.1	0000_000
	0.32373	636845.00
4268405.00 0.34106		
	<pre>*** C:\Model\_SCREENING HRAs\C</pre>	pus at
Folsom\Opus_Construction\Opus_Con		
*** AERMET - VERSION 19191 ***	***	
***	14:07:45	
	PAGE 17	
*** MODELOPTs: RegDFAULT CON	IC ELEV FLGPOL URBAN ADJ_U*	
	THE PERIOD ( 43680 HRS) AVERAGE	CONCENTRATION
VALUES FOR SOURCE GROUP: ALL	***	
	INCLUDING SOURCE(S): CSTN	,

\*\*\* DISCRETE CARTESIAN RECEPTOR POINTS

\*\*\*

X-COORD (M) Y-COORD (M) Y-COORD (M) CONC	CONC	X-COORD (M)
`-`		
636855.00 4268405.00	0.35993	636865.00
4268405.00 0.38045 636875.00 4268405.00	0 40205	636885.00
4268405.00 0.42718	0.40205	03083.00
636895.00 4268405.00	0 45378	636825.00
4268415.00 0.31307	0.43370	030023.00
636835.00 4268415.00	0.32936	636845.00
426941E 00 0 24710		
636855.00 4268415.00	0.36638	636865.00
4268415.00 0.38748		
636835.00 4268425.00	0.33548	637055.00
4268555.00 3.87105		
637035.00 4268565.00	2.90350	637045.00
4268565.00 3.36664		
637055.00 4268565.00	3.94086	637065.00
4268565.00 4.65499	2 57065	627025 00
637025.00 4268575.00 4268575.00 2.96027	2.5/865	637035.00
637045.00 4268575.00	2 // 2075	637055.00
4268575.00 3.98295	3.420/3	037033.00
637065.00 4268575.00	4.67281	637035.00
		037033.00
4268585.00 2.99755 637045.00 4268585.00	3.44725	637055.00
4268585.00 3.99841 637065.00 4268585.00	4.65463	637075.00
4268585.00 5.44022		
636945.00 4268595.00	1.11799	636955.00
4268595.00 1.22523		
636965.00 4268595.00	1.34880	637035.00
4268595.00 3.02421	2 45620	627055 00
637045.00 4268595.00	3.45638	637055.00
4268595.00 3.97878 637065.00 4268595.00	4.60262	637075.00
4268595.00 5.33126	4.00202	037073.00
636925.00 4268605.00	0.95982	636935.00
4268605.00 1.04249	0.33302	030333.00
636945.00 4268605.00	1.13836	636955.00
4268605.00 1.24837		
636965.00 4268605.00	1.37331	637045.00
4268605.00 3.45746		
637055.00 4268605.00	3.94001	637065.00
4268605.00 4.52313		

	Opus_Construction	
637075.00 4268605.00	5.19001	637085.00
4268605.00 5.94536		
636895.00 4268615.00	0.77262	636905.00
4268615.00 0.83356 636915.00 4268615.00		
636915.00 4268615.00	0.90140	636925.00
4268615.00 0.97734		
636935.00 4268615.00	1.06080	636945.00
4268615.00 1.15776	1 26070	636965.00
636955.00 4268615.00 4268615.00 1.39382	1.26979	636965.00
636975.00 4268615.00	1 53612	637045.00
4268615.00 3.43152	1.53012	037043.00
637055.00 4268615.00	3.88928	637065.00
4268615.00 4.42368	3.00320	037003.00
637075.00 4268615.00	5.02538	637085.00
4268615.00 5.69590		
636875.00 4268625.00	0.68132	636885.00
4268625.00 0.73064		
636895.00 4268625.00	0.78509	636905.00
4268625.00 0.84777		
636915.00 4268625.00	0.91526	636925.00
4268625.00 0.99326		
636935.00 4268625.00	1.07876	636945.00
4268625.00 1.17528		
636955.00 4268625.00	1.28371	636965.00
4268625.00 1.41161	4 55400	627055 00
636975.00 4268625.00	1.55428	637055.00
4268625.00 3.82380 637065.00 4268625.00	4 20702	636885.00
4268635.00 0.74285	4.30/92	636885.00
636895.00 4268635.00	a 79772	636905.00
4268635.00 0.85928	0.73772	030303.00
636915.00 4268635.00	0.92811	636925.00
4268635.00 1.00744	0.72022	030323100
636935.00 4268635.00	1.09469	636945.00
4268635.00 1.19027		
636955.00 4268635.00	1.29989	636965.00
4268635.00 1.42542		
↑ *** AERMOD - VERSION 19191 ***		HRAs\Opus at
Folsom\Opus_Construction\Opus_Cor		
*** AERMET - VERSION 19191 ***	***	
***	14:07:45	
	DAGE 18	
*** MODELODIC: POGDEAULT CON	PAGE 18	11*

\*\*\* MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ\_U\*

\*\*\* THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION

\*\*\*

VALUES FOR SOURCE GROUP: ALL \*\*\*

# Opus\_Construction INCLUDING SOURCE(S): CSTN ,

## \*\*\* DISCRETE CARTESIAN RECEPTOR POINTS

\*\*\*

\*\* CONC OF PM\_10 IN MICROGRAMS/M\*\*3

X-COORD (M) Y-COORD (M) Y-COORD (M) CONC	CONC	X-COORD (M)
636975.00 4268635.00		636985.00
4268635.00 1.73141	_,_,	
636885.00 4268645.00	0.75411	636895.00
4268645.00 0.81002 636905.00 4268645.00	0.87179	636915.00
4268645.00 0.94083		
4268645.00 0.94083 636925.00 4268645.00	1.01870	636935.00
4268645.00 1.10652		
636945.00 4268645.00	1.20371	636955.00
4268645.00 1.31325		
636965.00 4268645.00	1.43695	636975.00
4268645.00 1.57867	4 74467	626005 00
636985.00 4268645.00	1./416/	636995.00
4268645.00 1.92294 636895.00 4268655.00	0. 92061	626005 00
4268655.00 0.88311	0.82061	636905.00
636915.00 4268655.00	0 05107	636925.00
4268655.00 1.02950	0.93197	030923.00
636935.00 4268655.00	1.11663	636945.00
4268655.00 1.21510		3333 .3333
636955.00 4268655.00	1.32381	636965.00
4268655.00 1.44581		
636975.00 4268655.00	1.58565	636985.00
4268655.00 1.74521		
636995.00 4268655.00	1.92207	636895.00
4268665.00 0.82980		
636905.00 4268665.00	0.89270	636915.00
4268665.00 0.96214		
636925.00 4268665.00	1.03888	636935.00
4268665.00 1.12533	1 22200	626055 00
636945.00 4268665.00	1.22290	636955.00
4268665.00 1.33080 636965.00 4268665.00	1.45238	636975.00
4268665.00 1.58866	1.43230	030373.00
636985.00 4268665.00	1.74394	636995.00
4268665.00 1.91527	±1,7,122T	330333.00

	Opus_Construction	
637005.00 4268665.00	2.10565	636905.00
4268675.00 0.90093		
636915.00 4268675.00	0.97008	636925.00
4268675.00 1.04734		
636935.00 4268675.00	1.13305	636945.00
4268675.00 1.22896	4 22442	
636955.00 4268675.00	1.33618	636965.00
4268675.00 1.45533	1 50024	636985.00
636975.00 4268675.00 4268675.00 1.73821	1.58824	636985.00
636995.00 4268675.00	1 00427	637005.00
4268675.00 2.08855		
636905.00 4268685.00	0 90721	636915.00
426969F 00 07664	0.30721	030313.00
636925.00 4268685.00	1.05307	636935.00
4268685.00 1.13808	1.0330,	030333100
636945.00 4268685.00	1.23281	636955.00
4268685.00 1.33832		
636965.00 4268685.00	1.45499	636975.00
4268685.00 1.58440		
636985.00 4268685.00	1.72828	636995.00
4268685.00 1.88884		
637005.00 4268685.00	2.06379	637015.00
4268685.00 2.25425		
636915.00 4268695.00	0.97994	636925.00
4268695.00 1.05489		
636935.00 4268695.00	1.14006	636945.00
4268695.00 1.23453		
636955.00 4268695.00	1.33835	636965.00
4268695.00 1.45258	1 57013	636985.00
636975.00 4268695.00 4268695.00 1.71531	1.5/813	636985.00
636995.00 4268695.00	1 96707	637005.00
4268695.00 2.03375	1.80/9/	037003.00
637015.00 4268695.00	2 21078	636925.00
4268705.00 1.05859	2.21070	030323.00
636935.00 4268705.00	1.14166	636945.00
4268705.00 1.23381	_,_,_	
636955.00 4268705.00	1.33569	636965.00
4268705.00 1.44668		
636975.00 4268705.00	1.56788	636985.00
4268705.00 1.70006		
636995.00 4268705.00	1.84298	637005.00
4268705.00 2.00045		
↑ *** AERMOD - VERSION 19191 ***		HRAs\Opus at
Folsom\Opus_Construction\Opus_Con		
*** AERMET - VERSION 19191 ***		
***	14:07:45	

## PAGE 19

\*\*\* MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ\_U\*

\*\*\* THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: ALL \*\*\*

INCLUDING SOURCE(S): CSTN ,

\*\*\* DISCRETE CARTESIAN RECEPTOR POINTS

\*\*\*

\*\* CONC OF PM\_10 IN MICROGRAMS/M\*\*3

X-COORD (M) Y-COORD (M) Y-COORD (M) CONC	CONC	X-COORD (M)
637015.00 4268705.00	2.16683	637025.00
4268705.00 2.34410		
636925.00 4268715.00	1.05948	636935.00
4268715.00 1.14039		
636945.00 4268715.00	1.22995	636955.00
4268715.00 1.32942		
636965.00 4268715.00	1.43820	636975.00
4268715.00 1.55506		
636985.00 4268715.00	1.68099	636995.00
4268715.00 1.81691		
637005.00 4268715.00	1.96417	637015.00
4268715.00 2.11917		
637025.00 4268715.00	2.28191	637035.00
4268715.00 2.44999		
636935.00 4268725.00	1.13874	636945.00
4268725.00 1.22502		
636955.00 4268725.00	1.32184	636965.00
4268725.00 1.42614		
636975.00 4268725.00	1.53846	636985.00
4268725.00 1.65950 636995.00 4268725.00		
	1.78687	637005.00
4268725.00 1.92399		
637015.00 4268725.00	2.06663	637025.00
4268725.00 2.21453	2 27020	626045 00
637035.00 4268725.00	2.37028	636945.00
4268735.00 1.22049	4 2425	424045 00
636955.00 4268735.00	1.31267	636965.00
4268735.00 1.41200	1 51035	636005 00
636975.00 4268735.00	1.51935	636985.00
4268735.00 1.63472		

(2005 00 420725 00	Opus_Constructio	n	(27005	00
636995.00 4268735.00 4268735.00 1.88178	1.75511		637005.	00
637015.00 4268735.00	2.01244		637025.	00
4268735.00 2.14769 636955.00 4268745.00	1.30137		636965.	00
4268745.00 1.39647 636975.00 4268745.00	1.49895		636985.	00
4268745.00 1.60735 636995.00 4268745.00	1.72109		637005.	00
4268745.00 1.83740 637015.00 4268745.00	1.95747		636965.	00
4268755.00 1.37943				
636975.00 4268755.00 4268755.00 1.57835	1.47613		636985.	00
636995.00 4268755.00 4268755.00 1.79228	1.68461		637005.	00
637255.00 4268495.00	41.33952			
*** AERMOD - VERSION 19191 ** Folsom\Opus_Construction\Opus_Con *** AERMET - VERSION 19191 ***  *** MODELOPTs: RegDFAULT CON  HRS) RESULTS ***	nst *** 05, *** 14:07:45 PAGE 20 NC ELEV FLGPOL	'03/21 URBAN ADJ_L		43680
**	** CONC OF PM_	_10 IN MIC	ROGRAMS/M**3	
NETWORK  GROUP ID AV  ZHILL, ZFLAG) OF TYPE GRID-ID	/ERAGE CONC	REC	EPTOR (XR, YR	, ZELEV, 
CSTN 1ST HIGHEST VALUE IS	41.33952 AT (	637255.00,	4268495.00,	11.83,
16.08, 1.50) DC  2ND HIGHEST VALUE IS	20.63610 AT (	637132.09,	4268487.30,	11.89,
11.89, 5.90) DC 3RD HIGHEST VALUE IS	13.45078 AT (	637122.09,	4268497.30,	11.81,
11.81, 5.90) DC 4TH HIGHEST VALUE IS	12.76632 AT (	637122.09,	4268487.30,	11.85,
11.85, 5.90) DC			•	,

```
Opus Construction
          5TH HIGHEST VALUE IS
                                    11.58317 AT ( 637122.09,
                                                               4268477.30,
                                                                              11.85,
   11.85,
             5.90) DC
          6TH HIGHEST VALUE IS
                                     9.51579 AT ( 637112.09,
                                                               4268497.30,
                                                                              11.70,
   11.70,
             5.90) DC
          7TH HIGHEST VALUE IS
                                     8.76246 AT ( 637112.09,
                                                               4268487.30,
                                                                              11.73,
             5.90) DC
   11.73,
          8TH HIGHEST VALUE IS
                                     7.85468 AT ( 637112.09,
                                                               4268477.30,
                                                                              11.75,
   11.75,
             5.90) DC
                                     7.05349 AT ( 637102.09,
          9TH HIGHEST VALUE IS
                                                               4268497.30,
                                                                              11.63,
             5.90) DC
   11.63,
         10TH HIGHEST VALUE IS
                                     6.48218 AT ( 637102.09,
                                                               4268487.30,
                                                                              11.64,
   11.64,
            5.90) DC
ALL
          1ST HIGHEST VALUE IS
                                    41.33952 AT ( 637255.00,
                                                               4268495.00,
                                                                              11.83,
   16.08,
             1.50) DC
          2ND HIGHEST VALUE IS
                                    20.63610 AT ( 637132.09,
                                                               4268487.30,
                                                                              11.89,
   11.89,
             5.90) DC
          3RD HIGHEST VALUE IS
                                    13.45078 AT ( 637122.09,
                                                               4268497.30,
                                                                              11.81,
             5.90) DC
   11.81,
         4TH HIGHEST VALUE IS
                                    12.76632 AT ( 637122.09,
                                                               4268487.30,
                                                                              11.85,
   11.85,
             5.90) DC
          5TH HIGHEST VALUE IS
                                    11.58317 AT ( 637122.09,
                                                               4268477.30,
                                                                              11.85,
   11.85,
             5.90) DC
          6TH HIGHEST VALUE IS
                                     9.51579 AT ( 637112.09,
                                                               4268497.30,
                                                                              11.70,
   11.70,
             5.90) DC
          7TH HIGHEST VALUE IS
                                     8.76246 AT ( 637112.09,
                                                               4268487.30,
                                                                              11.73,
             5.90) DC
   11.73,
          8TH HIGHEST VALUE IS
                                     7.85468 AT ( 637112.09,
                                                               4268477.30,
                                                                              11.75,
             5.90) DC
   11.75,
         9TH HIGHEST VALUE IS
                                     7.05349 AT ( 637102.09,
                                                               4268497.30,
                                                                              11.63,
   11.63,
             5.90) DC
         10TH HIGHEST VALUE IS
                                     6.48218 AT ( 637102.09, 4268487.30,
                                                                              11.64,
            5.90) DC
   11.64,
 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 19191 ***
                                    *** C:\Model\_SCREENING HRAs\Opus at
Folsom\Opus_Construction\Opus_Const ***
                                               05/03/21
 *** AERMET - VERSION 19191 ***
                       ***
                                  14:07:45
                                  PAGE 21
 *** MODELOPTs:
                   RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
```

\*\*\* Message Summary : AERMOD Model Execution \*\*\*

Summary of Tot	tal Messages
A Total of 0 F	Fatal Error Message(s)
	Warning Message(s)
A Total of 1576 I	<pre>Informational Message(s)</pre>
A Total of 43680 H	Hours Were Processed
A Total of 643 C	Calm Hours Identified
A Total of 933 M	Missing Hours Identified ( 2.14 Percent)
****** FATAL ERROR M *** NONE	MESSAGES ******* ***
****** WARNING MES	SSAGES ******
ME W186 93 MEC 0.50	OPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
ME W187 93 MEC	OPEN: ADJ_U* Option for Stable Low Winds used in AERMET
************	***
*** AERMOD Finishes Su	
**************************************	·

#### **Opus and Folsom and Elvas**

Health Risk Assessment for Nearby Resident

#### MEIR

Source	MEIR Loca	AERMOD OUT [ug/m³]/[ g/s]	
	UTM X UTM Y		Annual
Construction	637255	4268495	32.3

	PM <sub>10</sub> Exhaust (tons)		Start Date End Date		Duration	Exposur	e Duration	
Construction Year	Unmitigated	Mitigated	Mitigated - T4f	Start Bate	Liid Date	Days	3rd Trimester	0<2
2021	0.03598	0.019789	0.00623	9/1/2021	12/31/2021	122	90	32
2022	0.0766	0.04213	0.0277	1/1/2022	12/31/2022	365	0	365
2023	0.00652	0.003586	0.00165	1/1/2023	3/1/2023	60	0	60

	DPM Exhaust (g/s)				
Construction Year	Unmitigated	Mitigated	Mitigated - T4f		
2021	0.0069	0.0038	0.0012		
2022	0.0049	0.0027	0.0018		
2023	0.0026	0.0014	0.0006		

Cancer Risk = Dose inhalation × Inhalation CPF × ASF × ED/AT × FAH

(Equation 8.2.4 A)

Where:

Cancer Risk = residential inhalation cancer risk

Dose inhalation (mg/kg-day) =  $C_{AIR} \times DBR \times A \times EF \times 10^{-6}$ 

(Equation 5.4.1.1)

Inhalation CPF = inhalation cancer potency factor ([mg/kg/day]<sup>-1</sup>)
ASF = age sensitivity factor for a specified age group (unitless)
ED = exposure duration for a specified age group (years)

AT = averaging time period over which exposure is averaged in days (years)

FAH = fraction of time at home (unitless)

Where:

 $C_{AIR}$  = concentration of compound in air in micrograms per cubic meter ( $\mu g/m^3$ )

DBR = daily breathing rate in liter per kilogram of body weight per day (L/kg-body weight/day)

A = inhalation absorption factor (1, unitless)

EF = exposure frequency in days per year (unitless, days/365 days)

10<sup>-6</sup> = micrograms to milligrams conversion, liters to cubic meters conversion

Hazard Quotient = C<sub>air</sub> / REL

(Section 8.3.1)

Where:

Hazard Quotient = chronic non-cancer hazard

 $C_{AIR}$  = concentration of compound in air in micrograms per cubic meter (µg/m<sup>3</sup>)

REL = Chronic non-cancer Reference Exposure Level for substance ( $\mu g/m^3$ )

	Dose Inhalation	n Inputs		Unmitigated	Mitigated	Mitigated - T4f			
	Receptor Type	Exposure Scenario	Receptor Group Age	C <sub>AIR</sub> (µg/m³)			DBR (L/kg-day)	A (unitless)	EF (days/year)
ſ	Off-Site Child	Construction	3rd Trimester	2.24E-01	1.2318E-01	3.88E-02	361	1	0.96
	Resident	Construction	Age 0<2	1.54E-01	8.46E-02	5.15E-02	1090	1	0.96

Dose Inhalation Outputs			Unmitigated	Mitigated	Mitigated - T4f	
Receptor Type Exposure Scenario		Receptor	Dose inhalation			
Receptor Type	exposure scenario	Group Age	(mg/kg-day)			
Off-Site Child	Construction	3rd Trimester	7.75E-05	4.26E-05	1.34E-05	
Resident	Construction	Age 0<2	1.61E-04	8.85E-05	5.39E-05	

#### **Risk Inputs**

Receptor Type	Exposure Scenario	Receptor Group Age	CPF (mg/kg-day <sup>-1</sup> )	ASF (unitless)	ED (years)	AT (years)	FAH (unitless)
Off-Site Child	Construction	3rd Trimester	1.1	10	0.25	70.00	0.85
Resident	Construction	Age 0<2	1.1	10	1.25	70.00	0.85

#### **Opus and Folsom and Elvas**

Health Risk Assessment for Nearby Resident

<b>Risk Outputs</b>			Unmitigated	Mitigated	Mitigated - T4f	Unmitigated	Mitigated	Mitigated - T4f
Receptor Type	Exposure Scenario	Receptor Group Age	Cancer Risk			Hazard Risk		
Off-Site Child	Construction	3rd Trimester	2.55E-06	1.40E-06	4.42E-07	0.04	0.02	0.01
Resident	Construction	Age 0<2	2.69E-05	1.48E-05	9.01E-06	0.03	0.02	0.01
Total Cancer Risk (per million)		29.47	16.21	9.45				

SOURCE: Office of Environmental Health Hazard Assessment, 2015. Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments. February. Daily breathing rate for school receptor is based on the OEHHA 95th percentile 8-hour moderate intensity breathing rates (Table 5.8).

Fraction of time at home is set to 0.85 for residential because the nearest daycare or school is >1000 ft from project site and would have a cancer risk < 1 per million, per OEHHA Table 8.4. Inhalation cancer potency factor from Table 7.1