Albany Village Graduate Student Housing Project

Addendum to the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR

prepared by

University of California, Berkeley
Capital Strategies
Physical and Environmental Planning, 300 A & E Building
Berkeley, California 94720

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

March 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Albany Village Graduate Student Housing Project

Addendum to the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR

prepared by
University of California, Berkeley
Capital Strategies
Physical and Environmental Planning, 300 A & E Building
Berkeley, California 94720

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

March 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

This report prepared on 50% recycled paper with 50% post-consumer content.

Table of Contents

Tables

Figures

Appendices

This page intentionally left blank.

1 Introduction

1.1 Project Overview

The University Village 2004 Master Plan (2004 Master Plan) envisions future development for University Village Albany (UVA), a housing community for University of California (UC) Berkeley students with families located in the City of Albany in Alameda County, California. The Master Plan outlines three separate phases (referred to as "steps") of redevelopment. Step 1 has been completed, and most of Step 2 has been completed, with the exception of construction of a new community center.

The proposed Albany Village Graduate Student Housing project (project) would implement a portion of Step 3 of the 2004 Master Plan. The project would involve demolition of several existing structures, including structures associated with UVA operations and the Rausser College of Natural Resources (CNR), and development of a new six-story residential building with up to 400 dwelling units (825 beds) and an associated surface parking lot with up to 240 vehicle parking spaces. In addition, the project would involve construction of a 6,000 square-foot CNR replacement structure and a 4,500 square-foot recreation building at areas near the new residential building. These two new buildings would replace some of the demolished UVA and CNR structures. Since approval for the 2004 Master Plan, 175 senior housing units (178 beds) were completed in the Step 3 area in 2017. With construction of the project there would be a total of 575 housing units (1,003 beds) in the Step 3 area, which is 152 fewer housing units (260 beds) than were approved in the 2004 Master Plan.

Figure 1 shows the three steps identified in the 2004 Master Plan and the location of the currently proposed project.

1.2 Process to Date

The Albany Village Graduate Student Housing project's site was identified as a priority housing site for the Berkeley campus' 2017 Housing Task Force Report. The project responds to the Chancellor's Housing Initiative, which includes a goal to provide one year of housing to entering graduate students. The proposed project would provide affordable living options for graduate students. The new student housing would help mitigate UC Berkeley's severe student housing shortage. The site at UVA is a priority for campus housing development as it is one of few Regents-owned properties with limited relocation and surge needs. The shortage of available and affordable housing for Berkeley's students and untenured ladder faculty is a matter of urgent concern for the university. At present, Berkeley has the lowest percentage of beds for its student body of any campus in the UC System, despite the fact that the campus is situated in one of the tightest housing markets in the state.

The UC Berkeley Capital Planning Committee (CPC) authorized the project to move into the feasibility study phase at its July 2020 meeting, and planning and design phase at its December meeting. Review and planning for the Albany Village Graduate Student Housing project began in May 2020 with the intent that it is a design that would be largely consistent with the 2004 University Village Master Plan. The project was introduced to the CPC on May 14, 2020. In July 2020, the CPC voted to advance the project from Concept to Feasibility stages.

Figure 1 2004 Master Plan Area and Proposed Step 3 Project Location

Imagery provided by Microsoft Bing and its licensors © 2021.

The campus introduced the project to City of Albany Community Development Department staff and City Manager on July 7, 2020. The campus further engaged the City of Albany Mayor and Vice Mayor and the Superintendent of the Albany Unified School District on October 20, 2020. On January 11, 2021, a presentation was made to the general public during the City of Albany's 2x2x2 Meeting (a regular meeting between staff for the City of Albany, Albany Unified School District, and the University of California).

The campus introduced and discussed the project with representatives of the Graduate Assembly on September 2, 2020 and received feedback related to housing for graduate students. The Graduate Assembly representatives further engaged with the campus and the developer—American Campus Communities—on September 17, 2020. The campus and development team conducted five graduate student focus groups between October 26 and October 30, 2020, to collect graduate student input on the project program. A virtual open house and materials were also provided on the Capital Strategies website to inform the public about the project in February 2021. The project was reviewed by the campus Design Review Committee at several key points over the course of the project.

1.3 Environmental Review Process

In accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and Section 15164 of the CEQA Guidelines (14 CCR 15000 et seq.), an Addendum to a previously certified Environmental Impact Report (EIR) may be prepared if some changes and additions are necessary, but none of the conditions described in CEQA Guidelines Section 15162 have occurred. Under CEQA Guidelines Section 15162, when an EIR has been certified for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

1) Substantial changes are proposed in the project that 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 that 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.

In January 1998, the Regents of the University of California approved the University Village & Albany/Northwest Berkeley Properties Draft Master Plan (1998 Master Plan) and certified the Focused Environmental Impact Report (EIR) (State Clearinghouse (SCH) #97072039) that evaluated potential environmental effects associated with the Plan's implementation. The certified Master Plan Focused EIR (1998 EIR) addressed the redevelopment of UVA, lease and commercial development of the Albany parcel – an "L"-shaped parcel of 5 acres or an expanded option of 12 acres fronting San Pablo Avenue – and the sale or lease of the Northwest Berkeley properties. The 1998 EIR provided a project-specific environmental analysis of the residential redevelopment component of the 1998 Master Plan, and a program-level environmental analysis of the 1998 Master Plan's anticipated non-residential development. It also included mitigation measures and continuing best practices to address environmental impacts associated with implementation of the 1998 Master Plan.

The 1998 Master Plan was amended in 2004 to include two additional steps to complete the redevelopment of UVA. The 2004 Master Plan envisioned redevelopment of the Step 2 and Step 3 areas, including demolition of existing structures and development of new housing, community facilities, and retail space. In March 2004, the Regents of the University of California approved a Subsequent Focused Environmental Impact Report (2004 Subsequent EIR) (SCH #1997072039) to the 1998 EIR to evaluate the amendments to the 1998 Master Plan included in the 2004 Master Plan[1].

This Addendum and attached supporting documents have been prepared to document that the proposed project is consistent with the 2004 Master Plan and that its potential environmental impacts are within the scope of those addressed in the 1998 EIR and 2004 Subsequent EIR, pursuant to Section 15164 of the CEQA Guidelines. This Addendum also documents that none of the conditions described in CEQA Section 21166 or CEQA Guidelines Sections 15162 or 15164 calling for preparation of a subsequent or supplemental EIR have occurred.

Copies of the 1998 EIR, 2004 Subsequent EIR, and Addendum are available for review online at https://capitalstrategies.berkeley.edu. As a result of COVID-19 and restrictions placed on in-person gatherings throughout California, libraries are closed to the public and it is not feasible to provide printed copies. If assistance accessing documents is needed, please contact UC Berkeley's Physical and Environmental Planning Department at (510) 643-4793 or by email at planning@berkeley.edu.

[1] In 2017, the University of California completed construction of a Sprouts Farmer's Market Store and Senior Housing development at the southeastern portion of the Step 3 area. That project was subject to independent CEQA review by the City of Albany since the project was not in furtherance of the university's academic mission.

1.4 2004 Subsequent EIR Measures Incorporated into Project

During construction and operation of the proposed project, all applicable mitigation measures and continuing best practices from the 2004 Subsequent EIR would be implemented and are incorporated by reference in this document (see the Chapter 6, *2004 Subsequent EIR Mitigation Measures and Continuing Best Practices Applicable to the Proposed Project* for applicable mitigation measures).

This page intentionally left blank.

2 Project Description

2.1 Project Title

Albany Village Graduate Student Housing Project

2.2 Lead Agency Name and Address

University of California, Berkeley
300 A & E Building
Berkeley, California 94720-1382

2.3 Contact Person and Phone Number

Shraddha Navalli Patil
Senior Planner, Physical and Environmental Planning
(510) 643-3387
shraddha@berkeley.edu

2.4 Project Location

University Village Albany

The UC Berkeley UVA is located on the southern boundary of the City of Albany in Alameda County, California, approximately three miles north-west of the University of Berkeley Campus. UVA is a student family housing community for UC Berkeley students. It includes 77 acres and is bounded by San Pablo Avenue (State Route 123) to the east, Codornices Creek to the south, the Union Pacific Railroad tracks to the west, and by the US Department of Agriculture office and research facilities, Ocean View Elementary School, and Buchanan Street to the north.

Project Site

The project site is located on a parcel (APN 66-2692-8). Regional access is available from Interstate 580 or Interstate 80, approximately 0.6 mile west of the site. Local access is available from San Pablo Avenue (SR-123), approximately 0.1 mile east of the site.

The site includes three distinct areas. The largest area ("Albany Village Graduate Student Housing"), where a new residential development is proposed, is located at the northeast corner of the intersection of Monroe Street and Jackson Street in Albany, California. The 3.8-acre site is bounded by Village Creek to the north and a surface parking lot that serves Sprouts Farmers Market to the east. The campus-owned UVA housing development is directly across Jackson Street to the west, the Sprouts parking lot abuts the east side, Village Creek is to the north and the University Village Community Center is directly across Monroe Street to the south. The proposed location for the residential development is outside the required buffer for Village Creek. Village Creek is on the north side of the site and a buffer area will be required between the creek and buildings. The site currently hosts parking for use by UVA residents, storage for campus units, the 'Apparatus Bay' recreation building, uncultivated fields, and a small number of structures remaining from the

Experiment Station for Biological Control. Most of the original Experiment Station buildings no longer remain on the site.

In addition to the Albany Village Graduate Student Housing project site, the project would involve development of new structures at two additional sites, as described below:

- One smaller area ("CNR replacement site"), where relocated UC Berkeley Rausser College of Natural Resources ("CNR") uses are proposed, is located north of the residential project site on the north side of Village Creek.
- One additional smaller area ("Apparatus Bay replacement site"), where relocated UVA recreational uses are proposed, is located southwest of the residential site. The UC replacement site is bounded by Eight Street to the east, Red Oak Avenue to the north, Codornices Creek to the south and residential development to the west.

Figure 2 shows the regional location of the project site, and Figure 3 provides an aerial image of the project site in its neighborhood context.

2.5 Project Objectives

The proposed Albany Village Graduate Student Housing project would provide affordable living options for graduate students. The new student housing would help mitigate UC Berkeley's severe student housing shortage.

The proposed site is a priority for campus housing development as it is one of few Regents-owned properties with limited relocation and surge needs. Moreover, the site's suburban context can more comfortably accommodate lower-density wood frame construction to better deliver affordable rents for graduate students than sites more adjacent to Campus Park. The proposed project would provide up to 825 beds targeted to graduate students. In July 2020, the CPC voted to advance the project from Concept to Feasibility stages. As currently planned, the project would deliver in summer 2024.

2.6 Description of Proposed Albany Village Graduate Student Housing Project

The proposed project would involve implementation of a portion of the development envisioned as Step 3 of the 2004 Master Plan. The project would include the following main components:

- Amendment to the 2004 Master Plan to remove the Commercial or Mixed Use land use designation at the southeastern corner of the Step 3 residential site so that the entire Step 3 residential site is within the Housing, Parking, Recreation, and Open Space land use designation.
- Demolition of all existing structures within the Step 3 residential site, including barns and sheds associated with CNR, and recreational and storage structures associated with UVA.
- Construction of a new residential building and associated parking at the Step 3 residential site.
- Construction of replacement CNR and UVA structures at the two replacement sites.

Table 1 summarizes information about the proposed project compared to the equivalent components of the 2004 Master Plan.

Figure 2 Regional Location

Imagery provided by Esri and its licensors © 2020.

Project Location

N

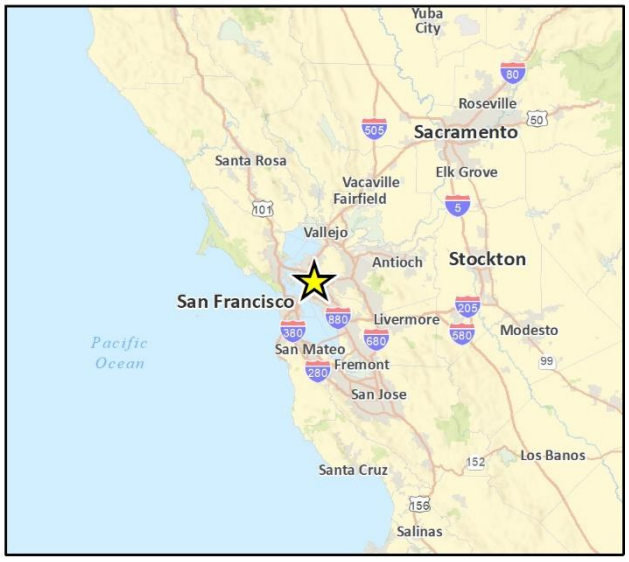


Figure 3 Project Site in Its Neighborhood Context

Imagery provided by Microsoft Bing and its licensors © 2021.

Fig 2 Project Site in its Neighborhood Context

Table 1 Project Summary Compared to 2004 Master Plan

Project Component	2004 Master Plan	Proposed Project
Building Area		
Ground-level GFA: resident amenities	Not specified	20,000 sf
Ground-level GFA: resident units	Not specified	34,000 sf
GFA above ground level: resident units	Not specified	305,000 sf
Total	**686,288 sf maximum**	**355,000 sf maximum**
Building Height		
New Residential Building	Four stories	Six stories
Residential Units		
Total Units	727 maximum in Step 3[1]	400 maximum
Beds	1,263 maximum in Step 3 (1,190 for graduate students, 73 for faculty)[2]	825 maximum
Vehicle Parking		
Total Spaces	947 maximum (0.74/bed)	240 maximum
Replacement Structures		
CNR Building (office and storage)	Existing structures planned for demolition	Replacement of the existing structures with a new 6,000 sf structure
Apparatus Bay Building (recreational)	Existing structure planned for demolition	Replacement of the existing Apparatus Bay structure with a new 4,500 sf structure

[1] This total includes 175 senior housing units, which were completed in 2017. Therefore, of the 727 units approved in the 2004 Master Plan, up to 552 additional units are envisioned in the Step 3 area.

[2] This total includes 178 beds in the senior housing development that was completed in 2017. Therefore, of the 1,263 beds approved in the 2004 Master Plan, up to 1,085 are envisioned in the Step 3 area.

GFA = gross floor area

sf = square feet

New Residential Development

The project would involve construction of a new residential building on the Albany Village Student Housing site. The new building would be six stories and include a maximum of 355,000 square feet. The building would include a maximum of 400 units accommodating up to 825 beds for UC Berkeley graduate students. The project would include approximately 20,000 square feet of space for residential community uses, including activity and social areas, a fitness center, bicycle facilities, and housing leasing and management offices. The new building would be located within the western and southern portions of the site and would include several wings that would form three outdoor courtyards. The new surface parking lot would be constructed on the remaining portion of the site, north and east of the new building. The parking lot would include a maximum of 240 parking spaces. The project would maintain a minimum 50-foot setback from the center of the Village Creek on either side. Figure 4 shows the proposed conceptual site plan at the residential site.

Figure 4 Conceptual Site Plan – Albany Village Graduate Student Housing Site

Source: Ayers Saint Gross, 2021.

Replacement Structures

In addition to the proposed residential development, the project would also involve construction of two new structures at the two replacement sites shown in Figure 3 to relocate some of the existing uses at the residential site that would be demolished. A new 6,000 square-foot metal shed-type building would be constructed at the CNR replacement site. The structure would include office and storage space for use by CNR staff. As the project design is refined and finalized, it is possible that this structure would be located up to 200 feet to the west or 150 feet to the east of the depicted location on Figure 3. As discussed in the impacts analysis below (Section 4), this potential minor change in location of the CNR structure would not result in any material difference in potential environmental impacts of the project. In addition, a new 4,500 square foot "Apparatus Bay" building would be constructed at the Apparatus Bay replacement site. The structure would include recreational space for aerial arts, circus, and gymnastics classes. Both structures would maintain a minimum 60-foot setback from Codornices Creek and a minimum 50-foot setback from Village Creek. Operation of the replacement structures would not require new or additional CNR or UVA employees.

Green Building Features

The new buildings would be built to meet UC Berkeley minimum sustainability standards. Those standards include a requirement that the buildings achieve a Leadership in Energy and Environmental Design (LEED) Gold status and use 100 percent clean electrical power. In addition, the proposed buildings would be designed, constructed, and commissioned to meet UC Berkeley's goal for new buildings to outperform CBC energy efficiency standards by at least 20 percent and would not use on-site fossil fuel combustion for space and water heating. Finally, the proposed project would include Electric Vehicle (EV) parking spaces and secure bicycle storage for residents.

2.7 Land Use Designations

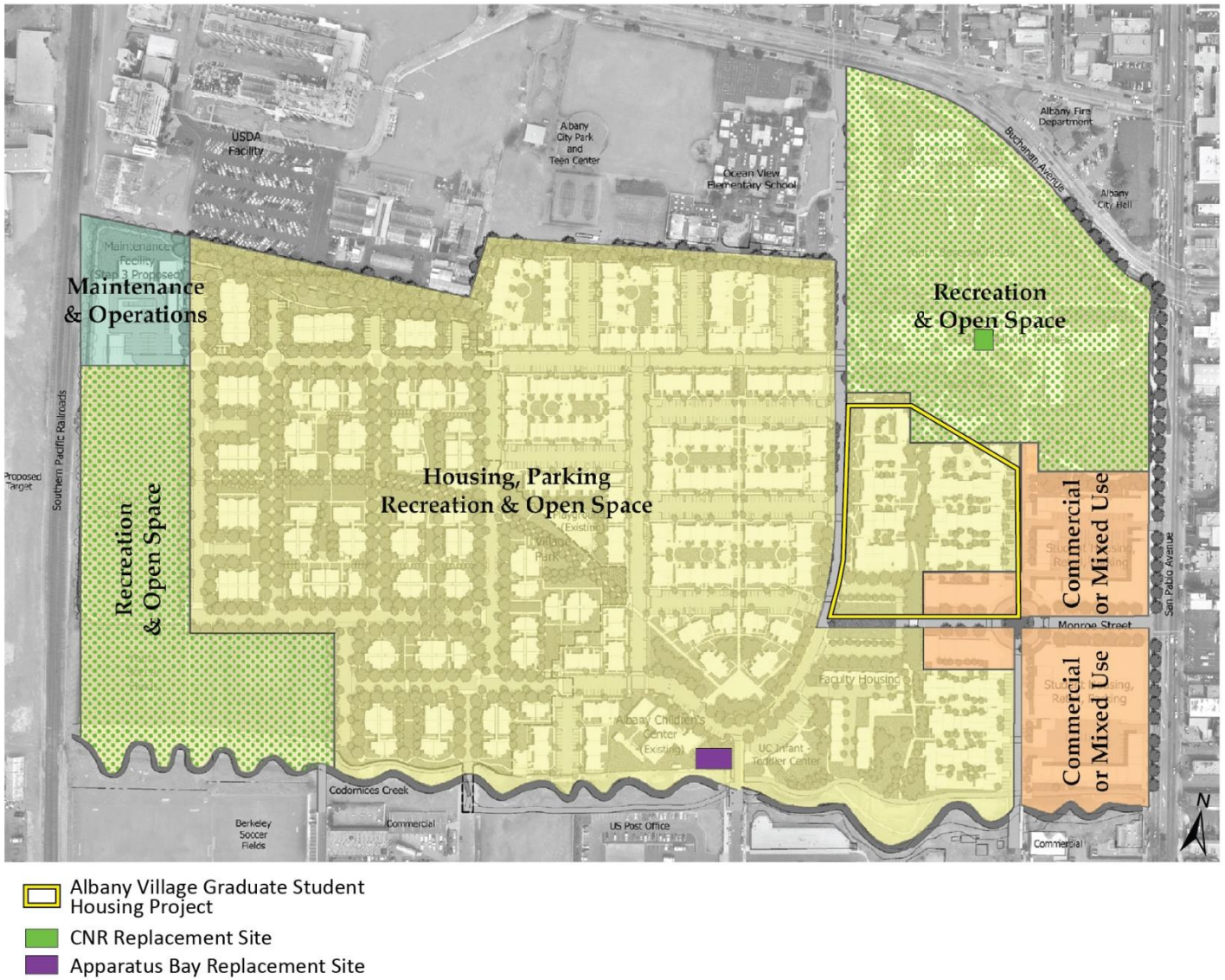
The project site is within three different land use designations identified in the 2004 Master Plan. The Albany Village Graduate Student Housing site is split between two land use designations: most of the site is within the Housing, Parking, Recreation, and Open Space designation, and the southeastern corner of the site is within the Commercial or Mixed Use designation. The CNR replacement site is in an area designated as Recreation and Open Space, and the Apparatus Bay replacement site is in an area designated as Housing, Parking, Recreation, and Open Space. Figure 5 shows the project site in the context of the 2004 Master Plan land use designations.

All three land use areas are within the University Village (UC) land use designation in the City of Albany General Plan. In addition, the portions of the sites near Village Creek and Codornices Creek are within an area designated by the City of Albany as Creek Conservation Area (CCA) (City of Albany 2016). The University is constitutionally exempt from local land use regulations, including City of Albany designations, when using its property in furtherance of its educational mission. The University is the only agency with jurisdiction over such projects.

2.8 Zoning

The residential site and Apparatus Bay replacement site are within the City of Albany Residential Multi-Family Density (R-2) zoning district. The CNR replacement site is within the City of Albany Public Facilities (PF) zoning district (City of Albany 2009). As described above, the University is

Figure 5 2004 Master Plan Land Use Designations



constitutionally exempt from local land use regulations, including City of Albany zoning requirements.

2.9 Surrounding Land Uses and Existing Setting

The project site is within the Regents-owned properties in Albany and the site for a new residential development is located on the former Experiment Station for Biological Control adjacent to Gill Tract North[2]. Two creeks are located in the vicinity of the site: Village Creek, which abuts the Step 3 residential site to the north, and Codornices Creek, which runs along the southern edge of UVA. The surrounding neighborhood supports a mix of uses and development types. University Village housing units in one- to three-story multi-family residential buildings are located west of the Albany Village Graduate Student Housing site, across Jackson Street. Those residential uses extend across University Village Albany to its western edge and are organized around surface parking lots and roads, and landscaped open space. The University Village Community Center, which includes sports fields and several one-story buildings, is located south of the Step 3 residential site, across Monroe Street. Ocean View Elementary School abuts the farm to the west. Commercial uses are concentrated primarily east and south of the project site, along San Pablo Avenue and Harrison Street. Those commercial uses include Sprouts Farmers Market, which abuts the Step 3 residential site to the east, Belmont Village Senior Living Albany (four-story residential above structured parking), which abuts Sprouts Farmers Market site to the south, and food service, retail, and medical offices.

The proposed residential site is currently developed with approximately 10 structures. The southern portion of the site is currently occupied by structures associated with the University Village Community Center, including the apparatus bay building, a 3,000 square foot metal building used for youth recreation, various metal storage containers, and a surface parking lot with 40 parking spaces. The northern portion of the site is currently occupied by the structures used by CNR, including three structures comprising approximately 11,500 square feet, which are used for offices and storage.

The CNR replacement site is located north of Village Creek, on Gill Tract North. The Apparatus Bay replacement site is located within a recreational open space between the University Village residential buildings. The site is currently landscaped with grass and is adjacent to a children's play structure.

2.10 Agencies Whose Approval is Required

The University of California is the lead agency with responsibility for approving the proposed project. The University is constitutionally exempt from local land use regulations when using its property in furtherance of its educational mission. Therefore, the project is not be subject to approval by the City of Albany.

Project construction would be required to obtain coverage under the NPDES General Construction Activity Permit from the State Water Resources Control Board by filing a Notice of Intent (NOI), and, as part of the permit and monitoring process, prepare and implement a Stormwater Pollution

[2] In this Addendum, "Gill Tract", a tract of land located in the corner of Buchanan and Jackson Street, is mainly referred to in the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR. Gill Tract's historical extent (up to 36 acres) included many parcels in the adjacent vicinity. For purposes of clarity, the Project and this Addendum refers to the proposed graduate student housing site as located in the former Experiment Station for Biological Control and to all areas north of the Village Creek, east of Jackson Street, south of Buchanan Street and West of San Pablo Avenue as "Gill Tract North"

Prevention Plan (SWPPP), and air quality requirements imposed by the Bay Area Air Quality Management District. The SWPPP shall include design details and construction specifications for all site drainage control and other water quality control strategies, including Best Management Practices (BMPs) and other measures for stormwater pollution reduction.

2.11 Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

UC Berkeley is awaiting any requests from California Native American tribes to be notified of proposed projects, pursuant to Public Resources Code (PRC) Section 21080.3.1.

3 Plan and Policy Context

3.1 Relationship to the 2020 UC Berkeley LRDP

The 2020 UC Berkeley Long Range Development Plan (2020 LRDP) describes the scope and nature of development proposed to meet the goals of UC Berkeley through academic year 2020 to 2021. The 2020 LRDP and previous versions of the LRDP specifically exclude the UVA site because the area is sufficiently distant and different from the Campus Park and its environs to merit separate environmental review (UC Berkeley 2005). Consistent with this framework, UVA is subject to the policies and guidance in the 2004 Master Plan.

3.2 Consistency with the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan and 2004 University Village Master Plan

The 1998 Master Plan provides a framework for the redevelopment of UVA to provide affordable housing for University students and significantly increase the amount of on-campus housing available to students. The 1998 Master Plan set forth goals to provide housing for University students with families, graduate students without children, and junior faculty.

As described above in the *Introduction* section, the 1998 Master Plan was amended in 2004 to include two additional phases (referred to as "steps") to complete the redevelopment of UVA (2004 Master Plan). The 2004 Master Plan envisions the following redevelopment plans:

- Demolition of 412 housing units in the Step 2 area.
- Demolition of 152 housing units in the Step 3 area.
- Demolition of the remaining buildings and structures in the Step 3 area.
- Construction of up to 606 new units of housing for students with families in the Step 2 area (construction of 582 units in the Step 2 area was approved by the UC Regents in June 2004).
- Construction of up to 727 new units of housing for graduate students without children and faculty in the Step 3 area.
- Construction of community facilities including a new community center, infant/childcare center and Little League fields in the Step 3 area and a maintenance facility in the Step 2 area.
- Construction of up to 73,000 square feet of retail space, the majority of which would be within two mixed-use buildings in the Step 3 area.

The proposed project would involve new residential development consistent with the 2004 Master Plan. As envisioned in the 2004 Master Plan, the project would involve demolition of existing UVA and CNR uses to allow for the construction of a new residential building. Moreover, the 2004 Master Plan envisions the development of up to 727 housing units and up to 1,263 beds in the Step 3 area. This total includes 175 senior housing units (178 beds), which were completed in 2017. The project would involve construction of up to 400 units (or 825 beds), resulting in up to 575 housing units and 1,003 beds), which is 152 units (or 260 beds) fewer than were envisioned in the Step 3 area.

The project would also be consistent with the goals in the 2004 Master Plan regarding the sustainable development and design of the proposed housing. The Master Plan requires that new construction in UVA utilize the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. The proposed project would achieve LEED Gold status and generate renewable energy on-site. The project would also be consistent with the policy in the 2004 Master Plan that development in UVA encourage the use of public and active transportation as opposed to single occupancy vehicles. The project would be within walking distance of shuttle and public transit services and would provide bicycle parking spaces.

The proposed project would not involve development of retail, which is included as a component of Step 3 in the 2004 Master Plan. However, as described above in the *Description of Project* section, the project would involve an amendment to the 2004 Master Plan to remove the Commercial or Mixed Use land use designation from the southeastern corner of the Step 3 residential site so that the entire site is within the Housing, Parking, Recreation, and Open Space land use designation.

While the 2004 Master Plan envisions demolition of existing uses to allow for the construction of the new residential uses, it does not include replacement of CNR and UVA structures, which is proposed as part of the project. Impacts related to this portion of the project are evaluated below throughout the *Environmental Checklist* Section.

3.3 Consistency with Urban Design Guidelines: University Village & Albany/Northwest Berkeley Properties

The project would comply with the UC's 1993 Draft Urban Design Guidelines: University Village & Albany/Northwest Berkeley Properties (Guidelines).[3] The Guidelines include the following goals:

- Achieve a balance between the density and quality of the student family housing.
- Consolidate the Village in the area west of Jackson Street.
- Discourage through vehicular access.
- Enhance access to potential future housing or mixed-use development east of Jackson Street.
- Build upon the existing courtyards to provide a common "backyard" to each of the residential clusters.
- Site units along streets to promote the desired residential quality and to foster increased interaction among the Village residents.
- Introduce plantings and pedestrian walks to integrate the large parking areas into the residential development.

Consistent with the Guidelines, the project would involve construction of housing east of Jackson Street. Moreover, the project would discourage vehicle use by providing secure parking for bicycles and convenient access to a shuttle service for UC Berkeley students and AC Transit bus stops. Finally, the project's final design, including landscaping, open space, and pedestrian walkways would

[3] The 1993 Draft Urban Design Guidelines were not updated as part of the 2004 University Village Master Plan. (The 1998 Master Plan identified nine planning goals for the redevelopment of University Village, and the 2004 Master Plan includes minor changes to the 1998 Master Plan land use, environmental, and academic goals were amended.) Therefore, the 1993 Urban Design Guidelines would continue to apply to the project.

be reviewed by the UC Berkeley Design Review Committee and the UC Regents to ensure that policies related to residential quality and open space have been adequately incorporated into the project.

3.4 UC Berkeley Design Review Committee

The UC Berkeley Design Review Committee (DRC) provides advice to the Campus Architect regarding historic preservation and the design of university buildings and open spaces. The DRC includes professionals and faculty from the disciplines of architecture, landscape architecture, urban design and planning, and historic preservation. The proposed project would be reviewed by the DRC for consistency with all Design Guidelines: University Village & Albany/Northwest Berkeley Properties, as described above.

3.5 UC Design and Sustainability Policies

The project would be required to comply with the following University of California policies regarding design of new projects and minimum sustainability features:

UC Sustainable Practices Policy

The project would comply with the UC Sustainable Practices Policy, which establishes goals in eleven areas of sustainable practices: green building, clean energy, transportation, climate protection, sustainable operations, waste reduction and recycling, sustainable procurement, sustainable food service, and sustainable water systems, sustainability at UC Health and general sustainability performance assessments.

UC Berkeley Sustainability Plan

The UC Berkeley Sustainability Plan, published in November 2020, describes the University's commitment to social and environmental responsibility. The Plan describes this commitment in five core areas: Climate & Resiliency, Built & Natural Environment, Sustainable Services, Health & Sustainability, and Culture & Learning. The Plan will guide future work on campus and establish a structure to achieve continuous improvement.

UC Berkeley Energy Land Use Policy

The UC Berkeley Energy Use Policy requires that the University manage its operations so that energy and carbon is used in the most sustainable manner possible while providing a safe and comfortable environment for teaching, research, and public service. The policy includes regulations related to ongoing operations, renovations, and new construction projects. For new construction such as the proposed project, buildings must be designed, constructed, and commissioned to meet the whole-building energy performance targets (WBPTs) listed in Table 1 or outperform the CBC energy-efficiency standards by at least 20%. In addition, no new building or major modification is allowed use onsite fossil fuel combustion (e.g., natural gas) for space and water heating. In addition, UC Berkeley projects may not use onsite fossil fuel combustion for laundry or cooking. The project would comply with this policy.

UC Berkeley Green Building Policy

The UC Berkeley Green Building Policy requires the following measures, which would apply to the proposed project:

- All new buildings and major modifications will achieve a minimum of LEED Gold certification.
- All new buildings and major, medium and small modifications will maximize energy efficiency following the Campus Energy Policy standards.
- Projects will support reduction in carbon emissions through no use of onsite fossil fuel combustion for space and water heating, laundry and cooking and by electrified design and lifecycle considerations.

UC Berkeley Design Standards

The Campus Design Standards guide design and construction professionals to complete lasting, high-quality additions to the campus-built environment. These Standards, along with applicable codes, ensure that new construction and renovation projects at UC Berkeley integrate industry best practices and experience with existing campus buildings, infrastructure, grounds, and maintenance issues.

3.6 Consistency with the Seismic Safety Policy

The project would comply with the University of California Seismic Safety Policy. According to the Seismic Safety Policy, the design and construction of University of California facilities are required to comply with the current seismic provisions of the California Building Code for new or existing buildings, as appropriate, and with University policies (UC Berkeley 2017). An engineer of record would be responsible for the structural aspects of the entire project and must sign and stamp all final documents, including deferred submittals, for which they would be responsible. The structural design includes the design of the structural frame, lateral force-resisting system; foundations; structural aspects of the facility; skin/façade; and support and anchorage of equipment, building systems, and architectural features. Peer review, with an independent seismic peer reviewer, would be required to be conducted on all new construction and all renovation of University of California facilities that would involve the structural design and would be intended for human occupancy or that may affect the life or safety of the occupants. The campus building official would be required to select the independent seismic peer reviewer and plan for the peer review. In addition, the project would be required to be reviewed by UC Berkeley's Seismic Review Committee (SRC) prior to occupancy. The project is expected to be reviewed by the SRC in March 2021 and recommendations would be incorporated into the design.

4 Environmental Checklist and Impacts of the Proposed Project

This Addendum documents that the proposed project would not result in any new significant environmental impacts, nor an increase in the severity of significant impacts previously identified and studied in the 1998 Master Plan and 2004 SEIR. Nor would the proposed project require the adoption of any new or considerably different mitigation measures or alternatives. Accordingly, this Addendum is the appropriate form of environmental review for the proposed project. This Addendum has been prepared to satisfy the requirements of CEQA Guidelines Sections 15164(a), 15164(d), and 15164(e).

Appendix G of the CEQA *Guidelines* provides a checklist of environmental issues areas that are suggested as the issue areas that should be assessed in CEQA analyses. The 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR addressed in detail 19 of the 20 suggested environmental issue areas. Updates to the CEQA guidelines have resulted in the addition of two additional issue areas to the checklist, Energy and Tribal Cultural Resources. In order to provide a thorough and conservative analysis of potential impacts associated with the proposed project, this Addendum addresses all 21 environmental issue areas suggested by Appendix G of the CEQA Guidelines, as listed below.

1. Aesthetics
2. Agriculture and Forestry
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Energy
7. Geology/Soils
8. Greenhouse Gas Emissions
9. Hazards & Hazardous Materials
10. Hydrology/Water Quality
11. Land Use/Planning
12. Mineral Resources
13. Noise
14. Population/Housing
15. Public Services
16. Recreation
17. Transportation
18. Tribal Cultural Resources
19. Utilities/Service Systems
20. Wildfire
21. Mandatory Findings of Significance

Potential environmental impacts of the proposed project are analyzed to determine whether impacts are consistent with the impact analysis provided in the 1998 Master Plan EIR and 2004 Subsequent EIR, and whether additional mitigation measures are required to minimize or avoid potential impacts, pursuant to CEQA Guidelines sections 15162 and 15164.

This page intentionally left blank.

1 Aesthetics

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to aesthetics. Specifically, the 2004 Subsequent EIR concluded:

> As stated in the Initial Study, the project site is not situated within the viewshed of any State scenic highway nor national scenic byway, and neither the City of Albany General Plan or the West Berkeley Plan identify any significant view corridors on the project site. However, the City of Berkeley identifies Codornices Creek as a potential visual resource. Implementation of the project, would improve the visibility of the Creek corridor, and as such would result in a beneficial effect. Several of the goals of the project relate to improving the visual quality of the site, and would generally conform to the Albany General Plan land use designations and Albany's San Pablo Avenue Urban Design Guidelines. Removal or relocation of selected trees would also improve the visual quality of the site and improve the health of tree stands by thinning or removing unhealthy trees. Lighting would also be designed to minimize glare, and would not impact sensitive land uses (2004 Subsequent EIR p. 214).

Impact Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The proposed project would involve new residential development within the same location, general footprint, and density parameters identified as part of Step 3 in the 2004 Master Plan. At six stories, the new residential building would be taller than the four-story building envisioned in the 2004 Master Plan and could therefore result in new impacts to scenic vistas. However, given that scenic views, including Codornices Creek, are not available from or through the site, the difference in height would not affect the visibility of resources. Therefore, the proposed residential project would not introduce new impacts related to scenic resources beyond those analyzed in the 2004 Subsequent EIR; as with buildout under the 2004 Master Plan, the site's location in a relatively flat, urbanized area and its distance from scenic resources would ensure that the proposed residential project would not adversely affect a scenic vista.

The project would also involve construction of two new structures within the CNR and Apparatus Bay replacement sites, which was not included in the 2004 Master Plan and therefore not analyzed in the 2004 Subsequent EIR. While the CNR replacement structure would not be near or visible from any scenic resources, including Codornices Creek, the Apparatus Bay replacement site abuts the northern side of Codornices Creek. Therefore, the project could result in additional impacts related to views of this scenic resource.

However, consistent with the policies in the 2004 Master Plan, the Apparatus Bay replacement structure would be constructed outside a designated creek buffer and would not obstruct existing landscaping and walkways along the Creek, including Lower Codornices Creek Path, a paved walkway located along the southern portion of the creek near the Apparatus Bay replacement site.

The new structure would be approximately 4,500 square feet and 25 feet tall at its tallest point, which would be relatively small compared to the surrounding two and three-story residential development. Moreover, the new structure would not block a public viewpoint of the creek. Therefore, the new structure would not obstruct views of the creek and, consistent with the analysis in the 2004 Subsequent EIR, impacts related to scenic vistas would be less than significant. As described in Section 2, *Project Description,* for purposes of project refinement, if location of the proposed CNR replacement structure is moved up to 200 feet towards the west or 150 feet towards the east, there would be no difference with respect to potential impacts on scenic vistas. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The 2004 SEIR concluded that UVA is not within the viewshed of a state scenic highway, so implementation of the 2004 Master Plan would have no effect on scenic resources within a state scenic highway. All elements of the proposed project are within UVA, so the proposed project would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts related to scenic resources within state scenic highways.

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

UVA is in an urbanized area. The 2004 SEIR concluded that implementation of the 2004 Master Plan would be consistent with the existing visual character of the site and other development in the vicinity and would not degrade the existing visual quality of the site. New development allowed under the Master Plan, including the proposed project, would be required to comply with several Urban Design Objectives and Policies outlined in the Master Plan:

Land Use Objective 1-5: To maintain and improve the community facilities in the Village.

Urban Design Objective 2-2: To enhance the quality of life at the Village through improved housing, recreation facilities, circulation, and open space.

Urban Design Objective 2-5: To enhance the visual quality of the site.

Urban Design Policy 2-6: Create compatible relationships between the edges of the University property and adjacent land uses. Where this is not achievable, use or other buffers to mitigate incompatible characteristics.

Urban Design Policy 2-14: Use landscaping and vegetation to enhance the quality of the site.

As described in the *Project Description* section above, the new residential building would be consistent with the location and maximum density of the Step 3 residential development envisioned

in the 2004 Master Plan. The building would be up to six stories, two stories taller than the residential development envisioned in the Master Plan. While this difference in height would be a change to the buildout envisioned in the 2004 Master Plan, the new building would be located near San Pablo Avenue, where existing buildings tend to be taller and larger than the existing buildings within UVA. The proposed building would therefore provide a visual transition between the lower density development in the central and western portion of UVA and the denser, taller, mixed development along San Pablo Avenue. In addition, the project would include construction of a wider sidewalk and landscaped edge along Jackson Street, and landscaped courtyards consistent with the Master Plan urban design policies.

The project would also involve development of new structures not envisioned in the Master Plan within the CNR and Apparatus Bay replacement sites, which was not included in the 2004 Master Plan. These new structures would be relatively small and consistent with the existing height and development pattern in the area; at approximately 25 feet at their tallest point, the structures would be shorter or consistent with the two- and three-story buildings that surround the sites.

Finally, the project was reviewed by the UC Berkeley Design Review Committee. The Committee would review the project to ensure that new construction would be consistent with the above objectives and policies related to scenic quality. Adherence to those objectives and policies would ensure that the new buildings and surrounding landscaping would enhance the visual quality of UVA and be visually compatible with surrounding existing development, including development outside of UC property. Therefore, consistent with the analysis in the 2004 Subsequent EIR, impacts would remain less than significant.

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The 2004 Subsequent EIR concluded that implementation of the 2004 Master Plan would not create new sources of substantial light or glare that would adversely affect daytime or nighttime views. The proposed project would be consistent with the 2004 Master Plan. While the proposed residential building would be two stories taller than the building analyzed in the 2004 Subsequent EIR, it would include fewer residential units. Therefore, the proposed building would not cause a substantial increase in lighting and glare beyond what was analyzed in the 2004 Subsequent EIR.

The project would also involve construction and operation of two new structures within the CNR and Apparatus Bay replacement sites, which were not included in the 2004 Master Plan. While these structures would introduce sources of lighting that were not analyzed in the 2004 Subsequent EIR, they would be relatively small compared to existing surrounding development and would therefore not substantially increase lighting levels in the area. To minimize light and glare, the project would implement the following Continuing Best Practices:

Continuing Best Practice AES-1: Lighting for new development projects would be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces and minimize atmospheric light pollution. The only exception to this principle would be in those areas where such features would be incompatible with the visual and/or historic character of the area.

Continuing Best Practice AES-2: As part of the design review procedures described in the above Continuing Best Practices, light and glare would be given specific consideration, and measures

incorporated into the project design to minimize both. In general, exterior surfaces would not be reflective: architectural screens and shading devices are preferable to reflective glass.

The proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

2 Agriculture and Forestry Resources

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to agricultural resources. Specifically, Section IV.A of the 2004 Subsequent EIR concluded:

> The proposed project would convert land currently used for research to land used for athletic fields, community facilities, and housing. The cultivated land within the Gill Tract is used for institutional research and is not State or locally-designated significant farmland according to the California Department of Conservation's Division of Land Resource Protection Farmland Mapping and Monitoring Program (FMMP).
>
> The minimum mapping units for farmland, as defined by the FMMP, is 10 acres. Units of land that are less than 10 acres are incorporated into the surrounding map classification. The area of the Gill Tract that is currently cultivated is less than 10 acres, and is incorporated into the surrounding map classifications, which is defined Urban and Built-Up Land. Additionally, the site is not zoned for agricultural use by the Albany General Plan, and is not land under a Williamson Act contract. The conversion of this land would result in no impact to agricultural resources (2004 Subsequent EIR p. 59-60).

Impact Analysis

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

b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 SEIR.

The 2004 Subsequent EIR does not address impacts related to forestry or timberland, because the CEQA Guidelines did not require analysis of such impacts in 2004. However, UVA, including the sites where the project is proposed, does not support forest land or resources. Moreover, UVA is in an urbanized area, and no forest land is nearby. Therefore, the project would result in no impacts related to forestry resources. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Consistent with the 2004 Master Plan, the proposed project would involve demolition of some structures within the residential project site that are currently being used by the CNR. In addition, the project would involve construction of a new structure for use by CNR north of Village Creek, in an area that is currently used for cultivation associated with research at CNR. This new CNR structure was not analyzed in the 2004 Subsequent EIR. However, these proposed changes would not alter existing agricultural operations within UVA. The new CNR structure would replace office and storage space (not agricultural land), and its proposed location would not substantially reduce the amount of available land available for cultivation. (As described in Section 2, *Project Description,* for purposes of project refinement, if location of the proposed CNR replacement structure is moved up to 200 feet towards the west or 150 feet towards the east, the impacts analyzed in this Addendum would not change.) In addition, as described in the 2004 Subsequent EIR, the project sites are not identified as any of the farmland types under the Farmland Mapping and Monitoring Program UVA is designated by the Department of Conservation as "Urban and Built Up Land." Therefore, consistent with the analysis in the 2004 Subsequent EIR, impacts related to the conversion of existing farmland would be less than significant.

3 Air Quality

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to air quality. Specifically, Section IV.B of the 2004 Subsequent EIR concluded that air quality impacts would be either less than significant or less than significant after incorporating mitigation.

The 2004 Subsequent EIR found that modeled daily vehicular emissions of reactive organic gases (ROG), nitrogen oxides (NO_x), and large particulate matter (PM_{10}) during implementation of the Master Plan would not exceed the Bay Area Air Quality Management District's (BAAQMD) significance thresholds. However, mobile source carbon monoxide (CO) emissions could exceed the BAAQMD's threshold of 550 pounds per day, which triggered a screening analysis of emissions from CO hotspots. This screening analysis in the 2004 Subsequent EIR found that new traffic and the diversion of traffic related to roadway modifications would not cause any new violations of CO standards nor contribute substantially to an existing or projected violation. Therefore, the long-term emissions generated by implementation of the Master Plan were determined to have a less than significant impact on air quality.

The 2004 Subsequent EIR also found that construction activities on the project site would elevate levels of particulate matter downwind of construction activity, which could create a nuisance at nearby properties or at previously completed portions of the Master Plan. Mitigation Measure AIR-1 required implementation of BAAQMD-recommended dust control measures, such as twice daily watering of active construction areas and daily sweeping of all paved areas at construction sites. With mitigation incorporated, the 2004 Subsequent EIR determined that construction would have a less than significant impact on air quality. (See Chapter 6 for a complete list of Continuing Best Practices mitigation measures applicable into the project.) In addition, construction emissions were found to contribute to short-term cumulative air quality impacts. However, because each individual cumulative project would be subject to BAAQMD rules and other mitigation requirements during construction, the 2004 Subsequent EIR determined that cumulative air quality impacts would be less than significant.

With regard to odor impacts, the 2004 Subsequent EIR noted that the Master Plan would not introduce new stationary odor sources or generate offensive odors from commercial uses in the Step 3 area. It found that the solid waste transfer station southwest of the project site would not expose people on the project site to substantial odors because of its distance. Therefore, odor impacts were identified as less than significant.

The 2004 Subsequent EIR found that nearby land uses such as the transfer station generate PM_{10} in the vicinity of the project site. However, modeled on-site PM_{10} concentrations were similar to background levels elsewhere in Berkeley and did not exceed the State threshold of 50 $\mu g/m^3$. Therefore, the long-term effects of PM_{10} concentrations on-site were identified as less than significant.

The 2004 Subsequent EIR determined that the Master Plan would have a less than significant impact related to conflicts with applicable air quality plans because the proposed high-density, mixed-use development would be located along a transit corridor, consistent with regional planning policies

that encouraged higher density development along the San Pablo Avenue corridor for the purposes of increasing transit use, reducing automobile use, and reducing regional air quality impacts.

Emission Thresholds

Table 2 presents the BAAQMD significance thresholds for construction and operational-related criteria air pollutant and precursor emissions. These thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the San Francisco Bay Area Air Basin's existing air quality conditions.

Table 2 Air Quality Thresholds of Significance

Pollutant/Precursor	Construction-Related Thresholds Average Daily Emissions (lbs/day)	Operation-Related Thresholds Average Daily Emissions (lbs/day)
ROG	54	54
NO_X	54	54
PM_{10}	82 (exhaust)	82
$PM_{2.5}$	54 (exhaust)	54

Notes: lbs/day = pounds per day; NO_X = oxides of nitrogen; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ROG = reactive organic gases

Source: BAAQMD 2017

Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The BAAQMD's most recently adopted air quality plan, the 2017 Clean Air Plan, focuses on two paramount goals:

- Protect air quality and health and the regional and local scale by attaining all state and national air quality standards and eliminating disparities among Bay Area communities with cancer health risk from toxic air contaminants; and
- Protect the climate by reducing Bay Area [greenhouse gas] GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

The project would increase the residential density of a mixed-use neighborhood along San Pablo Avenue, which is a transit-accessible corridor. As discussed in the transportation memorandum prepared by Fehr & Peers, the project site is less than 0.1 mile from the bus stops on San Pablo Avenue at Monroe Street, which is served by AC Transit Lines 52 and 72/72M (Fehr & Peers 2020, Appendix TRA). Both lines operate at service intervals of 15 minutes or less; therefore, the bus stop qualifies as a major transit stop and the San Pablo Avenue corridor qualifies as a high-quality transit corridor. The project also would provide about 0.62 parking spaces per unit, which is less than the average automobile ownership of 1.0 automobile per dwelling unit in the project site's census tract. Therefore, while the project would involve fewer units than the maximum 727 envisioned in the 2004 Master Plan for the Step 3 area, the project would be consistent with the 2004 Subsequent EIR's analysis because it would increase density in a high-quality transit corridor while minimizing

the supply of parking spaces and reduce automobile use and associated air quality and GHG impacts. Therefore, the project would be consistent with the 2017 Clean Air Plan's goals to protect air quality and reduce GHG emissions. As the residential increased density would occur within the same location as envisioned under the 2004 Master Plan, impacts would be consistent with those identified in the 2004 Subsequent EIR, less than significant. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

b. Would the project 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The proposed project would implement a portion of Step 3 of the 2004 Master Plan, modifying the amount of previously planned residential development. Whereas the 2004 Master Plan would add up to 727 dwelling units, the project would add a maximum of 400 units. As described in the *Description of Project*, 175 senior housing units were constructed in the Step 3 area in 2017. Therefore, of the 727 units approved in the 2004 Master Plan, up to 552 additional units are envisioned in the Step 3 area. The project would therefore represent a reduction of 152 units relative to maximum buildout under the 2004 Master Plan. The California Emissions Estimator Model (CalEEMod) version 2016.3.2 was used to calculate the net change in air pollutant emissions resulting from the construction and operation of 152 fewer units and from the additional construction and operation of the replacement CNR and Apparatus Bay buildings.

In the modeling scenario, construction was assumed to last approximately two years based on the proposed development schedule, including demolition, site preparation, grading, construction, paving, and architectural coating, with operation beginning in 2024. No import or export of soil was assumed. The paving and architectural coating phases of construction were assumed to partially overlap the building construction phase, consistent with typical construction schedules. Modeled operational air pollutant emissions include emissions from area sources (landscape maintenance equipment, consumer product use, and architectural coatings); energy use (natural gas); and mobile sources (vehicle use). The modeling assumed default factors applied by CalEEMod, except as updated by the most current applicable regulatory standards. These include BAAQMD rules requiring the use of low-emission architectural coatings and prohibiting wood-burning devices. The weekday trip generation rate was sourced from the transportation memorandum prepared for the project, which incorporates a 77 percent reduction in daily trips from trips calculated based on *ITE Trip Generation Manual* rates based on survey data for UVA (Appendix TRA).

Table 3 and Table 4, respectively, show the estimated net change in emissions during construction and operation, relative to emissions associated with Step 3 of the 2004 Master Plan.

Table 3 Estimated Net Change in Construction Emissions

Pollutant	Maximum Daily Emissions from Fewer Residences (lbs/day)	Maximum Daily Emissions from Apparatus Bay and CNR Buildings (lbs/day)	Net Change in Maximum Daily Emissions (lbs/day)	Significance Threshold (lbs/day)	Threshold Exceeded?
ROG	(18)	2	(16)	54	No
NO_x	(41)	13	(28)	54	No
CO	(34)	16	(18)	N/A	No
SO_x	(<1)	<1	0	N/A	No
PM_{10} (exhaust)	(2)	1	(1)	82[1]	No
$PM_{2.5}$ (exhaust)	(2)	1	(1)	54[1]	No

Notes: () = net reduction from baseline emissions under 2004 Master Plan; N/A = not applicable. Emissions were rounded to the nearest integer value.

[1] The thresholds for PM_{10} and $PM_{2.5}$ apply only to particulate emissions generated by the exhaust of construction equipment.

Source: Table 2.1 "Overall Construction-Mitigated" winter emissions in CalEEMod Project worksheets in Appendix AIR.

Table 4 Estimated Net Change in Operational Emissions

Pollutant	Maximum Daily Emissions from Fewer Residences (lbs/day)	Maximum Daily Emissions from Apparatus Bay and CNR Buildings (lbs/day)	Net Change in Maximum Daily Emissions (lbs/day)	Significance Threshold (lbs/day)	Threshold Exceeded?
ROG	(5)	<1	(5)	54	No
NO_x	(3)	1	(2)	54	No
CO	(17)	2	(15)	N/A	No
SO_x	(<1)	<1	0	N/A	No
PM_{10}	(2)	1	(1)	82	No
$PM_{2.5}$	(1)	<1	(1)	54	No

Notes: () = subtraction from baseline emissions under 2004 Master Plan; N/A = not applicable;

Emissions were rounded to the nearest integer value.

Source: Table 2.1 "Overall Construction-mitigated" winter emissions in CalEEMod Project worksheets in Appendix AIR.

As shown in Table 3 and Table 4, the project would result in a net reduction in criteria air pollutant emissions generated by the construction and operation of Step 3 of the Master Plan. However, as found in the 2004 Subsequent EIR, construction activities would elevate particulate concentrations downwind of construction activity. Mitigation Measure AIR-1 from the 2004 Subsequent EIR would still be required to minimize particulate emissions, including BAAQMD-recommended measures such as twice daily watering of active construction areas and daily sweeping of all paved areas. With implementation of Mitigation Measure AIR-1, construction emissions would remain below BAAQMD

thresholds. Operational emissions also would remain below BAAQMD thresholds. Therefore, consistent with the 2004 Subsequent EIR's analysis, the project would not result in a cumulatively considerable net increase of any criteria pollutant. This impact would continue to be less than significant with mitigation incorporated.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The nearest sensitive receptors to the project site are residences approximately 60 feet to the west, on the west side of Jackson Street. Sensitive receptors would be exposed to air pollutants generated by operation of the project, including CO hotspots and toxic air contaminant (TAC) emissions.

As discussed in criterion (*b*), the project would reduce operational emissions relative to the 2004 Master Plan with a maximum buildout of 152 fewer dwelling units at the University Village site. The project would result in an estimated net reduction of two pounds per day of mobile source CO emissions. Because the project would result in a net decrease in mobile source CO emissions, the 2004 Subsequent EIR's finding that vehicular CO emissions would not contribute to a violation of air quality standards would remain applicable.

Construction activities facilitated by the proposed amendments would result in temporary diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other activities. DPM was identified as a TAC by CARB in 1998. Because the project would involve less intensive construction activities than under the 2004 Master Plan, it would generate fewer DPM emissions during construction. The project also would not introduce new land uses such as industrial plants that could generate TACs. Sensitive receptors in the vicinity of the project site would not be exposed to substantial pollutant concentrations. This impact would remain less than significant.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Consistent with the 2004 Subsequent EIR's analysis, the proposed residential uses would not introduce new stationary odor sources and the project would not involve commercial uses that could generate offensive odors in the Step 3 area. The proposed office and recreational uses at the replacement CNR and Apparatus Bay buildings also would not be substantial odor sources. In addition, the project would not introduce other emissions beyond those discussed in criteria (b) and (*c*) that would adversely affect a substantial number of people. Therefore, this impact would continue to be less than significant.

This page intentionally left blank.

4 Biological Resources

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to biological resources. Specifically, the 2004 Subsequent EIR concludes that impacts to biological resources and incorporated mitigation measures that would eliminate or minimize effects on biological resources. Section IV.C of the 2004 Subsequent EIR summarized the findings of a Biological Resources Assessment prepared in October 2003 by LSA Associates, Inc. and analyzed impacts to biological resources, concluding that implementation of the Master Plan would not result in significant impacts or a cumulatively considerable contribution to adverse biological impacts. The Subsequent EIR concluded that implementation of mitigation measures would reduce impacts and mitigate cumulative impacts to central coast steelhead, nesting birds, western pond turtle, monarch butterfly winter colonies, and their habitats to a less than significant level. The Subsequent EIR also noted that Mitigation Measure 4.4-1(a) from the 1998 Master Plan EIR, related to preservation of specimen trees, was incorporated into the 2004 Master Plan as amended Landscape Policy 6-9. Of the measures included in the 2004 Subsequent EIR, the following are relevant to the proposed project: Mitigation Measure BIO-2, which requires nesting birds and raptors surveys and avoidance measures; Mitigation Measure BIO-4, which requires monarch butterflies surveys and avoidance measures; Continuing Best Practice BIO-1b, which requires best management practices (BMPs) to prevent erosion, sedimentation, and spill of contaminants in around nearby streams; and Continuing Best Practice BIO-1c, which requires post-construction BMPs to address long-term operation and management of the project to avoid water quality degradation and other potential adverse impacts to Codornices Creek (Rincon 2020a, included as Appendix BIO). (See Chapter 6 for a complete list of Continuing Best Practices and mitigation measures applicable into the project.)

Impact Analysis

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The 2004 Subsequent EIR found that implementation of the 2004 Master Plan could result in significant impacts to central coast steelhead, nesting birds, western pond turtle, and monarch butterfly winter colonies. Through implementation of mitigation measures and best management practices described in the 2004 Subsequent EIR, those impacts would be reduced to a less than significant level. The proposed project would involve residential development within the same location and density parameters as the Step 3 residential development in the 2004 Master Plan. Therefore, impacts related to the Step 3 residential project would be consistent with those analyzed in the 2004 Subsequent EIR. The project would also involve construction of structures within the CNR and Apparatus Bay replacement sites, which were not analyzed in the 2004 Subsequent EIR. However, given the location of the proposed new structures within UVA, impacts would be consistent with those described in the 2004 Subsequent EIR, which analyzed impacts of

development throughout UVA. As described in Section 2, *Project Description,* for purposes of project refinement, if location of the proposed CNR replacement structure is moved up to 200 feet towards the west or 150 feet towards the east, impacts would remain consistent with those described in the 2004 Subsequent EIR given the minor change in location and uniform setting.

Special-status animals are not expected to occur in urban areas developed with structures and paving where natural plant communities are not supported, as these areas generally do not meet habitat requirements for nesting, foraging, or cover. As described in the 2004 Subsequent EIR, the project site contains trees and ornamental landscaped vegetation that could support nesting birds and raptors protected under California Fish and Game Code, as well as bat species of special concern. Impacts to trees and their removal may affect protected nesting birds. Mitigation Measure BIO-2 from the 2004 Subsequent EIR would reduce impacts to nesting birds, consistent with the analysis of buildout under the 2004 Master Plan.

However, since the certification of the Subsequent EIR in 2004, nesting bird season has been expanded in standard mitigation language to avoid violations of the Migratory Bird Treaty Act and California Fish and Game Commission. Therefore, Mitigation Measure BIO-2 has been updated to expand the nesting bird season to the current standard mitigation language used by the California Department of Fish and Wildlife. (Where revisions to the original text are called for, added text is indicated with underlined formatting and deleted text is indicated with ~~strikeout~~ formatting, as shown below).

> **2004 Subsequent EIR Mitigation Measure BIO-2 (Updated) Nesting Birds and Raptors Surveys and Avoidance Measures:** In order to avoid impacts to raptors and other migratory nesting birds, pre-construction surveys shall be conducted by a qualified biologist during the months of ~~March~~ February through ~~July~~ August, no more than 30 thirty days prior to the start of grading or vegetation removal. Pre-construction surveys are not required if construction activities are restricted to the non-nesting season (~~August~~ September through ~~February~~ January). At a minimum, the surveys shall encompass all areas within 100 feet of the grading or vegetation removal work. If active nests are found on the project site, a qualified biologist shall establish an adequate buffer zone around the nests within which construction is prohibited until the biologist has determined that the young birds have fledged.

Special-status bat species were not specifically addressed in the 1998 Master Plan EIR or 2004 Subsequent EIR, but there is a remote possibility they could roost in the vicinity or forage in suitable habitat in the University Village area. Special-status bats may use crevices in exfoliating tree bark, hollow cavities in trees, or abandoned and seldom used structures. Therefore, removal of trees and demolition of buildings could result in harm to roosting bats. There have been no documented occurrences of special-status bat species within the University Village area, but there have been historic occurrences of two special-status bat species (Species of Special Concern (SSC)) within a 10-mile radius of the project site: (1) nine sightings of the pallid bat, with the most recent in 1964, and (2) three sightings of the Townsend's big-eared bat (1938, 2004 and 2018). A third SSC, the Western red bat, is a foliage-roosting bat species that has not been documented within 10 miles of the project site but could be present in trees two to 40 feet off the ground, usually in edge habitat near open areas for foraging. While potential impacts to special-status bat species were not specifically addressed in the 1998 Master Plan EIR or 2004 Subsequent EIR, all three species were listed as SSC when the 1998 Master Plan EIR was certified, and documentation of historic occurrences of pallid bad and Townsend's big-eared bat within a 10-mile radius was available when the 1998 Master Plan EIR was certified. Therefore, the potential for special-status bats to be present at or near the project site is not new information of substantial importance which was not known and could not have

been known with the exercise of reasonable diligence at the time that the 2004 Subsequent EIR was certified for purposes of CEQA Guidelines Section 15162(a)(3). Accordingly, the potential for the project to adversely impact special-status bat species does not represent a new significant impact triggering the preparation of a subsequent EIR under CEQA Guidelines Section 15162. However, in order to minimize potential impacts to special-status bat species, UC Berkeley would implement the Continuing Best Practice below.

> **Continuing Best Practice BIO-2 Roosting Bat Surveys and Avoidance Measure:** Avoid remote potential for direct mortality of special-status bats and destruction of maternal roosts. A preconstruction roosting survey for special-status bat species, covering the project construction site and any affected buildings, shall be conducted during the months of March through August prior to commencement of any project that may impact suitable maternal roosting habitat on the Campus Park, the Hill Campus East, and other UC Berkeley properties with suitable roosting habitat. The survey shall be conducted by a qualified biologist no more than 30 days prior to initiation of disturbance to potential roosting habitat. In the Hill Campus East, surveys shall be conducted for new construction projects prior to grading, vegetation removal, and remodel or demolition of buildings with isolated attics and other suitable roosting habitat. In the Campus Park and other urbanized UC Berkeley properties, surveys shall be conducted for construction projects prior to remodel or demolition of buildings with isolated attics. If any maternal roosts are detected during the months of March through August, construction activities shall either stop or continue only after the roost is protected by an adequate setback approved by a qualified biologist. To the full feasible extent, the maternal roost location shall be preserved, and alteration shall only be allowed if a qualified biologist verifies that bats have completed rearing young, that the juveniles are foraging independently and capable of survival, and bats have been subsequently passively excluded from the roost location.

Construction of the Apparatus Bay replacement structure, which was not included in the 2004 Master Plan, would occur adjacent to Codornices Creek on a landscaped lawn. The structure would maintain a minimum setback of 60 feet from the creek, as identified in the 2004 Master Plan. While there is potential for central coast steelhead and western pond turtle to occur in Codornices Creek, no in-channel work is planned for Step 3 of the Master Plan; thus, with implementation of Continuing Best Practices BIO-1b and BIO-1c to prevent erosion, sedimentation, or spill of contaminants into the creek during construction activities and post-construction, construction of the structure would not result in impacts greater than those identified in the 2004 Subsequent EIR, and consistent with the analysis of the 2004 Master Plan, impacts to these two species would be less than significant.

The 2004 Subsequent EIR noted that the eucalyptus, pine, and cypress groves within the project area have the potential to support Monarch butterflies but that no monarch butterfly winter colony had been recorded on site. The 2004 Subsequent EIR also noted that several hundred Monarch butterflies had been observed in temporary roosts in pine and eucalyptus trees on Gill Tract North as well as in nearby groves in Richmond and Albany. The California Natural Diversity Database, maintained by the California Department of Fish and Wildlife, has since received a report of a 2015 occurrence in groves of eucalyptus and cypress along Village Creek within the project site (CDFW 2020). This sighting is consistent with those reported in the 2004 Subsequent EIR and with the assumptions in the 2004 Subsequent EIR about potential impacts of the 2004 Master Plan on Monarch butterflies. Consistent with the 2004 Subsequent EIR's analysis, implementation of Mitigation Measure BIO-4, repeated below, would reduce project impacts to a less-than-significant level and would ensure no considerable contribution to a cumulative impact.

2004 Subsequent EIR Mitigation Measure BIO-4: Prior to the initiation of any construction work that will affect eucalyptus, pine, and cypress groves on the project site during the period between September and March, pre-construction surveys by a qualified biologist shall be conducted in the tree groves. If Monarch butterflies are found to be utilizing any of the trees as a winter colony site, construction in the vicinity of those trees shall be avoided and the removal of trees around the colony shall be avoided or postponed until after the butterflies have left for the breeding season. The width of the protected buffer zones around the winter colony trees shall be determined on a case-by-case basis by the biologist, based on guidelines for maintaining suitable microclimatic conditions in the tree canopy, as per Conservation and Management Guidelines for Preserving the Monarch Butterfly Migration and Overwintering Habitat in California (The Monarch Project, January 1993).

With implementation of mitigation measures BIO-2 (updated) and Continuing Best Practice BIO-2, along with Continuing Best Practices BIO-1b and BIO-1c and Mitigation Measure BIO-4, project impacts to special-status species and habitats would remain less than significant and no considerable contributions would be made to cumulative impacts. Therefore, the proposed project would not involve substantial changes that would require major revisions of the 2004 Subsequent EIR, and no new significant or more severe impacts would occur. Consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant with mitigation incorporated.

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As with the analysis in the 2004 Subsequent EIR, implementation of the project would not result in substantial adverse effects on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations. Figure 1 in the 2004 Subsequent EIR shows riparian habitat along Codornices Creek adjacent to the Apparatus Bay replacement site. Village Creek within the project site is also surrounded by vegetation and a eucalyptus woodland, although the dominance of non-native species is not considered a typical riparian habitat. The project would involve residential development in the same location as the Step 3 development in the 2004 Master Plan. In addition, while the proposed structures within the CNR and Apparatus Bay replacement sites were not analyzed in the 2004 Subsequent EIR, they would be constructed outside the creek buffer identified in the 2004 Master Plan (50 feet at Village Creek and 60 feet at Codornices Creek). The project, including construction of the two replacement structures, would comply with the 2004 Subsequent EIR Continuing Best Practices BIO-1b and BIO-1c. Therefore, consistent with buildout under the 2004 Master Plan, the project is designed to avoid impacts to both Codornices Creek and Village Creek, and applicable continuing best practices would ensure that impacts related to riparian habitat would be reduced to a less-than-significant level. Therefore, consistent with the analysis in the 2004 Subsequent EIR, the proposed project would not result in substantial adverse effects to any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations.

c. Would the project 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As with implementation of the 2004 Master Plan, implementation of the project would not result in a substantial adverse effect on federally or state-protected wetlands. The 2004 Subsequent EIR states that jurisdictional wetlands occur in Village Creek and portions of Codornices Creek. The proposed Step 3 residential project would be within the same location as the residential building in the 2004 Master Plan and would therefore not introduce new impacts related to wetlands beyond those analyzed in the 2004 Subsequent EIR. Moreover, while the project would also involve construction of two additional structures in the Apparatus Bay and CNR replacement sites, which were not included in the 2004 Master Plan, as described under criterion (*b*), the new structures would maintain the creek buffer established in the 2004 Master Plan. Moreover, the project would also comply with the 2004 Subsequent EIR Continuing Best Practices BIO-1b and BIO-1c, which would ensure that impacts related to riparian habitat would be a less than significant level. Therefore, consistent with the analysis in the 2004 Subsequent EIR, the proposed project would not result in substantial adverse effects to federally protected wetlands and would not considerably contribute to a related cumulative impact.

d. Would the project 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Implementation of the project would not 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. The proposed project would involve construction of a residential building within the same location and density parameters as the building in the 2004 Master Plan and therefore would not result in new impacts related to the movement of fish or wildlife than those identified in the 2004 Subsequent EIR. Moreover, while the project would involve additional construction of the Apparatus Bay and CNR structures, those structures would be located within UVA; therefore, impacts identified in the 2004 Subsequent EIR would be consistent with impacts from the proposed project. As discussed above and in the 2004 Subsequent EIR, central coast steelhead, birds protected under California Fish and Game Code, western pond turtle, overwintering colonies of monarch butterfly, and bat species of special concern may use the project site as a migratory corridor or nursery site. Implementation of Mitigation Measures BIO-2 (amended), BIO-4 and Continuing Best Practices BIO-1b, BIO-1c and BIO-2 would avoid or minimize potential impacts to wildlife moving through or establishing nursery sites within the project area. Therefore, consistent with the 2004 Subsequent EIR's analysis and analysis in this Addendum, the project would have a less-than-significant impact on wildlife movement.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Implementation of the project would not result in conflict with any local policies or ordinances protecting biological resources. The proposed project would involve development within UVA, which would be subject to the requirements and regulations outlined in the 2004 Master Plan.

Consistent with buildout of the 2004 Master Plan, if any Specimen Trees are to be impacted during project construction or operation, Landscape Policy 6-5 included in the 2004 Subsequent EIR would ensure that the project management of vegetation is consistent with the landscape policy and that impacts related to local protection of natural resources would be less than significant. Therefore, consistent with the analysis in the 2004 Subsequent EIR, there would be no conflict with local policies or ordinances protecting biological resources, and impacts would remain less than significant.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As with buildout under the 2004 Master Plan, implementation of the project would not conflict with any adopted Habitat Conservation Plan; Natural Communities Conservation Plan; or other approved local, regional, or state habitat conservation plan. UVA is not located in any area designated for an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. Since the proposed project would be within UVA, it would not result in new or more severe impacts than those identified in the 2004 Subsequent EIR. Consistent with the analysis in the 2004 Subsequent EIR, no impact would occur.

.

5 Cultural Resources

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would result in significant impacts related to cultural resources. Specifically, Section IV.E of the 2004 Subsequent EIR analyzed impacts specifically related to historic resources and identified a historic district within UVA, (the UC Experiment Station District) as eligible for the California Register of Historical Resources (CRHR). Because implementation of the 2004 Master Plan would involve demolition of the Experiment Station Buildings, the 2004 Subsequent EIR concluded that impacts related to historical resources would be significant.

To address impacts to historical resources, the 2004 Subsequent EIR identifies mitigation measures HIST-1a, which requires that the buildings be documented to the Secretary of the Interior's Historic American Building Survey/Historic American Engineering Record (HABS/HAER) standards, and HIST-1b, which requires preparation of a report which describes the history of the Experiment Station. (See Chapter 6 for a complete list of Continuing Best Practices mitigation measures applicable into the project.) Even with incorporation of the above mitigation measures, impacts to historical resources from implementation of the Master Plan as analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR would remain significant and unavoidable.

Regarding archaeological resources, the 2004 Subsequent EIR concludes that based on archival and on-site reconnaissance, such resources are not expected to exist within UVA. In addition, the 2004 Subsequent EIR notes that projects under the Master Plan would be subject to Master Plan policies and would incorporate by reference LRDP Mitigation Measure 4.3-1. Development would also be subject to 2004 Master Plan Policies 17-15 and 17-16, which require that, if cultural artifacts are found during construction, construction activities must cease and a qualified archaeologist must evaluate the artifact.

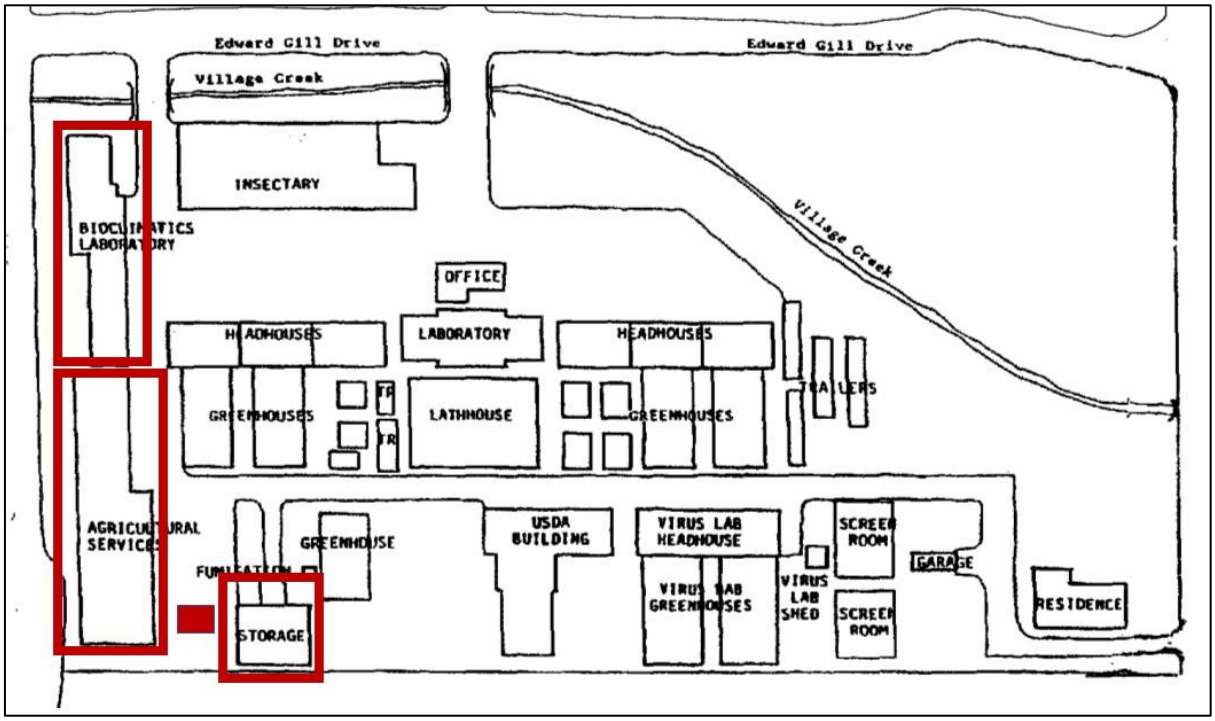
Historical Resources Setting

As described in the *Description of Project* section above, the proposed project would implement a portion of Step 3 of the 2004 Master Plan. This would include demolition of the remaining three buildings and one small structure associated with the UC Experiment Station, all of which were also proposed for demolition under the 2004 Master Plan. A majority of the buildings, structures, and agricultural fields associated with the UC Experiment Station District have already been demolished. The remaining three buildings and one structure to be removed as part of the partial implementation of Step 3 under the proposed project are:

1. Agricultural Services Building (southwest corner of site);
2. Bioclimatics Laboratory (northwest portion of site);
3. Storage Shed (east of Agricultural Services Building, southern edge of site); and
4. A covered, open storage area (east of Agricultural Services Building).

Figure 6 shows the original buildings and structures of the UC Experiment Station District within the proposed project area. The remaining three buildings of the district are outlined in red; the approximate location of the small covered shed, whose footprint does not appear on the map, is marked by a red square.

Figure 6 Extant UC Experiment Station Buildings within the Proposed Project Area



Source: "Report, Experiment Station Research and History-Gill Tract, University of California, Albany, CA," October 2009, LSA Associates, Inc., p. 5

Rincon Consultants conducted a field survey, site inspections, and literature review; the results of the historic resources analysis are presented in this section. Rincon Consultants archaeologists prepared a cultural resources study evaluating the potential for archaeological resources in August to November 2020; this included a cultural resources records search, Native American consultation, a field survey, and preparation of a memorandum to summarize the results (Rincon 2020b, included as Appendix CUL). Rincon Consultants received search results of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC) located at Sonoma State University on September 8, 2020. The search was performed to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.25-mile radius surrounding it.

The NWIC records search identified 13 cultural resources studies conducted within a 0.25-mile radius of the project site, five of which include the project site (S-025172, S-030406, S-039236, S-039236a, S-039236b). S-025172 consists of a cultural resources evaluation for the University Village Albany/Northwest Berkeley Properties Master Plan project and did not find any cultural resources within the project site. S-030406 consists of a historical architectural inventory for the University Village Project and identified one previously recorded historical district within the project site: UC Experiment Station District (P-01-010811). S-039236, S-039236a, and S-039236b consist of a historic property survey report, historic resources evaluation report, and cultural resources letter report for the Buchanan Street Bicycle/Pedestrian Path Project and reidentified the U.C. Experiment Station District within the project site.

The UC Berkeley Experiment Station District (P-01-010811) encompasses the project site. Although this resource was initially recommended as eligible for the NRHP in 2003 by Marvin and Longfellow,

it was later recorded as 90% destroyed and recommended ineligible in 2011 by Hibma. No other cultural resources are recorded within the project site.

The archaeological field survey is consistent with the 2004 Subsequent EIR and did not indicate the presence of any archaeological resources.

Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Based on field surveys, literature review, and research, the proposed project would not introduce new significant, unavoidable impacts or more severe impacts than those identified in the 2004 Subsequent Focused DEIR. The original findings remain consistent with the proposed project, and the Master Plan EIR analysis is sufficient.

As part of the 2004 Subsequent EIR, a CRHR-eligible historic district was identified, and mitigation measures were adopted to lessen impacts. Impacts remained significant and unavoidable. For the current project, the proposed implementation of a portion of Step 3 of the Master Plan already considered in the 2004 Subsequent EIR would not result in new, additional adverse impacts, or an increase in the severity of an impact, to historical resources, because the project would involve demolition of the same buildings anticipated to be demolished under the 2004 Master Plan. The significant and unavoidable impact to the UC Experiment Station remains an impact. Therefore, part of current project implementation involved completion of the mitigation requirements of measures HIST-1a and HIST-1b, to document the remaining three buildings and one small structure in photographs and narrative.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The 2004 Subsequent EIR concluded that based on archival and on-site reconnaissance, such resources are not expected to exist within UVA. According to Rincon Consultants' additional analysis, including the CHRIS records search, SLF search, and pedestrian survey indicated that there are no known archaeological resources on the project site or within a 0.25-mile radius (Appendix CUL). Furthermore, the project site has been heavily disturbed by construction of the existing structures and parking lots as well as agricultural activities. Therefore, consistent with the findings in the 2004 Subsequent EIR, UVA, including the project site, has a low sensitivity to containing archaeological resources. The project would be required to comply with existing measures regarding unanticipated discovery of cultural resources, which are included in the 2004 Master Plan and repeated below:

> **2004 Master Plan Policy 17-16:** If evidence of cultural artifacts is found during construction, cease construction and earthmoving activity in the area and retain a qualified archaeologist to evaluate the find and perform data artifact recovery if deemed appropriate.

> **2004 Master Plan Policy 17-15:** Where it is not feasible to avoid disturbing significant cultural resources, coordinate with applicable agencies and relevant organizations to identify feasible measures to mitigate such disruption.

In addition, the project would be required to comply with the following Continuing Best Practice:

> **Continuing Best Practice CUL-1**: If subsurface prehistoric archaeological resource evidence is found, excavation or other construction activity in the area would cease and an archaeological consultant would be retained to evaluate the findings in accordance with standard practice and applicable regulations. Data/artifact recovery, if deemed appropriate, would be conducted during the period when construction activities are on hold.

Given compliance with the above policies and Continuing Best Practice, impacts to archaeological resources would be reduced to less than significant levels by ensuring that unanticipated finds during construction are evaluated and treated by a qualified archaeologist. Therefore, consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in the 2004 Subsequent EIR, no human remains are known to be located on or near UVA, including Albany Village Graduate Student Housing site and the CNR and Apparatus Bay replacement sites. However, the discovery of human remains is always a possibility during ground disturbing activities. The 2004 Subsequent EIR describes that if human remains are found, the University would be required to comply with applicable laws and regulations. Specifically, the State of California Health and Safety Code Section 7050.5 states that no further disturbance may occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner would be notified immediately. If the human remains are determined to be prehistoric, the coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a most likely descendant (MLD). The MLD would complete the inspection of the site within 48 hours of being granted access to the site. With adherence to existing regulations, impacts to human remains would remain less than significant, consistent with the analysis in the 2004 Subsequent EIR.

6 Energy

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to energy. Specifically, Section IV.H of the 2004 Subsequent EIR concludes that because new development would be required to comply with energy conservation requirements in Title 20 of the Uniform Building Code, the Master Plan would not conflict with applicable laws and regulations regarding energy conservation. Although new development under the Master Plan would increase consumption of energy supplied by PG&E, the 2004 Subsequent EIR noted that compliance with modern energy conservation requirements would result in more efficient energy use. In addition, it found that increased energy consumption would not exceed PG&E's existing and planned energy supplies and conveyance capacity. Therefore, the 2004 Subsequent EIR determined that the Master Plan would have a less than significant impact related to the capacity of energy sources and conveyance systems.

The 2004 Subsequent EIR stated that the Master Plan amendments would involve changes to energy conveyance and demand. Steps 2 and 3 of the 2004 Master Plan would involve undergrounding of existing above-ground power lines at UVA. The 2004 Subsequent EIR found that additional dwelling units also would generate a substantial increase in energy use; however, compliance with UC Berkeley's energy conservation measures including LEED principles and energy efficiency requirements would prevent exceedance of PG&E's electrical power supply. Therefore, the 2004 Subsequent EIR determined that energy-related impacts would remain less than significant.

Energy Setting

The CEQA Guidelines were amended in 2019 to add "energy" as a new impact category to Appendix G. The new energy category requires analysis based on two checklist questions related to energy impacts during construction and operation of a project and consistency with applicable energy efficiency plans, as was previously required under Appendix F.

Energy relates directly to environmental quality. Energy use can adversely affect air quality and can generate GHG emissions that contribute to climate change. Fossil fuels are burned to power vehicles, to generate electricity for powering residences and commercial/industrial buildings, and to heat and cool building spaces. Transportation energy use is related to the fuel efficiency of cars, trucks, and public transportation; choice of different travel modes such as auto, carpool, and public transit; and miles traveled by these modes. Construction and routine operation and maintenance of transportation infrastructure also consume energy.

Regulatory Setting

Senate Bill 100

Approved by the Governor on September 10, 2018, SB 100 amends the State's RPS program from 33 percent of electricity generation from renewable sources by 2020 and 50 percent by 2030 to 33 percent by 2020, 50 percent by 2026, 60 percent by 2030, and 100 percent carbon-free electricity generation by 2045.

California Building Energy Efficiency Standards

The CEC established Title 24 in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. The standards are updated on an approximately three-year cycle to allow consideration and possible incorporation of new efficient technologies and methods. In 2019, the CEC updated Title 24 standards with more stringent requirements effective January 1, 2020. All buildings for which an application for a building permit is submitted on or after January 1, 2020, must follow the 2019 standards. California Code of Regulations, Title 24, Part 6, is California's Energy Efficiency Standards for Residential and Non-residential Buildings. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The building efficiency standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary due to local climatologic, geologic, or topographic conditions, provided these standards exceed those provided in Title 24.

California Green Building Standards Code

The California Green Building Standards Code, commonly referred to as "CALGreen" was brought into effect on August 1, 2009 to outline architectural design and engineering principles that are in synergy with environmental resources and public welfare. CALGreen sets minimum standards for buildings, and since 2016, applies to new building construction and some alterations/additions within certain parameters.

The 2016 version of CALGreen laid out the minimum requirements for newly constructed residential and nonresidential buildings to reduce GHG emissions through improved efficiency and process improvements. It also includes voluntary tiers to encourage building practices that improve public health, safety, and general welfare by promoting a more sustainable design. The 2019 update includes new requirements for construction and sustainable design, and inclusion of future EV charging stations, landscaping and irrigation such as shade trees, and air filtration systems (CALGreen Energy Systems 2019).

Impact Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The following analysis addresses the project's energy consumption during construction and long-term operation.

Construction Energy Demand

In addition to compliance with regulations to conserve energy, the project would reduce the scale of residential development, with a maximum buildout of 152 fewer units relative to Step 3 of the 2004 Master Plan. By reducing the scale of construction, the proposed development would consume less energy than would implementation of the 2004 Master Plan. Construction activities would consume energy in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles

used to deliver materials to the site. Construction contractors are required to comply with CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation, which imposes limits on idling and restricts the use of older vehicles. Such compliance would reduce fuel consumption and lead to the use of fuel-efficient vehicles during covered activities. Fuel consumption and energy use during construction also would be temporary. The construction of up to 400 residential units and replacement of the CNR and Apparatus Bay buildings would involve the use of standard equipment, such as graders, loaders, and rollers. Non-standard equipment or construction practices that would increase fuel-energy consumption above typical rates would not be employed.

Based on CalEEMod's default list of construction equipment, its projected number of construction trips, and the expected duration of construction, it is estimated that construction of the project would result in a net reduction of 27,759 gallons of gasoline and 62,106 gallons of diesel fuel (see Appendix AIR for energy calculation sheets). Furthermore, similar to manufacturers utilizing energy conservation methods to reduce costs, it is reasonable to assume that contractors would avoid wasteful, inefficient, and unnecessary fuel consumption during construction to reduce construction costs. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

Operational Energy Demand

The project would consume less energy than would implementation of the 2004 Master Plan because it would reduce the maximum buildout of Step 3 residences by 152 units. Similar to the 2004 Master Plan, long-term operation of the project would involve the use of electricity, diesel and gasoline fuels, and potentially natural gas. Electricity would be used for heating and cooling systems, lighting, appliances, and water use in residential units. Vehicles used by residents, and truck deliveries, would consume diesel and gasoline fuels. Table 5 summarizes estimated reduction in operational energy consumption by Step 3 residences under the project. As shown therein, it is estimated that operation of the project would result in reductions of 19,383 gallons of gasoline and 6,181 gallons of diesel fuel for transportation fuels per year and 545 MWh of electricity per year. Therefore, the project would result in a net decrease in operational energy demand from electricity use, vehicle use, and natural gas.

Table 5 Estimated Net Change in Operational Energy Usage – Transportation Fuels

Source	Annual Energy Consumption
Gasoline	(19,383gallons)
Diesel	(6,009 gallons)
Electricity	(545 MWh)

Notes: () = subtraction; MWh = megawatt-hours

See Appendix ENG for transportation energy calculation sheets and Appendix AIR for CalEEMod results.

In addition, the project incorporates the following design features and attributes promoting energy efficiency and sustainability:

- Compliance with UC Berkeley's minimum sustainability standards including LEED Gold buildings and renewable power generated on-site with rooftop PV panels. All-electric residential building with 100 percent clean electricity.
- Location within 0.1 mile of a high-quality transit corridor on San Pablo Avenue, including major AC Transit bus stops operating at service intervals of 15 minutes or shorter (Appendix TRA).
- Provision of about 0.62 parking spaces per unit, which is less than the average automobile ownership of 1.0 automobile per dwelling unit in the project site's census tract (Appendix TRA).

As described in the 2004 Subsequent EIR, compliance with UC Berkeley's energy conservation measures including LEED principles and energy efficiency requirements would reduce impacts related to energy use. As with buildout under the 2004 Master Plan, the proposed project would be consistent with these measures. Moreover, the project would involve residential development in the same location as the development envisioned as part of Step 3 of the 2004 Master Plan, within a transit-accessible corridor and with limited parking availability. Consistent with the analysis in the 2004 Subsequent EIR, this impact would remain less than significant.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Applicable plans related to renewable energy and energy efficiency include the UC's Sustainable Practices Policy and Carbon Neutrality Initiative. As discussed in criterion (*a*), and as with the development under the 2004 Master Plan, the project would incorporate a set of design features and attributes promoting energy efficiency (referred to as "Sustainable Design Principles" in the 2004 Subsequent EIR). Given the size and density of the proposed project, it would result in a net decrease in construction and operational energy consumption relative to implementation of the 2004 Master Plan. In addition, the project would conform to current UC Berkeley minimum sustainability standards including LEED Gold buildings, clean electric power, and on-site renewable energy. Furthermore, as discussed under Section 8, *Greenhouse Gas Emissions*, UC Berkeley is required to implement the UC's Carbon Neutrality Initiative, which would aggressively improve energy efficiency in buildings and increase utilization of renewable energy sources. Therefore, the project would not conflict with or obstruct an applicable plan for renewable energy or energy efficiency. Consistent with the analysis in the 2004 Subsequent EIR, no impact would occur.

7 Geology and Soils

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to geology and soils. Specifically, the 2004 Subsequent EIR concluded that "while the site would be subject to strong ground shaking from regional seismic events during the life of the project, compliance with applicable building codes and seismic design standards would reduce impacts to a less-than-significant level" (p. 214 of the 2004 Subsequent EIR).

Impact Analysis

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Implementation of the proposed project would not directly or indirectly result in substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. As described in the 2004 Subsequent EIR, UVA is not located within an Earthquake Fault Zone. There are no known active or potentially active faults that exist within UVA, and the project site is not within an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act (Department of Conservation [DOC] 2019). Since the proposed project would involve development in the same location as buildout under the 2004 Master Plan, impacts related to proximity to earthquake faults would be consistent with those analyzed in the 2004 Subsequent EIR. Therefore, consistent with the analysis in the 2004 Subsequent EIR, there would be no impact related to rupture of an earthquake fault.

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The Hayward Fault is located approximately 1.7 miles east of UVA. The proposed project would involve construction and operation of a residential building within the same location and density parameters as the residential development included in the 2004 Master Plan. Moreover, while the 2004 Master Plan did not include construction of the proposed structures within the CNR and Apparatus Bay replacement sites, those structures would be located within UVA and Gill Tract North and would include similar uses (storage, recreation, maintenance, etc.) and be of similar massing to other structures included in the 2004 Master Plan. Therefore, impacts analyzed in the 2004 Subsequent EIR would be consistent with the proposed project. As described in the 2004 Subsequent EIR, in the event of an earthquake along the Hayward Fault, UVA would experience ground shaking effects between Modified Mercalli Intensity VII and IX, which would be strong enough to cause moderate to heavy damage to ordinary structures. However, consistent with the 2004 Master Plan, the project would involve replacement of older buildings subject to seismic

damage with new structures built to current seismic standards that could better withstand the adverse effects of strong ground shaking. In addition, several applicable regulations and policies would reduce hazards related to seismic ground shaking. The project would be required to conform to the California Building Code (CBC) (as amended at the time of permit approval) as required by law. The CBC, Title 24, Part 2 contains building codes and standards for the design and construction of structures in California, including specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. In addition, Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures.

Finally, the project would be required to comply with several policies in the 2004 Master Plan related to seismic safety, including Environmental Objective 7-3, which requires that the UC provide earthquake safety and avoid other geotechnical hazards, and Environmental Objective 7-12, which requires that projects follow the University of California Seismic Safety Policy. The University of California Seismic Safety Policy requires seismic review of proposed projects by a Consulting Structural Engineer (CSE). Consistent with the policy, the CSE would confirm conformance to current CBC seismic standards, evaluate the project's anticipated seismic performance, and identify potential falling hazards that pose a significant life or safety hazard to occupants (University of California 2017). Compliance with Title 24 of the California Building Code and the University of California's Seismic Safety Policy would reduce impacts to a less than significant level, consistent with the analysis within the 2004 Subsequent EIR.

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As discussed in the 2004 Subsequent EIR, the project site is not underlain by unstable soils; it is underlain by clayey gravel of the Temescal foundation, and near-surface soils are mostly Clear Lake clay and silty clay, which are highly cohesive. Since the project would involve building types and locations consistent with buildout under the 2004 Master Plan, impacts related to ground failure and unstable soils would be consistent with the analysis in the 2004 Subsequent EIR. According to the 2004 Subsequent EIR, the possibility of ground failure, lateral spreading, collapse, or liquefaction because of unstable soils is considered low.

Moreover, as described under criterion (*a.*2) above, buildout under the 2004 Master Plan is required to comply with the CBC engineering design and construction measures and with the University of California Seismic Safety Policy, which requires that the necessary geotechnical investigations are completed and that building design incorporates recommendations to mitigate potential hazards, including those related to unstable soils. As with all development under the Master Plan, the proposed project would be required to comply with these measures. Therefore, consistent with the 2004 Subsequent EIR, compliance with the CBC and University Seismic Safety Policy would reduce the potential impacts to a less than significant level.

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in the 2004 Subsequent EIR, the UVA is generally flat but slopes slightly to the west with an average slope of less than 2 percent. Landslides are typically a hazard on or near slopes or hillside areas, rather than on generally level areas, such as UVA. The City of Albany Local Hazard Mitigation Plan does not identify the project site to be within a landslide hazard area (City of Albany 2018). The proposed project would involve residential development within the same location and density parameters as residential Step 3 buildout under the 2004 Master Plan; therefore, the project would not result in new or more severe impacts than those analyzed in the 2004 Subsequent EIR.

The 2004 Subsequent EIR notes that there is the potential for landslide at areas near the two creeks crossing through UVA, Codornices Creek and Village Creek. However, consistent with the development envisioned in the Master Plan, the proposed structures, including the structures within the CNR and Apparatus Bay replacement sites, which were not included in the 2004 Master Plan, would be required to maintain 50-foot buffer at Village Creek and a 60-foot buffer at Codornices Creek. Compliance with these buffers would reduce landslide hazards to project structures, as with development under the Master Plan. Therefore, consistent with the analysis within the 2004 Subsequent EIR, impacts would be less than significant.

b. Would the project result in substantial soil erosion or the loss of topsoil?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Project construction, particularly demolition, grading, and site preparation could result in erosion and loss of topsoil from the project site. The proposed project would involve residential development within the same location, footprint, and density parameters as the Step 3 development envisioned in the 2004 Master Plan. Therefore, impacts related to erosion and topsoil would be consistent with those analyzed in the 2004 Subsequent EIR. Moreover, while the project would involve construction of additional structures within the CNR and Apparatus Bay replacement sites, which was not included in the 2004 Master Plan, construction would be required to comply with regulations identified in the 2004 Subsequent EIR related to erosion. As described in the 2004 Subsequent EIR, the project would be required to comply with the Master Plan environmental policy 7- 1, which outlines best management practices (BMPs) for erosion control. Construction BMPs would include scheduling inlet protection, silt fencing, fiber rolls, stabilized construction entrances, stockpile management, solid waste management, and concrete waste management. As with development under the 2004 Master Plan, these BMPs would reduce impacts related to soil erosion.

In addition, the proposed residential project within the Step 3 area would involve disturbance of one or more acres of land and would therefore be subject to National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-006-DWQ) adopted by the State Water Resources Control Board (SWRCB). Compliance with the permit would require the UC to prepare a storm water pollution prevention plan (SWPPP), which must describe the site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control

measures, maintenance responsibilities, and non-storm water management controls. Adherence to the requirements of the NPDES General Permit and best management practices within the Master Plan would reduce the potential for the construction of the project to cause erosion or the loss of topsoil by ensuring proper management of loose and disturbed soil. Therefore, consistent with the 2004 Subsequent EIR, impacts would remain less than significant.

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described under criterion (*a.2*) above, the project would be required to conform to the current California Building Code (CBC) (as amended at the time of permit approval) as required by law. In addition, as described under criteria (*a.3)* and (*c*), as with the development envisioned in the 2004 Master Plan, the project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of project implementation. UVA is located on urban land and are underlain by Clear Lake complex, which is a highly cohesive soil class (United States Department of Agriculture Natural Resource Conservation Service (USDA NRCS) 2019). The Clear Lake series consists of very deep, poorly drained soils. The proposed project would involve development of the same type and within the same location as buildout in the Master Plan, and impacts related to expansive soils would therefore be consistent with those analyzed in the 2004 Subsequent EIR.

Moreover, as discussed in the 2004 Subsequent EIR and under criterion (*a.2*) above, the project would be required to comply with the University of California's Seismic Safety Policy, which would require that a CSE review the project to ensure design of foundations and structures would reduce impacts related to potentially expansive soils. Therefore, consistent with the 2004 Subsequent EIR, this impact would remain less than significant.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in the 2004 Subsequent EIR, existing wastewater infrastructure exists within UVA, including the Albany Village Graduate Student Housing site, the Apparatus Bay replacement site, and CNR replacement site and is provided by the East Bay Municipal Utility District. Consistent with the development envisioned in the 2004 Master Plan, the project would not require the installation of an on-site septic tank or alternate wastewater treatment systems. Therefore, consistent with the 2004 Subsequent EIR, no impacts from septic systems of alternative wastewater disposal systems would occur.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The potential for the project to result in significant impacts to paleontological resources was evaluated based on the proposed project's potential to disturb paleontologically sensitive geologic

units during construction. The analysis involved a review of pertinent geologic maps and geologic literature, and a paleontological locality search to identify any known fossil localities within the proposed project, or from geologic units mapped in the proposed project. Fossil collections records from the Paleobiology Database and University of California Museum of Paleontology (UCMP) online database were reviewed to identify known fossil localities in Alameda County (Paleobiology 2020; UCMP 2020). Following the geologic map review, literature review, and UCMP database search, a paleontological sensitivity was assigned to the geologic units mapped within the proposed project site based on Society of Vertebrate Paleontology (SVP) guidelines (SVP 2010). The SVP has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources (SVP 2010). This system is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

UVA is situated within the Coast Ranges geomorphic province of California (California Geological Survey 2002). A geomorphic province is a region of unique topography and geology that is readily distinguished from other regions based on its landforms and geologic history (Norris and Webb 1990). The Coast Ranges extend about 600 miles from the Oregon border south to the Santa Ynez River in Santa Barbara County. The Coast Ranges are composed of a complex assemblage of geologic units, including Mesozoic metasedimentary and metavolcanic rock of the Franciscan Complex, marine and nonmarine sedimentary rock of the Cretaceous Great Valley Complex, and Cenozoic marine and nonmarine shale, sandstone, and conglomerate (Norris and Webb 1990).

The proposed project includes a single mapped geologic unit at the surface: Quaternary young (late to middle Holocene) alluvium (Qa); consisting of medium dense to dense, gravelly sand or sandy gravel, and clay of valley areas (Dibblee and Minch 2005). Quaternary young (late to middle Holocene) alluvial deposits are too young (i.e., less than 5,000 years old) to preserve paleontological resources at or near the surface, and are considered to have a low paleontological sensitivity at the surface as defined by SVP (2010) standards. However, late to middle Holocene deposits may grade downward into more fine-grained deposits of early Holocene to late Pleistocene age that could preserve fossil remains at shallow or unknown depths. The depths at which these units become old enough to contain fossils is highly variable, but generally does not occur at depths of less than 10 feet within the vicinity of the project. Early Holocene to late Pleistocene alluvial sediments have a well-documented record of abundant and diverse vertebrate fauna throughout California, including Alameda County (Savage 1951). Localities have produced fossil specimens of mammoth (*Mammuthus columbi*), horse (*Equus*), camel (*Camelops*), and bison (*Bison*), as well as various birds, rodents, and reptiles (Jefferson 2010; Paleobiology Database 2020; UCMP 2020). Therefore, areas mapped as Quaternary young (late to middle Holocene) alluvium (Qa) are assigned a high paleontological sensitivity at depths greater than 10 feet.

The project would involve residential development within the same footprint and density parameters identified in the 2004 Master Plan, and the amount and depth of excavation required for building construction would be similar to the amount and depth of excavation required for residential development under the 2004 Master Plan. The project would also involve construction of two additional structures within the CNR and Apparatus Bay replacement sites. Given the location of the structures and that minimal excavation would be required for their construction, impacts to paleontological resources would be consistent with those analyzed in the 2004 Subsequent EIR. As described in the 2004 Subsequent EIR, UVA is in an urbanized area and has been heavily disturbed by construction of the existing structures and parking lots as well as agricultural activities. Given the

nature of the proposed structures and improvements and existing site conditions, project-related excavations are not anticipated to include ground disturbance that would extend below the boundary between artificial fill and native (i.e., previously undisturbed) sediments within the project site. Consequently, project ground disturbance associated is unlikely to impact fossiliferous deposits.

The 1998 Master Plan EIR and 2004 Subsequent EIR also concluded that no unique paleontological resources or geologic features are known to be present on the project site, so the project would have no impact with respect to this issue area. Master Plan Environmental Policy 7-16 states: "If evidence of cultural artifacts is found during construction, cease construction and earthmoving activity in the area and retain a qualified archaeologist to evaluate the find and perform data artifact recovery if deemed appropriate." The 1998 Master Plan EIR incorporated by reference Mitigation Measure 4.3-1 from the 1990 LRDP EIR as a standard impact reduction measure across the campus facilities to minimize potential impacts to archaeological resources:

> 4.3-1: If subsurface prehistoric archaeological resource evidence is found, excavation or other construction activity in the area would cease and an archaeological consultant would be retained to evaluate the findings in accordance with standard practice and applicable regulations. Data/artifact recovery, if deemed appropriate, would be conducted during the period when construction activities are on hold.

The 2004 Subsequent EIR similarly concluded that the project would have no significant impacts on paleontological resources and referenced the measure above from the 1998 Master Plan EIR. Measure 4.3-1 would continue to apply to the project. There is no new information regarding paleontological resources that would result in the proposed project having a significant effect that was not discussed in the 1998 Master Plan EIR or 2004 Subsequent EIR, nor do any of the modifications associated with the proposed project result in any new significant impacts or a substantial increase in the severity of previously identified significant impacts related to paleontological resources. However, to avoid any potential impacts to unknown paleontological resources that could occur onsite, the project would implement the following Continuing Best Practice:

> **Continuing Best Practice GEO-1 Unanticipated Discovery of Paleontological Resources:** In the event an unanticipated fossil discovery is made during the course of project development, construction activity shall be halted in the immediate vicinity of the fossil, and a qualified professional paleontologist should be notified and retained to evaluate the discovery, determine its significance, and determine if additional mitigation or treatment is warranted. Work in the area of the discovery will resume once the find is properly documented and authorization is given to resume construction work. Any significant paleontological resources found during construction monitoring will be prepared, identified, analyzed, and permanently curated in an approved regional museum repository under the oversight of the qualified paleontologist.

Given continued implementation of the above Continuing Best Practice, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

8 Greenhouse Gas Emissions

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR were prepared and certified before California enacted Senate Bill 97 in 2007, which recognized the need to analyze GHG emissions as part of CEQA analysis of projects. The California Natural Resources Agency implemented this law in 2010, adopting amendments to the *CEQA Guidelines* that require the analysis of GHG impacts. Because the 1998 Master Plan EIR and 2004 Subsequent EIR predated these regulatory changes, they were not required to analyze GHG impacts and did not cover this issue area. As a result, the prior environmental documents do not provide a framework for considering the proposed project's GHG impacts.

Nonetheless, climate change does not constitute new information requiring a revision to the 2004 Subsequent EIR or an additional EIR. The issue of climate change was widely known prior to the certification of the Subsequent EIR in 2004. The United Nations Framework Convention on Climate Change was established in 1992. Also, in 1992, the United Nations Conference on Environment and Development -- better known as the Earth Summit –was held in Rio de Janeiro and was attended by 172 countries. The regulation of GHG emissions to reduce climate change was debated and analyzed throughout the 1990s. For example, the Intergovernmental Panel on Climate Change (IPCC), a body established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO), has been publishing reports on the current state of climate change and its potential environmental and socio-economic consequences since the 1990s. These studies, along with others, resulted in the adoption of the Kyoto Protocol in 1997. The IPCC's Third Assessment Report, released in 2001, presented the consensus view of hundreds of scientists on key issues relating to climate change. *See also Center for Biological Diversity v. National Highway Traffic Safety Admin.* (9th Cir. 2009) 538 F.3d 1172, 1190 (National Environmental Policy Act case citing the IPCC 2001 Third Assessment Report); Kostka and Zischke, Practice Under the California Quality Act, Second Edition, Volume 2, §19.21 (stating that "a lead agency evaluating new information claims under [Guidelines] § 15162 could support a factual finding that climate change is not significant new information by reference to documents such as the 2001 Third Assessment Report of the Intergovernmental Panel on Climate Change"). Therefore, even though the CEQA Guidelines did not require analysis of GHG emissions before certification of the Subsequent EIR in 2004, the impacts of GHG emissions were known at the time.

In addition, two superior court cases have concluded that information related to climate change does not constitute new information, in part because it is not specific to the proposed project. In *American Canyon Community United for Responsible Growth et al v. City of American Canyon et al*, the court held that subsequent environmental analysis of a Wal-Mart Supercenter was not required to analyze the project's GHG emissions and climate change impacts since AB 32 is not the type of "new information" requiring subsequent environmental review as it was not specific to the project. Napa County Superior Court, May 22, 2007, Case No. 26-27462. In *Natural Resources Defense Council et al v. Reclamation Board of the Resources Agency* of the State of California, the court held that climate change and the impact it may have on hydrology and flooding from fill and encroachment activities related to development within the Sacramento-San Joaquin Delta is not "new information" requiring subsequent environmental review as it was not specific to the project site itself. Sacramento County Superior Court, April 27, 2007, Case No. 06-CS 01228. *See also*

Citizens Against Airport Pollution v City of San Jose (2014) 227 CA4th 788; *Citizens for Responsible Equitable Envt'l Dev. v City of San Diego* (2011) 196 CA4th 515, 532.

Environmental Setting

Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The United Nations Intergovernmental Panel on Climate Change (IPCC) expressed a high degree of confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-twentieth century (IPCC 2014a).

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and natural processes, such as oceanic evaporation, largely determine its atmospheric concentrations.

GHGs are emitted by natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are usually by-products of fossil fuel combustion, and CH_4 results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (United States Environmental Protection Agency [U.S. EPA] 2020).

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 28, meaning its global warming effect is 28 times greater than CO_2 on a molecule per molecule basis (IPCC 2014b).[4]

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2020). However, since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 36 percent, 148 percent, and 18 percent,

[4] The IPCC's (2014b) *Fifth Assessment Report* determined that methane has a GWP of 28. However, modeling of GHG emissions was completed using the California Emissions Estimator Model version 2016.3.2, which uses a GWP of 25 for methane, consistent with the IPCC's (2007) *Fourth Assessment Report*.

respectively, primarily due to human activity (Forster et al. 2007). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

Regulatory Setting

Since certification of the 2004 Subsequent EIR, California has instituted the following applicable regulations related to GHG emissions.

Statewide

In response to climate change, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) by 2020 and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the Governor signed Senate Bill 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the California Air Resources Board (CARB) adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program and the Low Carbon Fuel Standard, and implementation of recently adopted policies and legislation, such as SB 1383 (aimed at reducing short-lived climate pollutants including methane, hydrofluorocarbon gases, and anthropogenic black carbon) and SB 100 (discussed further below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of carbon dioxide equivalents (CO_2e) by 2030 and two MT of CO_2e by 2050 (CARB 2017).

Other relevant state laws and regulations include:

- **SB 375**: The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. Metropolitan Planning Organizations are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the Metropolitan Planning Organization's Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035.
- **SB 100**: Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.
- **California Building Standards Code (California Code of Regulations Title 24)**: The California Building Standards Code consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards. Part 6 is the Building Energy Efficiency

Standards, which establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. Part 12 is the California Green Building Standards Code (CALGreen), which includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures.

- **Executive Order B-55-18**: On September 10, 2018, the governor issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

University of California

UNIVERSITY OF CALIFORNIA CARBON NEUTRALITY INITIATIVE

In November 2013, UC President Janet Napolitano introduced the Carbon Neutrality Initiative, which commits UC campuses (buildings and vehicle fleets) to emitting net zero GHG emissions by 2025. In line with this initiative, UC Berkeley and other UC campuses also planned to achieve net zero GHG emissions from commuting and business air travel by 2050. These goals require the UC system, including UC Berkeley, to aggressively improve energy efficiency in buildings, reduce emissions from the campus fleet and other sources, and increase utilization of renewable energy sources (University of California Office of the President [UCOP] 2016). The UC defines carbon neutrality as "net zero climate impacts from [GHG] emissions attributed to Scope 1 direct emission sources and Scope 2 indirect emission sources as defined by The Climate Registry, and specific Scope 3 emissions as defined by the Second Nature's Carbon Commitment." Scope 1, 2, and 3 emissions are defined as follows:

- Scope 1 – Direct Emissions (natural gas, campus fleet, emissions from refrigerants)
- Scope 2 – Indirect Emissions (purchased electricity, purchased steam)
- Scope 3 – Other Emissions (business air travel, student commute, faculty/staff commute, solid waste, water consumption)

The UC will achieve carbon neutrality by minimizing GHG emissions from these sources as much as possible and using carbon offsets or other measures to mitigate the remaining GHG emissions (UCOP 2016). The UC has incorporated the Carbon Neutrality Initiative into the UC Sustainable Practices Policy and specifies the reduction targets in the Climate Protection section.

UNIVERSITY OF CALIFORNIA SUSTAINABLE PRACTICES POLICY

At the direction of The Regents of the University of California, UCOP developed a Sustainable Practices Policy which establishes sustainability goals to be achieved by all campuses and medical centers within the UC system as well as the Lawrence Berkeley National Laboratory. This policy was adopted by the UC system and is regularly updated, with the most recent update occurring in July 2020. It requires UC campuses to achieve carbon neutrality of Scope 1 and 2 emissions by 2025 and carbon neutrality of Scope 3 emissions by 2050. The policy goals encompass nine areas of sustainable practices: green building, clean energy, transportation, climate protection, sustainable operations, waste reduction and recycling, environmentally preferable purchasing, sustainable food service, sustainable water systems. Examples of policies include the following:

Green Building Design

- All new building projects, other than acute care facilities, shall be designed, constructed, and commissioned to outperform the California Building Code (Title 24 portion of the California Code of Regulations) energy efficiency standards by at least 20 percent or achieve the whole-building energy performance targets shown in Table 1 of Section V.A.3 of the policy.
- All new buildings will achieve a minimum of U.S. Green Building Council's LEED "Silver" certification and strive to achieve certification of LEED "Gold," whenever possible within the constraints of program needs and standard budget parameters.
- No new building or major renovation that is approved after June 30, 2019, shall use onsite fossil fuel combustion (e.g., natural gas) for space and water heating (except those projects connected to an existing campus central thermal infrastructure). Projects unable to meet this requirement shall document the rationale for this decision, as described in Section V.A.4 of the policy.

Sustainable Transportation

- Develop a Fleet Sustainability Implementation plan by January 1, 2018 to document the infrastructure and financial needs to implement a low-carbon fleet program and lower campus fleet carbon emissions through 2025.
- To amplify the impact of campus programs, each location is encouraged to partner with local agencies on opportunities to improve sustainable transportation access to and around university facilities in addition to developing its own transportation programs.
- This policy shall be consulted for all new campus development – including acquisitions and leases – to evaluate how the development or acquisition would meet the transportation policies and goals of the campus and University.

Sustainable Building Operations for Campuses

- The University will incorporate the Sustainable Building Operations policy requirements into existing facilities-related training programs, with the aim of promoting and maintaining the goals of the Policy.

Recycling and Waste Management

- The University will reduce per capita total municipal solid waste generation at all locations other than medical centers as follows:
  - Reduce waste generation per capita to FY2015/16 levels by 2020,
  - Reduce waste generation by 25 percent per capita from FY2015/16 levels by 2025, and
  - Reduce waste generation by 50 percent per capita from FY2015/16 levels by 2030.
- The University will achieve zero waste by 2020 at all locations other than medical centers. Minimum compliance for zero waste is 90 percent diversion of municipal solid waste from landfills.
- By 2020, the University will prohibit the sale, procurement or distribution of Expanded Polystyrene (EPS) other than that utilized for laboratory supply or medical packaging and products.
- By 2018, no EPS shall be used in foodservice facilities for takeaway containers.

As a member of the UC, the carbon neutrality goals under the Climate Protection section shown above apply to UC Berkeley. By 2025, UC Berkeley must achieve campus-wide zero net emissions from Scope 1 and 2 emissions to comply with the UC's climate change commitments.

UC Berkeley Carbon Neutrality Framework

In 2016, UC Berkeley published the 2025 Carbon Neutrality Framework, which discusses strategies for achieving the University of California's GHG reduction goals of net-zero Scope 1 and 2 emissions by 2025 and net-zero Scope 3 emissions by 2050. The 2025 goal translates to a total emissions reduction of approximately 80 percent below 2016 levels.

UC Berkeley Sustainability Plan

In 2020, UC Berkeley published this plan describing the University's commitment to five core areas of social and environmental responsibility: Climate & Resiliency, Built & Natural Environment, Sustainable Services, Health & Sustainability, and Culture & Learning. The Plan will guide future work on campus and establish a structure to achieve continuous improvement. It is intended to provide a framework for accelerating both the decarbonization of energy use and the smarter use of resources.

UC Berkeley Climate Action Plan

UC Berkeley drafted a Climate Action Plan in 2009 to plan for reducing GHG emissions and eventually achieve climate neutrality. Because the Climate Action Plan has not been formally adopted, it does not serve as a qualified GHG reduction strategy pursuant to CEQA Guidelines Section 15183.5, and this Addendum does not rely on an analysis of the project's consistency with the Climate Action Plan to determine the project's impact on climate change.

Impact Analysis

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The project would involve construction of 152 fewer residential units under maximum buildout on the project site than anticipated in Step 3 of the 2004 Master Plan and would result in fewer GHG emissions. Furthermore, in 2013, the University of California established an initiative to achieve carbon neutrality in Scope 1 and 2 GHG emissions by 2025, as well as net-zero GHG emissions from commuting and business air travel by 2050. For the UC Berkeley campus, this represents an 80 percent reduction in total GHG emissions below 2016 levels. The project would have a less than significant impact if it is consistent with attainment of the Carbon Neutrality Initiative. By achieving consistency with the Carbon Neutrality Initiative, the project would also be consistent with less aggressive statewide GHG reduction targets, including SB 32's target of reducing statewide GHG emissions to 40 percent below 1990 levels by the year 2030 and Executive Order B-55-18's statewide goal of carbon neutrality by 2045.

The project would include construction of 152 fewer residential units under maximum buildout on the project site than anticipated in Step 3 of the 2004 Master Plan. Whereas the 2004 Master Plan would involve demolition of the CNR and Apparatus Bay buildings without replacing them, the project would include replacement CNR and Apparatus Bay buildings. CalEEMod was used to

quantify the net change in annual operational GHG emissions relative to Step 3 of the 2004 Master Plan in accordance with the methodology outlined in Section 3, *Air Quality*. In addition, the following assumptions specific to the GHG emissions analysis were incorporated:

- Electricity emissions are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (CAPCOA 2017a). The project would be served by Pacific Gas & Electric (PG&E). Therefore, PG&E's specific energy intensity factors (i.e., the amount of CO2, CH4, and N2O per kilowatt-hour) are used in the calculations of GHG emissions. Per SB 100, the statewide Renewable Portfolio Standard (RPS) Program requires electricity providers to increase procurement from eligible renewable energy sources to 60 percent by 2030. To account for the continuing effects of the RPS, the energy intensity factors included in CalEEMod were reduced based on the percentage of renewables reported by PG&E. CalEEMod does not incorporate water use reductions achieved by 2016 CALGreen (Part 11 of Title 24). New development would be subject to CALGreen, which requires a 20 percent increase in indoor water use efficiency. Thus, in order to account for compliance with CALGreen, a 20 percent reduction in indoor water use was included in the water consumption calculations.
- Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using guidance from CARB and the EMFAC2017 Emissions Inventory for Alameda County for the year 2024 (the project's first operational year) using the EMFAC2011 categories (CARB 2018 and 2019; see Appendix AIR for calculations).

Construction Emissions

Because the project would reduce the overall scale of construction relative to Step 3 in the 2004 Master Plan, it would result in lower GHG emissions during construction than previously analyzed in the 2004 Subsequent EIR. Construction activities associated with the project would generate temporary GHG emissions primarily due to the operation of construction equipment and truck trips. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling. The BAAQMD has not established a quantitative significance threshold for evaluating construction-related emissions; however, the BAAQMD does recommend quantifying and disclosing construction-related GHG emissions. Therefore, construction-related GHG emissions were quantified for informational purposes. Based on the CalEEMod results, it is estimated that construction of the project would result in a net reduction of 794 MT of CO_2e compared to Step 3 development under the 2004 Master Plan, or approximately 26 MT of CO_2e per year when amortized over a 30-year period (i.e., the lifetime of individual projects).

Operational Emissions

By reducing the overall intensity of development on-site, the project would result in a net reduction in long-term operational GHG emissions from area sources, energy use, solid waste, water and wastewater use, and mobile sources as compared to those associated with the 2004 Master Plan. Table 6 estimates the net change in GHG emissions from area sources, energy use, solid waste generation, water use and wastewater generation, and mobile sources. As shown in Table 6, it is estimated that the project would reduce operational GHG emissions by 299 MT CO_2e per year relative to baseline conditions (i.e., implementing Step 3 of the 2004 Master Plan). Because the project would result in a net reduction in GHG emissions as compared to the 2004 Master Plan, it would be consistent with attainment of the University of California's initiative to achieve carbon neutrality in Scope 1 and 2 emissions by 2025. As a result, the project would also be consistent with the less aggressive statewide goals for GHG reductions set by SB 32 and Executive Order B-55-18.

Therefore, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

Table 6 Net Reduction in Operational GHG Emissions

Emissions Source	Annual Emissions from Fewer Residences (MT of CO_2e/year)	Annual Emissions from Apparatus Bay and CNR Buildings (MT of CO_2e/year)	Net Change in Annual Emissions (MT of CO_2e/year)
Area	(5)	<1	(5)
Energy	(86)	26	(60)
Solid Waste	(35)	16	(19)
Water	(19)	3	(16)
Mobile			
CO_2 and CH_4	(297)	103	(194)
N_2O	(10)	5	(5)
Total Emissions	**(452)**	**153**	**(299)**

Notes: () = subtraction net reduction from GHG emissions generated by Step 3 of 2004 Master Plan.

Source: See Table 2.2 "Overall Operational-Mitigated" mitigated emissions, in the CalEEMod worksheets and N_2O mobile emissions data sheets in Appendix ENG.

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As discussed in criterion (*a*), the project would be consistent with attainment of the UC's initiative to achieve carbon neutrality in Scope 1 and 2 emissions by 2025, thereby also meeting the State's SB 32 emissions reduction target for 2030 and contributing its fair share toward the statewide 2045 carbon neutrality goal. Consistent with the UC's Sustainable Practices Policy, the proposed buildings would be designed, constructed, and commissioned to outperform CBC energy efficiency standards by at least 20 percent; would achieve a LEED Gold certification; and would not use on-site fossil fuel combustion for space and water heating. In addition, the project would be located in a mixed-use neighborhood along a transit-accessible corridor on San Pablo Avenue, reducing motor vehicle use and associated mobile GHG emissions, consistent with Plan Bay Area goals to concentrate density in transit-rich areas. Furthermore, the proposed residential building would be all-electric and would not use natural gas, which would reduce GHG emissions from energy use. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted to reducing GHG emissions. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

9 Hazards and Hazardous Materials

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to hazards and hazardous materials. Specifically, Section IV.D of the 2004 Subsequent EIR concluded that implementation of the Master Plan would not result in significant impacts or a cumulatively considerable contribution to adverse hazards and hazardous materials impacts. Specifically, the Subsequent EIR noted that the Gill Tract could present a hazard to construction workers or future residents and visitors to the site, due to a closed leaking underground storage tank (LUST) case, pesticide use on agricultural fields, hazardous materials in laboratory buildings, herbicide in a poison storage area, and hazardous materials within the existing structures (Section IV.D of the 2004 Subsequent EIR). The 2004 Subsequent EIR concluded that with the implementation of UC Berkeley's Continuing Best Practice HAZ-1 through HAZ-6, impacts related to hazards and hazardous materials on the project site would be less than significant. Such Continuing Best Practices would require that prior to demolition or construction activities, the University's Office of Environment, Health, and Safety (EH&S) oversee completion of groundwater and soil testing, and prepare preparation of a Phase II environmental site assessment report, sample sampling for asbestos-containing materials (ACMs) and lead-based paints (LBPs), and properly dispose disposal of the contents of any hazardous materials. (See Chapter 6 for a complete list of Continuing Best Practices mitigation measures applicable into the project.)

Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Operational Activities

Implementation of the proposed project would involve operation of a new residential building within the Step 3 area and new structures used for office, storage, and recreation at the CNR and Apparatus Bay replacement sites. These uses would be consistent with the uses envisioned under buildout of the 2004 Master Plan. Therefore, the project would not result in new or more severe impacts than those analyzed in the 2004 Subsequent EIR. The proposed land uses typically do not transport, use, or dispose of hazardous materials other than household typical cleaning and maintenance materials. Operation of the project would therefore not involve the use, storage, transportation, or disposal of hazardous materials other than those typically used for household cleaning, maintenance, and landscaping. Consistent with the analysis in the 2004 Subsequent EIR, operational impacts would be less than significant.

Construction Activities

The project would involve demolition of the same buildings anticipated to be demolished in the 2004 Master Plan, and construction of a residential building within the same location and density parameters as the Step 3 residential development in the 2004 Master Plan. The project would also involve construction of two additional structures not included in the 2004 Master Plan, within the

CNR and Apparatus Bay replacement sites. While construction of these specific structures was not analyzed in the 2004 Subsequent EIR, their size and type of construction would be consistent with other structures included in the 2004 Master Plan. Moreover, construction of all the proposed structures would be subject to applicable regulations and Continuing Best Practices identified in the 2004 Master Plan. Therefore, impacts would be consistent with those analyzed in the 2004 Subsequent EIR.

Construction of the proposed structures would include the use of construction machinery that would involve the transport, use, and disposal of hazardous materials such as paints, solvents, oils, grease, and caulking. Additionally, hazardous materials would be needed for fueling and servicing construction equipment. If spilled, these substances could pose a risk to the environment and to human health. Moreover, the existing structures proposed to be demolished may contain asbestos and/or lead-based paint (LBP) due to their age. Structures built before the 1970s were constructed typically with asbestos containing materials (ACM). Because the buildings were constructed before the time of the federal ban on the manufacture of PCBs, it is possible that light ballasts in the structures contain PCB. Therefore, demolition of the existing structure could result in health hazard impacts to workers if not remediated prior to construction activities.

As described in the Subsequent EIR, the proposed project would be required to comply with several Continuing Best Practices related to hazardous materials. Such practices would include completion of a site safety plan prior to construction activities (Continuing Best Practice 1) and sampling for asbestos-containing materials (ACMs) and lead-based paints (LBPs) to determine the presence or absence of these materials and identify the appropriate procedures for abating these hazards during demolition (Continuing Best Practice 2).

Construction activities would also be subject to state and federal regulations intended to reduce hazards related to hazardous materials. The storage, handling, use, and disposal of these materials would also be regulated through the Resources Conservation and Recovery Act (RCRA). The California Department of Toxic Substances Control (DTSC) is responsible for implementing the RCRA program, as well as California's own hazardous waste laws. DTSC regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California. It does this primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22, CCR, Divisions 4 and 4.5). DTSC also oversees permitting, inspection, compliance, and corrective action programs to ensure that hazardous waste managers follow federal and State requirements and other laws that affect hazardous waste, particularly its handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Compliance with existing regulations would reduce the risk of potential release of hazardous materials during construction.

Compliance with existing applicable regulations and policies and Continuing Best Practices would minimize risks from any use, transport, handling, storage, disposal, and release of hazardous materials. Therefore, consistent with the 2004 Subsequent EIR, impacts related to the routine use, transport, handling, storage, disposal, and release of hazardous materials would remain less than significant.

b. Would the project 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?

d. Would the project be located on a site that is included on a list of hazardous material 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As stated in Section IV.D of the 2004 Subsequent EIR, the Gill Tract, the site where the CNR replacement site is located, is identified on the Leaking Underground Storage Tank (LUST) database. There were two identified underground storage tanks on the site, a 1,000-gallon diesel tank and a 1,500-gallon gasoline tank. Both were removed from the site in August 1997, and a Case Closure Report was published on July 27, 1998. A no further action letter dated November 3, 1998 stated that the case was closed with the potential of residual contaminants which consist of gasoline-range hydrocarbons (TPHg) and, benzene, toluene, ethyl benzene, and xylene (collectively known as BTEX) in soils; and TPHg and methyl tertiary butyl ether (MBTE) in groundwater. In addition, the 2004 Subsequent EIR identified the use of the herbicide Roundup for agricultural use on the site. Therefore, construction of the CNR replacement structure on the Gill Tract (Section IV.D of the 2004 Subsequent EIR) could result in the release of residual contaminants, which could create a hazard to the public or environment.

The extent to which groundwater, soil, or air may be affected from an UST or other contamination source, if at all, depends on the type of contaminant, the amount released, the duration of the release, and distance from source. As described above, the project would be subject to several Continuing Best Practices identified in the Subsequent EIR that would address impacts related to hazards present within and near UVA. Specifically, Continuing Best Practice 1 requires that prior to demolition and construction in the vicinity of the former LUST the University's Office of Environment, Health, and Safety (EH&S) would be contacted to assist in characterizing the potential residual contaminants in the soil. A site safety plan would be developed outlining the proper procedures for proceeding with construction in this area, including plans for the removal of additional contaminated soils, if present. In addition, Continuing Best Practice 2 requires preparation of a Phase II report documenting groundwater and soil testing results and clean up or removal of identified contamination. A Phase II report prepared in 2021 for the project site concluded that no additional monitoring would be needed.

Compliance with the Continuing Best Practices as outlined in the 2004 Subsequent EIR, and State, Federal, and local standards and regulations would reduce impacts associated with reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment to less than significant. Consistent with the 2004 Subsequent EIR, impacts would be less than significant.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The proposed residential building would be located within the same site as the residential development envisioned as part of Step 3 under the 2004 Master Plan. Therefore, impacts related

to hazardous materials in proximity to schools would be the same as those analyzed in the 2004 Subsequent EIR. Ocean View Elementary School is approximately 500 feet northwest of the Albany Village Graduate Student Housing site, and Rising Sun Montessori School is located approximately 570 feet southeast of the Albany Village Graduate Student Housing site. The proposed project would involve construction of a new residential, office, storage, and recreation buildings. As described under criterion (*a*) above, these uses typically do not emit hazardous materials or substances. Because the site was previously identified as a hazardous material site, the site would be required to be remediated prior to the construction of structures. As described under criteria (*a*) and (*b*) above, oversight by federal, State, local agencies, and by the University's Office of Environment, Health, and Safety, and compliance by new development with applicable regulations related to the handling and storage of hazardous materials would minimize the risk of the public's potential exposure to hazardous substances. Consistent with the 2004 Subsequent EIR, impacts related to hazardous emissions and hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school would remain less than significant.

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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The proposed project would be located within the same location as development under the 2004 Master Plan. Therefore, impacts related to proximity to airports would be the same as those analyzed in the 2004 Subsequent EIR. The closest airport to the project site is the Oakland International Airport, located approximately 18 miles south of UVA. The project site is located entirely outside the airport safety and traffic pattern zones (County of Alameda 2012). Consistent with the 2004 Subsequent EIR, the proposed project would not be located within an airport land use plan or within two miles of a public or private use airport. There would be no impact. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As with the development envisioned in the 2004 Master Plan and analyzed in the 2004 Subsequent EIR, the proposed residential project, Apparatus Bay replacement structure, and CNR replacement structure would not obstruct existing roadways or require the construction of new roadways. As described in above in the *Project Description* section, the project could include the addition of two new driveways at the Albany Village Graduate Student Housing site, which would facilitate emergency access and circulation through the project site. In addition, as described in the 2004 Subsequent EIR, the project plans would be reviewed by the UC Berkeley Fire Marshall to ensure adequate emergency access is provided. Therefore, consistent with the 2004 Subsequent EIR, implementation of the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts would remain less than significant.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in Section 20*, Wildfire*, UVA is located within an urbanized area and not within a Very High Fire Zone or High Fire Zone area (California Department of Forestry and Fire Protection [CAL FIRE] 2007, 2008). Therefore, as with development envisioned in the 2004 Master Plan, the project would not directly or indirectly expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Consistent with the analysis in the 2004 Subsequent EIR, there would be no impact.

This page intentionally left blank.

10 Hydrology and Water Quality

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to hydrology and water quality. Specifically, Section IV.F of the 2004 Subsequent EIR concluded that implementation of the Master Plan would not result in significant impacts or a cumulatively considerable contribution to adverse hydrology and water quality impacts. Specifically, the 2004 Subsequent EIR found that residential development envisioned in the Step 3 area would involve substantial changes to the site's existing drainage patterns as well as to the soils and the structures that would affect the hydrology of the site and hydrology off-site. Though the proposed project would introduce new impermeable surfaces to the project site, compliance with hydrology Continuing Best Practices incorporated by reference from the 2020 LRDP would reduce impacts related to hydrology and water quality on the project site to less than significant levels. Applicable Continuing Best Practices include HYD-1, which requires bioswales, permeable surfaces, and other water retention and detention features capturing and treating stormwater, and HYD-2, which requires BMPs to provide increased stormwater detention on-site to reduce impacts related to flood flows. (See Chapter 6 for a complete list of Continuing Best Practices and mitigation measures applicable into the project.)

Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Construction

The project would involve demolition of the same buildings anticipated to be demolished in the 2004 Master Plan and construction of a residential building within the same location and density parameters as the Step 3 residential development in the 2004 Master Plan. The project would also involve construction of two additional structures not included in the 2004 Master Plan within the CNR and Apparatus Bay replacement sites. While construction of these specific structures was not analyzed in the 2004 Subsequent EIR, their size and construction type would be consistent with other structures included in the 2004 Master Plan. Therefore, impacts would be consistent with those analyzed in the 2004 Subsequent EIR. Construction activities associated with the proposed project would include the installation and realignment of utilities, demolition of existing structures, construction of new structures and a surface parking lot, and the replacement or repair of drainage facilities. Construction activities could result in soil erosion due to earth-moving activities such as excavation, grading, soil compaction and moving, and soil stockpiling, which could result in degradation of water quality in the area.

Construction activities would utilize hazardous materials such as diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, cement slurry, and other fluids required for the operation of construction vehicles or equipment. However, these types of hazardous materials are not acutely hazardous, and all storage, handling, use, and disposal of these materials are regulated

by county, state, and federal regulations and compliance with applicable standards discussed in Section 9, *Hazards and Hazardous Materials*.

As described in the 2004 Subsequent EIR, development on the project site would be required to comply with state and local water quality regulations designed to control erosion and protect water quality during construction. This includes compliance with the requirements of the Regional Water Quality Control Board (RWQCB), including submittal of a Notice of Intent with the State Water Resources Control Board (SWRCB) and oversight by the RWQCB and compliance with the State Water Resources Control Board (SWRCB). Individual projects that disturb more than one acre are required to obtain NPDES coverage under the California General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD), describing best management practices (BMP) the discharger would use to prevent and retain stormwater runoff. The SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if BMPs fail; and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment. Construction BMPs could include inlet protection, silt fencing, fiber rolls, stabilized construction entrances, stockpile management, solid waste management, and concrete waste management. In addition, as described in the 2004 Subsequent EIR, the project would be required to comply with UC Berkeley's Continuing Best Practices for hydrology, including the construction of bioswales, permeable surfaces, and other water retention and detention features. Post-construction stormwater performance standards, as imposed by SWRCB's Construction General Permit, are also required to specifically address water quality and channel protection events. Implementation of the required SWPPP and UC Continuing Best Practices would reduce the potential for eroded soil and any contaminants attached to that soil to contaminate a waterbody following a storm event. These requirements would protect water quality and control stormwater runoff.

As described in the 2004 Subsequent EIR, compliance with the regulations and policies discussed above would reduce the risk of water degradation from soil erosion and other pollutants related to construction activities under the 2004 Master Plan. Since the proposed project would involve similar development as that under the Master Plan and in the same location, and since it would comply with the regulations described above, it would not result in new or more severe impacts than those analyzed in the 2004 Subsequent EIR. Impacts would remain less than significant, consistent with the 2004 Subsequent EIR.

Operation

The proposed residential, office, storage, and recreational uses would be consistent with the uses envisioned under buildout of the 2004 Master Plan within UVA. Therefore, impacts would be consistent with those analyzed in the 2004 Subsequent EIR. As described in the 2004 Subsequent EIR, operation of the proposed project would result in an increase in runoff within UVA. Additional runoff would also be generated by construction and operation of proposed structures at the CNR and Apparatus Bay replacement sites. Types of pollutants contained in runoff may include sediment and other existing contaminants such as nutrients, pesticides, herbicides, trace metals, and hydrocarbons that can attach to sediment and be transported downstream through erosion via overland flow, ultimately entering nearby waterways and contributing to degradation of water quality.

As described in the 2004 Subsequent EIR, implementation of the 2004 Master Plan would result in a net increase of approximately 9.1 acres of impervious surfaces within UVA. Consistent with the 2004 Master Plan, the proposed project would involve construction of a residential building in the Step 3 area. In addition, while the project would also involve additional construction of the CNR and Apparatus Bay replacement structures, the total increase in impervious surfaces under the project would be 3.4 acres, well within the increase envisioned under the 2004 Master Plan. This increase could cause an increase in runoff and erosion. However, the project would be required to comply with the NPDES Construction General Permit, which requires the development of a SWPPP, as described in detail above. SWPPP implementation would reduce the risk of water degradation on-site and off-site from soil erosion and other pollutants related to project operation because a SWPPP requires the design, installation, and maintenance of post-construction stormwater controls. In addition, applicable University Continuing Best Practices would require the project to implement erosion control features in water courses where warranted, revegetate stream banks, disturbed soil, and slope areas, and comply with an urban runoff management program to reduce and eliminate stormwater pollutants and control stormwater runoff.

In addition to stormwater runoff, polluted wastewater could be discharged by the project. The project would increase wastewater flows to the East Bay Municipal Utility District (EBMUD) wastewater treatment plant. The existing sewer infrastructure in the area, according to the 2004 Subsequent EIR, receives a considerable amount of infiltration from groundwater. As part of project construction, the existing sewer pipe infrastructure would be replaced to decrease infiltration and exfiltration and provide adequate capacity to accommodate the additional wastewater generated by the project. New sewer infrastructure would also be installed to connect the CNR and Apparatus Bay replacement structures to the existing sewer infrastructure in the area.

As described in the 2004 Subsequent EIR, implementation of the regulations, permit requirements, BMPs, and policies described above would prevent or minimize impacts related to water quality and would ensure that development under the 2004 Master Plan would not cause or contribute to the degradation of water quality. Given the location and development type proposed under the project, it would not result in new or more severe impacts than those analyzed in the 2004 Subsequent EIR for similar development in the same location. The project, consistent with the 2004 Subsequent EIR, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality, and water quality impacts would remain less than significant.

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As discussed in the 2004 Subsequent EIR, construction and operation of the development under the 2004 Master Plan would not deplete groundwater supplies or interfere substantially with groundwater recharge. As described under criterion (*a*) above, the project would involve development of the same type and within the same location and residential density parameters as buildout under the Master Plan. Therefore, impacts related to groundwater would be consistent with those analyzed in the 2004 analyzed.

As with development under the 2004 Master Plan, the project would not require the use of groundwater, and while the addition of new impervious surfaces could contribute to the amount of groundwater recharge, the increase in impervious surfaces would not substantially increase

stormwater runoff amounts. In addition, as described in the 2004 Subsequent EIR, the project would be required to comply with Continuing Best Practices HYD-1 and HYD-2, which require installation water retention and detention features that capture and treat stormwater and runoff. Furthermore, as described in Section 7*, Geology and Soils*, UVA is underlain by clayey soils which are highly cohesive and would prevent a substantial increase in infiltration of runoff to the groundwater table. Given the above regulations and existing setting, the project would not result in new or more sever impacts related to groundwater than those analyzed in the 2004 Subsequent EIR. Therefore, consistent with the 2004 Subsequent EIR, impacts would be less than significant.

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would 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?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Construction

The proposed project would involve demolition of existing structures and construction of a new residential building within the same location and density as the residential development envisioned in the Master Plan. The new structures within the CNR and Apparatus Bay replacement sites were not included in the 2004 Master Plan but would be within UVA and subject to the same regulations as the development in the 2004 Master Plan. Therefore, impacts would be consistent with those analyzed in the 2004 Subsequent EIR. Construction activities would involve stockpiling, grading, excavation, paving, and other earth disturbing activities that could temporarily alter existing drainage patterns. As described in criterion *(a)* above, compliance with the SWRCB's NPDES Construction General Permit and NPDES General Permit would reduce the risk of short-term erosion and increased runoff resulting from drainage alterations during construction. Consistent with buildout under the 2004 Master Plan, Construction would also be required to comply with Continuing Best Practices HYD-1 and HYD-2, which would further reduce construction impacts to a less than significant level.

Operation

The proposed residential, office, storage, and recreational uses would be consistent with the uses envisioned under buildout of the 2004 Master Plan within UVA. Therefore, impacts would be consistent with those analyzed in the 2004 Subsequent EIR. The project would not involve alteration of nearby creeks, including Village Creek or Codornices Creek. The project would involve alteration the existing drainage patterns on the site through the introduction of new impervious surfaces, but

such alteration would not result in substantial adverse effects. As discussed in the 2004 Subsequent EIR, implementation of the 2004 Master Plan would result in a two percent increase in stormwater runoff which would contribute approximately 2 to 3 cubic feet per second (cfs) to off-site flows, which would be a negligible increase of approximately 0.2 percent to the total flow in creeks if not mitigated. As shown in Table 1, the proposed residential project would be consistent with the location and density of the Step 3 residential building envisioned in the 2004 Master Plan. Therefore, the proposed residential project would generate stormwater runoff within the expectations analyzed in the 2004 Subsequent EIR. Criterion *(a)* provides a discussion of applicable regulations that would limit pollutant discharges, including sediment and silt, from the project. In addition, as described under criterion (*b*), the project would be required to comply with Continuing Best Practice, HYD-1, which requires water retention and detention features aimed at capturing and treating stormwater to ensure that runoff from the project remains at pre-construction levels as required by the Construction General Permit. Compliance with applicable Continuing Best Practices would ensure runoff from the project would not exceed the capacity of existing and future storm drain systems.

Construction of the proposed structures within the Apparatus Bay and CNR replacement sites would introduce new impervious surfaces to the replacement sites. However, the new structures would be relatively small and are therefore not expected to result in a substantial increase in stormwater runoff within UVA. In addition, compliance with applicable state and local regulations, including implementation of a SWPPP, including BMPs designed to prevent and retain stormwater runoff and ensure runoff levels remain at pre-construction levels, and with applicable Continuing Best Practices as described under criteria (*a*) and (*b*) would further reduce would reduce stormwater runoff from construction and operation of the proposed project to the extent practicable as required.

Given compliance with the regulations outlined above, the project would not result in new or more severe operational impacts than those identified in the 2004 Subsequent EIR. Consistent with the analysis in the 2004 Subsequent EIR, the proposed project would not alter the existing drainage pattern or contribute runoff water in a manner that would result in substantial erosion, siltation, or flooding, nor would it exceed the capacity of existing or planner stormwater drainage systems. Impacts would remain less than significant.

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The proposed project would involve development in the same location as the development envisioned in the 2004 Master Plan; therefore, impacts related to flooding, tsunamis, and seiches would be consistent with those identified in the 2004 Subsequent EIR. The San Francisco Bay is approximately 0.5 mile west of the site. As described in the 2004 Subsequent EIR, San Francisco Bay is subject to tsunami and seiche waves. A tsunami or seiche wave could reach a maximum height of 6.9 feet above mean sea level. However, the 2004 Subsequent EIR concludes that because the Southern Pacific Railroad embankment between UVA and Interstate Highway 80 rises to approximately 12 feet above mean sea level, a seawall would be formed against the encroachment of the 100-year tsunami or seiche wave.

As described in the 2004 Subsequent EIR, portions of UVA are subject to flooding. Specific areas have been designated by the Federal Emergency Management Agency (FEMA) as 100-year flood hazard areas, which means there is a one-percent chance of flooding in these areas in any given year. Along Codornices Creek, the flood hazard is mapped in an area extending two vertical feet above the creek banks. Localized flooding resulting from overtopping and ponding of Codornices Creek flows has been documented in 1982, 1986, 1997, and 2003. The southwestern portion of the project site is within the 100-year flood level of the Codornices Creek.

All buildings under the proposed project would be designed based on the current FEMA map and applicable regulations, including construction of structures above flood levels. According to the 2004 Subsequent EIR, implementation of the 2004 Master Plan would require the import of fill to the Step 3 area to elevate the proposed residential project one foot above the 100-year flood elevation surrounding the Codornices Creek. Consistent with this analysis, the proposed project would require the import of fill to reduce impacts related to flooding. Elevating the project from the flood area would result in the loss of stormwater storage capacity and would redirect or impede flood flows and could adversely impact flooding conditions in lower areas of the site and properties downstream. However, implementation of Step 2 of the Master Plan involved daylighting portions of Village Creek. This improvement would convey the 100- year flow within the new creek channel. In addition, the University continues to participate with the cities of Albany and Berkeley to improve Codornices Creek. Completed improvements to Village Creek and Codornices Creek altered the flow paths such that flows no longer are conveyed over the developed portions of the project site but are conveyed within the creeks.

Furthermore, as described under criterion (*a*), the project would be required to comply with BMPs, University Continuing Best Practices, and federal, state, and local regulations that would reduce flow rates, prevent off-site discharge of stormwater pollutants, and reduce flow volumes. As part of Step 1 of the Master Plan, a Stormwater Management Plan was prepared that included additional BMPs for increased stormwater detention on site. According to the 2004 Subsequent EIR, the Stormwater Management Plan created for Step 1 would also be implemented as part of Step 3. Implementation of BMPs included in the Stormwater Management Plan, and required as mitigation for the project, and compliance with the Construction General Permit, would ensure that the project would not result in new or more severe impacts to flood flows than those identified in the 2004 Subsequent EIR. Impacts would be less than significant levels, consistent with the 2004 Subsequent EIR.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The proposed project would involve development in the same location as the development envisioned in the 2004 Master Plan; therefore, impacts related to water quality and applicable groundwater management plans would be consistent with those identified in the 2004 Subsequent EIR. As described in the 2004 Subsequent EIR, development of the project could affect water quality and groundwater supply through construction and operational activities. The project would be subject to the San Francisco Bay RWQCB's Water Quality Control Plan (WQCP). The WQCP identifies beneficial uses for surface water and groundwater and establishes water quality objectives to attain those beneficial uses. The identified beneficial uses and the water quality objectives to maintain or achieve those uses are together known as water quality standards. As discussed in detail under

criterion *(a)*, compliance with relevant water quality regulations, BMPs, and policies would reduce the risk of water degradation from soil erosion and other pollutants related to project construction and operational activities. These requirements would ensure that the project does not contribute or exacerbate identified water quality contamination in the applicable WQCP.

As described in Section 19, *Utilities and Service Systems*, the proposed project would not generate greater water demand than that analyzed in the 2004 Subsequent EIR. Moreover, the potable water demand for the project is anticipated to be adequately served by EBMUD's existing water infrastructure and supply. Therefore, the project would not result in more severe impacts related to water supplies than those identified in the 2004 Subsequent EIR.

As with development under the 2004 Master Plan, construction and operation of the project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Consequently, the project would not conflict with or obstruct implementation of the WQCP. Consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant.

This page intentionally left blank.

11 Land Use and Planning

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to land use and planning. Specifically, Section IV.F of the 2004 Subsequent EIR Section IV.G of the 2004 Subsequent EIR concluded that implementation of the Master Plan would not result in significant impacts or a cumulatively considerable contribution to adverse impacts. Specifically, the 2004 Subsequent EIR concludes that the 2004 Master Plan would be the consistent with the goals, policies, and objectives in the 1998 Master Plan and Albany General Plan.

Impact Analysis

a. Would the project physically divide an established community?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The proposed project would involve demolition of the same buildings as the buildings anticipated to be demolished in the 2004 Master Plan and construction of a residential building within the same location and density parameters as the Step 3 residential development in the 2004 Master Plan. Therefore, the residential project's impacts would also be consistent with those analyzed in the 2004 Subsequent EIR. As described in the 2004 Subsequent EIR, the project would not separate connected neighborhoods or land uses from each other.

Moreover, the project would also involve construction of two additional structures not included in the 2004 Master Plan within the CNR and Apparatus Bay replacement sites. While construction of these specific structures was not analyzed in the 2004 Subsequent EIR, they would not result in new or more severe impacts than those identified in the 2004 Subsequent EIR. As with development under the 2004 Master Plan, the structures would not separate neighborhoods or land uses from each other. No new roads, linear infrastructure, or other development features are proposed that would divide an established community or limit movement, travel, or social interaction between established land uses. Consistent with the analysis in the 2004 Subsequent EIR, there would be no impact.

b. Would the project 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The 2004 Subsequent EIR evaluates the 2004 Master Plan's consistency with several applicable plans and regulations, as described in detail below.

University Village Master Plan

The 2004 Subsequent EIR concludes that the 2004 Master Plan would be consistent with the goals and policies of the 1998 University Village Master Plan given several proposed revisions to allow the

proposed Step 2 and Step 3 portions of the Master Plan. As described in the *Description of the Project,* the project would involve an amendment to the 2004 Master Plan to remove the Commercial or Mixed Use land use designation at the southeastern corner of the Step 3 residential site so that the entire site is within the Housing, Parking, Recreation, and Open Space land use designation. Given this amendment, the proposed residential project would be consistent with the land use designations in the University Village Master Plan. In addition, the CNR and Apparatus Bay replacement sites are located within the Housing, Parking, Recreation, and Open Space land use designation; the proposed office, storage, and recreation facilities that would serve residents of UVA would be consistent with this land use designation.

The proposed project's consistency with applicable University Village Master Plan goals and policies is described in Table 7.

Table 7 University Village Master Plan Consistency

University Village Master Plan Goal or Policy	Proposed Project Consistency
Goal 1 – Land Use. Provide decent, affordable and convenient housing and related facilities for University students with families, graduate students, and junior faculty; efficiently use existing University property.	**Consistent.** Consistent with the Step 3 development envisioned in the 2004 Master Plan, the proposed project would involve construction of housing for University students, including graduate students and students with families.
Land Use Objective 1-2. To replace existing housing with up to 998 new units of family housing, 696 new units of graduate student housing and 31 units of junior faculty rental housing.	**Consistent.** The project would be consistent with the Master Plan's vision for the Step 3 area, including the construction of up to 400 new residential units.
Landscape Policy 6-5. Avoid the removal of specimen trees where feasible. When removal of a specimen tree is necessary, either move the tree, or if this is not possible, replace the tree in a nearby location and follow a maintenance program for five years to ensure that the replacement trees survive. Replacement trees should be selected from species native or naturalized to the region, and suitable for the biotic zone and planned land use for their respective locations.	**Consistent.** As described in Section 4, *Biological Resources*, the project would be subject to the same regulations as development under the 2004 Master Plan regarding specimen trees, including the Campus Specimen Tree Program.
Environmental Objective 7-9. To provide an adequate right-of-way between Codornices Creek and University Village developments to allow for planned restoration of the Creek.	**Consistent.** As described in Section 4, *Biological Resources*, the proposed new buildings would maintain buffer at Codornices Creek, as required for all development under the 2004 Master Plan.
Environmental Objective 7-1. To minimize storm water pollution, including erosion and sedimentation.	**Consistent.** As described in Section 10, *Hydrology and Water Quality,* the project would not result in new or more severe impacts related to water quality, erosion, and sedimentation than those identified in the 2004 Subsequent EIR. Impacts would be less than significant.
Environmental Objective 7-3. To provide earthquake safety and avoid other geotechnical hazards.	**Consistent.** As described in Section 7, *Geology and Soils,* the project would be within the same location as the development in the 2004 Master Plan. Impacts related to seismic or other geotechnical hazards would be less than significant.

University Village Master Plan Goal or Policy	Proposed Project Consistency
Environmental Objective 7-4. To protect the built areas from flood-related life-safety risks and structural damage.	**Consistent.** As described in Section 10, *Hydrology and Water Quality,* the project would involve the same type of development and in the same location as the development under the 2004 Master Plan, and impacts would remain less than significant.
Environmental Objective 7-5. To be sensitive to potential historical, cultural, and archaeological resources.	**Consistent.** As described in Section 5, *Cultural Resources,* the project would not result in new or more severe impacts related to historic, cultural, and archaeological resources than those identified in the 2004 Subsequent EIR.
Environmental Objective 7-6. To maintain and enhance the air quality surrounding the site.	**Consistent.** As described in Section 3, *Air Quality,* construction and operation of the project would result in a net reduction of air quality emissions compared to buildout under the 2004 Master Plan.
Environmental Objective 7-10. To take advantage of the natural amenities of the site, along with the variety of planned site uses, to incorporate innovations in sustainable design, construction, and operation.	**Consistent.** The project would be consistent with the vision in the University Village Master Plan, including implementation of the vision for the Step 3 area included in the 2004 Master Plan. As described in the *Description of Project,* the project would meet UC Berkeley minimum sustainability standards.
Environmental Policy 7-12. Embrace sustainable community development principles, using the LEED (Leadership in Energy and Environmental Design) Green Building Systems as a design tool.	**Consistent.** Consistent with the development envisioned in the 2004 Master Plan, the new buildings would be built to meet UC Berkeley minimum sustainability standards and target LEED Gold certification.
Environmental Policy 7-14. Avoid disruption to sensitive biological resources where feasible. Where this is not feasible, coordinate with the resource agencies to implement feasible measures to mitigate such disruption.	**Consistent.** As described in Section 4, *Biological Resources*, the proposed project would not result in new or more sever impacts to sensitive biological resources than those identified in the 2004 Subsequent EIR.
Goal 9 – Academic. Use developable University Village land in a manner that meets housing needs identified in the Academic Strategic Plan.	**Consistent.** The project would involve construction of new housing units on a site envisioned for such a use in the 2004 Master Plan.

Source: University of California, Berkeley, 2004.

The proposed project would be consistent with the development envisioned in the 2004 University Village Master Plan as well as the policies and goals listed above. Consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant.

Albany General Plan

As described in the 2004 Subsequent EIR, while the University is constitutionally exempt from local planning and zoning laws when using University property in furtherance of its educational purposes, it is the University's policy to seek consistency with local plans and policies when feasible. The 2004 Subsequent EIR therefore evaluates the project's consistency with the City of Albany 1990-2010 General Plan. Since the adoption of the 2004 Subsequent EIR, the City's General Plan has been updated. The proposed project's consistency with applicable University Village Master Plan goals and policies is described in Table 8.

Table 8 City of Albany General Plan Consistency

City of Albany General Plan Goal or Policy	Proposed Project Consistency
Action LU-4.A. University Village Master Plan Update Encourage the University to update its Master Plan for University Village to reflect the completion of the family student housing redevelopment project, the approval of the retail and senior housing project along San Pablo Avenue, and the remaining opportunities for infill development and open space protection on the balance of the site.	**Consistent.** The proposed project would involve completion of an infill family student housing development in the Step 3 area, consistent with the development envisioned in the 2004 Master Plan. The project would maintain existing open space and recreation areas throughout UVA.
Policy LU-5.3. Albany's Creeks Maintain a Creek Conservation Zone (CCZ) along Cerrito, Codornices, and Village Creek. Protect the existing riparian habitat within the CCZ and restrict development as necessary to conserve the creek environment.	**Consistent.** As described in Section 4, *Biological Resources*, the proposed new buildings would maintain a buffer at Codornices and Village Creeks, as required for all development under the 2004 Master Plan.
Policy LU-5.4. Archaeological Resources Protect Albany's archaeological resources, including remains and artifacts from Native American settlement. The City will coordinate with local tribal representatives and follow appropriate mitigation, preservation, and recovery procedures in the event that important resources are discovered during development.	**Consistent.** As described in Section 5, *Cultural Resources*, and Section 18, *Tribal Cultural Resources*, the project would be in the same location as the development in the 2004 Master Plan, and impacts related to archaeological and tribal cultural resources would not be more severe than those identified in the 2004 Subsequent EIR.
Policy LU-6.3. Views and Vistas Consider protection of vistas from public viewpoints when reviewing new development applications.	**Consistent.** As described in Section 1, *Aesthetics*, the proposed new buildings would be consistent with the development envisioned in the 2004 Master Plan and would therefore not result in significant impacts to views and scenic vistas.
Policy EH-1.1: Hazard-Sensitive Planning Ensure that future development is sited, designed, and constructed to minimize risks associated with earthquakes, flooding, landslides, and other natural hazards. Appropriate mitigation measures should be required to reduce hazard risks.	**Consistent.** As described in Section 7, *Geology and Soils*, and Section 10, *Hydrology and Water Quality,* the project would be within the same location as the development in the 2004 Master Plan. Impacts related to seismic or other geotechnical hazards, flooding, and hydrologic hazards would be less than significant.
Policy T-2.1. Transit-Oriented Development Encourage land use patterns and public space designs that support walking, bicycling, and public transit use, thereby reducing greenhouse gas emissions and fossil fuel consumption. Future land use and development choices should maximize opportunities to travel without a car by focusing new growth along walkable, transit served corridors such as Solano and San Pablo Avenues, and in areas within ½ mile of the El Cerrito Plaza BART station.	**Consistent.** As described in Section 17, *Transportation*, consistent with the development under the 2004 Master Plan, the project would provide new housing near bicycle, pedestrian, and public transit options. In addition, impacts related to Vehicle Miles Traveled (VMT) would be less than significant.

Source: City of Albany 2016

The proposed residential, office, storage, and recreational uses would be consistent with the uses envisioned under buildout of the 2004 Master Plan. Moreover, the proposed residential development would be within the same footprint and density parameters as those identified for the Step 3 development in the 2004 Master Plan. As shown in the table above, as with the 2004 Master Plan, the project would be consistent with the policies and goals listed above. Consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant.

12 Mineral Resources

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to mineral resources. Specifically, the 2004 Subsequent EIR concluded, "as stated in the Initial Study, no significant mineral deposits are present on the project site" (Subsequent EIR p. 215).

Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in the 2004 Subsequent EIR, implementation of the 2004 Master Plan would not result in the loss of availability of a known mineral resource or mineral resource site. UVA is an area designated as Mineral Resource Zone One (MRZ-1) as defined on the State's Mineral Land Classification Maps, which indicates an area where there is adequate information to indicate that no significant mineral deposits are present. In addition, the Albany General Plan does not identify locally important mineral resource recovery site within Albany, including UVA. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

This page intentionally left blank.

13 Noise

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to noise. Specifically, Section 4.5 of the 1998 Master Plan EIR found that construction activities would generate noise audible to sensitive receptors, including residences and community facilities in UVA. Construction noise levels from standard earthmoving equipment such as backhoes, graders, and pavers were estimated at up to 90 dBA at a distance of 50 feet from the source. Mitigation Measure 4.5-5 was required to reduce construction noise to the extent feasible. This measure included restrictions on the timing of construction activities, appropriate muffling of equipment, distancing stationary noise sources from adjacent uses, and avoiding pneumatically powered tools wherever feasible, among other requirements. However, the 1998 Master Plan EIR determined that this measure may not reduce construction noise to less-than-significant levels, resulting in a significant and unavoidable impact from a temporary increase in ambient noise. The cumulative impact from construction noise was identified as less than significant because it was unlikely that on-site construction would coincide with other cumulative projects, and any coinciding projects would be required to use best available noise control measures. (See Chapter 6 for a complete list of Continuing Best Practices mitigation measures applicable into the project.)

Section 2.2.10 of the Initial Study for the 1998 Master Plan EIR evaluated other noise impacts. Because the Master Plan would not result in a doubling of average daily traffic volumes on roadways, the Initial Study found that it would not cause an increase in traffic noise that exceeds the City of Albany's 3 dBA standard. Therefore, it determined that the Master Plan would have a less than significant impact from a permanent increase in ambient noise. It also found that the Master Plan would have a less than significant impact related to vibration.

Item 11, *Noise*, in the Initial Study to the 2004 Subsequent EIR evaluated the noise impacts of the Master Plan amendments. This analysis found that noise and vibration impacts would not be substantially greater than analyzed in the 1998 Master Plan EIR. Consistent with the 1998 Master Plan EIR, it was determined that construction noise would have a significant and unavoidable impact because of high noise levels at nearby sensitive receptors, including residents and community facilities in UVA and the Albany school. In addition, Section VI.E in the 2004 Subsequent EIR included a brief discussion of noise impacts found to be less than significant. This section found that the Master Plan amendments would generate less traffic than would the 1998 Master Plan. Although the 2004 Subsequent EIR noted that the Master Plan amendments would open a segment of 10th Street to traffic, increasing traffic noise in that area, it found that the increase in traffic noise over existing levels would not exceed Albany's or Berkeley's thresholds of significance. Therefore, the 2004 Subsequent EIR determined that the impact related to traffic noise would remain less than significant. Lastly, the 2004 Subsequent EIR identified no impact from aircraft noise because the project site was outside of an airport land use plan area and not near a public airport or private airstrip.

Environmental Setting

To establish existing ambient noise conditions in and near the project site, noise level readings were taken by Rincon Consultants, Inc. staff at three locations using an ANSI Type II integrating sound

level meter in accordance with industry standard protocols on November 19, 2020. These noise measurements were collected on a weekday, during the daytime outside peak traffic hours. The measurements were located where construction activity would be closest to sensitive receptors, including at the western edge of the Albany Village Graduate Student Housing site, and at the CNR and Apparatus Bay replacement sites (see Figure 7).

Table 9 lists the noise measurement locations and measured noise levels.

Table 9 Noise Measurement Results

No.	Measurement Location	Primary Noise Source	Sample Time	Result (dBA L_{eq})[2]
1	Apparatus Bay replacement site south of Red Oak Ave. (80 feet from centerline)	Traffic on Red Oak Ave./Jackson St. and Eighth St.	11:06 – 11:21 AM	53.8
2	CNR replacement site east of Jackson St. (40 feet from centerline)	Traffic on Jackson St.	11:28 – 11:43 AM	62.3
3	Western edge of project site, east of Jackson St. (30 feet from centerline)	Traffic on Jackson St.	11:48 AM – 12:03 PM	60.1

[1] Measurement locations are shown in Figure 7.

[2] All measurements were taken on November 19, 2020, using an ANSI Type II sound level meter. Refer to Appendix NOI for noise measurement results.

As shown in Table 9, measured ambient noise levels ranged from approximately 54 dBA L_{eq} at the Apparatus Bay replacement site to 62 dBA L_{eq} along the western edge of the project site. Traffic on Jackson Street, Red Oak Avenue, and Eighth Street was the primary noise source during measurements. These noise levels are representative of existing baseline daytime conditions near the project site. It should be noted that the primary noise source, traffic, may be quieter than usual because of the protracted coronavirus pandemic. Most University Village residents do not normally drive to campus, so the pandemic has not substantially reduced traffic to and from the site. However, the pandemic has affected driving behavior in the greater community. UC Berkeley was teaching courses remotely for the fall 2020 semester, which reduced traffic associated with campus activity. Therefore, typical ambient noise levels may exceed the measured noise levels shown in Table 9. Nonetheless, the noise measurements provide a conservative baseline for comparison to operational noise that future development would generate.

Impact Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

This analysis compares the increase in temporary construction noise and long-term operational noise caused by the project to that analyzed in the 1998 Master Plan and 2004 Subsequent EIR.

Figure 7 Noise Measurement Locations

Imagery provided by Microsoft Bing and its licensors © 2021.

Fig X Noise Measurement Locations

Temporary Construction Noise

The project would involve construction of residences on the Step 3 project site and replacement structures at the CNR and Apparatus Bay sites. As shown in Figure 1, and consistent with buildout under the 2004 Master Plan, construction would primarily occur within the Step 3 area, except at the Apparatus Bay site in the Step 1 area. Construction activity would generate temporary increases in ambient noise at nearby sensitive receptors. Construction equipment used would be typical for demolition, site preparation, grading, and construction of multi-story residential building, paving, and the application of architectural coatings. Consistent with the 1998 Master Plan EIR's analysis, construction would involve the use of standard earthmoving equipment such as backhoes, graders, and pavers. In addition, as assumed in the 1998 Master Plan EIR, equipment could include pneumatically powered tools that generate high noise levels. Therefore, the types of construction equipment that may be used would not generate higher noise levels than anticipated in the 1998 Master Plan EIR. Consistent with the analysis in the 1998 EIR, construction activities would not involve pile drivers. Moreover, since the project would involve residential development in the same location and at a lower density than the Step 3 development in the 2004 Master Plan, and since it would not involve additional components such as an underground garage, the project is not expected to require more or deeper excavation or a substantially different construction schedule than development under the 2004 Master Plan.

Construction activity at the margins of the project site would occur as close as approximately 60 feet from the nearest sensitive receptors, residences on the west side of Jackson Street (in the Step 1 area), and approximately 115 feet from the University Village Community Center to the south of Monroe Street (in the Step 3 area). Most construction activity would occur in the body of the Albany Village Graduate Student Housing site, farther from these sensitive receptors. Construction activity would not occur closer than the 50-foot distance assumed in the 1998 Master Plan EIR, which found that noise levels could reach 90 dBA at this distance. Because the project would not involve construction equipment that is noisier than previously assumed or in locations nearer to sensitive receptors, it would not result in exposure to higher noise levels. Nonetheless, sensitive receptors on and near the University Village site would still be exposed to high noise levels because of their proximity to construction activity. Estimated construction noise would exceed measured daytime ambient noise levels of between 54 and 62 dBA L_{eq} by up to approximately 28 dBA L_{eq}.

1998 EIR Mitigation Measure 4.5-5 would remain applicable to reduce construction noise to the extent feasible. This measure includes restrictions on the timing of construction activities, appropriate muffling of equipment, distancing stationary noise sources from adjacent uses, and avoiding pneumatically powered tools wherever feasible, among other requirements. With implementation of the feasible noise controls in Mitigation Measure 4.5-5, as discussed in the 1998 Master Plan EIR, construction noise would still be as high as approximately 80 dBA $L_{eq.}$ Therefore, pursuant to the 1998 Master Plan EIR and 2004 Subsequent EIR's analysis, construction noise would continue to have a significant and unavoidable impact, and the project would not result in a substantial increase in the severity of that previously identified significant and unavoidable impact.

Long-Term Operational Noise

The proposed residences would generate an estimated 790 daily vehicle trips, which would increase traffic noise in the vicinity of UVA (Appendix TRA). However, the project would introduce 152 fewer dwelling units under maximum buildout than the 2004 Subsequent EIR anticipated from implementation of the Master Plan. Therefore, it would generate fewer vehicle trips and resultant

traffic noise in comparison to baseline conditions. The project's impact on traffic noise would be reduced and would continue to be less than significant.

Although the 1998 Master Plan EIR and 2004 Subsequent EIR did not analyze on-site operational noise, new development would include heating, ventilation, and cooling (HVAC) equipment that generates noise, consistent with the development envisioned in the 2004 Master Plan. New HVAC equipment also would not generate additional noise relative to implementation of the 2004 Master Plan, which already included new residential development on the Albany Village Graduate Student Housing site. Specifications for HVAC systems at the new residential building are not available at this time; however, this analysis assumes the use of typical shielded HVAC units for commercial or multi-family residential sites. An individual HVAC unit for commercial or multi-family residential sites. An individual HVAC unit of this kind produces an estimated 70 dBA L_{eq} at a distance of 7 feet (refer to Appendix NOI for a complete list of assumptions, applicable HVAC manufacturer's noise data, and operational noise calculations). These A standard attenuation rate of 6 dBA per doubling of distance from point sources is assumed from the reference distance to 100 feet. It is assumed that HVAC equipment would be placed within an equipment enclosure, which would also result in a sound transmission loss of at least 9 dBA, with the amount of noise reduction depending on the enclosure material selected and the frequency of noise (CED Engineering 2015). In addition, rooflines that block the line of sight between rooftop equipment on new multi-story buildings and ground-level sensitive receptors would reduce noise levels by at least 5 dBA. Based on the distance to sensitive receptors and shielding by enclosures and rooflines, new HVAC equipment would generate an estimated noise level of 48 dBA L_{eq} at the nearest offsite residences. This noise level would be lower than measured ambient daytime noise levels ranging from approximately 54 to 62 dBA L_{eq} near the project site.

As discussed in the 1998 Master Plan EIR, development on the University Village site is exempt from local City of Albany standards (including the noise ordinance). Section 8-1.4 of the City of Albany Municipal Code sets standards for exterior noise generated on properties, as measured at receiving properties zoned for residential or public facility use (Albany 2020). In the R-2 zone, which includes existing residences in the University Village site, the City prohibits exterior noise from exceeding 55 dBA for more than 30 minutes in any daytime hour and 50 dBA for more than 30 minutes in any nighttime hour (Albany 2009, 2020). Noise levels of up to 48 dBA L_{eq} from shielded, rooftop-mounted HVAC equipment would not exceed the City's daytime and nighttime standards at residences. New HVAC equipment also would not generate additional noise relative to implementation of the 2004 Master Plan, which already included new residential development on the Step 3 site. Accordingly, the proposed project would not result in new significant impacts or substantial increase in the severity of a previously identified significant impact.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Construction activity during the demolition, site preparation, grading, building construction, and paving phases would intermittently generate noticeable levels of vibration. Typical vibration-causing construction equipment includes vibratory rollers, bulldozers, and loaded trucks. As discussed in criterion (*a*), construction of the project would involve similar equipment to that anticipated in the 1998 Master Plan EIR and 2004 Subsequent EIR. Like the proposed project, the 1998 Master Plan EIR anticipated that construction would not involve the use of pile drivers, which generate stronger

vibration than typical equipment. Furthermore, construction equipment would not operate closer than previously assumed to sensitive receptors. Therefore, the project would not result in an increase in vibration levels relative to implementation of the 2004 Master Plan. The impact from vibration would remain less than significant.

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As discussed in the 2004 Subsequent EIR, UVA is outside of an airport land use plan area and not near a public airport or private airstrip. Therefore, as the proposed project would be in the same general location as Step 3 development analyzed in the 2004 Subsequent EIR, the proposed residences in this area would not be exposed to excessive noise levels from aircraft, consistent with the Step 3 buildout analyzed in the prior CEQA documents. Consistent with the 2004 Subsequent EIR's analysis, no impact would occur.

14 Population and Housing

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to population and housing. Specifically, the 2004 Subsequent EIR concluded that the retail space envisioned in the 2004 Master Plan would induce population growth but would not be expected to exacerbate a housing shortage because some housing would be available in the project vicinity. Moreover, the 2004 Subsequent EIR concluded that implementation of the 2004 Master Plan would not displace existing housing; instead implementation of the Master Plan would result in a net increase in housing supply (2004 Subsequent EIR p. 215-217).

Impact Analysis

a. Would the project 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in *Description of Project* above, the project would involve construction of up to 400 dwelling units with up to 825 beds. Therefore, the project would directly generate population growth. However, this development would be within the density limits of the 2004 Master Plan, which envisions construction of up to 727 dwelling units with up to 1,263 beds as part of Step 3. (Including the recently completed senior housing project within the Step 3 area, 552 of the 727 units have not been constructed.) Therefore, new population generated by operation of the project would be within the range expected and analyzed in the 2004 Subsequent EIR. Moreover, the population growth generated by the project is also consistent with growth projections for the City of Albany. The City of Albany General Plan EIR analyzes anticipated housing increases in the City, including housing constructed under the 2004 Master Plan (City of Albany 2015). Since the proposed project would involve construction of fewer residential units than the 727 envisioned in the Master Plan, it would not result in greater impacts related to housing and population growth than those analyzed in the General Plan EIR or the 2004 Subsequent EIR. Moreover, consistent with the development under the 2004 Master Plan, the project would not involve new infrastructure, roads, or other components that could indirectly induce substantial unplanned population growth.

The new structures proposed for the Apparatus Bay and CNR replacement sites would include office, storage, and recreational uses. They would not include new residential units. Moreover, as described in the *Description of Project* section, operation of the structures would not require new or additional employees. Therefore, the construction and operation of these structures would not result in additional impacts related to population growth than those analyzed in the 2004 Subsequent EIR. Consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As with the development envisioned under the 2004 Master Plan, the proposed project would not involve demolition of existing residential structures. The existing structures within the Step 3 area that would be demolished under the 2004 Master Plan are the same structures that would be demolished as part of the proposed project. Those structures are used for storage and recreation; none are residential units or used for residential purposes. Moreover, the project would involve construction of a new residential building with up to 400 dwelling units. Therefore, consistent with the analysis of the 2004 subsequent EIR, the project would not displace existing housing units or people, and no impact would occur.

15 Public Services

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to public services. Specifically, the 2004 Subsequent EIR concluded that although implementation of the 2004 Master Plan would generate population growth, existing public infrastructure, including fire service, police service, City of Albany schools, and recreation areas would adequately serve the development envisioned in the Master Plan (2004 Subsequent EIR p. 137-146).

Impact Analysis

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The Albany Fire Department provides fire service for the City of Albany and for UVA. The Department is also the first responder for medical emergency calls. The Albany Fire Department is located at 1000 San Pablo Avenue, which is approximately 0.1-mile north of the Step 3 residential site.

As described in the 2004 Subsequent EIR, implementation of the Master Plan, including Step 3 would generate population growth, which would in turn increase demand for Albany Fire Department service. The 2004 Subsequent EIR describes that implementation of the Master Plan, including Steps 2 and 3 would result in an increase in approximately 100 to 130 calls per year from UVA. Given communication with the Albany Fire Department, the 2004 Subsequent EIR concludes that the Albany Fire Department has adequate personnel to support the proposed project. Moreover, the Subsequent EIR describes that replacement of the existing buildings with new buildings that would comply current building and fire code requirements, including smoke detectors, fire alarms and sprinkler systems, would reduce potential impacts related to fire service. In addition, plans for the new buildings under the Master Plan would be reviewed by the UC Berkeley Fire Marshall to ensure they meet all required codes related to fire prevention and safety. Therefore, the Subsequent EIR concludes that impacts would be less than significant.

The proposed project would involve construction and operation of a new residential building with up to 400 residential units, which would result in 152 fewer residential units under maximum buildout on the project site than anticipated in Step 3 of the 2004 Master Plan. Therefore, the project would not generate greater population growth or demand for fire department services than analyzed in the 2004 Subsequent EIR. In addition, consistent with the analysis in the 2004 Subsequent EIR, the design and construction of the new buildings would be required to implement basic building design standards and abatement of fire-related hazards and pre-fire management prescriptions as outlined under the California Health and Safety Code and the California Fire Plan. Plans for the new buildings would also be reviewed by the campus Fire Marshall to ensure compliance with these fire prevention and safety requirements.

As described in Section 14, *Population and Housing,* the 2015 City of Albany General Plan EIR provides a more recent analysis of anticipated housing increases in the City, including housing constructed under the 2004 Master Plan (City of Albany 2015). The General Plan EIR concludes that anticipated population increases in the City would not result in the need to construct or alter existing fire department facilities and that impacts related to fire service and that impacts would be less than significant. In other words, the General Plan EIR confirms that based on current conditions, the 2004 Subsequent EIR analysis of impacts related to fire service remains valid and impacts would remain less than significant. Since the proposed project would involve construction of fewer residential units than the 727 envisioned in the Master Plan, it would not result in greater impacts than those analyzed in the General Plan EIR. Therefore, consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant.

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in the 2004 Subsequent EIR, police services for UVA are provided by the UC Berkeley Police Department (UCPD). The UCPD is headquartered on the University campus in the City of Berkeley. In addition, the UCPD has access to an office located at UVA that is associated with the community center. While there are no police officers permanently stationed at UVA, there is a permanent security patrol officer (SPO). The SPO is a security guard hired by the UCPD, is uniformed, and communicates by using a police radio. The City of Albany Police Department and the City of Berkeley Police Department provide backup police service in emergencies. The municipal departments are called if a crime is in progress or if police service is needed immediately. The Albany Police Department generally is called more frequently since police headquarters are located across the street from UVA.

The 2004 Subsequent EIR concludes that the UCPD would have adequate personnel to address the increase in units, residents and commercial space envisioned in the 2004 Master Plan, including the development at the Step 2 and Step 3 areas. Therefore, buildout of the 2004 Master Plan would not result in the need for new or altered police facilities. As described under criterion (*a.1*) above, the proposed project would involve construction of up to 400 residential units, which would result in 152 fewer residential units under maximum buildout on the project site than anticipated in Step 3 of the 2004 Master Plan. Therefore, the proposed project would not result in greater impacts than those analyzed in the 2004 Subsequent EIR. Consistent with the analysis in the 2004 Subsequent EIR, impacts related to police service would be less than significant.

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The Albany Unified School District (AUSD) serves the children of UVA. The AUSD has three elementary schools (Marin, Cornell, and Ocean View), the Albany Middle School, and the Albany High School.

As described under criteria (*a.1*) and (*a.2*) above, the project would involve construction of up to 400 residential units, which would be within the 727 maximum units envisioned for the Step 3 area in the 2004 Master Plan. However, consistent with the Step 3 area development envisioned in the 2004 Master Plan, the proposed project would involve new housing for graduate students without children and family. Therefore, the proposed project would not increase AUSD enrollment beyond the increase analyzed in the 2004 Subsequent EIR, and there would be no impact.

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Please see Section 16, *Recreation*, for an analysis of impacts related to parks and recreation resources. Consistent with the analysis in the 2004 Subsequent EIR, impacts would remain less than significant.

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As under the 2004 Master Plan, the proposed project would involve demolition of existing buildings in the Step 3 area and construction of a new residential building. The new residential building would be in the same general footprint and would be within the same density parameters as the Step 3 residential development in the 2004 Master Plan. The project would also involve construction of two additional structures not included in the 2004 Master Plan, within the CNR and Apparatus Bay replacement sites. While construction of these specific structures was not analyzed in the 2004 Subsequent EIR, the size and type of structure would be consistent with other structures included in the 2004 Master Plan. Therefore, impacts from the proposed project would be consistent with those analyzed in the 2004 Subsequent EIR. As discussed in Section 10, *Hydrology and Water Quality* and Section 19, *Utilities and Service Systems,* the project would not result in new or more severe impacts related to stormwater, water, and wastewater water facilities than those identified in the 2004 Subsequent EIR. No significant impacts to other public services are anticipated. Consistent with the analysis of the 2004 Subsequent EIR, impacts related to public services would be less than significant.

This page intentionally left blank.

16 Recreation

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to recreation. Specifically, the 2004 Subsequent EIR described that although implementation of the 2004 Master Plan would generate population growth, it would also involve construction of new and upgraded recreational spaces within UVA. The 2004 Subsequent EIR concluded that the improved and expanded recreational facilities located at UVA, in addition to recreational facilities provided within the cities of Albany and Berkeley and by the University, would serve the increase in population that is expected with the 2004 Master Plan without the provision of additional new or physically altered facilities (2004 Subsequent EIR p. 137-146).

Impact Analysis

a. *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?*

b. *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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in the 2004 Subsequent EIR, UVA currently includes various on-site recreational amenities, including a community center, baseball, softball, and soccer fields, a basketball court, a gymnasium, a University village community garden, Dowling Park, a children's playground, and various walking trails, interior courtyards and walking paths. Residents of UVA also have access to recreational facilities in the cities of Albany and Berkeley and recreation facilities provided by the University on campus.

The proposed project would involve construction and operation of a new residential building with up to 400 residential units, which would result in 152 fewer residential units under maximum buildout on the project site than anticipated in Step 3 of the 2004 Master Plan. Therefore, the project would not generate greater population growth than the growth analyzed in the 2004 Subsequent EIR. Moreover, since use of recreational facilities depends on population size, the project would not result in additional impacts related to recreation use than those analyzed in the 2004 Subsequent EIR. The residents of the project would be adequately served by existing recreational facilities in UVA, Albany, and Berkeley.

The project would also involve construction of new recreation space, including outdoor recreation space within three courtyards at the western portion of the proposed residential building, and a new 3,000 square foot building at the Apparatus Bay replacement site, which would be used for aerial arts, circus, and gymnastics classes. These facilities would be available to UVA residents. The proposed project would therefore not require the construction or expansion of facilities which may have an adverse physical effect on the environment. Consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant.

This page intentionally left blank.

17 Transportation

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would result in significant impacts related to transportation with implementation of mitigation measures. Specifically, Section IV.A of the 2004 Subsequent EIR analyzed the impacts related to traffic, circulation, and parking and concluded that impacts would be significant and unavoidable. Specifically, the EIR evaluated the project's impacts on traffic based on Level of Service (LOS). LOS is a qualitative description of traffic operations from the vehicle driver perspective and consists of the delay experienced by the driver at the intersection. It ranges from LOS A, with no congestion and little delay, to LOS F, with excessive congestion and delays. The Subsequent EIR concluded that the project would increase traffic by at least 5 percent roadway segments projected to operate at LOS F in 2010 and 2025, including San Pablo Avenue between Gilman Street and Marin Avenue and Gilman Street between San Pablo Avenue and 6th Street. All other impacts related to traffic were found to be less than significant with mitigation incorporated. Of the mitigation measures and continuing best practices identified in the 2004 Subsequent EIR, Mitigation Measure TRANS-3 (preparation of a Construction Traffic Management Plan) and Continuing Best Practice TRANS-4 (measures to encourage use of non-automobile travel modes) would continue to be applicable to the project. (See Chapter 6 for a complete list of Continuing Best Practices mitigation measures applicable into the project.)

The project's impacts related to transportation and traffic are analyzed in the Transportation Findings Memorandum prepared by Fehr & Peers in December 2020, included as Appendix TRA. As described in that report, recent changes to CEQA require analysis of impacts related to Vehicle Miles Traveled (VMT), not LOS. Because an analysis of VMT was only recently added to the CEQA Guidelines, the 1998 Master Plan EIR and 2004 Subsequent EIR do not provide a framework for considering the proposed project's impacts to VMT. However, VMT does not constitute new information requiring a revision to previous CEQA analysis or a subsequent or supplemental EIR, because analysis based on VMT metrics was available prior to the certification of the 2004 Subsequent EIR (for example, VMT is routinely used to calculate impacts related to air quality and greenhouse gas emissions). Moreover, an analysis of VMT impacts of development under the 2004 Master Plan is provided in order to determine if the project would result in new significant impacts or substantial increase in the severity of impacts compared to buildout under the 2004 Master Plan.

The VMT analysis includes both a comparison to existing as well as a comparison to buildout under the 2004 Master Plan. In addition, Fehr & Peers also provided a new calculation of trip generation for the project. While the 2004 Subsequent EIR provided trip generation calculations, the new calculations reflect the data and methodology in the latest version of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. Moreover, since ITE data is generally based on data collected at suburban sites, trip generation calculations also use current US Census data and other available sources to adjust the ITE-based trip generation to account for the specific characteristics of the project residents and project proximity to transit service.

Finally, the Transportation Findings Memorandum provides an evaluation of the proposed conceptual site plan in order to determine if the project would result in new significant impacts or substantial increase in the severity of impacts compared to buildout under the 2004 Master Plan.

Regulatory Setting

Senate Bill 743 and Vehicle Miles Traveled

Senate Bill (SB) 743 was signed into law by Governor Brown in 2013 and tasked the State Office of Planning and Research (OPR) with establishing new criteria for determining the significance of transportation impacts under the California Environmental Quality Act (CEQA). SB 743 requires the new criteria to "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." It also states that alternative measures of transportation impacts may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated."

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changes transportation impact analysis as part of CEQA compliance. SB 743 requires the Governor's OPR to identify new metrics for identifying and mitigating transportation impacts within CEQA. In January 2018, OPR transmitted its proposed CEQA Guidelines implementing SB 743 to the California Natural Resources Agency for adoption, and in January 2019 the Natural Resources Agency finalized updates to the CEQA Guidelines, which incorporated SB 743 modifications, and are now in effect. SB 743 changed the way that public agencies evaluate the transportation impacts of projects under CEQA, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact (Public Resource Code, § 21099 (b)(2)). In addition to new exemptions for projects consistent with specific plans, the CEQA Guidelines replaced congestion-based metrics, such as auto delay and level of service (LOS), with VMT as the basis for determining significant impacts, unless the Guidelines provide specific exceptions.

Impact Analysis

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Roadway Facilities

As shown in Table 10 below, operation of the proposed residential Step 3 project is expected to generate 790 daily vehicle trips, including 31 AM peak hour trips and 60 PM peak hour trips.

Table 10 Step 3 Residential Project Trip Generation

Land Use	Weekday Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
Proposed Student Residential Units[1]	3,420	38	96	134	137	126	263
Non-Auto Reductions (-77%)[2]	-2,630	-29	-74	-103	-105	-97	-203
Total Net Automobile Trips	**790**	**9**	**22**	**31**	**32**	**29**	**60**

[1] ITE Trip Generation Manual (10th Edition) land use category 225 (Off-Campus Student Apartments over ½ miles from Campus

[2] Reduction based on 2019 UC Berkeley Commute Survey for UVA residents compared to national mode share estimates (Table B08006) as compiled in the American Community Survey 2018 five-year estimate.

Source: Appendix TRA

The proposed project would implement a portion of the Step 3 residential development envisioned in the 2004 Master Plan. Since the project would involve construction and operation of fewer residential units than the units included in the Master Plan, Fehr & Peers also calculated the net reduction in vehicle trips under the proposed project, based on the trip generation included in the 2004 Subsequent EIR. As shown in Table 11 below, the project would result in a net reduction of 9 AM peak hour vehicle trips and a net reduction of 20 PM peak hour vehicle trips. Therefore, the project would not result in greater impacts related to vehicle trips and roadway facilities than those anticipated in the 2004 Subsequent EIR. Impacts of the proposed residential project to roadway facilities would be less than significant and reduced compared to impacts of buildout under the 2004 Master Plan.

Table 11 Step 3 Residential Project and Master Plan Trip Generation Comparison

			AM Peak Hour Trips			PM Peak Hour Trips		
Land Use	**Size**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Project Automobile Trips[1]	825 beds	790	9	22	31	32	29	60
Baseline conditions under 2004 Master Plan[2]	1,085 beds	1,040	11	29	40	41	38	80
Net change from 2004 Master Plan		**(250)**	**(2)**	**(7)**	**(9)**	**(9)**	**(9)**	**(20)**

Notes: () = net reduction from baseline emissions under 2004 Master Plan

[1] data from Table 10

[2] Total beds anticipated within the Step 3 area in the 2004 Master Plan minus the number of beds that have already been constructed

Source: Appendix TRA

In addition, the proposed structures at the CNR replacement Apparatus Bay replacement sites would not result in an increase in vehicle traffic that would affect nearby roadway facilities because it would be operated by existing staff. No permanent employees would be posted at the CNR structure and the staff is expected to continue to make two to three visits to the structure per week. The Apparatus Bay structure would be available for use by residents within University Village Albany and members of the public, as the structure is currently used under existing conditions. Therefore, operation of the structures would not generate a substantial increase in vehicle trips to and from UVA. Impacts on roadway facilities would be less than significant. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

Transit, Pedestrian, and Bicycle Facilities

In order to evaluate the project's impacts on transit, pedestrian, and bicycle facilities, Fehr & Peers reviewed the current conceptual site plan and adjacent streets to ensure the safety of motorists, bicyclists, and pedestrians. As described in the Transportation Findings Memorandum, the proposed project would not conflict with adopted policies, plans, or programs regarding these facilities as it would not include alterations to existing bicycle and transit routes or pedestrian paths in the public right-of-way. Moreover, the project would not generate demand for bus service beyond what was contemplated in the 2004 Master Plan and 2004 Subsequent EIR. Because construction and operations would be contained within the boundary of the Albany Village Graduate Student Housing site and the two replacement sites, no changes to the existing transportation policies, plans, or

programs compared to buildout under the 2004 Master Plan would result, either directly or indirectly, from development on the project site. In addition, the proposed project would not involve the obstruction, removal or relocation of, or excessive additional demand for, existing transit or facilities. Impacts would be less than significant (Appendix TRA). Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Moreover, as described in Section 2, *Project Description,* the project results in 152 fewer housing units in the Step 3 area than were analyzed in the 2004 Subsequent EIR. Because the project includes the same land use (residential) on the same site, the project would not result in any new or more severe VMT impacts as compared to buildout of the Step 3 area that was analyzed in the 2004 Subsequent EIR. Notwithstanding the above, the following analysis demonstrates the project's less than significant VMT-related impacts.

As described in the Transportation Findings Memorandum, OPR has developed screening criteria to provide a conservative indication of whether a project could result in potentially significant VMT impacts. If the screening criteria are met by a project, the project can be assumed to cause a less than significant impact on VMT without conducting a detailed study.

The proposed residential project is consistent with the Near Transit Station screening threshold, which applies to projects located within 0.5-mile of an existing major transit stop[5]. The project site is less than 0.1 miles from the bus stops on San Pablo Avenue at Monroe Street, which are served by AC Transit Lines 52 and 72/72M. Both lines operate at service intervals of 15 minutes or shorter[6], so the bus stop qualifies as a major transit stop and the San Pablo Avenue corridor qualifies as a high-quality transit corridor.

In addition, the Near Transit Station screening threshold does not apply to projects with the following components:

- Floor Area Ratio (FAR) of less than 0.75
- Includes substantially more parking for use by residents than required by the jurisdiction or generated by the project
- Is inconsistent with the applicable Sustainable Communities Strategy
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units

As described in the Transportation Findings Memorandum, the proposed residential project would have a 1.7 FAR, provide fewer parking spaces than the average automobile ownership in the project's census tract, and would not replace affordable residential units (Appendix TRA). In

[5] According to the California Public Resources Code, § 21064.3, 'Major transit stop' is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

[6] The reported service intervals are for conditions prior to the COVID-19 pandemic which has resulted in temporary reductions in transit service. The analysis in Appendix TRA assumes that long-term bus service would be similar to conditions prior to the pandemic because, at present, the medium- or long-term effects of the COVID-19 pandemic on transit service are not known and it would be speculative to estimate any potential long-term or permanent changes.

addition, as described in Section 8, *Greenhouse Gas Emissions*, the project would be consistent with Plan Bay Area, the applicable Sustainable Communities Strategy. Therefore, the project would be consistent with the Near Transit Station VMT screening threshold; impacts related to VMT would be less than significant. Accordingly, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Project implementation would occur on an existing private property and would not alter or effect existing streets or intersections. As with development under the 2004 Master Plan, the proposed project would be required to comply with the UC's design standards for vehicular access and circulation and the Fire Code. The project plans would be reviewed by the UC Berkeley Fire Marshall to ensure compliance with these regulations prior to start of demolition and construction activities. Compliance would prevent hazardous design features and would ensure adequate and safe site access and circulation. The proposed project would involve residential, office, storage, and recreational uses on a site designated for such uses; the project would not introduce incompatible uses, including vehicles or equipment, to the site or the surrounding area. Therefore, consistent with analysis in the 2004 Subsequent EIR, there would be no impact.

d. Would the project result in inadequate emergency access?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The project would involve construction of two new driveways: one at the northwest corner of the Albany Village Graduate Student Housing site on Jackson Street, and one at the southeast corner of the site on Monroe Street. As described in the Transportation Findings Memorandum, the project would provide adequate emergency access via these driveways. In addition, the proposed project would be required to comply with all building, fire, and safety codes and specific development plans would be subject to review and approval by UC Berkeley Fire Marshall, which would ensure the circulation system for the project site would provide adequate emergency access. The proposed project would not require permanent closures to roadways or changes to existing roadway configurations.

As described in the 2004 Subsequent EIR, temporary closures to roadways during construction activities would be subject to Mitigation Measure TRANS-3, which requires that the prime contractor to prepare a Construction Traffic Management Plan prior to start of construction activities. The Construction Management Plan would include proposed truck routes, construction hours, construction worker parking plan, and construction equipment staging areas, demonstrating minimal conflicts with traffic, pedestrian and bicycle circulation patterns. Compliance with the measure would ensure that adequate emergency access would be maintained during construction activities. Consistent with the analysis in the 2004 Subsequent EIR, impacts would be less than significant.

This page intentionally left blank.

18 Tribal Cultural Resources

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR do not discuss compliance with Assembly Bill 52 (AB 52), which was signed into law in 2014, expanded CEQA by defining a new resource category, "tribal cultural resources," and requires lead agencies to complete consultation with California Native American Tribes regarding proposed projects, because it was approved after approval of the 2004 Master Plan. However, as described in Section 7, *Geology and Soils,* the 2004 Subsequent EIR incorporated by reference LRDP Mitigation Measure 4.3-1 and Master Plan Environmental Policy 7-6 that would require the cessation of construction activity in the vicinity of the discovery and retainment of a qualified archaeologist if cultural or paleontological resources are found during construction activities.

Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is 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?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Pursuant to AB 52, UC Berkeley sent written correspondence via emails to tribal representatives for the Ohlone Indian Tribe, the North Valley Yokuts Tribe, and the Karuk Tribe regarding the proposed project. The proposed project is planned for a project approval due in July 2021 and UC will continue to engage in the consultation process.

Since the University of California has not received a response from the contacted tribes, no tribal cultural resources were identified. However, there is the possibility of encountering undisturbed subsurface tribal cultural resources. The proposed grading of the project site could potentially result in adverse effects on unanticipated tribal cultural resources. However, impacts from the unanticipated discovery of tribal cultural resources during construction would be less than significant with Continuing Best Practice TCR-1.

The 1998 Master Plan EIR describes Master Plan Environmental Policy 7-16, which states: "If evidence of cultural artifacts is found during construction, cease construction and earthmoving activity in the area and retain a qualified archaeologist to evaluate the find and perform data artifact recovery if deemed appropriate." The 1998 Master Plan EIR incorporated by reference Mitigation Measure 4.3-1 from the 1990 LRDP EIR as a standard impact reduction measure across the campus facilities to minimize potential impacts to cultural and tribal cultural resources:

> 4.3-1: If subsurface prehistoric archaeological resource evidence is found, excavation or other construction activity in the area would cease and an archaeological consultant would be

retained to evaluate the findings in accordance with standard practice and applicable regulations. Data/artifact recovery, if deemed appropriate, would be conducted during the period when construction activities are on hold.

The 2004 Subsequent EIR similarly concluded that the project would have no significant impacts on tribal cultural resources and referenced the measure above from the 1998 Master Plan EIR. Measure 4.3-1 would continue to apply to the project. There is no new information regarding tribal cultural resources that would result in the proposed project having a significant effect that was not discussed in the 1998 Master Plan EIR or 2004 Subsequent EIR, nor do any of the modifications associated with the proposed project result in any new significant impacts or a substantial increase in the severity of previously identified significant impacts related to tribal cultural resources. However, to avoid potential impacts to unknown tribal cultural resources that could occur onsite, the project would implement the following Continuing Best Practice:

Continuing Best Practice TCR-1 Unanticipated Discovery of Tribal Cultural Resources: In the event that cultural resources of Native American origin are identified during construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find and an appropriate Native American representative, based on the nature of the find, is consulted. If the UC determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the archeologist and the appropriate Native American tribal representative.

Given continued implementation of the above Continuing Best Practice, the proposed project would not result in any new significant impacts or substantial increase in the severity of a previously identified significant impact related to tribal cultural resources.

19 Utilities and Service Systems

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to hydrology and water quality. Specifically, Section IV.H of the 2004 Subsequent EIR concluded that implementation of the 2004 Master Plan would be required include construction of a domestic water system and to replace existing sewer infrastructure on the site to decrease groundwater infiltration into sewer pipes. Construction of a new domestic water system would provide adequate domestic and fire flow pressure for the project. With the replacement of the sewer pipes, the development under the Master Plan would be adequately served by the sewer system. In addition, the 2004 Subsequent EIR concluded that the project would be required to comply with water conservation measures set forth by EBMUD and the City of Albany, which would reduce water demand of the development. Studies and estimates of the increased water demand of the Master Plan concluded that EBMUD would be able to serve the project's increased water demand. Solid waste generated by the site would be transferred from the West Contra Costa Sanitary Landfill to the Potrero Hills Landfill, which have enough capacity to include the solid waste generated by the site. In addition, construction and demolition debris generated during construction of the project site would be required to be diverted prior to being shipped to the West Contra Costa Sanitary Landfill, then to the Potrero Hills Landfill. Recyclables collected from the project site would be taken to a sorting station in the City of San Leandro.

Impact Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Water, Wastewater, Stormwater

As discussed in the 2004 Subsequent EIR, the project would be required to include replacement of the existing sewer and stormwater infrastructure within the Step 3 area. The 2004 Subsequent EIR concludes that the replacement of the sewer pipes in the area would decrease rates of groundwater infiltration into the system, which would in turn result in adequate capacity to accommodate additional wastewater generated by the project. Since the proposed residential project would include fewer residential units than the number envisioned in the 2004 Master Plan, impacts related to wastewater generation would not be greater than those analyzed in the 2004 Subsequent EIR.

The project would be required to include construction of a domestic water system, which would provide adequate water pressure to each residential unit and replacement structure and to fire suppression systems, to serve the Step 3 project. The construction of a domestic water system would provide adequate domestic and fire flow pressure to the project. Construction of the water system and replacement of the pipes would occur simultaneously with project construction and would not result in significant environmental impacts.

In addition, as discussed in Section 10, *Hydrology and Water Quality,* the proposed project would be required to comply with all applicable stormwater management requirements, including SWRCB's NPDES Construction General Permit and NPDES General Permit, and UC Continuing Best Practices related to water retention measures. Therefore, the proposed project would not result in the need for new off-site storm water drainage facilities. Site runoff would be directed to the existing municipal storm drainage system, which was designed to accommodate flows resulting from buildout in the project area. Consistent with the analysis of the 2004 Subsequent EIR, impacts related to water, wastewater, and stormwater would be less than significant.

Electricity, Natural Gas, and Telecommunications

Electricity and natural gas would be provided to the project by PG&E. Telecommunications services would be provided by AT&T, SBC Telecom, or other providers, at the discretion of future tenants. Telecommunications are generally available within and near UVA, and facility upgrades would not likely be necessary.

As described in Section 6, *Energy*, the implementation of the 2004 Master Plan is expected to result in a net decrease in operational energy demand from electricity use, vehicle use, and natural gas. In addition, the project would incorporate several design features and attributes promoting energy efficiency and sustainability, including compliance with UC Berkeley's minimum sustainability standards including LEED Gold buildings and a minimum of 15 percent of electrical power being generated as on-site renewable energy. As discussed in the 2004 Subsequent EIR, the project would include the undergrounding of power lines on the site which would occur simultaneously with project construction. Therefore, consistent with the 2004 Subsequent EIR, the project would not result in significant environmental impacts due to the construction of new utility facilities and impacts would remain less than significant.

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

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As with development under the 2004 Master Plan, the project would be served by the EBMUD water supply and distribution system. The 2004 Subsequent EIR estimated water demand generated by implementation of the Master Plan would be approximately 285,000 gallons per day (gpd), which would result in an increase of 45,000 gpd required from EBMUD. The proposed project would involve construction and operation of a new residential building with up to 400 residential units within the Albany Village Graduate Student Housing site, which would result in 152 fewer residential units under maximum buildout on the project site than anticipated in Step 3 of the 2004 Master Plan. Therefore, the proposed Step 3 residential project would not generate greater water demand than that analyzed in the 2004 Subsequent EIR.

EBMUD's Urban Water Management Program 2015 (UWMP), which provides a more current assessment of water supply, estimated the average daily water demand in its service area to be 170 million gallons per day (gpd). According to reference material provided by EBMUD the average water demand of dwelling units such as the units proposed under the project is 65 gpd per resident (Metcalf & Eddy, Inc. 1991). Assuming 825 new residents (one per bed), the proposed project would generate 53,625 gpd, or approximately 0.03 percent of the current water demand. Therefore, EBMUD has adequate capacity to serve the proposed project.

Operation of the two new structures proposed at the CNR and Apparatus Bay replacement sites would generate water demand beyond what was analyzed in the 2004 Subsequent EIR. However, these structures would be relatively small, and, as described in Section 14*, Population and Housing*, would not generate population growth or require new employees. Therefore, operation of the structures would not cause a substantial increase in water demand within UVA or a substantial increase beyond the increase analyzed in the 2004 Subsequent EIR.

In addition, according to the 2004 Subsequent EIR, the City of Albany is within the service area boundary of EBMUD's East Bayshore Recycled Water Project and as such, the project's increase in water demand would be reduced by the use of recycled water for irrigation and landscaping. To further reduce water demand, the University has implemented sustainability goals that include water reduction measures to attain a campus wide goal to reduce potable water use to ten percent below 2008 levels by 2020 (UC Berkeley 2020b). The system-wide goal for the University is to reduce potable water consumption caused by growth by 36 percent by 2025. The proposed project would be required to conserve water consistent with these goals, including implementation such as low-flow plumbing and weather sensitive irrigation systems. Compliance with these required measures would reduce demand on EBMUD's water supply. Therefore, consistent with the 2004 Subsequent EIR, impacts associated with water supply would be less than significant.

c. Would the project 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in the 2004 Subsequent EIR, EBMUD and the City of Albany would provide wastewater collection and treatment service to the project site through sewer lines maintained by the University of California that serve UVA. Wastewater exits the UVA area through an existing discharge on the west side of UVA under the railroad tracks and an existing connection on the east side of the property connecting to a sanitary sewer system along San Pablo Avenue. According to the 2004 Subsequent EIR, implementation of Step 3 would result in a generation of approximately 119,000 gpd. Additional calculations based on default wastewater generation rates for apartments with three bedrooms from the Los Angeles CEQA Thresholds Guide were used to calculate Step 3 wastewater generation rates (City of Los Angeles 2006). Based on these calculations, the Step 3 project would result in a generation of approximately 80,000 gpd, within the estimated generation within the 2004 Subsequent EIR. Wastewater from the project site would enter the Albany's wastewater collection system which is then conveyed to EBMUD's Main Wastewater Treatment Plant (WWTP). The WWTP provides primary treatment for up to 320 million gallons per day (MGD) and secondary treatment for up to 168 MGD, and storage basins provide plant capacity for a short-term hydraulic peak of 415 MGD. On average, about 63 million gallons of wastewater is treated every day at the WWTP (EBMUD 2010). The increase in wastewater generation associated with the residential project would be approximately 0.1 percent of the 63 million gallons currently treated each day by EBMUD's WWTP. Therefore, EBMUD would have adequate capacity to service the project.

As described under criterion (*b*) above, operation of the new structures at the CNR and Apparatus Bay replacement sites are not expected to generate population growth or new workers and would therefore not result in a substantial increase in wastewater generation within UVA.

As described under criterion (*a*) above, consistent with the development envisioned in the 2004 Master Plan, the project would be required to replace existing sewer infrastructure on the project site to reduce groundwater infiltration and accommodate additional wastewater generated by the project. In addition, consistent with the sustainability goals of the University, the project would be designed to minimize wastewater production. Therefore, consistent with the 2004 Subsequent EIR, the EBMUD treatment system and the City of Albany conveyance system would have sufficient capacity from upgrades to accommodate wastewater from the project, and impacts would be less than significant.

d. Would the project 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?

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The proposed project would generate solid waste during construction and operation. As with buildout under the 2004 Master Plan, the project would involve demolition of the existing buildings within the Step 3 area and construction of a new residential building in their place. Since the new residential building would include fewer dwelling units than envisioned in the 2004 Master Plan, impacts related to demolition and construction would be reduced compared to those identified in the 2004 Subsequent EIR. The project would also involve construction of two new structures within the UC and Apparatus Bay replacement sites, which was not analyzed in the Subsequent EIR. However, given the size of the new structures, construction debris are not expected to be substantially greater than under buildout of the 2004 Master Plan. Moreover, compliance with diversion requirements of the University would reduce solid waste from construction and demolition debris. UC Berkeley diverts the majority of its construction and demolition waste away from landfills and has a robust electronics recycling and hazardous waste disposal program (UC Berkeley 2020a).

Solid waste generated during project operation would be collected by the Cal Zero Waste and taken to the transfer station at the West Contra Costa Sanitary Landfill and then shipped to the Potrero Hills Landfill. As described under criterion (*b*) above, the proposed 400 new housing units under the project would result in 152 fewer residential units under maximum buildout on the project site than anticipated in Step 3 of the 2004 Master Plan. Therefore, the residential project would not generate greater solid waste than that analyzed in the 2004 Subsequent EIR. Moreover, the two new structures proposed at the CNR and Apparatus Bay replacement sites would be relatively small and not generate population growth and would therefore not generate a substantial increase in solid waste beyond the increase analyzed in the 2004 Subsequent EIR.

The Potrero Hills Landfill is expected to operate through 2048 and has a remaining capacity of 13,872,000 cubic yards of solid waste. According to California Emissions Estimator Model (CalEEMod) default values, the project would generate approximately 0.50 tons of solid waste per day (approximately 0.7 cubic yards) or 184 tons of solid waste per year (approximately 258 cubic yards) (CAPCOA 2017b). Project generated waste would be approximately 0.01 percent of Potrero Hills Landfill's daily allowable waste limit of 4,330 tons per day (CalRecycle 2019a). Actual net waste generation could be lower as the University currently diverts approximately 54 percent of all waste from landfills. In addition, the university has a waste diversion goal of 90 percent. The project would

be required to comply with State, City, and University plans and policies to reduce solid waste generation, including compost and recycling programs already implemented at other portions of UVA. Consistent with the analysis in the 2004 Subsequent EIR, the project's incremental increase in solid waste would not adversely affect solid waste facilities, and impacts would be less than significant.

This page intentionally left blank.

20 Wildfire

1998 Master Plan EIR and 2004 Subsequent EIR Framework

The 1998 Master Plan EIR and 2004 Subsequent EIR concluded that the implementation of the Master Plan would not result in significant impacts related to wildfire. Specifically, the 2004 Subsequent EIR concluded:

> The Albany Fire Department has adequate personnel to support the proposed project, and would be the first responders to all calls from University Village…Should the Albany Fire Department require assistance from the Berkeley Fire Department, Berkeley Fire Station 6, located at 999 Cedar Street, would be the first station to respond. The response time, measured as the time it takes for the first personnel to arrive on the scene, would be approximately four minutes. If a ladder truck is required, a truck from Berkeley Fire Station 2 would be dispatched. Fire Station 2 is located at 2029 Berkeley Way. All proposed buildings would be built to include smoke detectors, fire alarms and sprinkler systems. Modern building and fire codes have improved fire and life safety greatly. The UC Berkeley Fire Marshall and the State Fire Marshal would check to see that all buildings comply with the National Fire Protection Association Codes and Standards (NFPA) (2004 Subsequent EIR p. 143-144).

Impact Analysis

a. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

b. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, 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?*

c. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?*

d. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

No new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

As described in the 2004 Subsequent EIR, UVA is in an urbanized area that is not at high risk of wildfire. Specifically, the project sites are not located in or near a state responsibility area or very high fire hazard severity zone for wildland fires (CalFire 2007, 2008). The closest very high hazard severity zone is approximately two miles east of the project site, and intervening areas are developed with urban uses. Therefore, consistent with the analysis in the 2004 Subsequent EIR, there would be no impact.

This page intentionally left blank.

21 Mandatory Findings of Significance

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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

The project does not pose new concerns about the quality of the environment not analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR. Potential impacts of the proposed project upon fish, wildlife, plant or animal communities, or special status species, are descried in Section 4, *Biological Resources.* 2004 Subsequent EIR Mitigation Measures BIO-4 and BIO-5 would reduce impacts related to nesting birds, monarch butterflies, and special status bat species. No significant and unavoidable impacts on biological resources would result from implementation of the 2004 Master Plan or the proposed project. As described in Section 5, *Cultural Resources,* implementation of the 2004 Master Plan would result in significant unavoidable impacts related to historic resources, even with the incorporation of mitigation measure. However, the original findings in the 2004 Subsequent EIR remain consistent with the proposed project, the Master Plan EIR analysis is sufficient, and no new or worse impacts related to Cultural Resources would result from the proposed project. Finally, as described in Section 18, *Tribal Cultural Resources*, Continuing Best Practice TCR-1 would reduce potential impacts of disturbing tribal cultural resources. Based on the ability of the identified mitigation measures to reduce potential impacts to less than significant levels, the proposed project's impacts would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects in the 2004 Subsequent EIR.

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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Implementation of the project would result in less than significant environmental impacts with implementation of mitigation measures. Cumulative impacts associated with some of the resource areas are addressed in the individual resource sections above, including air quality, greenhouse gas emissions, noise and traffic. Impacts would be less than significant or less than significant with mitigation incorporated for all topics, consistent with the analysis in the 2004 Subsequent EIR. Other impacts associated with the project would generally be localized at the project site and would not combine with other projects to cause cumulatively considerable environmental impacts. Moreover, as described in the discussion of environmental checklist Sections 1 through 20, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact.

c. 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 new significant or more severe impact than analyzed in the 1998 Master Plan EIR and 2004 Subsequent EIR.

Effects to human beings are generally associated with air quality, noise, traffic safety, geology/soils and hazards/hazardous materials. As discussed in this Addendum, implementation of the proposed project would result in less than significant or less than significant with mitigation incorporated impacts related to these issue areas, consistent with the analysis in the 2004 Subsequent EIR. The proposed project would therefore not cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant with mitigation incorporated.

5 Conclusion

As demonstrated in the discussions above regarding the potential effects of the proposed project, substantial changes are not proposed to the 2004 University Village Master Plan nor have substantial changes in circumstances occurred that would require major revisions to the certified 1998 Final EIR and 2004 Subsequent EIR prepared for the 2004 Master Plan. Significant impacts beyond those identified and analyzed in the certified Subsequent EIR would not occur as a result of the proposed project. Overall, the proposed project would result in no new information of substantial importance that would have new significant impacts, more severe impacts, or new or revised alternatives from what was identified for the 2004 Master Plan in the certified 2004 Subsequent EIR. As such, the proposed project would not result in conditions identified in *State CEQA Guidelines* Section 15162, and supplemental environmental review or a Subsequent EIR is not required for the proposed project. Again, it should be noted that the proposed project would be subject to all previously required mitigation measures and Continuing Best Practices from the certified 2004 Subsequent EIR for the 2004 Master Plan, as applicable. The MMRP adopted for the 2004 Master Plan would continue to be applicable to the proposed project. Based on the above analysis, this Addendum to the previously certified 1998 Final EIR and 2004 Subsequent EIR for the University Village Master Plan has been prepared in accordance with Section 15164 of the *State CEQA Guidelines*.

This page intentionally left blank.

6 2004 Subsequent EIR Mitigation Measures and Continuing Best Practices Applicable to the Proposed Project

6.1 Aesthetics

Continuing Best Practice AES-1: Lighting for new development projects would be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces and minimize atmospheric light pollution. The only exception to this principle would be in those areas where such features would be incompatible with the visual and/or historic character of the area.

Continuing Best Practice AES-2: As part of the design review procedures described in the above Continuing Best Practices, light and glare would be given specific consideration, and measures incorporated into the project design to minimize both. In general, exterior surfaces would not be reflective: architectural screens and shading devices are preferable to reflective glass.

6.2 Air Quality

2004 Subsequent EIR Mitigation Measure AIR-1: Implementation of the following mitigation measures would reduce this impact to a less-than-significant level.

a) The following BAAQMD Feasible Control Measures shall be implemented during construction of the proposed project due to the large size of the construction site and project's location near sensitive receptors:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.

- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- To the extent that equipment is available and cost effective, encourage contractors to use alternative fuels and retrofit existing engines in construction equipment.
- To the extent practicable, manage operations of heavy-duty equipment to reduce emissions.

b) Any temporary haul roads to the soil stockpile area shall be routed away from existing sensitive receptors to the extent feasible. Any temporary haul roads shall be surface with gravel and regularly watered to control dust or treated with an appropriate dust suppressant.

c) Water sprays shall be utilized to control dust when material is being added or removed from the stockpile. When the stockpile is undisturbed for more than one week, the storage pile shall be treated with a dust suppressant or crusting agent to eliminate windblown dust generation.

d) All neighboring properties located within 500 feet of property lines of a construction site shall be provided with the name and phone number of a designated construction dust control coordinator who will respond to complaints within 24 hours by suspending dust producing activities or providing additional personnel or equipment for dust control as deemed necessary. The phone number of the BAAQMD pollution complaints contact shall also be provided. The dust control coordinator shall be on-call during construction hours. The coordinator shall keep a log of complaints received and remedial actions taken in response.

e) If the existing structures on the project site are found to contain asbestos, the BAAQMD's Regulation 11, Rule 2 will be adhered to during demolition.

6.3 Biological Resources

Continuing Best Practice BIO-1b: Best management practices (BMPs) shall be implemented during all construction activities that take place in the stream or along its banks to prevent erosion and sedimentation into the stream and to prevent the spill of contaminants in or around the stream. These BMPs shall be described in a Stormwater Pollution Prevention Plan (SWPPP), that shall be prepared in compliance with Regional Water Quality Control Board requirements. The construction BMPs shall also be submitted to the NMFS for their review under the Section 7 consultation process.

Continuing Best Practice BIO-1c: Post-construction BMPs shall be prepared for the project prior to initiating construction. The BMPs shall address long-term operation and management of the project to avoid water quality degradation and other potential adverse impacts to Codornices Creek. In particular, structural and management BMPs shall be implemented to ensure adequate treatment of storm water and irrigation runoff to a level needed to maintain habitat for steelhead in compliance with stream "beneficial uses" under the RWQCB Region 2 Basin Plan (RWQCB 1995). The long-term BMPs shall also be submitted to the NMFS for their review under the Section 7 consultation process. The post-construction BMPs shall be incorporated into the University Village section of the campus Stormwater Management Plan.

Continuing Best Practice BIO-2 Roosting Bat Surveys and Avoidance Measures. Avoid remote potential for direct mortality of special-status bats and destruction of maternal roosts. A preconstruction roosting survey for special-status bat species, covering the project construction site and any affected buildings, shall be conducted during the months of March through August prior to commencement of any project that may impact suitable maternal roosting habitat on the Campus Park, the Hill Campus East, and other UC Berkeley properties with suitable roosting habitat. The survey shall be conducted by a qualified biologist no more than 30 days prior to initiation of

disturbance to potential roosting habitat. In the Hill Campus East, surveys shall be conducted for new construction projects prior to grading, vegetation removal, and remodel or demolition of buildings with isolated attics and other suitable roosting habitat. In the Campus Park and other urbanized UC Berkeley properties, surveys shall be conducted for construction projects prior to remodel or demolition of buildings with isolated attics. If any maternal roosts are detected during the months of March through August, construction activities shall either stop or continue only after the roost is protected by an adequate setback approved by a qualified biologist. To the full feasible extent, the maternal roost location shall be preserved, and alteration shall only be allowed if a qualified biologist verifies that bats have completed rearing young, that the juveniles are foraging independently and capable of survival, and bats have been subsequently passively excluded from the roost location.

2004 Subsequent EIR Mitigation Measure BIO-2 (updated): In order to avoid impacts to raptors and other migratory nesting birds, pre-construction surveys shall be conducted by a qualified biologist during the months of ~~March~~ February through ~~July~~ August, no more than 30 thirty days prior to the start of grading or vegetation removal. Pre-construction surveys are not required if construction activities are restricted to the non-nesting season (~~August~~ September through ~~February~~ January). At a minimum, the surveys shall encompass all areas within 100 feet of the grading or vegetation removal work. If active nests are found on the project site, a qualified biologist shall establish an adequate buffer zone around the nests within which construction is prohibited until the biologist has determined that the young birds have fledged.

2004 Subsequent EIR Mitigation Measure BIO-4: Prior to the initiation of any construction work that will affect eucalyptus, pine, and cypress groves on the project site during the period between September and March, pre-construction surveys by a qualified biologist shall be conducted in the tree groves. If Monarch butterflies are found to be utilizing any of the trees as a winter colony site, construction in the vicinity of those trees shall be avoided and the removal of trees around the colony shall be avoided or postponed until after the butterflies have left for the breeding season. The width of the protected buffer zones around the winter colony trees shall be determined on a case-by-case basis by the biologist, based on guidelines for maintaining suitable microclimatic conditions in the tree canopy, as per *Conservation and Management Guidelines for Preserving the Monarch Butterfly Migration and Overwintering Habitat in California* (The Monarch Project, January 1993).

6.4 Cultural Resources

Continuing Best Practice CUL-1: If subsurface prehistoric archaeological resource evidence is found, excavation or other construction activity in the area would cease and an archaeological consultant would be retained to evaluate the findings in accordance with standard practice and applicable regulations. Data/artifact recovery, if deemed appropriate, would be conducted during the period when construction activities are on hold.

2004 Subsequent EIR Mitigation Measure HIST-1a: Prior to Regents approval of design for a Step 3 project, and prior to demolition of the Equipment Station, the buildings shall be documented to the Secretary of the Interior's Historic American Building Survey/Historic American Engineering Record (HABS/HAER) standards. Photographic views shall document in detail the exterior features, and should include landscape context views that show the buildings within their neighborhood setting. The final products of the documentation shall be deposited with the University of California College of Natural Resources; the Northwest Information Center of the California Historic Resources

Information System, Sonoma State University, Rohnert Park; and the School of Environmental Design, University of California, Berkeley.

2004 Subsequent EIR Mitigation Measure HIST-1b: A report shall be prepared which describes the history of the Experiment Station, describes the correlation between the research activities at the site, and the importance of the research conducted at the site to the broad patterns of California history, and which depicts its features. The report shall be deposited with the same institutions as required for HIST-1a.

6.5 Geology and Soils

Continuing Best Practice GEO-1 Unanticipated Discovery of Paleontological Resources: In the event an unanticipated fossil discovery is made during the course of project development, construction activity shall be halted in the immediate vicinity of the fossil, and a qualified professional paleontologist should be notified and retained to evaluate the discovery, determine its significance, and determine if additional mitigation or treatment is warranted. Work in the area of the discovery will resume once the find is properly documented and authorization is given to resume construction work. Any significant paleontological resources found during construction monitoring will be prepared, identified, analyzed, and permanently curated in an approved regional museum repository under the oversight of the qualified paleontologist.

6.6 Hazards and Hazardous Materials

Continuing Best Practice HAZ-1: Prior to demolition or other construction-related activities in the vicinity of the former leaking underground storage tank (LUST), the University's Office of Environment, Health, and Safety (EH&S) would be contacted to assist in characterizing the potential residual contaminants in the soil. A site safety plan would be developed outlining the proper procedures for proceeding with construction in this area, including plans for the removal of additional contaminated soils, if present.

Continuing Best Practice HAZ-2: Prior to demolition of the structures on-site, sampling for asbestos-containing materials (ACMs) and lead-based paints (LBPs) would be conducted to determine the presence or absence of these materials and identify the appropriate procedures for abating these hazards during demolition.

Continuing Best Practice HAZ-3: Prior to demolition of the laboratory buildings and poison storage area, the University's EH&S Office would evaluate and decommission the buildings consistent with the Office's standard procedures to ensure that radioactive or other hazardous materials are properly disposed of, if present.

Continuing Best Practices HAZ-4: Prior to construction, the University's EH&S Office would characterize and properly dispose of the contents any other miscellaneous supplies or obsolete equipment, such as used florescent light bulbs.

Continuing Best Practice HAZ-5: Subsequent to the completion of groundwater and soil testing, a Phase II report would be prepared documenting the results of the testing. If the report identifies any contamination requiring clean up or removal, the University would clean up contamination in accordance with applicable health and safety regulations, consistent with the University's standard practice. The Phase II report would address the following issues to clarify whether any further mitigation is required.

- Results of downgradient soil and groundwater sampling for total petroleum hydrocarbons as gasoline (TPHg), and benzene, toluene, ethylbenzene, and xylenes (BTEX) and TPHg and methyl tertiary butyl ether (MTBE) in the areas that may be affected by groundwater plume migration onto the site from off-site LUSTs. This should include areas in the northeastern portion of the subject property.
- Results of file review of the Nickson Auto Repair (1111 San Pablo) LUST to determine if soil boring is warranted; and the results of soil borings, if determined necessary.

Continuing Best Practice HAZ-6: The Phase II report required under Continuing Best Practice HAZ-5 would document the results of surface soil sampling in the agricultural fields for organochlorine pesticides and metals. The report would identify whether additional testing or removal action is required to reduce hazards to a less-than-significant level.

6.7 Hydrology and Water Quality

Continuing Best Practice HYD-1: Bioswales, permeable surfaces, and other water retention and detention features capturing and treating an 85th percentile storm would be installed within the Step 3 area, and similar features are planned, but not yet designed, for the Step 2 area. These design features will further reduce the project's less than significant runoff contribution.

Continuing Best Practice HYD-2: Step 2 and Step 3 would include BMPs to provide increased stormwater detention on-site that will help to offset the loss in on-site detention created by the proposed fill. With the implementation of these BMPs, the project would not significantly impede or redirect flood flows, and therefore this impact would be considered less than significant.

6.8 Noise

1998 Master Plan EIR Mitigation Measure 4.5-5: Construction activities during demolition, grading, utility installation, and building framing would generate high noise levels, some of which would be as high as 90 dBA. Given the proximity of sensitive receptors to construction activities and the limited attenuation afforded by the existing structures, residents and the community facilities in University Village would be exposed to a substantial, temporary increase in ambient noise levels.

6.9 Transportation

Mitigation Measure TRANS-3: Prior to construction the University shall require the prime contractor to prepare a Construction Traffic Management Plan which shall include the following elements:

- Proposed truck routes to be used, consistent with the City truck route map.
- Construction hours, including limits on the number of truck trips during the AM and PM peak traffic periods (7:00 a.m. – 9:00 a.m. and 4:00 p.m. – 6:00 p.m.).
- If the dirt haul trucks use the Gilman ramps during the peak commute periods to access the project site, traffic control officers shall be engaged and posted at the intersection.
- Proposed employee parking plan (number of spaces and planned locations).
- Proposed construction equipment and materials staging areas, demonstrating minimal conflicts with traffic, pedestrian and bicycle circulation patterns.

- Expected traffic detours, lane closures, planned duration, and traffic control plans.

The Plan shall be prepared in consultation with University staff and the cities of Albany and Berkeley and Caltrans.

Continuing Best Practice TRANS-4: The University offers a comprehensive array of services designed to reduce single-occupant automobile use by students, faculty, staff and visitors. The University shall continue to encourage University Village residents to use alternative transportation modes to replace vehicle trips. The following services and incentives are provided through the Parking and Transportation Office:

- The "Class Pass" allows registered University students to ride AC Transit (including the Transbay lines to San Francisco) and BEAR Transit campus shuttle buses (except the Richmond Field Station shuttle line) all semester.
- Website with links to BART, AC Transit and other transit service websites.
- "New Directions" alternative commute program for faculty and staff, offering benefits such as carpool and vanpool programs, transit subsidy programs, and pre-tax transit programs.
- Parking pricing to encourage short-term parking and discourage all-day commuter parking.

6.10 Tribal Cultural Resources

Continuing Best Practice TCR-1 Unanticipated Discovery of Tribal Cultural Resources: In the event that cultural resources of Native American origin are identified during construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find and an appropriate Native American representative, based on the nature of the find, is consulted. If the UC determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the archeologist and the appropriate Native American tribal representative.

7 References

7.1 Bibliography

Alameda, County of. 2012. Oakland International Airport: Airport Land Use Compatibility Plan. Available at: https://www.acgov.org/cda/planning/generalplans/airportlandplans.htm (accessed September 2020).

Albany, City of. 2009. Official Zoning Map. Adopted March 3, 2009. Available online: https://www.albanyca.org/home/showdocument?id=2889 (accessed September 2020).

_____. 2015. City of Albany Draft 2035 General Plan Environmental Impact Report. November 2015. Available online: http://albany2035.org/wp-content/uploads/2015/11/Albany-GP-DEIR-Public-Document.pdf (accessed November 2020).

_____. 2016. Albany 2035 General Plan. Adopted April 18, 2016. Available online: https://www.albanyca.org/departments/planning-zoning/albany-2035-general-plan (accessed September 2020).

_____. 2018. Local Hazard Mitigation Plan. Adopted 2018. https://www.albanyca.org/home/showdocument?id=38867 (accessed November 2020).

_____. 2020. City of Albany Municipal Code. Last updated December 2020. https://www.ecode360.com/AL4074 (accessed March 2021).

Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en (accessed December 2020).

Bay Area Water Supply and Conservation Agency. 2019. Hetch Hetchy System. http://bawsca.org/water/supply/hetchhetchy (accessed December 2020).

CalGreen Energy Systems. 2019. *A Comprehensive List of All Changes to the 2019 California CalGreen Code*. https://calgreenenergyservices.com/wp/wp-content/uploads/2019-CalGreen-Code-Changes.pdf (accessed December 2020).

California Air Pollution Control Officers Association (CAPCOA). 2017a. CalEEMod User's Guide version 2016.3.2. November 2017. http://www.aqmd.gov/docs/default-source/caleemod/user's-guide---october-2017.pdf?sfvrsn=6 (accessed December 2020).

_____. 2017b. Appendix D: Default Data Tables. http://www.caleemod.com/ (accessed November 2020).

California Air Resources Board (CARB). 2017. *California's 2017 Climate Change Scoping Plan*. December. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed December 2020).

_____. 2018. EMFAC2017 Volume III – Technical Documentation v.1.0.2. July 20, 2018. https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf (accessed November 2019).

_____. 2019. EMFAC2017 Web Database. https://www.arb.ca.gov/emfac/2017/ (accessed November 2019).

California Department of Conservation [DOC]. 2019. EQ Zapp: California Earthquake Hazards Zone Application. https://www.conservation.ca.gov/cgs/geohazards/eq-zapp (accessed November 2020).

California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database, Rarefind 5. https://wildlife.ca.gov/data/cnddb/maps-and-data (Accessed September 2020).

California Department of Forestry and Fire (CalFire). 2007. Fire and Resource Assessment Project. Fire Hazard Severity Zones in SRA. November 7, 2007.

_____. 2008. Very High Fire Hazard Severity Zones in LRA. Fire and Resource Assessment Project. September 3, 2008

California Department of Resources and Recycling. 2019. SWIS Facility/Site Activity Details: Potrero Hills Landfill (48-AA-0075). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1194?siteID=3591 (accessed November 2020).

California Department of Fish and Wildlife (CDFW). 2020. Biogeographic Information and Observation System (BIOS). http://bios.dfg.ca.gov. (Accessed September 2020).

California Energy Commission (CEC). 2018. *Revised Transportation Energy Demand Forecast 2018-2030*. https://efiling.energy.ca.gov/getdocument.aspx?tn=221893 (accessed December 2020).

_____.2019. "Oil Supply Sources to California Refineries." https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/oil-supply-sources-california-refineries (accessed December 2020).

_____. 2020. "2018 Total System Electric Generation." https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation/2018#:~:text=In%202018%2C%20total%20generation%20for,to%2056%20percent%20in%202017. (accessed December 2020).

California Geological Survey (CGS). 2002. California Geomorphic Provinces, Note 36.

Dibblee, T.W., and Minch, J.A., 2005, Geologic map of the Richmond quadrangle, Contra Costa & Alameda Counties, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-147, scale 1:24,000.

East Bay Municipal Utilities District. 2015. Urban Water Supply Management Plan. http://www.ebmud.com/water-and-drought/about-your-water/water-supply/urban-water-management-plan/ (accessed September 2020).

_____. 2020. Wastewater Treatment. https://www.ebmud.com/wastewater/collection-treatment/wastewater-treatment. Accessed May 2020.

Education Data Partnership. 2020. Fiscal, Demographic, and Performance Data on California's K-12 Schools. Albany City Unified. http://www.ed-data.org/district/Alameda/Albany-City-Unified (accessed November 2020).

Fehr and Peers. 2020. Transportation Findings Memorandum for the Addendum to the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR for the Proposed University Village Step 3 Project. December 2020. Included as Appendix TRA.

Forster, P., V. Ramaswamy, P. Artaxo, T. Berntsen, R. Betts, D.W. Fahey, J. Haywood, J. Lean, D.C. Lowe, G. Myhre, J. Nganga, R. Prinn, G. Raga, M. Schulz and R. Van Dorland. 2007. Changes in Atmospheric Constituents and in Radiative Forcing. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M.Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf

Illingworth & Rodkin, Inc. 2019. Noise and Vibration Impacts from Residences Proposed at 325 Yolanda Avenue, Santa Rosa, CA. January 2019. https://files.ceqanet.opr.ca.gov/251916-2/attachment/m3VESve0Ky6z2njk58vk2yOfZP3inTgJtvC2_VPKqE0Ple__ZYeJyIgz1Vy_7PGcsn5TXsIqZP49OpMG0 (accessed September 2020).

Intergovernmental Panel on Climate Change (IPCC). 2014a. Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers - Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

____. 2014b. Climate Change 2014 Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland.

Jefferson. 2010. A catalogue of late Quaternary vertebrates from California. Natural History Museum of Los Angeles County Technical Report 7, p. 5-172. Koch, A. L., Vincent L. Santucci, and Ted R. Weasma. 2004. Santa Monica Mountains National Recreation Area Paleontological Survey. Technical Report NPS/NRGRD/GRDTR-04/01. U.S. Department of Interior, National Park Service, Geologic Resources Division, Denver, Colorado.

Los Angeles, City of. 2006. Draft L.A. CEQA Thresholds Guide. https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/A07.pdf (accessed December 2020).

Metcalf & Eddy, Inc. 1991. Wastewater Engineering Treatment, Disposal, and Reuse. McGraw Hill Inc.

Norris, R.M., and R.W. Webb. 1990. Geology of California. John Wiley and Sons, Inc. New York.

Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf (accessed October 2020).

Paleobiology Database. 2020. Online fossil locality database. Available online: https://www.paleobiodb.org/#/.

Rincon Consultants, Inc. 2020a. Biological Resources Memorandum for the Addendum to the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR for the Proposed University Village Step 3 Project. November 2020. Included as Appendix BIO.

____. 2020b. Cultural Resources Assessment for the Addendum to the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR for the Proposed University Village Step 3 Project. November 2020. Included as Appendix CUL.

Savage, D.R. 1951. Late Cenozoic vertebrates of the San Francisco Bay region. University of California Publications, Bulletin of the Department of Geological Sciences, v. 28, p. 215-314.

Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee.

United States Department of Agriculture Natural Resource Conservation Service. 2019. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed November 2020).

University of California. 2017. Seismic Safety Policy. Available online: https://policy.ucop.edu/doc/3100156/ (accessed November 2020).

____. 2020. University of California – Policy on Sustainable Practices. January 31, 2020. https://policy.ucop.edu/doc/3100155/SustainablePractices. (accessed January 2021).https://policy.ucop.edu/doc/3100155/SustainablePractices

University of California (UC), Berkeley. 2004. 2020 Long Range Development Plan Draft Environmental Impact Report. https://capitalstrategies.berkeley.edu/sites/default/files/eir-volume-1.pdf (accessed November 2020).

_____. 2005. UC Berkeley 2020 Long Range Development Plan. January 2005. https://capitalstrategies.berkeley.edu/sites/default/files/lrdp_2020.pdf (accessed October 2020).

_____. 2013. University of California, Berkeley Policy on Energy Use. July 1, 2013 https://campuspol.berkeley.edu/policies/energyuse.pdf. (accessed January 2021).

_____. 2017. Seismic Safety Information. Available online: https://policy.ucop.edu/doc/3100156/ (accessed October 2020).

_____. 2019. UC Berkeley Campus Design Standards. July 2019. https://facilities.berkeley.edu/sites/default/files/ucb_campus_design_standards_2020.pdf. (accessed January 2021).

_____. 2020a. UC Berkeley Sustainability Plan. November 2020. https://sustainability.berkeley.edu/sites/default/files/uc_berkeley_sustainability_plan_2020_1.pdf. (accessed January 2021).

_____. 2020b. Waste. https://sustainability.berkeley.edu/our-performance/waste (accessed December 2020).

_____. 2020c. Water. https://sustainability.berkeley.edu/our-performance/water#:~:text=In%20total%20the%20campus%20currently,use%20dropped%20by%2034%20percent. (accessed November 2020).

University of California Museum of Paleontology (UCMP) Online Database. 2020. UCMP specimen search portal, http://ucmpdb.berkeley.edu/.

University of California Office of the President (UCOP). 2016. Sustainable Practices. University of California – Policy. September 23, 2016.

United States Energy Information Administration (USEIA). 2018. *State Energy Data System (SEDS): 2017, Total petroleum consumption*. Available at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_use/tx/use_tx_CA.html&sid=CA

_____. 2020a. "California State Energy Profile." https://www.eia.gov/state/print.php?sid=CA (accessed December 2020).

_____. 2020b. "Natural Gas." https://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SCA_a.htm (accessed December 2020).

_____.2020c. "Natural Gas Consumption by End Use." https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm (accessed December 2020).

_____.2020d. "California Natural Gas Total Consumption." https://www.eia.gov/dnav/ng/hist/na1490_sca_2a.htm (accessed December 2020).

United States Environmental Protection Agency (U.S. EPA). 2020. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. U. S. EPA #430-R-20-002. April 2020. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2018 (accessed April 2020).

World Meteorological Organization. 2020. "Greenhouse Gases." https://public.wmo.int/en/our-mandate/focus-areas/environment/greenhouse%20gases (accessed April 2020).

7.2 List of Preparers

Rincon Consultants, Inc. prepared this Addendum under contract to the University of California, Berkeley. Persons involved in data gathering analysis, project management, and quality control are listed below.

University of California, Berkeley

Capital Strategies
Shraddha Navalli Patil, Senior Planner
Peter Gorman, Housing Development Project Manager
Diane Mayo, Project Manager

Rincon Consultants, Inc.

Abe Leider, AICP CEP, Principal in Charge
Karly Kaufman, MESM, Project Manager
Lucy Sundelson, Deputy Project Manager
David Daitch, Principal
Sherri Miller, Principal
Shannon Carmack, Principal
Bill Vosti, Senior Environmental Planner
Debi Howell-Ardila, Senior Architectural Historian
Anastasia Ennis, Associate Biologist
Annaliese Miller, Associate Environmental Planner
Jonathan Berlin, MESM, Senior Environmental Planner
Leslie Trejo, Environmental Planner
Hannah Haas, MA, RPA, Archaeologist
Jorge Mendieta, Environmental Scientist/Paleontologist
Allysen Valencia, GIS Analyst
Annette Tran, GIS Analyst

Fehr and Peers

Sam Tabibnia, Senior Associate
Lee Reis, Transportation Planner

Appendix AIR

Air Quality and Greenhouse Gas Modeling Worksheets

University Village Step 3 Project - residential reduction

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	152.00	Dwelling Unit	4.00	152,000.00	250

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	292.85	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

University Village Step 3 Project - residential reduction - Alameda County, Winter

Project Characteristics - Adjusted for 2030 RPS.

Land Use - Per project plans.

Construction Phase - Construction done by 2024.

Trips and VMT -

Demolition - No change in demolition from 2004 Master Plan.

Grading -

Architectural Coating - Coatings per BAAQMD Regulation 8, Rule 3.

Vehicle Trips - Daily trip rate per Fehr & Peers memo.

Woodstoves - No wood-burning devices per BAAQMD Regulation 6, Rule 3.

Area Coating - BAAQMD Regulation 8, Rule 3.

Energy Use - No natural gas in all-electric building.

Water And Wastewater - Indoor water use reduced 20 percent per 2016 CalGreen standards.

Solid Waste -

University Village Step 3 Project - residential reduction - Alameda County, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblConstructionPhase	NumDays	5.00	23.00
tblConstructionPhase	NumDays	8.00	53.00
tblConstructionPhase	NumDays	230.00	563.00
tblConstructionPhase	NumDays	18.00	132.00
tblConstructionPhase	NumDays	18.00	132.00
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	T24NG	6,115.43	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblLandUse	Population	435.00	250.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	641.35	292.85
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	6.39	2.00
tblVehicleTrips	SU_TR	5.86	2.00
tblVehicleTrips	WD_TR	6.65	2.00
tblWater	IndoorWaterUseRate	9,903,411.89	7,922,729.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9516	40.5421	21.5954	0.0394	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,819.2244	3,819.2244	1.1952	0.0000	3,849.1054
2022	2.1111	17.4803	19.1730	0.0390	1.0038	0.8178	1.8216	0.2687	0.7694	1.0381	0.0000	3,783.7791	3,783.7791	0.6550	0.0000	3,800.1539
2023	17.5893	26.0356	33.6567	0.0634	1.3489	1.2152	2.5641	0.3602	1.1401	1.5003	0.0000	6,117.8177	6,117.8177	1.2339	0.0000	6,148.6652
Maximum	**17.5893**	**40.5421**	**33.6567**	**0.0634**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**6,117.8177**	**6,117.8177**	**1.2339**	**0.0000**	**6,148.6652**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9516	40.5420	21.5954	0.0394	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,819.2244	3,819.2244	1.1952	0.0000	3,849.1054
2022	2.1111	17.4803	19.1730	0.0390	1.0038	0.8178	1.8216	0.2687	0.7694	1.0381	0.0000	3,783.7791	3,783.7791	0.6550	0.0000	3,800.1539
2023	17.5893	26.0356	33.6567	0.0634	1.3489	1.2152	2.5641	0.3602	1.1401	1.5003	0.0000	6,117.8177	6,117.8177	1.2339	0.0000	6,148.6652
Maximum	**17.5893**	**40.5420**	**33.6567**	**0.0634**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**6,117.8177**	**6,117.8177**	**1.2339**	**0.0000**	**6,148.6652**

University Village Step 3 Project - residential reduction - Alameda 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	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**

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	4.2025	0.5857	12.7227	3.4800e-003		0.1052	0.1052		0.1052	0.1052	0.0000	585.8741	585.8741	0.0325	0.0103	589.7631
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.3761	2.4466	4.3981	0.0174	1.4978	0.0143	1.5120	0.4012	0.0134	0.4146		1,775.3553	1,775.3553	0.0710		1,777.1309
Total	**4.5786**	**3.0323**	**17.1208**	**0.0209**	**1.4978**	**0.1194**	**1.6172**	**0.4012**	**0.1185**	**0.5197**	**0.0000**	**2,361.2294**	**2,361.2294**	**0.1035**	**0.0103**	**2,366.8940**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.2025	0.5857	12.7227	3.4800e-003		0.1052	0.1052		0.1052	0.1052	0.0000	585.8741	585.8741	0.0325	0.0103	589.7631
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.3761	2.4466	4.3981	0.0174	1.4978	0.0143	1.5120	0.4012	0.0134	0.4146		1,775.3553	1,775.3553	0.0710		1,777.1309
Total	**4.5786**	**3.0323**	**17.1208**	**0.0209**	**1.4978**	**0.1194**	**1.6172**	**0.4012**	**0.1185**	**0.5197**	**0.0000**	**2,361.2294**	**2,361.2294**	**0.1035**	**0.0103**	**2,366.8940**

	ROG	NOx	CO	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	Site Preparation	Site Preparation	5/25/2021	6/24/2021	5	23	
2	Grading	Grading	6/25/2021	9/7/2021	5	53	
3	Building Construction	Building Construction	9/8/2021	11/3/2023	5	563	
4	Paving	Paving	6/1/2023	12/1/2023	5	132	
5	Architectural Coating	Architectural Coating	6/1/2023	12/1/2023	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 26.5

Acres of Paving: 0

Residential Indoor: 307,800; Residential Outdoor: 102,600; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

University Village Step 3 Project - residential reduction - Alameda County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	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

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	109.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0634	0.0450	0.4412	1.3400e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		133.5675	133.5675	3.2200e-003		133.6481
Total	**0.0634**	**0.0450**	**0.4412**	**1.3400e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**133.5675**	**133.5675**	**3.2200e-003**		**133.6481**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0634	0.0450	0.4412	1.3400e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		133.5675	133.5675	3.2200e-003		133.6481
Total	**0.0634**	**0.0450**	**0.4412**	**1.3400e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**133.5675**	**133.5675**	**3.2200e-003**		**133.6481**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0529	0.0375	0.3676	1.1200e-003	0.1232	8.0000e-004	0.1240	0.0327	7.3000e-004	0.0334		111.3063	111.3063	2.6900e-003		111.3734
Total	**0.0529**	**0.0375**	**0.3676**	**1.1200e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.3000e-004**	**0.0334**		**111.3063**	**111.3063**	**2.6900e-003**		**111.3734**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0529	0.0375	0.3676	1.1200e-003	0.1232	8.0000e-004	0.1240	0.0327	7.3000e-004	0.0334		111.3063	111.3063	2.6900e-003		111.3734
Total	**0.0529**	**0.0375**	**0.3676**	**1.1200e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.3000e-004**	**0.0334**		**111.3063**	**111.3063**	**2.6900e-003**		**111.3734**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0512	1.7072	0.3920	4.3100e-003	0.1084	3.6300e-003	0.1121	0.0312	3.4700e-003	0.0347		454.5802	454.5802	0.0268		455.2498
Worker	0.3841	0.2722	2.6715	8.1200e-003	0.8954	5.7900e-003	0.9012	0.2375	5.3400e-003	0.2428		808.8256	808.8256	0.0195		809.3134
Total	**0.4353**	**1.9793**	**3.0635**	**0.0124**	**1.0038**	**9.4200e-003**	**1.0133**	**0.2687**	**8.8100e-003**	**0.2775**		**1,263.4058**	**1,263.4058**	**0.0463**		**1,264.5632**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0512	1.7072	0.3920	4.3100e-003	0.1084	3.6300e-003	0.1121	0.0312	3.4700e-003	0.0347		454.5802	454.5802	0.0268		455.2498
Worker	0.3841	0.2722	2.6715	8.1200e-003	0.8954	5.7900e-003	0.9012	0.2375	5.3400e-003	0.2428		808.8256	808.8256	0.0195		809.3134
Total	**0.4353**	**1.9793**	**3.0635**	**0.0124**	**1.0038**	**9.4200e-003**	**1.0133**	**0.2687**	**8.8100e-003**	**0.2775**		**1,263.4058**	**1,263.4058**	**0.0463**		**1,264.5632**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0478	1.6210	0.3672	4.2600e-003	0.1084	3.1500e-003	0.1116	0.0312	3.0100e-003	0.0342		450.0944	450.0944	0.0256		450.7345
Worker	0.3570	0.2437	2.4424	7.8200e-003	0.8954	5.6400e-003	0.9011	0.2375	5.2000e-003	0.2427		779.3511	779.3511	0.0174		779.7872
Total	**0.4048**	**1.8646**	**2.8096**	**0.0121**	**1.0038**	**8.7900e-003**	**1.0126**	**0.2687**	**8.2100e-003**	**0.2769**		**1,229.4455**	**1,229.4455**	**0.0430**		**1,230.5217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0478	1.6210	0.3672	4.2600e-003	0.1084	3.1500e-003	0.1116	0.0312	3.0100e-003	0.0342		450.0944	450.0944	0.0256		450.7345
Worker	0.3570	0.2437	2.4424	7.8200e-003	0.8954	5.6400e-003	0.9011	0.2375	5.2000e-003	0.2427		779.3511	779.3511	0.0174		779.7872
Total	**0.4048**	**1.8646**	**2.8096**	**0.0121**	**1.0038**	**8.7900e-003**	**1.0126**	**0.2687**	**8.2100e-003**	**0.2769**		**1,229.4455**	**1,229.4455**	**0.0430**		**1,230.5217**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.4 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0351	1.2546	0.3178	4.1400e-003	0.1084	1.3600e-003	0.1098	0.0312	1.3000e-003	0.0325		437.3664	437.3664	0.0204		437.8756
Worker	0.3328	0.2186	2.2330	7.5200e-003	0.8954	5.5100e-003	0.9009	0.2375	5.0800e-003	0.2426		749.5467	749.5467	0.0156		749.9361
Total	**0.3679**	**1.4732**	**2.5507**	**0.0117**	**1.0038**	**6.8700e-003**	**1.0107**	**0.2687**	**6.3800e-003**	**0.2751**		**1,186.9132**	**1,186.9132**	**0.0359**		**1,187.8117**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.4 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/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	0.0351	1.2546	0.3178	4.1400e-003	0.1084	1.3600e-003	0.1098	0.0312	1.3000e-003	0.0325		437.3664	437.3664	0.0204		437.8756
Worker	0.3328	0.2186	2.2330	7.5200e-003	0.8954	5.5100e-003	0.9009	0.2375	5.0800e-003	0.2426		749.5467	749.5467	0.0156		749.9361
Total	**0.3679**	**1.4732**	**2.5507**	**0.0117**	**1.0038**	**6.8700e-003**	**1.0107**	**0.2687**	**6.3800e-003**	**0.2751**		**1,186.9132**	**1,186.9132**	**0.0359**		**1,187.8117**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0611	0.0401	0.4097	1.3800e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		137.5315	137.5315	2.8600e-003		137.6030
Total	**0.0611**	**0.0401**	**0.4097**	**1.3800e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**137.5315**	**137.5315**	**2.8600e-003**		**137.6030**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

3.5 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0611	0.0401	0.4097	1.3800e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		137.5315	137.5315	2.8600e-003		137.6030
Total	**0.0611**	**0.0401**	**0.4097**	**1.3800e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**137.5315**	**137.5315**	**2.8600e-003**		**137.6030**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4106					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	**14.6023**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0441	0.4507	1.5200e-003	0.1807	1.1100e-003	0.1818	0.0479	1.0200e-003	0.0490		151.2847	151.2847	3.1400e-003		151.3632
Total	**0.0672**	**0.0441**	**0.4507**	**1.5200e-003**	**0.1807**	**1.1100e-003**	**0.1818**	**0.0479**	**1.0200e-003**	**0.0490**		**151.2847**	**151.2847**	**3.1400e-003**		**151.3632**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4106					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	**14.6023**	**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**

3.6 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/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	0.0672	0.0441	0.4507	1.5200e-003	0.1807	1.1100e-003	0.1818	0.0479	1.0200e-003	0.0490		151.2847	151.2847	3.1400e-003		151.3632
Total	**0.0672**	**0.0441**	**0.4507**	**1.5200e-003**	**0.1807**	**1.1100e-003**	**0.1818**	**0.0479**	**1.0200e-003**	**0.0490**		**151.2847**	**151.2847**	**3.1400e-003**		**151.3632**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3761	2.4466	4.3981	0.0174	1.4978	0.0143	1.5120	0.4012	0.0134	0.4146		1,775.3553	1,775.3553	0.0710		1,777.1309
Unmitigated	0.3761	2.4466	4.3981	0.0174	1.4978	0.0143	1.5120	0.4012	0.0134	0.4146		1,775.3553	1,775.3553	0.0710		1,777.1309

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	304.00	304.00	304.00	702,121	702,121
Total	304.00	304.00	304.00	702,121	702,121

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	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	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.2025	0.5857	12.7227	3.4800e-003		0.1052	0.1052		0.1052	0.1052	0.0000	585.8741	585.8741	0.0325	0.0103	589.7631
Unmitigated	4.2025	0.5857	12.7227	3.4800e-003		0.1052	0.1052		0.1052	0.1052	0.0000	585.8741	585.8741	0.0325	0.0103	589.7631

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0516	0.4413	0.1878	2.8200e-003		0.0357	0.0357		0.0357	0.0357	0.0000	563.2941	563.2941	0.0108	0.0103	566.6415
Landscaping	0.3769	0.1444	12.5349	6.6000e-004		0.0695	0.0695		0.0695	0.0695		22.5800	22.5800	0.0217		23.1216
Total	**4.2025**	**0.5857**	**12.7227**	**3.4800e-003**		**0.1052**	**0.1052**		**0.1052**	**0.1052**	**0.0000**	**585.8741**	**585.8741**	**0.0325**	**0.0103**	**589.7631**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0516	0.4413	0.1878	2.8200e-003		0.0357	0.0357		0.0357	0.0357	0.0000	563.2941	563.2941	0.0108	0.0103	566.6415
Landscaping	0.3769	0.1444	12.5349	6.6000e-004		0.0695	0.0695		0.0695	0.0695		22.5800	22.5800	0.0217		23.1216
Total	**4.2025**	**0.5857**	**12.7227**	**3.4800e-003**		**0.1052**	**0.1052**		**0.1052**	**0.1052**	**0.0000**	**585.8741**	**585.8741**	**0.0325**	**0.0103**	**589.7631**

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

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

University Village Step 3 Project - residential reduction

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	152.00	Dwelling Unit	4.00	152,000.00	250

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	292.85	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

University Village Step 3 Project - residential reduction - Alameda County, Summer

Project Characteristics - Adjusted for 2030 RPS.

Land Use - Per project plans.

Construction Phase - Construction done by 2024.

Trips and VMT -

Demolition - No change in demolition from 2004 Master Plan.

Grading -

Architectural Coating - Coatings per BAAQMD Regulation 8, Rule 3.

Vehicle Trips - Daily trip rate per Fehr & Peers memo.

Woodstoves - No wood-burning devices per BAAQMD Regulation 6, Rule 3.

Area Coating - BAAQMD Regulation 8, Rule 3.

Energy Use - No natural gas in all-electric building.

Water And Wastewater - Indoor water use reduced 20 percent per 2016 CalGreen standards.

Solid Waste -

University Village Step 3 Project - residential reduction - Alameda County, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblConstructionPhase	NumDays	5.00	23.00
tblConstructionPhase	NumDays	8.00	53.00
tblConstructionPhase	NumDays	230.00	563.00
tblConstructionPhase	NumDays	18.00	132.00
tblConstructionPhase	NumDays	18.00	132.00
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	T24NG	6,115.43	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblLandUse	Population	435.00	250.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	641.35	292.85
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	6.39	2.00
tblVehicleTrips	SU_TR	5.86	2.00
tblVehicleTrips	WD_TR	6.65	2.00
tblWater	IndoorWaterUseRate	9,903,411.89	7,922,729.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9490	40.5333	21.6232	0.0402	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,899.7561	3,899.7561	1.1955	0.0000	3,916.2852
2022	2.0932	17.4224	19.2854	0.0398	1.0038	0.8177	1.8215	0.2687	0.7693	1.0380	0.0000	3,864.1310	3,864.1310	0.6539	0.0000	3,880.4776
2023	17.5665	25.9714	33.8390	0.0644	1.3489	1.2152	2.5640	0.3602	1.1401	1.5003	0.0000	6,220.0866	6,220.0866	1.2338	0.0000	6,250.9308
Maximum	**17.5665**	**40.5333**	**33.8390**	**0.0644**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**6,220.0866**	**6,220.0866**	**1.2338**	**0.0000**	**6,250.9308**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9490	40.5332	21.6232	0.0402	18.2141	2.0454	20.2595	9.9699	1.8818	11.8517	0.0000	3,899.7561	3,899.7561	1.1955	0.0000	3,916.2852
2022	2.0932	17.4224	19.2854	0.0398	1.0038	0.8177	1.8215	0.2687	0.7693	1.0380	0.0000	3,864.1310	3,864.1310	0.6539	0.0000	3,880.4776
2023	17.5665	25.9714	33.8390	0.0644	1.3489	1.2152	2.5640	0.3602	1.1401	1.5003	0.0000	6,220.0866	6,220.0866	1.2338	0.0000	6,250.9307
Maximum	**17.5665**	**40.5332**	**33.8390**	**0.0644**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8818**	**11.8517**	**0.0000**	**6,220.0866**	**6,220.0866**	**1.2338**	**0.0000**	**6,250.9307**

University Village Step 3 Project - residential reduction - Alameda 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	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**

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	4.2025	0.5857	12.7227	3.4800e-003		0.1052	0.1052		0.1052	0.1052	0.0000	585.8741	585.8741	0.0325	0.0103	589.7631
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4403	2.3680	4.3486	0.0186	1.4978	0.0142	1.5119	0.4012	0.0133	0.4145		1,890.6045	1,890.6045	0.0682		1,892.3092
Total	**4.6427**	**2.9537**	**17.0713**	**0.0221**	**1.4978**	**0.1193**	**1.6171**	**0.4012**	**0.1184**	**0.5197**	**0.0000**	**2,476.4786**	**2,476.4786**	**0.1007**	**0.0103**	**2,482.0723**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.2025	0.5857	12.7227	3.4800e-003		0.1052	0.1052		0.1052	0.1052	0.0000	585.8741	585.8741	0.0325	0.0103	589.7631
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4403	2.3680	4.3486	0.0186	1.4978	0.0142	1.5119	0.4012	0.0133	0.4145		1,890.6045	1,890.6045	0.0682		1,892.3092
Total	**4.6427**	**2.9537**	**17.0713**	**0.0221**	**1.4978**	**0.1193**	**1.6171**	**0.4012**	**0.1184**	**0.5197**	**0.0000**	**2,476.4786**	**2,476.4786**	**0.1007**	**0.0103**	**2,482.0723**

	ROG	NOx	CO	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	Site Preparation	Site Preparation	5/25/2021	6/24/2021	5	23	
2	Grading	Grading	6/25/2021	9/7/2021	5	53	
3	Building Construction	Building Construction	9/8/2021	11/3/2023	5	563	
4	Paving	Paving	6/1/2023	12/1/2023	5	132	
5	Architectural Coating	Architectural Coating	6/1/2023	12/1/2023	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 26.5

Acres of Paving: 0

Residential Indoor: 307,800; Residential Outdoor: 102,600; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

University Village Step 3 Project - residential reduction - Alameda County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	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

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	109.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0608	0.0362	0.4689	1.4600e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		145.1480	145.1480	3.4500e-003		145.2341
Total	**0.0608**	**0.0362**	**0.4689**	**1.4600e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**145.1480**	**145.1480**	**3.4500e-003**		**145.2341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0608	0.0362	0.4689	1.4600e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		145.1480	145.1480	3.4500e-003		145.2341
Total	**0.0608**	**0.0362**	**0.4689**	**1.4600e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**145.1480**	**145.1480**	**3.4500e-003**		**145.2341**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0507	0.0301	0.3907	1.2100e-003	0.1232	8.0000e-004	0.1240	0.0327	7.3000e-004	0.0334		120.9566	120.9566	2.8700e-003		121.0285
Total	**0.0507**	**0.0301**	**0.3907**	**1.2100e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.3000e-004**	**0.0334**		**120.9566**	**120.9566**	**2.8700e-003**		**121.0285**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0507	0.0301	0.3907	1.2100e-003	0.1232	8.0000e-004	0.1240	0.0327	7.3000e-004	0.0334		120.9566	120.9566	2.8700e-003		121.0285
Total	**0.0507**	**0.0301**	**0.3907**	**1.2100e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.3000e-004**	**0.0334**		**120.9566**	**120.9566**	**2.8700e-003**		**121.0285**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0484	1.6947	0.3368	4.4300e-003	0.1084	3.5200e-003	0.1119	0.0312	3.3700e-003	0.0346		467.4407	467.4407	0.0243		468.0476
Worker	0.3682	0.2189	2.8394	8.8200e-003	0.8954	5.7900e-003	0.9012	0.2375	5.3400e-003	0.2428		878.9515	878.9515	0.0209		879.4734
Total	**0.4166**	**1.9136**	**3.1762**	**0.0133**	**1.0038**	**9.3100e-003**	**1.0131**	**0.2687**	**8.7100e-003**	**0.2774**		**1,346.3922**	**1,346.3922**	**0.0452**		**1,347.5210**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0484	1.6947	0.3368	4.4300e-003	0.1084	3.5200e-003	0.1119	0.0312	3.3700e-003	0.0346		467.4407	467.4407	0.0243		468.0476
Worker	0.3682	0.2189	2.8394	8.8200e-003	0.8954	5.7900e-003	0.9012	0.2375	5.3400e-003	0.2428		878.9515	878.9515	0.0209		879.4734
Total	**0.4166**	**1.9136**	**3.1762**	**0.0133**	**1.0038**	**9.3100e-003**	**1.0131**	**0.2687**	**8.7100e-003**	**0.2774**		**1,346.3922**	**1,346.3922**	**0.0452**		**1,347.5210**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0452	1.6107	0.3155	4.3800e-003	0.1084	3.0500e-003	0.1115	0.0312	2.9100e-003	0.0341		462.8993	462.8993	0.0232		463.4794
Worker	0.3417	0.1960	2.6065	8.4900e-003	0.8954	5.6400e-003	0.9011	0.2375	5.2000e-003	0.2427		846.8981	846.8981	0.0187		847.3661
Total	**0.3869**	**1.8068**	**2.9220**	**0.0129**	**1.0038**	**8.6900e-003**	**1.0125**	**0.2687**	**8.1100e-003**	**0.2768**		**1,309.7974**	**1,309.7974**	**0.0419**		**1,310.8454**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0452	1.6107	0.3155	4.3800e-003	0.1084	3.0500e-003	0.1115	0.0312	2.9100e-003	0.0341		462.8993	462.8993	0.0232		463.4794
Worker	0.3417	0.1960	2.6065	8.4900e-003	0.8954	5.6400e-003	0.9011	0.2375	5.2000e-003	0.2427		846.8981	846.8981	0.0187		847.3661
Total	**0.3869**	**1.8068**	**2.9220**	**0.0129**	**1.0038**	**8.6900e-003**	**1.0125**	**0.2687**	**8.1100e-003**	**0.2768**		**1,309.7974**	**1,309.7974**	**0.0419**		**1,310.8454**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.4 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0331	1.2495	0.2778	4.2500e-003	0.1084	1.3100e-003	0.1097	0.0312	1.2600e-003	0.0325		449.6743	449.6743	0.0186		450.1386
Worker	0.3178	0.1759	2.3934	8.1700e-003	0.8954	5.5100e-003	0.9009	0.2375	5.0800e-003	0.2426		814.4855	814.4855	0.0168		814.9048
Total	**0.3509**	**1.4255**	**2.6712**	**0.0124**	**1.0038**	**6.8200e-003**	**1.0107**	**0.2687**	**6.3400e-003**	**0.2751**		**1,264.1598**	**1,264.1598**	**0.0353**		**1,265.0434**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.4 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/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	0.0331	1.2495	0.2778	4.2500e-003	0.1084	1.3100e-003	0.1097	0.0312	1.2600e-003	0.0325		449.6743	449.6743	0.0186		450.1386
Worker	0.3178	0.1759	2.3934	8.1700e-003	0.8954	5.5100e-003	0.9009	0.2375	5.0800e-003	0.2426		814.4855	814.4855	0.0168		814.9048
Total	**0.3509**	**1.4255**	**2.6712**	**0.0124**	**1.0038**	**6.8200e-003**	**1.0107**	**0.2687**	**6.3400e-003**	**0.2751**		**1,264.1598**	**1,264.1598**	**0.0353**		**1,265.0434**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0583	0.0323	0.4392	1.5000e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		149.4469	149.4469	3.0800e-003		149.5238
Total	**0.0583**	**0.0323**	**0.4392**	**1.5000e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**149.4469**	**149.4469**	**3.0800e-003**		**149.5238**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

3.5 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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0583	0.0323	0.4392	1.5000e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		149.4469	149.4469	3.0800e-003		149.5238
Total	**0.0583**	**0.0323**	**0.4392**	**1.5000e-003**	**0.1643**	**1.0100e-003**	**0.1653**	**0.0436**	**9.3000e-004**	**0.0445**		**149.4469**	**149.4469**	**3.0800e-003**		**149.5238**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4106					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	**14.6023**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0641	0.0355	0.4831	1.6500e-003	0.1807	1.1100e-003	0.1818	0.0479	1.0200e-003	0.0490		164.3916	164.3916	3.3900e-003		164.4762
Total	**0.0641**	**0.0355**	**0.4831**	**1.6500e-003**	**0.1807**	**1.1100e-003**	**0.1818**	**0.0479**	**1.0200e-003**	**0.0490**		**164.3916**	**164.3916**	**3.3900e-003**		**164.4762**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4106					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	**14.6023**	**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**

3.6 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/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	0.0641	0.0355	0.4831	1.6500e-003	0.1807	1.1100e-003	0.1818	0.0479	1.0200e-003	0.0490		164.3916	164.3916	3.3900e-003		164.4762
Total	**0.0641**	**0.0355**	**0.4831**	**1.6500e-003**	**0.1807**	**1.1100e-003**	**0.1818**	**0.0479**	**1.0200e-003**	**0.0490**		**164.3916**	**164.3916**	**3.3900e-003**		**164.4762**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4403	2.3680	4.3486	0.0186	1.4978	0.0142	1.5119	0.4012	0.0133	0.4145		1,890.6045	1,890.6045	0.0682		1,892.3092
Unmitigated	0.4403	2.3680	4.3486	0.0186	1.4978	0.0142	1.5119	0.4012	0.0133	0.4145		1,890.6045	1,890.6045	0.0682		1,892.3092

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	304.00	304.00	304.00	702,121	702,121
Total	304.00	304.00	304.00	702,121	702,121

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	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	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.2025	0.5857	12.7227	3.4800e-003		0.1052	0.1052		0.1052	0.1052	0.0000	585.8741	585.8741	0.0325	0.0103	589.7631
Unmitigated	4.2025	0.5857	12.7227	3.4800e-003		0.1052	0.1052		0.1052	0.1052	0.0000	585.8741	585.8741	0.0325	0.0103	589.7631

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0516	0.4413	0.1878	2.8200e-003		0.0357	0.0357		0.0357	0.0357	0.0000	563.2941	563.2941	0.0108	0.0103	566.6415
Landscaping	0.3769	0.1444	12.5349	6.6000e-004		0.0695	0.0695		0.0695	0.0695		22.5800	22.5800	0.0217		23.1216
Total	**4.2025**	**0.5857**	**12.7227**	**3.4800e-003**		**0.1052**	**0.1052**		**0.1052**	**0.1052**	**0.0000**	**585.8741**	**585.8741**	**0.0325**	**0.0103**	**589.7631**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5212					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0516	0.4413	0.1878	2.8200e-003		0.0357	0.0357		0.0357	0.0357	0.0000	563.2941	563.2941	0.0108	0.0103	566.6415
Landscaping	0.3769	0.1444	12.5349	6.6000e-004		0.0695	0.0695		0.0695	0.0695		22.5800	22.5800	0.0217		23.1216
Total	**4.2025**	**0.5857**	**12.7227**	**3.4800e-003**		**0.1052**	**0.1052**		**0.1052**	**0.1052**	**0.0000**	**585.8741**	**585.8741**	**0.0325**	**0.0103**	**589.7631**

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

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

University Village Step 3 Project - residential reduction

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	152.00	Dwelling Unit	4.00	152,000.00	250

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	292.85	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

University Village Step 3 Project - residential reduction - Alameda County, Annual

Project Characteristics - Adjusted for 2030 RPS.

Land Use - Per project plans.

Construction Phase - Construction done by 2024.

Trips and VMT -

Demolition - No change in demolition from 2004 Master Plan.

Grading -

Architectural Coating - Coatings per BAAQMD Regulation 8, Rule 3.

Vehicle Trips - Daily trip rate per Fehr & Peers memo.

Woodstoves - No wood-burning devices per BAAQMD Regulation 6, Rule 3.

Area Coating - BAAQMD Regulation 8, Rule 3.

Energy Use - No natural gas in all-electric building.

Water And Wastewater - Indoor water use reduced 20 percent per 2016 CalGreen standards.

Solid Waste -

University Village Step 3 Project - residential reduction - Alameda County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblConstructionPhase	NumDays	5.00	23.00
tblConstructionPhase	NumDays	8.00	53.00
tblConstructionPhase	NumDays	230.00	563.00
tblConstructionPhase	NumDays	18.00	132.00
tblConstructionPhase	NumDays	18.00	132.00
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	T24NG	6,115.43	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblLandUse	Population	435.00	250.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	641.35	292.85
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	6.39	2.00
tblVehicleTrips	SU_TR	5.86	2.00
tblVehicleTrips	WD_TR	6.65	2.00
tblWater	IndoorWaterUseRate	9,903,411.89	7,922,729.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2027	1.9274	1.4886	2.9100e-003	0.4263	0.0945	0.5208	0.2155	0.0877	0.3032	0.0000	255.8098	255.8098	0.0597	0.0000	257.3034
2022	0.2698	2.2702	2.4806	5.0900e-003	0.1257	0.1063	0.2320	0.0338	0.1000	0.1338	0.0000	447.8358	447.8358	0.0771	0.0000	449.7629
2023	1.2418	2.4139	3.0385	5.9000e-003	0.1283	0.1113	0.2396	0.0344	0.1045	0.1389	0.0000	517.1076	517.1076	0.0995	0.0000	519.5946
Maximum	**1.2418**	**2.4139**	**3.0385**	**5.9000e-003**	**0.4263**	**0.1113**	**0.5208**	**0.2155**	**0.1045**	**0.3032**	**0.0000**	**517.1076**	**517.1076**	**0.0995**	**0.0000**	**519.5946**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2027	1.9274	1.4886	2.9100e-003	0.4263	0.0945	0.5208	0.2155	0.0877	0.3032	0.0000	255.8095	255.8095	0.0597	0.0000	257.3031
2022	0.2698	2.2702	2.4806	5.0900e-003	0.1257	0.1063	0.2320	0.0338	0.1000	0.1338	0.0000	447.8354	447.8354	0.0771	0.0000	449.7626
2023	1.2418	2.4139	3.0385	5.9000e-003	0.1283	0.1113	0.2396	0.0344	0.1045	0.1389	0.0000	517.1072	517.1072	0.0995	0.0000	519.5942
Maximum	**1.2418**	**2.4139**	**3.0385**	**5.9000e-003**	**0.4263**	**0.1113**	**0.5208**	**0.2155**	**0.1045**	**0.3032**	**0.0000**	**517.1072**	**517.1072**	**0.0995**	**0.0000**	**519.5942**

University Village Step 3 Project - residential reduction - Alameda 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	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	**4-1-2021**	**6-30-2021**	0.5506	0.5506
2	**7-1-2021**	**9-30-2021**	0.8460	0.8460
3	**10-1-2021**	**12-31-2021**	0.7146	0.7146
4	**1-1-2022**	**3-31-2022**	0.6297	0.6297
5	**4-1-2022**	**6-30-2022**	0.6343	0.6343
6	**7-1-2022**	**9-30-2022**	0.6412	0.6412
7	**10-1-2022**	**12-31-2022**	0.6437	0.6437
8	**1-1-2023**	**3-31-2023**	0.5721	0.5721
9	**4-1-2023**	**6-30-2023**	0.8528	0.8528
10	**7-1-2023**	**9-30-2023**	1.4305	1.4305
		Highest	1.4305	1.4305

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7230	0.0155	1.1292	8.0000e-005		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	4.6899	4.6899	1.8200e-003	5.0000e-005	4.7511
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	85.2456	85.2456	3.7800e-003	8.7000e-004	85.6004
Mobile	0.0694	0.4404	0.7630	3.2100e-003	0.2626	2.5900e-003	0.2652	0.0706	2.4200e-003	0.0730	0.0000	296.2185	296.2185	0.0113	0.0000	296.5018
Waste						0.0000	0.0000		0.0000	0.0000	14.1931	0.0000	14.1931	0.8388	0.0000	35.1629
Water						0.0000	0.0000		0.0000	0.0000	2.5135	8.5973	11.1108	0.2585	6.1800e-003	19.4172
Total	**0.7923**	**0.4558**	**1.8922**	**3.2900e-003**	**0.2626**	**9.0400e-003**	**0.2716**	**0.0706**	**8.8700e-003**	**0.0794**	**16.7067**	**394.7513**	**411.4579**	**1.1143**	**7.1000e-003**	**441.4334**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7230	0.0155	1.1292	8.0000e-005		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	4.6899	4.6899	1.8200e-003	5.0000e-005	4.7511
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	85.2456	85.2456	3.7800e-003	8.7000e-004	85.6004
Mobile	0.0694	0.4404	0.7630	3.2100e-003	0.2626	2.5900e-003	0.2652	0.0706	2.4200e-003	0.0730	0.0000	296.2185	296.2185	0.0113	0.0000	296.5018
Waste						0.0000	0.0000		0.0000	0.0000	14.1931	0.0000	14.1931	0.8388	0.0000	35.1629
Water						0.0000	0.0000		0.0000	0.0000	2.5135	8.5973	11.1108	0.2585	6.1800e-003	19.4172
Total	**0.7923**	**0.4558**	**1.8922**	**3.2900e-003**	**0.2626**	**9.0400e-003**	**0.2716**	**0.0706**	**8.8700e-003**	**0.0794**	**16.7067**	**394.7513**	**411.4579**	**1.1143**	**7.1000e-003**	**441.4334**

	ROG	NOx	CO	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

University Village Step 3 Project - residential reduction - Alameda County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/25/2021	6/24/2021	5	23	
2	Grading	Grading	6/25/2021	9/7/2021	5	53	
3	Building Construction	Building Construction	9/8/2021	11/3/2023	5	563	
4	Paving	Paving	6/1/2023	12/1/2023	5	132	
5	Architectural Coating	Architectural Coating	6/1/2023	12/1/2023	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 26.5

Acres of Paving: 0

Residential Indoor: 307,800; Residential Outdoor: 102,600; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

University Village Step 3 Project - residential reduction - Alameda County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	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

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	109.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2078	0.0000	0.2078	0.1142	0.0000	0.1142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0447	0.4657	0.2433	4.4000e-004		0.0235	0.0235		0.0216	0.0216	0.0000	38.4511	38.4511	0.0124	0.0000	38.7620
Total	**0.0447**	**0.4657**	**0.2433**	**4.4000e-004**	**0.2078**	**0.0235**	**0.2313**	**0.1142**	**0.0216**	**0.1358**	**0.0000**	**38.4511**	**38.4511**	**0.0124**	**0.0000**	**38.7620**

3.2 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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.7000e-004	4.9300e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4044	1.4044	3.0000e-005	0.0000	1.4053
Total	**6.6000e-004**	**4.7000e-004**	**4.9300e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4044**	**1.4044**	**3.0000e-005**	**0.0000**	**1.4053**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2078	0.0000	0.2078	0.1142	0.0000	0.1142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0447	0.4657	0.2433	4.4000e-004		0.0235	0.0235		0.0216	0.0216	0.0000	38.4510	38.4510	0.0124	0.0000	38.7619
Total	**0.0447**	**0.4657**	**0.2433**	**4.4000e-004**	**0.2078**	**0.0235**	**0.2313**	**0.1142**	**0.0216**	**0.1358**	**0.0000**	**38.4510**	**38.4510**	**0.0124**	**0.0000**	**38.7619**

3.2 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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.7000e-004	4.9300e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4044	1.4044	3.0000e-005	0.0000	1.4053
Total	**6.6000e-004**	**4.7000e-004**	**4.9300e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4044**	**1.4044**	**3.0000e-005**	**0.0000**	**1.4053**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1736	0.0000	0.1736	0.0892	0.0000	0.0892	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0607	0.6555	0.4202	7.9000e-004		0.0307	0.0307		0.0283	0.0283	0.0000	69.0423	69.0423	0.0223	0.0000	69.6005
Total	**0.0607**	**0.6555**	**0.4202**	**7.9000e-004**	**0.1736**	**0.0307**	**0.2044**	**0.0892**	**0.0283**	**0.1175**	**0.0000**	**69.0423**	**69.0423**	**0.0223**	**0.0000**	**69.6005**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	9.0000e-004	9.4700e-003	3.0000e-005	3.1400e-003	2.0000e-005	3.1600e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.6969	2.6969	6.0000e-005	0.0000	2.6985
Total	**1.2700e-003**	**9.0000e-004**	**9.4700e-003**	**3.0000e-005**	**3.1400e-003**	**2.0000e-005**	**3.1600e-003**	**8.4000e-004**	**2.0000e-005**	**8.6000e-004**	**0.0000**	**2.6969**	**2.6969**	**6.0000e-005**	**0.0000**	**2.6985**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1736	0.0000	0.1736	0.0892	0.0000	0.0892	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0607	0.6555	0.4202	7.9000e-004		0.0307	0.0307		0.0283	0.0283	0.0000	69.0422	69.0422	0.0223	0.0000	69.6005
Total	**0.0607**	**0.6555**	**0.4202**	**7.9000e-004**	**0.1736**	**0.0307**	**0.2044**	**0.0892**	**0.0283**	**0.1175**	**0.0000**	**69.0422**	**69.0422**	**0.0223**	**0.0000**	**69.6005**

3.3 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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	9.0000e-004	9.4700e-003	3.0000e-005	3.1400e-003	2.0000e-005	3.1600e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.6969	2.6969	6.0000e-005	0.0000	2.6985
Total	**1.2700e-003**	**9.0000e-004**	**9.4700e-003**	**3.0000e-005**	**3.1400e-003**	**2.0000e-005**	**3.1600e-003**	**8.4000e-004**	**2.0000e-005**	**8.6000e-004**	**0.0000**	**2.6969**	**2.6969**	**6.0000e-005**	**0.0000**	**2.6985**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0789	0.7234	0.6879	1.1200e-003		0.0398	0.0398		0.0374	0.0374	0.0000	96.1295	96.1295	0.0232	0.0000	96.7093
Total	**0.0789**	**0.7234**	**0.6879**	**1.1200e-003**		**0.0398**	**0.0398**		**0.0374**	**0.0374**	**0.0000**	**96.1295**	**96.1295**	**0.0232**	**0.0000**	**96.7093**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0600e-003	0.0710	0.0150	1.8000e-004	4.3600e-003	1.5000e-004	4.5100e-003	1.2600e-003	1.4000e-004	1.4000e-003	0.0000	17.3949	17.3949	9.6000e-004	0.0000	17.4187
Worker	0.0145	0.0103	0.1078	3.4000e-004	0.0358	2.4000e-004	0.0360	9.5100e-003	2.2000e-004	9.7400e-003	0.0000	30.6907	30.6907	7.3000e-004	0.0000	30.7091
Total	**0.0165**	**0.0813**	**0.1229**	**5.2000e-004**	**0.0401**	**3.9000e-004**	**0.0405**	**0.0108**	**3.6000e-004**	**0.0111**	**0.0000**	**48.0856**	**48.0856**	**1.6900e-003**	**0.0000**	**48.1278**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0789	0.7234	0.6879	1.1200e-003		0.0398	0.0398		0.0374	0.0374	0.0000	96.1294	96.1294	0.0232	0.0000	96.7092
Total	**0.0789**	**0.7234**	**0.6879**	**1.1200e-003**		**0.0398**	**0.0398**		**0.0374**	**0.0374**	**0.0000**	**96.1294**	**96.1294**	**0.0232**	**0.0000**	**96.7092**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0600e-003	0.0710	0.0150	1.8000e-004	4.3600e-003	1.5000e-004	4.5100e-003	1.2600e-003	1.4000e-004	1.4000e-003	0.0000	17.3949	17.3949	9.6000e-004	0.0000	17.4187
Worker	0.0145	0.0103	0.1078	3.4000e-004	0.0358	2.4000e-004	0.0360	9.5100e-003	2.2000e-004	9.7400e-003	0.0000	30.6907	30.6907	7.3000e-004	0.0000	30.7091
Total	**0.0165**	**0.0813**	**0.1229**	**5.2000e-004**	**0.0401**	**3.9000e-004**	**0.0405**	**0.0108**	**3.6000e-004**	**0.0111**	**0.0000**	**48.0856**	**48.0856**	**1.6900e-003**	**0.0000**	**48.1278**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0200e-003	0.2113	0.0441	5.6000e-004	0.0137	4.0000e-004	0.0141	3.9500e-003	3.8000e-004	4.3400e-003	0.0000	53.9571	53.9571	2.8600e-003	0.0000	54.0286
Worker	0.0420	0.0289	0.3092	1.0200e-003	0.1120	7.3000e-004	0.1128	0.0298	6.8000e-004	0.0305	0.0000	92.6359	92.6359	2.0600e-003	0.0000	92.6873
Total	**0.0480**	**0.2402**	**0.3533**	**1.5800e-003**	**0.1257**	**1.1300e-003**	**0.1268**	**0.0338**	**1.0600e-003**	**0.0348**	**0.0000**	**146.5930**	**146.5930**	**4.9200e-003**	**0.0000**	**146.7159**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0200e-003	0.2113	0.0441	5.6000e-004	0.0137	4.0000e-004	0.0141	3.9500e-003	3.8000e-004	4.3400e-003	0.0000	53.9571	53.9571	2.8600e-003	0.0000	54.0286
Worker	0.0420	0.0289	0.3092	1.0200e-003	0.1120	7.3000e-004	0.1128	0.0298	6.8000e-004	0.0305	0.0000	92.6359	92.6359	2.0600e-003	0.0000	92.6873
Total	**0.0480**	**0.2402**	**0.3533**	**1.5800e-003**	**0.1257**	**1.1300e-003**	**0.1268**	**0.0338**	**1.0600e-003**	**0.0348**	**0.0000**	**146.5930**	**146.5930**	**4.9200e-003**	**0.0000**	**146.7159**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017
Total	**0.1730**	**1.5823**	**1.7868**	**2.9600e-003**		**0.0770**	**0.0770**		**0.0724**	**0.0724**	**0.0000**	**254.9852**	**254.9852**	**0.0607**	**0.0000**	**256.5017**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7300e-003	0.1384	0.0327	4.6000e-004	0.0116	1.5000e-004	0.0117	3.3400e-003	1.4000e-004	3.4800e-003	0.0000	44.3571	44.3571	1.9300e-003	0.0000	44.4054
Worker	0.0331	0.0219	0.2396	8.3000e-004	0.0948	6.1000e-004	0.0954	0.0252	5.6000e-004	0.0258	0.0000	75.3864	75.3864	1.5600e-003	0.0000	75.4253
Total	**0.0368**	**0.1603**	**0.2722**	**1.2900e-003**	**0.1064**	**7.6000e-004**	**0.1071**	**0.0286**	**7.0000e-004**	**0.0293**	**0.0000**	**119.7435**	**119.7435**	**3.4900e-003**	**0.0000**	**119.8307**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013
Total	**0.1730**	**1.5823**	**1.7868**	**2.9600e-003**		**0.0770**	**0.0770**		**0.0724**	**0.0724**	**0.0000**	**254.9849**	**254.9849**	**0.0607**	**0.0000**	**256.5013**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7300e-003	0.1384	0.0327	4.6000e-004	0.0116	1.5000e-004	0.0117	3.3400e-003	1.4000e-004	3.4800e-003	0.0000	44.3571	44.3571	1.9300e-003	0.0000	44.4054
Worker	0.0331	0.0219	0.2396	8.3000e-004	0.0948	6.1000e-004	0.0954	0.0252	5.6000e-004	0.0258	0.0000	75.3864	75.3864	1.5600e-003	0.0000	75.4253
Total	**0.0368**	**0.1603**	**0.2722**	**1.2900e-003**	**0.1064**	**7.6000e-004**	**0.1071**	**0.0286**	**7.0000e-004**	**0.0293**	**0.0000**	**119.7435**	**119.7435**	**3.4900e-003**	**0.0000**	**119.8307**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0606	0.5802	0.8046	1.2500e-003		0.0288	0.0288		0.0266	0.0266	0.0000	108.0987	108.0987	0.0340	0.0000	108.9478
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0606**	**0.5802**	**0.8046**	**1.2500e-003**		**0.0288**	**0.0288**		**0.0266**	**0.0266**	**0.0000**	**108.0987**	**108.0987**	**0.0340**	**0.0000**	**108.9478**

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6400e-003	2.4100e-003	0.0264	9.0000e-005	0.0104	7.0000e-005	0.0105	2.7800e-003	6.0000e-005	2.8400e-003	0.0000	8.2994	8.2994	1.7000e-004	0.0000	8.3037
Total	**3.6400e-003**	**2.4100e-003**	**0.0264**	**9.0000e-005**	**0.0104**	**7.0000e-005**	**0.0105**	**2.7800e-003**	**6.0000e-005**	**2.8400e-003**	**0.0000**	**8.2994**	**8.2994**	**1.7000e-004**	**0.0000**	**8.3037**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0606	0.5802	0.8046	1.2500e-003		0.0288	0.0288		0.0266	0.0266	0.0000	108.0986	108.0986	0.0340	0.0000	108.9477
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0606**	**0.5802**	**0.8046**	**1.2500e-003**		**0.0288**	**0.0288**		**0.0266**	**0.0266**	**0.0000**	**108.0986**	**108.0986**	**0.0340**	**0.0000**	**108.9477**

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6400e-003	2.4100e-003	0.0264	9.0000e-005	0.0104	7.0000e-005	0.0105	2.7800e-003	6.0000e-005	2.8400e-003	0.0000	8.2994	8.2994	1.7000e-004	0.0000	8.3037
Total	**3.6400e-003**	**2.4100e-003**	**0.0264**	**9.0000e-005**	**0.0104**	**7.0000e-005**	**0.0105**	**2.7800e-003**	**6.0000e-005**	**2.8400e-003**	**0.0000**	**8.2994**	**8.2994**	**1.7000e-004**	**0.0000**	**8.3037**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9511					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.0860	0.1195	2.0000e-004		4.6700e-003	4.6700e-003		4.6700e-003	4.6700e-003	0.0000	16.8515	16.8515	1.0100e-003	0.0000	16.8767
Total	**0.9638**	**0.0860**	**0.1195**	**2.0000e-004**		**4.6700e-003**	**4.6700e-003**		**4.6700e-003**	**4.6700e-003**	**0.0000**	**16.8515**	**16.8515**	**1.0100e-003**	**0.0000**	**16.8767**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0100e-003	2.6500e-003	0.0290	1.0000e-004	0.0115	7.0000e-005	0.0116	3.0500e-003	7.0000e-005	3.1200e-003	0.0000	9.1294	9.1294	1.9000e-004	0.0000	9.1341
Total	**4.0100e-003**	**2.6500e-003**	**0.0290**	**1.0000e-004**	**0.0115**	**7.0000e-005**	**0.0116**	**3.0500e-003**	**7.0000e-005**	**3.1200e-003**	**0.0000**	**9.1294**	**9.1294**	**1.9000e-004**	**0.0000**	**9.1341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9511					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.0860	0.1195	2.0000e-004		4.6700e-003	4.6700e-003		4.6700e-003	4.6700e-003	0.0000	16.8515	16.8515	1.0100e-003	0.0000	16.8767
Total	**0.9638**	**0.0860**	**0.1195**	**2.0000e-004**		**4.6700e-003**	**4.6700e-003**		**4.6700e-003**	**4.6700e-003**	**0.0000**	**16.8515**	**16.8515**	**1.0100e-003**	**0.0000**	**16.8767**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0100e-003	2.6500e-003	0.0290	1.0000e-004	0.0115	7.0000e-005	0.0116	3.0500e-003	7.0000e-005	3.1200e-003	0.0000	9.1294	9.1294	1.9000e-004	0.0000	9.1341
Total	**4.0100e-003**	**2.6500e-003**	**0.0290**	**1.0000e-004**	**0.0115**	**7.0000e-005**	**0.0116**	**3.0500e-003**	**7.0000e-005**	**3.1200e-003**	**0.0000**	**9.1294**	**9.1294**	**1.9000e-004**	**0.0000**	**9.1341**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0694	0.4404	0.7630	3.2100e-003	0.2626	2.5900e-003	0.2652	0.0706	2.4200e-003	0.0730	0.0000	296.2185	296.2185	0.0113	0.0000	296.5018
Unmitigated	0.0694	0.4404	0.7630	3.2100e-003	0.2626	2.5900e-003	0.2652	0.0706	2.4200e-003	0.0730	0.0000	296.2185	296.2185	0.0113	0.0000	296.5018

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	304.00	304.00	304.00	702,121	702,121
Total	304.00	304.00	304.00	702,121	702,121

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	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	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	85.2456	85.2456	3.7800e-003	8.7000e-004	85.6004
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	85.2456	85.2456	3.7800e-003	8.7000e-004	85.6004
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	641742	85.2456	3.7800e-003	8.7000e-004	85.6004
Total		**85.2456**	**3.7800e-003**	**8.7000e-004**	**85.6004**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	641742	85.2456	3.7800e-003	8.7000e-004	85.6004
Total		**85.2456**	**3.7800e-003**	**8.7000e-004**	**85.6004**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7230	0.0155	1.1292	8.0000e-005		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	4.6899	4.6899	1.8200e-003	5.0000e-005	4.7511
Unmitigated	0.7230	0.0155	1.1292	8.0000e-005		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	4.6899	4.6899	1.8200e-003	5.0000e-005	4.7511

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	0.0951					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5936					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.9000e-004	2.4600e-003	1.0500e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8463	2.8463	5.0000e-005	5.0000e-005	2.8633
Landscaping	0.0339	0.0130	1.1281	6.0000e-005		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	1.8436	1.8436	1.7700e-003	0.0000	1.8878
Total	**0.7230**	**0.0155**	**1.1292**	**8.0000e-005**		**6.4500e-003**	**6.4500e-003**		**6.4500e-003**	**6.4500e-003**	**0.0000**	**4.6899**	**4.6899**	**1.8200e-003**	**5.0000e-005**	**4.7511**

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	0.0951					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5936					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.9000e-004	2.4600e-003	1.0500e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8463	2.8463	5.0000e-005	5.0000e-005	2.8633
Landscaping	0.0339	0.0130	1.1281	6.0000e-005		6.2500e-003	6.2500e-003		6.2500e-003	6.2500e-003	0.0000	1.8436	1.8436	1.7700e-003	0.0000	1.8878
Total	**0.7230**	**0.0155**	**1.1292**	**8.0000e-005**		**6.4500e-003**	**6.4500e-003**		**6.4500e-003**	**6.4500e-003**	**0.0000**	**4.6899**	**4.6899**	**1.8200e-003**	**5.0000e-005**	**4.7511**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.1108	0.2585	6.1800e-003	19.4172
Unmitigated	11.1108	0.2585	6.1800e-003	19.4172

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.92273 / 6.24346	11.1108	0.2585	6.1800e-003	19.4172
Total		**11.1108**	**0.2585**	**6.1800e-003**	**19.4172**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.92273 / 6.24346	11.1108	0.2585	6.1800e-003	19.4172
Total		**11.1108**	**0.2585**	**6.1800e-003**	**19.4172**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.1931	0.8388	0.0000	35.1629
Unmitigated	14.1931	0.8388	0.0000	35.1629

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	69.92	14.1931	0.8388	0.0000	35.1629
Total		**14.1931**	**0.8388**	**0.0000**	**35.1629**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	69.92	14.1931	0.8388	0.0000	35.1629
Total		**14.1931**	**0.8388**	**0.0000**	**35.1629**

9.0 Operational Offroad

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

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

University Village Step 3 Project - CNR and UV buildings

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Racquet Club	4.50	1000sqft	0.10	4,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	292.85	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted for 2030 RPS.

Land Use - Per project plans. Racquet club assumed to be representative of scale of recreational use.

Construction Phase - Construction done by 2024.

Trips and VMT -

Demolition -

Grading -

Architectural Coating - Coatings per BAAQMD Regulation 8, Rule 3.

Vehicle Trips -

Woodstoves -

Area Coating - BAAQMD Regulation 8, Rule 3.

Energy Use - 2019 Title 24 standards.

Water And Wastewater - Indoor water use reduced 20 percent per 2016 CalGreen standards.

Solid Waste -

Stationary Sources - Emergency Generators and Fire Pumps -

University Village Step 3 Project - CNR and UV buildings - Alameda County, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblConstructionPhase	NumDays	1.00	23.00
tblConstructionPhase	NumDays	2.00	53.00
tblConstructionPhase	NumDays	100.00	563.00
tblConstructionPhase	NumDays	5.00	132.00
tblConstructionPhase	NumDays	5.00	132.00
tblEnergyUse	T24E	4.10	2.90
tblEnergyUse	T24E	1.21	0.80
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	641.35	292.85
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblWater	IndoorWaterUseRate	1,066,402.49	853,122.00
tblWater	IndoorWaterUseRate	266,144.15	212,915.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.8318	8.2084	7.8142	0.0127	0.8349	0.4482	1.2428	0.4356	0.4124	0.8247	0.0000	1,221.6380	1,221.6380	0.3609	0.0000	1,227.0287
2022	0.7054	7.2373	7.2882	0.0122	0.0464	0.3725	0.4189	0.0126	0.3427	0.3554	0.0000	1,188.8012	1,188.8012	0.3609	0.0000	1,197.8231
2023	2.2470	13.4291	16.4400	0.0278	0.2025	0.6567	0.8592	0.0540	0.6133	0.6673	0.0000	2,634.9767	2,634.9767	0.6817	0.0000	2,652.0201
Maximum	**2.2470**	**13.4291**	**16.4400**	**0.0278**	**0.8349**	**0.6567**	**1.2428**	**0.4356**	**0.6133**	**0.8247**	**0.0000**	**2,634.9767**	**2,634.9767**	**0.6817**	**0.0000**	**2,652.0201**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.8318	8.2084	7.8142	0.0127	0.8349	0.4482	1.2428	0.4356	0.4124	0.8247	0.0000	1,221.6380	1,221.6380	0.3609	0.0000	1,227.0287
2022	0.7054	7.2373	7.2882	0.0122	0.0464	0.3725	0.4189	0.0126	0.3427	0.3554	0.0000	1,188.8012	1,188.8012	0.3609	0.0000	1,197.8231
2023	2.2470	13.4291	16.4400	0.0278	0.2025	0.6567	0.8592	0.0540	0.6133	0.6673	0.0000	2,634.9767	2,634.9767	0.6817	0.0000	2,652.0201
Maximum	**2.2470**	**13.4291**	**16.4400**	**0.0278**	**0.8349**	**0.6567**	**1.2428**	**0.4356**	**0.6133**	**0.8247**	**0.0000**	**2,634.9767**	**2,634.9767**	**0.6817**	**0.0000**	**2,652.0201**

University Village Step 3 Project - CNR and UV buildings - Alameda 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	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

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	0.2515	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Energy	6.7200e-003	0.0611	0.0513	3.7000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003		73.2812	73.2812	1.4000e-003	1.3400e-003	73.7167
Mobile	0.1903	1.2262	2.1147	8.1200e-003	0.6860	6.6600e-003	0.6926	0.1838	6.2300e-003	0.1900		826.6608	826.6608	0.0348		827.5312
Total	**0.4485**	**1.2873**	**2.1670**	**8.4900e-003**	**0.6860**	**0.0113**	**0.6973**	**0.1838**	**0.0109**	**0.1946**		**899.9443**	**899.9443**	**0.0362**	**1.3400e-003**	**901.2503**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2515	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Energy	6.7200e-003	0.0611	0.0513	3.7000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003		73.2812	73.2812	1.4000e-003	1.3400e-003	73.7167
Mobile	0.1903	1.2262	2.1147	8.1200e-003	0.6860	6.6600e-003	0.6926	0.1838	6.2300e-003	0.1900		826.6608	826.6608	0.0348		827.5312
Total	**0.4485**	**1.2873**	**2.1670**	**8.4900e-003**	**0.6860**	**0.0113**	**0.6973**	**0.1838**	**0.0109**	**0.1946**		**899.9443**	**899.9443**	**0.0362**	**1.3400e-003**	**901.2503**

	ROG	NOx	CO	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	Site Preparation	Site Preparation	5/25/2021	6/24/2021	5	23	
2	Grading	Grading	6/25/2021	9/7/2021	5	53	
3	Building Construction	Building Construction	9/8/2021	11/3/2023	5	563	
4	Paving	Paving	6/1/2023	12/1/2023	5	132	
5	Architectural Coating	Architectural Coating	6/1/2023	12/1/2023	5	132	

Acres of Grading (Site Preparation Phase): 11.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 15,750; Non-Residential Outdoor: 5,250; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0176	0.0125	0.1226	3.7000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.4000e-004	0.0111		37.1021	37.1021	9.0000e-004		37.1245
Total	**0.0176**	**0.0125**	**0.1226**	**3.7000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**37.1021**	**37.1021**	**9.0000e-004**		**37.1245**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0176	0.0125	0.1226	3.7000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.4000e-004	0.0111		37.1021	37.1021	9.0000e-004		37.1245
Total	**0.0176**	**0.0125**	**0.1226**	**3.7000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**37.1021**	**37.1021**	**9.0000e-004**		**37.1245**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0352	0.0250	0.2451	7.4000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		74.2042	74.2042	1.7900e-003		74.2489
Total	**0.0352**	**0.0250**	**0.2451**	**7.4000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**74.2042**	**74.2042**	**1.7900e-003**		**74.2489**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0352	0.0250	0.2451	7.4000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		74.2042	74.2042	1.7900e-003		74.2489
Total	**0.0352**	**0.0250**	**0.2451**	**7.4000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**74.2042**	**74.2042**	**1.7900e-003**		**74.2489**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4000e-003	0.2134	0.0490	5.4000e-004	0.0136	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3400e-003		56.8225	56.8225	3.3500e-003		56.9062
Worker	0.0141	9.9900e-003	0.0980	3.0000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		29.6817	29.6817	7.2000e-004		29.6996
Total	**0.0205**	**0.2234**	**0.1470**	**8.4000e-004**	**0.0464**	**6.6000e-004**	**0.0471**	**0.0126**	**6.3000e-004**	**0.0133**		**86.5042**	**86.5042**	**4.0700e-003**		**86.6058**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4000e-003	0.2134	0.0490	5.4000e-004	0.0136	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3400e-003		56.8225	56.8225	3.3500e-003		56.9062
Worker	0.0141	9.9900e-003	0.0980	3.0000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		29.6817	29.6817	7.2000e-004		29.6996
Total	**0.0205**	**0.2234**	**0.1470**	**8.4000e-004**	**0.0464**	**6.6000e-004**	**0.0471**	**0.0126**	**6.3000e-004**	**0.0133**		**86.5042**	**86.5042**	**4.0700e-003**		**86.6058**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9800e-003	0.2026	0.0459	5.3000e-004	0.0136	3.9000e-004	0.0140	3.9000e-003	3.8000e-004	4.2800e-003		56.2618	56.2618	3.2000e-003		56.3418
Worker	0.0131	8.9400e-003	0.0896	2.9000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	1.9000e-004	8.9100e-003		28.6000	28.6000	6.4000e-004		28.6160
Total	**0.0191**	**0.2116**	**0.1355**	**8.2000e-004**	**0.0464**	**6.0000e-004**	**0.0470**	**0.0126**	**5.7000e-004**	**0.0132**		**84.8618**	**84.8618**	**3.8400e-003**		**84.9579**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9800e-003	0.2026	0.0459	5.3000e-004	0.0136	3.9000e-004	0.0140	3.9000e-003	3.8000e-004	4.2800e-003		56.2618	56.2618	3.2000e-003		56.3418
Worker	0.0131	8.9400e-003	0.0896	2.9000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	1.9000e-004	8.9100e-003		28.6000	28.6000	6.4000e-004		28.6160
Total	**0.0191**	**0.2116**	**0.1355**	**8.2000e-004**	**0.0464**	**6.0000e-004**	**0.0470**	**0.0126**	**5.7000e-004**	**0.0132**		**84.8618**	**84.8618**	**3.8400e-003**		**84.9579**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**		**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3900e-003	0.1568	0.0397	5.2000e-004	0.0136	1.7000e-004	0.0137	3.9000e-003	1.6000e-004	4.0600e-003		54.6708	54.6708	2.5500e-003		54.7345
Worker	0.0122	8.0200e-003	0.0819	2.8000e-004	0.0329	2.0000e-004	0.0331	8.7200e-003	1.9000e-004	8.9000e-003		27.5063	27.5063	5.7000e-004		27.5206
Total	**0.0166**	**0.1649**	**0.1217**	**8.0000e-004**	**0.0464**	**3.7000e-004**	**0.0468**	**0.0126**	**3.5000e-004**	**0.0130**		**82.1771**	**82.1771**	**3.1200e-003**		**82.2550**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**	**0.0000**	**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3900e-003	0.1568	0.0397	5.2000e-004	0.0136	1.7000e-004	0.0137	3.9000e-003	1.6000e-004	4.0600e-003		54.6708	54.6708	2.5500e-003		54.7345
Worker	0.0122	8.0200e-003	0.0819	2.8000e-004	0.0329	2.0000e-004	0.0331	8.7200e-003	1.9000e-004	8.9000e-003		27.5063	27.5063	5.7000e-004		27.5206
Total	**0.0166**	**0.1649**	**0.1217**	**8.0000e-004**	**0.0464**	**3.7000e-004**	**0.0468**	**0.0126**	**3.5000e-004**	**0.0130**		**82.1771**	**82.1771**	**3.1200e-003**		**82.2550**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0361	0.3688	1.2400e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		123.7784	123.7784	2.5700e-003		123.8427
Total	**0.0550**	**0.0361**	**0.3688**	**1.2400e-003**	**0.1479**	**9.1000e-004**	**0.1488**	**0.0392**	**8.4000e-004**	**0.0401**		**123.7784**	**123.7784**	**2.5700e-003**		**123.8427**

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0361	0.3688	1.2400e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		123.7784	123.7784	2.5700e-003		123.8427
Total	**0.0550**	**0.0361**	**0.3688**	**1.2400e-003**	**0.1479**	**9.1000e-004**	**0.1488**	**0.0392**	**8.4000e-004**	**0.0401**		**123.7784**	**123.7784**	**2.5700e-003**		**123.8427**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.7374					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	**0.9291**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.0500e-003	2.0100e-003	0.0205	7.0000e-005	8.2100e-003	5.0000e-005	8.2700e-003	2.1800e-003	5.0000e-005	2.2300e-003		6.8766	6.8766	1.4000e-004		6.8802
Total	**3.0500e-003**	**2.0100e-003**	**0.0205**	**7.0000e-005**	**8.2100e-003**	**5.0000e-005**	**8.2700e-003**	**2.1800e-003**	**5.0000e-005**	**2.2300e-003**		**6.8766**	**6.8766**	**1.4000e-004**		**6.8802**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.7374					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	**0.9291**	**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**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.0500e-003	2.0100e-003	0.0205	7.0000e-005	8.2100e-003	5.0000e-005	8.2700e-003	2.1800e-003	5.0000e-005	2.2300e-003		6.8766	6.8766	1.4000e-004		6.8802
Total	**3.0500e-003**	**2.0100e-003**	**0.0205**	**7.0000e-005**	**8.2100e-003**	**5.0000e-005**	**8.2700e-003**	**2.1800e-003**	**5.0000e-005**	**2.2300e-003**		**6.8766**	**6.8766**	**1.4000e-004**		**6.8802**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1903	1.2262	2.1147	8.1200e-003	0.6860	6.6600e-003	0.6926	0.1838	6.2300e-003	0.1900		826.6608	826.6608	0.0348		827.5312
Unmitigated	0.1903	1.2262	2.1147	8.1200e-003	0.6860	6.6600e-003	0.6926	0.1838	6.2300e-003	0.1900		826.6608	826.6608	0.0348		827.5312

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	66.18	14.76	6.30	120,157	120,157
Racquet Club	63.14	96.08	78.30	119,080	119,080
Total	129.32	110.84	84.60	239,236	239,236

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Racquet Club	9.50	7.30	7.30	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690
Racquet Club	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.7200e-003	0.0611	0.0513	3.7000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003		73.2812	73.2812	1.4000e-003	1.3400e-003	73.7167
NaturalGas Unmitigated	6.7200e-003	0.0611	0.0513	3.7000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003		73.2812	73.2812	1.4000e-003	1.3400e-003	73.7167

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	317.753	3.4300e-003	0.0312	0.0262	1.9000e-004		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003		37.3828	37.3828	7.2000e-004	6.9000e-004	37.6049
Racquet Club	305.137	3.2900e-003	0.0299	0.0251	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003		35.8985	35.8985	6.9000e-004	6.6000e-004	36.1118
Total		**6.7200e-003**	**0.0611**	**0.0513**	**3.7000e-004**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**		**73.2812**	**73.2812**	**1.4100e-003**	**1.3500e-003**	**73.7167**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.317753	3.4300e-003	0.0312	0.0262	1.9000e-004		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003		37.3828	37.3828	7.2000e-004	6.9000e-004	37.6049
Racquet Club	0.305137	3.2900e-003	0.0299	0.0251	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003		35.8985	35.8985	6.9000e-004	6.6000e-004	36.1118
Total		**6.7200e-003**	**0.0611**	**0.0513**	**3.7000e-004**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**		**73.2812**	**73.2812**	**1.4100e-003**	**1.3500e-003**	**73.7167**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2515	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Unmitigated	0.2515	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Total	**0.2515**	**1.0000e-005**	**1.0700e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.3000e-003**	**2.3000e-003**	**1.0000e-005**		**2.4500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Total	**0.2515**	**1.0000e-005**	**1.0700e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.3000e-003**	**2.3000e-003**	**1.0000e-005**		**2.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

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

University Village Step 3 Project - CNR and UV buildings

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Racquet Club	4.50	1000sqft	0.10	4,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	292.85	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted for 2030 RPS.

Land Use - Per project plans. Racquet club assumed to be representative of scale of recreational use.

Construction Phase - Construction done by 2024.

Trips and VMT -

Demolition -

Grading -

Architectural Coating - Coatings per BAAQMD Regulation 8, Rule 3.

Vehicle Trips -

Woodstoves -

Area Coating - BAAQMD Regulation 8, Rule 3.

Energy Use - 2019 Title 24 standards.

Water And Wastewater - Indoor water use reduced 20 percent per 2016 CalGreen standards.

Solid Waste -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblConstructionPhase	NumDays	1.00	23.00
tblConstructionPhase	NumDays	2.00	53.00
tblConstructionPhase	NumDays	100.00	563.00
tblConstructionPhase	NumDays	5.00	132.00
tblConstructionPhase	NumDays	5.00	132.00
tblEnergyUse	T24E	4.10	2.90
tblEnergyUse	T24E	1.21	0.80
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	641.35	292.85
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblWater	IndoorWaterUseRate	1,066,402.49	853,122.00
tblWater	IndoorWaterUseRate	266,144.15	212,915.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.8303	8.2048	7.8296	0.0128	0.8349	0.4482	1.2428	0.4356	0.4124	0.8247	0.0000	1,228.0715	1,228.0715	0.3606	0.0000	1,233.4654
2022	0.7045	7.2343	7.2878	0.0123	0.0464	0.3725	0.4189	0.0126	0.3427	0.3554	0.0000	1,192.8806	1,192.8806	0.3606	0.0000	1,201.8961
2023	2.2436	13.4195	16.4689	0.0279	0.2025	0.6567	0.8592	0.0540	0.6132	0.6673	0.0000	2,650.2179	2,650.2179	0.6818	0.0000	2,667.2620
Maximum	**2.2436**	**13.4195**	**16.4689**	**0.0279**	**0.8349**	**0.6567**	**1.2428**	**0.4356**	**0.6132**	**0.8247**	**0.0000**	**2,650.2179**	**2,650.2179**	**0.6818**	**0.0000**	**2,667.2620**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.8303	8.2048	7.8296	0.0128	0.8349	0.4482	1.2428	0.4356	0.4124	0.8247	0.0000	1,228.0715	1,228.0715	0.3606	0.0000	1,233.4654
2022	0.7045	7.2343	7.2878	0.0123	0.0464	0.3725	0.4189	0.0126	0.3427	0.3554	0.0000	1,192.8806	1,192.8806	0.3606	0.0000	1,201.8961
2023	2.2436	13.4195	16.4689	0.0279	0.2025	0.6567	0.8592	0.0540	0.6132	0.6673	0.0000	2,650.2179	2,650.2179	0.6818	0.0000	2,667.2620
Maximum	**2.2436**	**13.4195**	**16.4689**	**0.0279**	**0.8349**	**0.6567**	**1.2428**	**0.4356**	**0.6132**	**0.8247**	**0.0000**	**2,650.2179**	**2,650.2179**	**0.6818**	**0.0000**	**2,667.2620**

University Village Step 3 Project - CNR and UV buildings - Alameda 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	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

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	0.2515	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Energy	6.7200e-003	0.0611	0.0513	3.7000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003		73.2812	73.2812	1.4000e-003	1.3400e-003	73.7167
Mobile	0.2244	1.1916	2.0600	8.6500e-003	0.6860	6.6200e-003	0.6926	0.1838	6.2000e-003	0.1900		881.0562	881.0562	0.0332		881.8855
Total	**0.4826**	**1.2527**	**2.1124**	**9.0200e-003**	**0.6860**	**0.0113**	**0.6972**	**0.1838**	**0.0108**	**0.1946**		**954.3397**	**954.3397**	**0.0346**	**1.3400e-003**	**955.6046**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2515	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Energy	6.7200e-003	0.0611	0.0513	3.7000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003		73.2812	73.2812	1.4000e-003	1.3400e-003	73.7167
Mobile	0.2244	1.1916	2.0600	8.6500e-003	0.6860	6.6200e-003	0.6926	0.1838	6.2000e-003	0.1900		881.0562	881.0562	0.0332		881.8855
Total	**0.4826**	**1.2527**	**2.1124**	**9.0200e-003**	**0.6860**	**0.0113**	**0.6972**	**0.1838**	**0.0108**	**0.1946**		**954.3397**	**954.3397**	**0.0346**	**1.3400e-003**	**955.6046**

	ROG	NOx	CO	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	Site Preparation	Site Preparation	5/25/2021	6/24/2021	5	23	
2	Grading	Grading	6/25/2021	9/7/2021	5	53	
3	Building Construction	Building Construction	9/8/2021	11/3/2023	5	563	
4	Paving	Paving	6/1/2023	12/1/2023	5	132	
5	Architectural Coating	Architectural Coating	6/1/2023	12/1/2023	5	132	

Acres of Grading (Site Preparation Phase): 11.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 15,750; Non-Residential Outdoor: 5,250; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0169	0.0100	0.1303	4.0000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.4000e-004	0.0111		40.3189	40.3189	9.6000e-004		40.3428
Total	**0.0169**	**0.0100**	**0.1303**	**4.0000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**40.3189**	**40.3189**	**9.6000e-004**		**40.3428**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0169	0.0100	0.1303	4.0000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.4000e-004	0.0111		40.3189	40.3189	9.6000e-004		40.3428
Total	**0.0169**	**0.0100**	**0.1303**	**4.0000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**40.3189**	**40.3189**	**9.6000e-004**		**40.3428**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0338	0.0201	0.2605	8.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		80.6378	80.6378	1.9200e-003		80.6856
Total	**0.0338**	**0.0201**	**0.2605**	**8.1000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**80.6378**	**80.6378**	**1.9200e-003**		**80.6856**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0338	0.0201	0.2605	8.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		80.6378	80.6378	1.9200e-003		80.6856
Total	**0.0338**	**0.0201**	**0.2605**	**8.1000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**80.6378**	**80.6378**	**1.9200e-003**		**80.6856**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0500e-003	0.2118	0.0421	5.5000e-004	0.0136	4.4000e-004	0.0140	3.9000e-003	4.2000e-004	4.3200e-003		58.4301	58.4301	3.0300e-003		58.5060
Worker	0.0135	8.0300e-003	0.1042	3.2000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		32.2551	32.2551	7.7000e-004		32.2743
Total	**0.0196**	**0.2199**	**0.1463**	**8.7000e-004**	**0.0464**	**6.5000e-004**	**0.0471**	**0.0126**	**6.2000e-004**	**0.0132**		**90.6852**	**90.6852**	**3.8000e-003**		**90.7802**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0500e-003	0.2118	0.0421	5.5000e-004	0.0136	4.4000e-004	0.0140	3.9000e-003	4.2000e-004	4.3200e-003		58.4301	58.4301	3.0300e-003		58.5060
Worker	0.0135	8.0300e-003	0.1042	3.2000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		32.2551	32.2551	7.7000e-004		32.2743
Total	**0.0196**	**0.2199**	**0.1463**	**8.7000e-004**	**0.0464**	**6.5000e-004**	**0.0471**	**0.0126**	**6.2000e-004**	**0.0132**		**90.6852**	**90.6852**	**3.8000e-003**		**90.7802**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6500e-003	0.2013	0.0394	5.5000e-004	0.0136	3.8000e-004	0.0139	3.9000e-003	3.6000e-004	4.2700e-003		57.8624	57.8624	2.9000e-003		57.9349
Worker	0.0125	7.1900e-003	0.0957	3.1000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	1.9000e-004	8.9100e-003		31.0788	31.0788	6.9000e-004		31.0960
Total	**0.0182**	**0.2085**	**0.1351**	**8.6000e-004**	**0.0464**	**5.9000e-004**	**0.0470**	**0.0126**	**5.5000e-004**	**0.0132**		**88.9412**	**88.9412**	**3.5900e-003**		**89.0309**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6500e-003	0.2013	0.0394	5.5000e-004	0.0136	3.8000e-004	0.0139	3.9000e-003	3.6000e-004	4.2700e-003		57.8624	57.8624	2.9000e-003		57.9349
Worker	0.0125	7.1900e-003	0.0957	3.1000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	1.9000e-004	8.9100e-003		31.0788	31.0788	6.9000e-004		31.0960
Total	**0.0182**	**0.2085**	**0.1351**	**8.6000e-004**	**0.0464**	**5.9000e-004**	**0.0470**	**0.0126**	**5.5000e-004**	**0.0132**		**88.9412**	**88.9412**	**3.5900e-003**		**89.0309**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**		**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.1400e-003	0.1562	0.0347	5.3000e-004	0.0136	1.6000e-004	0.0137	3.9000e-003	1.6000e-004	4.0600e-003		56.2093	56.2093	2.3200e-003		56.2673
Worker	0.0117	6.4600e-003	0.0878	3.0000e-004	0.0329	2.0000e-004	0.0331	8.7200e-003	1.9000e-004	8.9000e-003		29.8894	29.8894	6.2000e-004		29.9048
Total	**0.0158**	**0.1627**	**0.1226**	**8.3000e-004**	**0.0464**	**3.6000e-004**	**0.0468**	**0.0126**	**3.5000e-004**	**0.0130**		**86.0987**	**86.0987**	**2.9400e-003**		**86.1721**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**	**0.0000**	**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.1400e-003	0.1562	0.0347	5.3000e-004	0.0136	1.6000e-004	0.0137	3.9000e-003	1.6000e-004	4.0600e-003		56.2093	56.2093	2.3200e-003		56.2673
Worker	0.0117	6.4600e-003	0.0878	3.0000e-004	0.0329	2.0000e-004	0.0331	8.7200e-003	1.9000e-004	8.9000e-003		29.8894	29.8894	6.2000e-004		29.9048
Total	**0.0158**	**0.1627**	**0.1226**	**8.3000e-004**	**0.0464**	**3.6000e-004**	**0.0468**	**0.0126**	**3.5000e-004**	**0.0130**		**86.0987**	**86.0987**	**2.9400e-003**		**86.1721**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0525	0.0291	0.3952	1.3500e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		134.5022	134.5022	2.7700e-003		134.5714
Total	**0.0525**	**0.0291**	**0.3952**	**1.3500e-003**	**0.1479**	**9.1000e-004**	**0.1488**	**0.0392**	**8.4000e-004**	**0.0401**		**134.5022**	**134.5022**	**2.7700e-003**		**134.5714**

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0525	0.0291	0.3952	1.3500e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		134.5022	134.5022	2.7700e-003		134.5714
Total	**0.0525**	**0.0291**	**0.3952**	**1.3500e-003**	**0.1479**	**9.1000e-004**	**0.1488**	**0.0392**	**8.4000e-004**	**0.0401**		**134.5022**	**134.5022**	**2.7700e-003**		**134.5714**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.7374					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	**0.9291**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.9200e-003	1.6100e-003	0.0220	7.0000e-005	8.2100e-003	5.0000e-005	8.2700e-003	2.1800e-003	5.0000e-005	2.2300e-003		7.4723	7.4723	1.5000e-004		7.4762
Total	**2.9200e-003**	**1.6100e-003**	**0.0220**	**7.0000e-005**	**8.2100e-003**	**5.0000e-005**	**8.2700e-003**	**2.1800e-003**	**5.0000e-005**	**2.2300e-003**		**7.4723**	**7.4723**	**1.5000e-004**		**7.4762**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.7374					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	**0.9291**	**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**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.9200e-003	1.6100e-003	0.0220	7.0000e-005	8.2100e-003	5.0000e-005	8.2700e-003	2.1800e-003	5.0000e-005	2.2300e-003		7.4723	7.4723	1.5000e-004		7.4762
Total	**2.9200e-003**	**1.6100e-003**	**0.0220**	**7.0000e-005**	**8.2100e-003**	**5.0000e-005**	**8.2700e-003**	**2.1800e-003**	**5.0000e-005**	**2.2300e-003**		**7.4723**	**7.4723**	**1.5000e-004**		**7.4762**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2244	1.1916	2.0600	8.6500e-003	0.6860	6.6200e-003	0.6926	0.1838	6.2000e-003	0.1900		881.0562	881.0562	0.0332		881.8855
Unmitigated	0.2244	1.1916	2.0600	8.6500e-003	0.6860	6.6200e-003	0.6926	0.1838	6.2000e-003	0.1900		881.0562	881.0562	0.0332		881.8855

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	66.18	14.76	6.30	120,157	120,157
Racquet Club	63.14	96.08	78.30	119,080	119,080
Total	129.32	110.84	84.60	239,236	239,236

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Racquet Club	9.50	7.30	7.30	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690
Racquet Club	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.7200e-003	0.0611	0.0513	3.7000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003		73.2812	73.2812	1.4000e-003	1.3400e-003	73.7167
NaturalGas Unmitigated	6.7200e-003	0.0611	0.0513	3.7000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003		73.2812	73.2812	1.4000e-003	1.3400e-003	73.7167

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	317.753	3.4300e-003	0.0312	0.0262	1.9000e-004		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003		37.3828	37.3828	7.2000e-004	6.9000e-004	37.6049
Racquet Club	305.137	3.2900e-003	0.0299	0.0251	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003		35.8985	35.8985	6.9000e-004	6.6000e-004	36.1118
Total		**6.7200e-003**	**0.0611**	**0.0513**	**3.7000e-004**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**		**73.2812**	**73.2812**	**1.4100e-003**	**1.3500e-003**	**73.7167**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.317753	3.4300e-003	0.0312	0.0262	1.9000e-004		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003		37.3828	37.3828	7.2000e-004	6.9000e-004	37.6049
Racquet Club	0.305137	3.2900e-003	0.0299	0.0251	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003		35.8985	35.8985	6.9000e-004	6.6000e-004	36.1118
Total		**6.7200e-003**	**0.0611**	**0.0513**	**3.7000e-004**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**		**73.2812**	**73.2812**	**1.4100e-003**	**1.3500e-003**	**73.7167**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2515	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Unmitigated	0.2515	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Total	**0.2515**	**1.0000e-005**	**1.0700e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.3000e-003**	**2.3000e-003**	**1.0000e-005**		**2.4500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3000e-003	2.3000e-003	1.0000e-005		2.4500e-003
Total	**0.2515**	**1.0000e-005**	**1.0700e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.3000e-003**	**2.3000e-003**	**1.0000e-005**		**2.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

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

University Village Step 3 Project - CNR and UV buildings

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.00	1000sqft	0.14	6,000.00	0
Racquet Club	4.50	1000sqft	0.10	4,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	292.85	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted for 2030 RPS.

Land Use - Per project plans. Racquet club assumed to be representative of scale of recreational use.

Construction Phase - Construction done by 2024.

Trips and VMT -

Demolition -

Grading -

Architectural Coating - Coatings per BAAQMD Regulation 8, Rule 3.

Vehicle Trips -

Woodstoves -

Area Coating - BAAQMD Regulation 8, Rule 3.

Energy Use - 2019 Title 24 standards.

Water And Wastewater - Indoor water use reduced 20 percent per 2016 CalGreen standards.

Solid Waste -

Stationary Sources - Emergency Generators and Fire Pumps -

University Village Step 3 Project - CNR and UV buildings - Alameda County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblConstructionPhase	NumDays	1.00	23.00
tblConstructionPhase	NumDays	2.00	53.00
tblConstructionPhase	NumDays	100.00	563.00
tblConstructionPhase	NumDays	5.00	132.00
tblConstructionPhase	NumDays	5.00	132.00
tblEnergyUse	T24E	4.10	2.90
tblEnergyUse	T24E	1.21	0.80
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	641.35	292.85
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblWater	IndoorWaterUseRate	1,066,402.49	853,122.00
tblWater	IndoorWaterUseRate	266,144.15	212,915.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0625	0.6235	0.5619	9.6000e-004	0.0305	0.0329	0.0633	0.0128	0.0306	0.0434	0.0000	84.4411	84.4411	0.0220	0.0000	84.9900
2022	0.0915	0.9408	0.9467	1.5900e-003	5.8200e-003	0.0484	0.0543	1.5900e-003	0.0446	0.0461	0.0000	140.3361	140.3361	0.0425	0.0000	141.3996
2023	0.1763	1.1758	1.4015	2.3700e-003	0.0148	0.0575	0.0723	3.9800e-003	0.0535	0.0574	0.0000	205.3112	205.3112	0.0552	0.0000	206.6910
Maximum	**0.1763**	**1.1758**	**1.4015**	**2.3700e-003**	**0.0305**	**0.0575**	**0.0723**	**0.0128**	**0.0535**	**0.0574**	**0.0000**	**205.3112**	**205.3112**	**0.0552**	**0.0000**	**206.6910**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0625	0.6235	0.5619	9.6000e-004	0.0305	0.0329	0.0633	0.0128	0.0306	0.0434	0.0000	84.4410	84.4410	0.0220	0.0000	84.9899
2022	0.0915	0.9408	0.9467	1.5900e-003	5.8200e-003	0.0484	0.0543	1.5900e-003	0.0446	0.0461	0.0000	140.3360	140.3360	0.0425	0.0000	141.3995
2023	0.1763	1.1757	1.4015	2.3700e-003	0.0148	0.0575	0.0723	3.9800e-003	0.0535	0.0574	0.0000	205.3110	205.3110	0.0552	0.0000	206.6908
Maximum	**0.1763**	**1.1757**	**1.4015**	**2.3700e-003**	**0.0305**	**0.0575**	**0.0723**	**0.0128**	**0.0535**	**0.0574**	**0.0000**	**205.3110**	**205.3110**	**0.0552**	**0.0000**	**206.6908**

University Village Step 3 Project - CNR and UV buildings - Alameda 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	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	**4-1-2021**	**6-30-2021**	0.1113	0.1113
2	**7-1-2021**	**9-30-2021**	0.2736	0.2736
3	**10-1-2021**	**12-31-2021**	0.2958	0.2958
4	**1-1-2022**	**3-31-2022**	0.2553	0.2553
5	**4-1-2022**	**6-30-2022**	0.2580	0.2580
6	**7-1-2022**	**9-30-2022**	0.2608	0.2608
7	**10-1-2022**	**12-31-2022**	0.2610	0.2610
8	**1-1-2023**	**3-31-2023**	0.2325	0.2325
9	**4-1-2023**	**6-30-2023**	0.3253	0.3253
10	**7-1-2023**	**9-30-2023**	0.5146	0.5146
		Highest	0.5146	0.5146

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0459	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.0000e-004
Energy	1.2300e-003	0.0111	9.3600e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	25.3967	25.3967	8.2000e-004	3.6000e-004	25.5240
Mobile	0.0261	0.1641	0.2714	1.1100e-003	0.0895	9.0000e-004	0.0904	0.0240	8.4000e-004	0.0249	0.0000	102.6638	102.6638	4.1100e-003	0.0000	102.7666
Waste						0.0000	0.0000		0.0000	0.0000	6.3394	0.0000	6.3394	0.3747	0.0000	15.7056
Water						0.0000	0.0000		0.0000	0.0000	0.3382	1.1459	1.4842	0.0348	8.3000e-004	2.6018
Total	**0.0732**	**0.1753**	**0.2808**	**1.1800e-003**	**0.0895**	**1.7500e-003**	**0.0912**	**0.0240**	**1.6900e-003**	**0.0257**	**6.6776**	**129.2066**	**135.8843**	**0.4144**	**1.1900e-003**	**146.5982**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0459	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.0000e-004
Energy	1.2300e-003	0.0111	9.3600e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	25.3967	25.3967	8.2000e-004	3.6000e-004	25.5240
Mobile	0.0261	0.1641	0.2714	1.1100e-003	0.0895	9.0000e-004	0.0904	0.0240	8.4000e-004	0.0249	0.0000	102.6638	102.6638	4.1100e-003	0.0000	102.7666
Waste						0.0000	0.0000		0.0000	0.0000	6.3394	0.0000	6.3394	0.3747	0.0000	15.7056
Water						0.0000	0.0000		0.0000	0.0000	0.3382	1.1459	1.4842	0.0348	8.3000e-004	2.6018
Total	**0.0732**	**0.1753**	**0.2808**	**1.1800e-003**	**0.0895**	**1.7500e-003**	**0.0912**	**0.0240**	**1.6900e-003**	**0.0257**	**6.6776**	**129.2066**	**135.8843**	**0.4144**	**1.1900e-003**	**146.5982**

	ROG	NOx	CO	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

University Village Step 3 Project - CNR and UV buildings - Alameda County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/25/2021	6/24/2021	5	23	
2	Grading	Grading	6/25/2021	9/7/2021	5	53	
3	Building Construction	Building Construction	9/8/2021	11/3/2023	5	563	
4	Paving	Paving	6/1/2023	12/1/2023	5	132	
5	Architectural Coating	Architectural Coating	6/1/2023	12/1/2023	5	132	

Acres of Grading (Site Preparation Phase): 11.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 15,750; Non-Residential Outdoor: 5,250; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.1000e-003	0.0000	6.1000e-003	6.6000e-004	0.0000	6.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3600e-003	0.0899	0.0463	1.1000e-004		3.4400e-003	3.4400e-003		3.1700e-003	3.1700e-003	0.0000	9.8336	9.8336	3.1800e-003	0.0000	9.9131
Total	**7.3600e-003**	**0.0899**	**0.0463**	**1.1000e-004**	**6.1000e-003**	**3.4400e-003**	**9.5400e-003**	**6.6000e-004**	**3.1700e-003**	**3.8300e-003**	**0.0000**	**9.8336**	**9.8336**	**3.1800e-003**	**0.0000**	**9.9131**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.3700e-003	0.0000	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3901	0.3901	1.0000e-005	0.0000	0.3904
Total	**1.8000e-004**	**1.3000e-004**	**1.3700e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3901**	**0.3901**	**1.0000e-005**	**0.0000**	**0.3904**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.1000e-003	0.0000	6.1000e-003	6.6000e-004	0.0000	6.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3600e-003	0.0899	0.0463	1.1000e-004		3.4400e-003	3.4400e-003		3.1700e-003	3.1700e-003	0.0000	9.8336	9.8336	3.1800e-003	0.0000	9.9131
Total	**7.3600e-003**	**0.0899**	**0.0463**	**1.1000e-004**	**6.1000e-003**	**3.4400e-003**	**9.5400e-003**	**6.6000e-004**	**3.1700e-003**	**3.8300e-003**	**0.0000**	**9.8336**	**9.8336**	**3.1800e-003**	**0.0000**	**9.9131**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.3700e-003	0.0000	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3901	0.3901	1.0000e-005	0.0000	0.3904
Total	**1.8000e-004**	**1.3000e-004**	**1.3700e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3901**	**0.3901**	**1.0000e-005**	**0.0000**	**0.3904**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0200	0.0000	0.0200	0.0110	0.0000	0.0110	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0211	0.1922	0.2006	3.2000e-004		0.0108	0.0108		0.0103	0.0103	0.0000	27.5848	27.5848	5.1400e-003	0.0000	27.7133
Total	**0.0211**	**0.1922**	**0.2006**	**3.2000e-004**	**0.0200**	**0.0108**	**0.0307**	**0.0110**	**0.0103**	**0.0213**	**0.0000**	**27.5848**	**27.5848**	**5.1400e-003**	**0.0000**	**27.7133**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	6.0000e-004	6.3200e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7980	1.7980	4.0000e-005	0.0000	1.7990
Total	**8.5000e-004**	**6.0000e-004**	**6.3200e-003**	**2.0000e-005**	**2.1000e-003**	**1.0000e-005**	**2.1100e-003**	**5.6000e-004**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**1.7980**	**1.7980**	**4.0000e-005**	**0.0000**	**1.7990**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0200	0.0000	0.0200	0.0110	0.0000	0.0110	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0211	0.1922	0.2006	3.2000e-004		0.0108	0.0108		0.0103	0.0103	0.0000	27.5847	27.5847	5.1400e-003	0.0000	27.7133
Total	**0.0211**	**0.1922**	**0.2006**	**3.2000e-004**	**0.0200**	**0.0108**	**0.0307**	**0.0110**	**0.0103**	**0.0213**	**0.0000**	**27.5847**	**27.5847**	**5.1400e-003**	**0.0000**	**27.7133**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	6.0000e-004	6.3200e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7980	1.7980	4.0000e-005	0.0000	1.7990
Total	**8.5000e-004**	**6.0000e-004**	**6.3200e-003**	**2.0000e-005**	**2.1000e-003**	**1.0000e-005**	**2.1100e-003**	**5.6000e-004**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**1.7980**	**1.7980**	**4.0000e-005**	**0.0000**	**1.7990**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0322	0.3314	0.3014	4.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	41.5341	41.5341	0.0134	0.0000	41.8699
Total	**0.0322**	**0.3314**	**0.3014**	**4.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**41.5341**	**41.5341**	**0.0134**	**0.0000**	**41.8699**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	8.8800e-003	1.8800e-003	2.0000e-005	5.5000e-004	2.0000e-005	5.6000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	2.1744	2.1744	1.2000e-004	0.0000	2.1773
Worker	5.3000e-004	3.8000e-004	3.9600e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1263	1.1263	3.0000e-005	0.0000	1.1269
Total	**7.9000e-004**	**9.2600e-003**	**5.8400e-003**	**3.0000e-005**	**1.8600e-003**	**3.0000e-005**	**1.8800e-003**	**5.1000e-004**	**3.0000e-005**	**5.4000e-004**	**0.0000**	**3.3006**	**3.3006**	**1.5000e-004**	**0.0000**	**3.3043**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0322	0.3314	0.3014	4.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	41.5340	41.5340	0.0134	0.0000	41.8698
Total	**0.0322**	**0.3314**	**0.3014**	**4.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**41.5340**	**41.5340**	**0.0134**	**0.0000**	**41.8698**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	8.8800e-003	1.8800e-003	2.0000e-005	5.5000e-004	2.0000e-005	5.6000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	2.1744	2.1744	1.2000e-004	0.0000	2.1773
Worker	5.3000e-004	3.8000e-004	3.9600e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1263	1.1263	3.0000e-005	0.0000	1.1269
Total	**7.9000e-004**	**9.2600e-003**	**5.8400e-003**	**3.0000e-005**	**1.8600e-003**	**3.0000e-005**	**1.8800e-003**	**5.1000e-004**	**3.0000e-005**	**5.4000e-004**	**0.0000**	**3.3006**	**3.3006**	**1.5000e-004**	**0.0000**	**3.3043**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0892	0.9134	0.9299	1.4800e-003		0.0484	0.0484		0.0445	0.0445	0.0000	130.1920	130.1920	0.0421	0.0000	131.2447
Total	**0.0892**	**0.9134**	**0.9299**	**1.4800e-003**		**0.0484**	**0.0484**		**0.0445**	**0.0445**	**0.0000**	**130.1920**	**130.1920**	**0.0421**	**0.0000**	**131.2447**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5000e-004	0.0264	5.5200e-003	7.0000e-005	1.7100e-003	5.0000e-005	1.7600e-003	4.9000e-004	5.0000e-005	5.4000e-004	0.0000	6.7446	6.7446	3.6000e-004	0.0000	6.7536
Worker	1.5400e-003	1.0600e-003	0.0114	4.0000e-005	4.1100e-003	3.0000e-005	4.1400e-003	1.0900e-003	2.0000e-005	1.1200e-003	0.0000	3.3995	3.3995	8.0000e-005	0.0000	3.4014
Total	**2.2900e-003**	**0.0275**	**0.0169**	**1.1000e-004**	**5.8200e-003**	**8.0000e-005**	**5.9000e-003**	**1.5800e-003**	**7.0000e-005**	**1.6600e-003**	**0.0000**	**10.1441**	**10.1441**	**4.4000e-004**	**0.0000**	**10.1549**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0892	0.9134	0.9299	1.4800e-003		0.0484	0.0484		0.0445	0.0445	0.0000	130.1918	130.1918	0.0421	0.0000	131.2445
Total	**0.0892**	**0.9134**	**0.9299**	**1.4800e-003**		**0.0484**	**0.0484**		**0.0445**	**0.0445**	**0.0000**	**130.1918**	**130.1918**	**0.0421**	**0.0000**	**131.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5000e-004	0.0264	5.5200e-003	7.0000e-005	1.7100e-003	5.0000e-005	1.7600e-003	4.9000e-004	5.0000e-005	5.4000e-004	0.0000	6.7446	6.7446	3.6000e-004	0.0000	6.7536
Worker	1.5400e-003	1.0600e-003	0.0114	4.0000e-005	4.1100e-003	3.0000e-005	4.1400e-003	1.0900e-003	2.0000e-005	1.1200e-003	0.0000	3.3995	3.3995	8.0000e-005	0.0000	3.4014
Total	**2.2900e-003**	**0.0275**	**0.0169**	**1.1000e-004**	**5.8200e-003**	**8.0000e-005**	**5.9000e-003**	**1.5800e-003**	**7.0000e-005**	**1.6600e-003**	**0.0000**	**10.1441**	**10.1441**	**4.4000e-004**	**0.0000**	**10.1549**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0696	0.7061	0.7807	1.2500e-003		0.0352	0.0352		0.0324	0.0324	0.0000	110.2293	110.2293	0.0357	0.0000	111.1205
Total	**0.0696**	**0.7061**	**0.7807**	**1.2500e-003**		**0.0352**	**0.0352**		**0.0324**	**0.0324**	**0.0000**	**110.2293**	**110.2293**	**0.0357**	**0.0000**	**111.1205**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7000e-004	0.0173	4.0800e-003	6.0000e-005	1.4400e-003	2.0000e-005	1.4600e-003	4.2000e-004	2.0000e-005	4.4000e-004	0.0000	5.5446	5.5446	2.4000e-004	0.0000	5.5507
Worker	1.2100e-003	8.0000e-004	8.7900e-003	3.0000e-005	3.4800e-003	2.0000e-005	3.5000e-003	9.3000e-004	2.0000e-005	9.5000e-004	0.0000	2.7665	2.7665	6.0000e-005	0.0000	2.7679
Total	**1.6800e-003**	**0.0181**	**0.0129**	**9.0000e-005**	**4.9200e-003**	**4.0000e-005**	**4.9600e-003**	**1.3500e-003**	**4.0000e-005**	**1.3900e-003**	**0.0000**	**8.3111**	**8.3111**	**3.0000e-004**	**0.0000**	**8.3186**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0696	0.7061	0.7807	1.2500e-003		0.0352	0.0352		0.0324	0.0324	0.0000	110.2291	110.2291	0.0357	0.0000	111.1204
Total	**0.0696**	**0.7061**	**0.7807**	**1.2500e-003**		**0.0352**	**0.0352**		**0.0324**	**0.0324**	**0.0000**	**110.2291**	**110.2291**	**0.0357**	**0.0000**	**111.1204**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7000e-004	0.0173	4.0800e-003	6.0000e-005	1.4400e-003	2.0000e-005	1.4600e-003	4.2000e-004	2.0000e-005	4.4000e-004	0.0000	5.5446	5.5446	2.4000e-004	0.0000	5.5507
Worker	1.2100e-003	8.0000e-004	8.7900e-003	3.0000e-005	3.4800e-003	2.0000e-005	3.5000e-003	9.3000e-004	2.0000e-005	9.5000e-004	0.0000	2.7665	2.7665	6.0000e-005	0.0000	2.7679
Total	**1.6800e-003**	**0.0181**	**0.0129**	**9.0000e-005**	**4.9200e-003**	**4.0000e-005**	**4.9600e-003**	**1.3500e-003**	**4.0000e-005**	**1.3900e-003**	**0.0000**	**8.3111**	**8.3111**	**3.0000e-004**	**0.0000**	**8.3186**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0403	0.3633	0.4634	7.4000e-004		0.0174	0.0174		0.0163	0.0163	0.0000	62.0349	62.0349	0.0181	0.0000	62.4867
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0403**	**0.3633**	**0.4634**	**7.4000e-004**		**0.0174**	**0.0174**		**0.0163**	**0.0163**	**0.0000**	**62.0349**	**62.0349**	**0.0181**	**0.0000**	**62.4867**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2800e-003	2.1700e-003	0.0237	8.0000e-005	9.3900e-003	6.0000e-005	9.4500e-003	2.5000e-003	6.0000e-005	2.5500e-003	0.0000	7.4695	7.4695	1.5000e-004	0.0000	7.4733
Total	**3.2800e-003**	**2.1700e-003**	**0.0237**	**8.0000e-005**	**9.3900e-003**	**6.0000e-005**	**9.4500e-003**	**2.5000e-003**	**6.0000e-005**	**2.5500e-003**	**0.0000**	**7.4695**	**7.4695**	**1.5000e-004**	**0.0000**	**7.4733**

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0403	0.3633	0.4634	7.4000e-004		0.0174	0.0174		0.0163	0.0163	0.0000	62.0349	62.0349	0.0181	0.0000	62.4866
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0403**	**0.3633**	**0.4634**	**7.4000e-004**		**0.0174**	**0.0174**		**0.0163**	**0.0163**	**0.0000**	**62.0349**	**62.0349**	**0.0181**	**0.0000**	**62.4866**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2800e-003	2.1700e-003	0.0237	8.0000e-005	9.3900e-003	6.0000e-005	9.4500e-003	2.5000e-003	6.0000e-005	2.5500e-003	0.0000	7.4695	7.4695	1.5000e-004	0.0000	7.4733
Total	**3.2800e-003**	**2.1700e-003**	**0.0237**	**8.0000e-005**	**9.3900e-003**	**6.0000e-005**	**9.4500e-003**	**2.5000e-003**	**6.0000e-005**	**2.5500e-003**	**0.0000**	**7.4695**	**7.4695**	**1.5000e-004**	**0.0000**	**7.4733**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.0860	0.1195	2.0000e-004		4.6700e-003	4.6700e-003		4.6700e-003	4.6700e-003	0.0000	16.8515	16.8515	1.0100e-003	0.0000	16.8767
Total	**0.0613**	**0.0860**	**0.1195**	**2.0000e-004**		**4.6700e-003**	**4.6700e-003**		**4.6700e-003**	**4.6700e-003**	**0.0000**	**16.8515**	**16.8515**	**1.0100e-003**	**0.0000**	**16.8767**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.3200e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4150	0.4150	1.0000e-005	0.0000	0.4152
Total	**1.8000e-004**	**1.2000e-004**	**1.3200e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4150**	**0.4150**	**1.0000e-005**	**0.0000**	**0.4152**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.0860	0.1195	2.0000e-004		4.6700e-003	4.6700e-003		4.6700e-003	4.6700e-003	0.0000	16.8515	16.8515	1.0100e-003	0.0000	16.8767
Total	**0.0613**	**0.0860**	**0.1195**	**2.0000e-004**		**4.6700e-003**	**4.6700e-003**		**4.6700e-003**	**4.6700e-003**	**0.0000**	**16.8515**	**16.8515**	**1.0100e-003**	**0.0000**	**16.8767**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.3200e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4150	0.4150	1.0000e-005	0.0000	0.4152
Total	**1.8000e-004**	**1.2000e-004**	**1.3200e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4150**	**0.4150**	**1.0000e-005**	**0.0000**	**0.4152**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0261	0.1641	0.2714	1.1100e-003	0.0895	9.0000e-004	0.0904	0.0240	8.4000e-004	0.0249	0.0000	102.6638	102.6638	4.1100e-003	0.0000	102.7666
Unmitigated	0.0261	0.1641	0.2714	1.1100e-003	0.0895	9.0000e-004	0.0904	0.0240	8.4000e-004	0.0249	0.0000	102.6638	102.6638	4.1100e-003	0.0000	102.7666

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	66.18	14.76	6.30	120,157	120,157
Racquet Club	63.14	96.08	78.30	119,080	119,080
Total	129.32	110.84	84.60	239,236	239,236

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Racquet Club	9.50	7.30	7.30	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690
Racquet Club	0.562515	0.038056	0.190319	0.106285	0.014814	0.005157	0.024895	0.046887	0.002221	0.002358	0.005460	0.000343	0.000690

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	13.2642	13.2642	5.9000e-004	1.4000e-004	13.3194
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	13.2642	13.2642	5.9000e-004	1.4000e-004	13.3194
NaturalGas Mitigated	1.2300e-003	0.0111	9.3600e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1325	12.1325	2.3000e-004	2.2000e-004	12.2046
NaturalGas Unmitigated	1.2300e-003	0.0111	9.3600e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1325	12.1325	2.3000e-004	2.2000e-004	12.2046

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	115980	6.3000e-004	5.6900e-003	4.7800e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1891	6.1891	1.2000e-004	1.1000e-004	6.2259
Racquet Club	111375	6.0000e-004	5.4600e-003	4.5900e-003	3.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	5.9434	5.9434	1.1000e-004	1.1000e-004	5.9787
Total		**1.2300e-003**	**0.0112**	**9.3700e-003**	**6.0000e-005**		**8.4000e-004**	**8.4000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**12.1325**	**12.1325**	**2.3000e-004**	**2.2000e-004**	**12.2046**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	115980	6.3000e-004	5.6900e-003	4.7800e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1891	6.1891	1.2000e-004	1.1000e-004	6.2259
Racquet Club	111375	6.0000e-004	5.4600e-003	4.5900e-003	3.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	5.9434	5.9434	1.1000e-004	1.1000e-004	5.9787
Total		**1.2300e-003**	**0.0112**	**9.3700e-003**	**6.0000e-005**		**8.4000e-004**	**8.4000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**12.1325**	**12.1325**	**2.3000e-004**	**2.2000e-004**	**12.2046**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	67680	8.9902	4.0000e-004	9.0000e-005	9.0277
Racquet Club	32175	4.2740	1.9000e-004	4.0000e-005	4.2917
Total		**13.2642**	**5.9000e-004**	**1.3000e-004**	**13.3194**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	67680	8.9902	4.0000e-004	9.0000e-005	9.0277
Racquet Club	32175	4.2740	1.9000e-004	4.0000e-005	4.2917
Total		**13.2642**	**5.9000e-004**	**1.3000e-004**	**13.3194**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0459	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.0000e-004
Unmitigated	0.0459	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.0000e-004
Total	**0.0459**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.0000**	**0.0000**	**2.0000e-004**

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	4.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.0000e-004
Total	**0.0459**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.0000**	**0.0000**	**2.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.4842	0.0348	8.3000e-004	2.6018
Unmitigated	1.4842	0.0348	8.3000e-004	2.6018

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.853122 / 0.653602	1.1877	0.0278	6.7000e-004	2.0821
Racquet Club	0.212915 / 0.163121	0.2964	6.9500e-003	1.7000e-004	0.5196
Total		**1.4842**	**0.0348**	**8.4000e-004**	**2.6018**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.853122 / 0.653602	1.1877	0.0278	6.7000e-004	2.0821
Racquet Club	0.212915 / 0.163121	0.2964	6.9500e-003	1.7000e-004	0.5196
Total		**1.4842**	**0.0348**	**8.4000e-004**	**2.6018**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.3394	0.3747	0.0000	15.7056
Unmitigated	6.3394	0.3747	0.0000	15.7056

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	5.58	1.1327	0.0669	0.0000	2.8062
Racquet Club	25.65	5.2067	0.3077	0.0000	12.8994
Total		**6.3394**	**0.3747**	**0.0000**	**15.7056**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	5.58	1.1327	0.0669	0.0000	2.8062
Racquet Club	25.65	5.2067	0.3077	0.0000	12.8994
Total		**6.3394**	**0.3747**	**0.0000**	**15.7056**

9.0 Operational Offroad

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

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

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 20-09926, University Village

Vehicle Population Breakdown*	
1156020	Gasoline vehicles
60623	Diesel vehicles
95.0%	Gasoline vehicle %
5.0%	Diesel vehicle %

VMT per Vehicle Type	
702121	Project VMT (CalEEMod output)
667136	Gasoline vehicle VMT
34985	Diesel vehicle VMT

Gasoline Vehicles	
95.0%	Gasoline vehicle %
0.4404	Tons per year mobile NOX emissions (annual output in CalEEMod)
0.42	Gasoline vehicle tons per year NOX emissions
0.0333	Tons per year N2O emissions for gasoline vehicles**
0.0302	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
18.38	Diesel average miles per gallon*
0.08703	grams per mile N2O for diesel vehicles
3044.8	grams per year N2O for diesel vehicles
0.0030448	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.0333	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
9.9	**CO2e emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources
***Vehicle population source:** EMFAC2017 (v1.0.3) Emissions Inventory Region Type: County Region: Alameda Calendar Year: 2024 Season: Annual Vehicle Classification: EMFAC2011 Categories ****Methodology source:** EMFAC2017 Volume III - Technical Documentation https://www.arb.ca.gov/msei/emfac2011-faq.htm *****GWP source:** Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: The Physical Science Basis. Contrbution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 20-09926, University Village - CNR and UV Replacement

Vehicle Population Breakdown*	
1156020	Gasoline vehicles
60623	Diesel vehicles
95.0%	Gasoline vehicle %
5.0%	Diesel vehicle %

VMT per Vehicle Type	
239,236	Project VMT (CalEEMod output)
227315	Gasoline vehicle VMT
11921	Diesel vehicle VMT

Gasoline Vehicles	
95.0%	Gasoline vehicle %
0.1641	Tons per year mobile NOX emissions (annual output in CalEEMod)
0.16	Gasoline vehicle tons per year NOX emissions
0.0167	Tons per year N2O emissions for gasoline vehicles**
0.0152	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
18.38	Diesel average miles per gallon*
0.08703	grams per mile N2O for diesel vehicles
1037.5	grams per year N2O for diesel vehicles
0.0010375	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.0162	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
4.8	**CO2e emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources
***Vehicle population source:** EMFAC2017 (v1.0.3) Emissions Inventory Region Type: County Region: Alameda Calendar Year: 2024 Season: Annual Vehicle Classification: EMFAC2011 Categories ****Methodology source:** EMFAC2017 Volume III - Technical Documentation https://www.arb.ca.gov/msei/emfac2011-faq.htm *****GWP source:** Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: The Physical Science Basis. Contrbution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

Appendix BIO

Biological Resources Memorandum

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE

info@rinconconsultants.com
www.rinconconsultants.com

March 18, 2021
Project No: 20-09926

Shraddha Navalli Patil, Ph.D.
Senior Planner, Physical & Environmental Planning
Capital Strategies
University of California, Berkeley
300 A&E Building
Berkeley, California 94720-1382
Via email: *shraddha@berkeley.edu*

Subject: **Biological Resources Memorandum for the Addendum to the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR for the Proposed University Village Step 3 Project**

Dear Ms. Patil:

This letter has been prepared by Rincon Consultants, Inc. (Rincon) to assess potential impacts to biological resources from the development of the University Village Step 3 project in the context of the impact analysis contained within 1998 EIR and 2004 Subsequent EIR. The following will: determine if current conditions are consistent with those described in 2004; identify biological resources not addressed in 2004; and determine if the existing impact analysis and proposed mitigation is sufficient to address current project conditions.

Project Location

The project site is within the City of Albany in Alameda County, California. The site is located within the UC Berkeley University Village, a housing community for UC Berkeley students with families.

The site includes three distinct areas, as described below:

- The largest area ("Step 3 residential project site"), where a new residential development is proposed, is located at the northeast corner of the intersection of Monroe Street and Jackson Street. The site is bounded by Village Creek to the north and a surface parking lot that serves Sprouts Farmers Market to the east.
- One smaller area ("CNR replacement site"), where relocated UC Berkeley College of Natural Resources (CNR) uses are proposed, is located north of the residential project site on the other (north) side of Village Creek along Jackson Street.
- One additional smaller area ("UV replacement site"), where relocated UV uses are proposed, is located southwest of the residential site. The UC replacement site is bounded by Eight Street to the east, Red Oak Avenue to the north, Codornices Creek to the south and residential development to the west.

Methods

On August 17, 2020, a Rincon biologist Anastasia Ennis conducted a field reconnaissance survey of the project site to document site conditions, assess the presence of on-site habitat, and evaluate potential project effects on sensitive habitat and special-status wildlife and plants. Special-status species include the following:

- Species listed as rare, threatened, or endangered by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS),
- Species that are candidates for either State or federal listing,
- Species designated as "fully protected" or "species of special concern" by CDFW and USFWS,
- Other species tracked by the California Natural Diversity Database (CNDDB) or California Native Plant Society (CNPS), but that do not fall into any of the categories above.

Information regarding the occurrences of special-status species in the program area was obtained by searching the CDFW's CNDDB (2020a), USFWS Information for Planning and Conservation (2020a), and CNPS Electronic Inventory (2020) for the United States Geological Survey (USGS) 7.5-minute topographic quadrangle encompassing the project site (*Richmond*), and the eight surrounding quadrangles (*Petaluma Point, Mare Island, Benicia, San Quentin, Briones Valley, San Francisco North, Oakland East* and *Oakland West*). These databases contain records of reported occurrences of federally or State-listed endangered, threatened, rare, or proposed endangered or threatened species, federal species of concern, State Species of Special Concern, or otherwise sensitive species or habitat that may occur near the project area. Datasets from the USFWS and CDFW were also reviewed and lists of common and sensitive wildlife and plant species potentially occurring in the project area were generated. This search range encompasses a distance sufficient to account for regional habitat diversity and to overcome the limitations of the CNDDB (reports of actual occurrences form the basis of the CNDDB and this inventory is not exhaustive of every resource).

To identify if any biological resources were not addressed in 2004, a final list of regionally occurring special-status plants and animals was compiled and individual species were evaluated for potential to occur based on habitat conditions and proximity to known occurrences. The National Wetlands Inventory (USFWS 2020b) and the National Hydrography Datasets (USGS 2020) were reviewed for potential aquatic resources, including jurisdictional waters of the United States or waters of the State.

Existing Conditions

The Step 3 residential project site is entirely developed, with the exception of Village Creek at the north edge of the site. The site consists of large buildings used for storage and research with an open lot in the center of the site. The lot has paved and graveled areas, and the southern part of the site is also paved; most of these areas are now overgrown with ruderal vegetation. Chain-link and wire fences surround the northern two-thirds of the site. Ornamental trees and shrubs occur on the site and the vegetation along the portion of Village Creek that borders the site is dominated by eucalyptus, ornamental elm, and ivy. The CNR replacement site is on a small corner of agricultural land, immediately adjacent to Jackson Street. The UV Replacement site consists of a landscaped lawn, located to the north of Codornices Creek. Special-status animals are not expected to occur in urban areas developed with structures and paving that do not support natural plant communities as these areas do not meet habitat requirements for nesting, foraging, or cover.

Special Status Species

Rincon reviewed CNDDB records to identify if occurrences added since 2004 should necessitate further evaluation of impacts. Three CNDDB occurrences of special-status species have been recorded within the project site (CDFW 2020b): saline clover (*Trifolium hydrophilum*), western bumble bee (*Bombus occidentalis*), and monarch butterfly, California overwintering population (*Danaus plexippus*, population 1). While no records of bat species occur within the project site, large trees, such as those surrounding Village Creek, and unused buildings to be demolished at the Step 3 residential project site, may provide suitable bat maternity roosts for three bat species of special concern which have occurrence records in the region: pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus blossevilii*).

Saline clover, a CNPS List 1B.2 plant, was recorded on site in 1893 and is noted as extirpated (CDFW 2020a). Given its extirpation, the developed nature of the site and lack of suitable wetland or vernal pool habitat, impacts to this species are not expected.

Western bumble bee became a state candidate endangered species in 2019. Once widespread in the northwestern United States, it is now in decline throughout its range due to habitat loss and alteration, pathogens, urban development and fragmentation, and other factors. The CNDDB occurrence that overlaps with the project site is from 1985 (CDFW 2020a). Given the developed nature of much of the project site and its surroundings and the fragmented and disturbed nature of vegetated areas on site, there is a very low likelihood that the project provides suitable habitat for this species. Impacts to western bumblebee are not expected.

Overwintering populations of monarch butterflies were addressed in the 2004 Subsequent EIR (Impact BIO-4), and had been observed near the project site, however a more recent CNDDB occurrence recorded an observation of monarchs within the project site in 2015, along Village Creek. There is a low potential for butterflies to be present in the grove of trees along Village Creek within the project site from September through March.

Occurrence records for the pallid bat and Townsend's big-eared bat have been recorded within 10 miles of the project site (CDFW 2020b). Pallid bats are found in grasslands, shrublands, woodlands, and forests, and may roost in trees or buildings. Townsend's big-eared bat are found in a wide variety of habitats and may roost in abandoned buildings or large trees. There is a low potential for these two species to roost in trees or abandoned buildings on the project site.

The western red bat roosts in tree foliage, often on habitat edges with open areas for foraging. The trees at the project site may provide suitable roost sites for this species, although no occurrences have been recorded for this species within ten miles of the project site (CDFW 2020b). There is a low potential for this species to occur in trees on the project site.

Conclusions

Of the measures included in the 2004 Subsequent EIR, Mitigation Measures BIO-2 and BIO-4 and Continuing Best Practices BIO-1b and BIO1c are relevant to this project. Mitigation Measure BIO-2 would reduce impacts to nesting birds, although we recommend that the measure be updated to expand nesting bird season to current standard mitigation language, including the months of February and August. Mitigation Measure BIO-4 would reduce impacts to monarch butterfly winter colonies. Continuing Best Practices BIO-1b and BIO-1c would reduce impacts to central coast steelhead and

western pond turtle. Finally, UC Berkeley Continuing Best Practice BIO-2 (Roosting Bat Surveys and Avoidance) would reduce impacts to roosting bats. With implementation of these mitigation measures and continuing best practices, project impacts to special-status species and habitats would be less than significant and no considerable contributions would be made to cumulative impacts.

Sincerely,
Rincon Consultants, Inc.

Anastasia G. Ennis, M.S.
Associate Biologist

Sherri Miller, M.S.
Principal Biologist

References

California Department of Fish and Wildlife (CDFW). 2020a. California Natural Diversity Database, Rarefind 5. https://wildlife.ca.gov/data/cnddb/maps-and-data (Accessed September 2020).

_____.2020b. Biogeographic Information and Observation System (BIOS). http://bios.dfg.ca.gov. (Accessed September 2020).

California Native Plant Society. 2020. Inventory of Rare and Endangered Plants. V8-02. http://www.rareplants.cnps.org/. (Accessed September 2020).

United States Fish and Wildlife Service (USFWS). 2020a. Information for Planning and Consultation (IPaC). Available at: https://ecos.fws.gov/ipac/. (Accessed September 2020).

_____. 2020b. National Wetlands Inventory (NWI) Wetlands mapper. Available at: https://www.fws.gov/wetlands/data/mapper.html (Accessed September 2020).

United States Geological Survey (USGS). 2020. National Hydrography Dataset. Available at: https://nhd.usgs.gov/data.html (accessed September 2020).

Appendix CUL

Cultural Resources Assessment

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

March 18, 2021
Project No: 20-09926

Shraddha Navalli Patil, Ph.D.
Senior Planner, Physical & Environmental Planning
Capital Strategies
University of California, Berkeley
300 A&E Building
Berkeley, California 94720-1382
Via email: shraddha@berkeley.edu

Subject: **Archaeological Resources Assessment for the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR for the Proposed University Village Step 3 Addendum Project, University of California, Berkeley, city of Albany, Alameda County, California**

Dear Ms. Patil:

The University of California, Berkeley retained Rincon Consultants, Inc. (Rincon) to conduct a Phase I archaeological resources assessment for the 1998 University Village & Albany/Northwest Berkeley Properties Draft Master Plan EIR and 2004 Subsequent EIR for the Proposed University Village Step 3 Addendum Project (project), in the city of Albany, Alameda County, California. The purpose of this letter report is to document the results of the archaeological resources assessment performed by Rincon. Built environment resources will be evaluated separately in the EIR Addendum. This study included a cultural resources records search, Native American outreach, a pedestrian field survey, and preparation of this report. This project is subject to the California Environmental Quality Act (CEQA). The University of California, Berkeley (UC Berkeley) is the lead agency under CEQA.

Project Site

The project site is located in the city of Albany in Alameda County, California and includes three areas. The primary site is located south of Buchanan Street, west of San Pablo Ave (State Route [SR] 123), north of Monroe Street, and east of Jackson Street, consisting of an approximately 4.1-acre lot. The project also the Apparatus Bay replacement site and the College of Natural Resources (CNR) building replacement site. The project excludes the shopping center located at the northwest corner of the intersection of San Pablo Avenue and Monroe Street. The project site lies within the *Richmond* quadrangle, Township 1 North, Range 4 West, and Sections 33 and 34 (Figure 1 and Figure 2, Attachment A).

Project Description

The University Village 2004 Master Plan (2004 Master Plan) envisions future development for University Village (UV), a housing community for UC Berkeley students with families located in the City of Albany in

Alameda County, California. The Master Plan outlines three separate phases (referred to as "steps") of redevelopment. Steps 1 and 2 have been completed.

The proposed project would implement a portion of Step 3 of the 2004 Master Plan. The project would involve demolition of several existing structures, including structures associated with UV operations and the CNR, and development of a new six-story residential building with up to 400 dwelling units and an associated surface parking lot with up to 250 vehicle parking spaces. In addition, the project would involve construction of a 6,000 square-foot office and storage building and a 4,500 square-foot recreation building at areas near the new residential building. These two new buildings would replace some of the demolished UV and CNR structures.

Cultural Resources Records Search

Rincon received search results of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC) located at the Sonoma State University on September 8, 2020. The purpose of the records search was to identify previously conducted cultural resources studies and previously conducted cultural resources within the project site and a 0.25-mile radius. The CHRIS search included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, and the Archaeological Determinations of Eligibility list.

The NWIC records search identified 13 previously conducted cultural resources studies performed within a 0.25-mile radius of the project site (Table 1 and Attachment B), of which five include portions of the current project site (S-025172, S-030406, S-039236, S-039236a, and S-039236b), as discussed below.

Table 1 Previous Cultural Resource Studies within 0.25-miles of the Project Site

Report Number	Author	Year	Title	Relationship to Project Site
S-023778	Chavez, D. and J. M. Hupman	2000	*Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California*	Outside
S-023778a	Chavez, D.	2002	*Archaeological Resources Investigations for the EMUD East Bayshore Recycled Water Project, Alameda County, California: Supplemental Report*	Outside
S-023778b	Chavez, D. and J. M. Hupman	2002	*Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California: Additional Pipeline Alignments*	Outside
S-025172	Pastron, A.	1997	*Cultural Resources Evaluation – Consisting of a Focused Archival Literature Review and an on-site Archaeological Surface Reconnaissance of the University Village Albany/Northwest Berkeley Properties Master Plan Project, located in the Cities of Albany and Berkeley, Alameda County, California (letter report)*	**Within**

Report Number	Author	Year	Title	Relationship to Project Site
S-030406	Marvin, J., R. Groza, and A. Pulcheon	2003	*Historical Architectural Inventory of the Step 2 and Step 3 Areas of University Village, Albany, Alameda County, California*	**Within**
S-030574	Pastron, A.	2005	*Historic Property Survey Report for the Pedestrian/ Bicycle Path Portion of the Codornices Creek Improvements Project*	Outside
S-030574a	Pastron, A. and A. Gottsfield	2005	*Archaeological Survey Report for the Pedestrian/Bicycle Path Portion of the Codornices Creek Improvements Project Cities of Albany and Berkeley, Alameda County, Caltrans District 4*	Outside
S-037861	Oztek, N. and E. Andrews	2010	*Site clearance letter for the proposed disposal of excess land adjacent to the Berkeley Detached Delivery Unit Facility (letter report)*	Outside
S-039236	Jones, E. and M. Hibma	2012	*Historic Property Survey Report and Historical Resources Evaluation Report for the Buchanan Street Bicycle/Pedestrian Path Project, 04-ALA-CML-5178, E-FIS Project No. 0000020109, Albany, Alameda County, California*	**Within**
S-039236a	Hibma, M.	2012	*Historical Resources Evaluation Report for the Buchanan Street Bicycle/Pedestrian Path Project, Albany, Alameda County, California; Caltrans District 4, Federal Project No. CML 5178(012)*	**Within**
S-039236b	Jones, T.	2012	*Cultural Resources Letter Report, proposed bicycle / pedestrian paths, EBMUD PVC pipeline, various streetscape improvements, and installation of traffic signals, CML-5178, E-FIS #0000020109*	**Within**
S-047379	Forrest, S.	2015	*Submission Packet, FCC Form 620, for proposed New Tower Project, 1000 San Pablo Avenue, Albany, Alameda County, California 94706, San Pablo and Marin / Ensite #23034, EBI Project Number: 61149409*	Outside
S-047379a	Fink, A.	2015	*Cultural Resources Survey, San Pablo and Marin / Ensite #23034 (286638), 1000 San Pablo Avenue, Albany, Alameda County, California 94706, EBI Project No. 61149409*	Outside

Source: Northwest Information Center, 2020

S-025172

Study S-025172 was conducted by Archaeo-Tech, Inc. (Pastron 1997) for the University Village Albany/Northwest Berkeley Properties Master Plan Project. Archaeo-Tech, Inc. conducted a cultural resources evaluation for the 90-acre project site including University Village, a 15-acre Gill Tract, and the Harrison Street properties, noting nine prehistoric resources within a 1-mile radius of the project sites and numerous historic properties within the project sites. No prehistoric cultural resources were identified within the current project site during this study. Additionally, this study did not evaluate historic structures within the current project site; however, the study did discuss the history of the architecture of the buildings within the project site.

S-030406

LSA conducted study S-030406, a historical architectural inventory for the Step 2 and Step 3 areas of the University Village project (Marvin et al. 2003). LSA visually inspected the buildings within the Step 2 and Step 3 project sites, stating that the Step 3 area is part of two historic districts: The University Village District and U.C. Experiment Station District. The U.C. Experiment Station District includes the current project site. LSA recorded the Step 3 area as consisting of 40 features and recommended that the U.C. Experiment Station District was eligible for listing on the NRHP and CRHR.

S-039236, S-039236a, and S-039236b

In 2011, LSA (Jones and Hibma) conducted a historic property survey report, historic resources evaluation report, and cultural resources letter report for the Buchanan Street Bicycle/Pedestrian Path Project (Study S-039236). The study identified two built environment cultural resources, the U.C. Experiment Station District, which encompasses the current project site, and the U.S. Department of Agriculture Western Regional Research Center (WRRC). The WRRC is located outside of the current project site. As part of their study, LSA identified that over 90% of the U.C. Experiment Station District had been demolished and the integrity was no longer intact, recommending that the district was no longer eligible for inclusion on the NRHP or CRHR.

The NWIC search identified three previously recorded cultural resources within a 0.25-mile radius of the project site (Table 2), of which one resource (P-01-010811) was found within the project site. Resource P-01-010811, also known as the UC Berkeley Experiment Station District, was first recorded by Judith Marvin and Joy Longfellow in 2003 as part of the University Village Master Plan Focused Draft EIR. Marvin and Longfellow (2003) identified 21.5 acres of the district, including 40 buildings, structures, and objects. Marvin and Longfellow recommended that the district was eligible for inclusion on the NRHP and CRHR. In 2011, Michael Hibma updated the resource to reflect that approximately 90% of the district's contributing elements had been demolished. Therefore, Hibma recommended that district and individual lasting buildings were no longer eligible for inclusion in the NRHP.

Table 2 Previously Recorded Resources within 0.25-miles of the Project Site

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/ CRHR Status	Relationship to Project Site
P-010-010810	-	Historic District	University Village District,	2003 (Marvin, J.)	Not evaluated	Outside
P-01-010811	-	Historic District	UC Berkeley Experiment Station District,	2003 (Marvin, J. and Longfellow, J.); 2011 (Hibma, M.)	Recommended ineligible for NRHP	**Within**
P-01-011361	-	Historic Building	USDA Western Regional Research Center	2011 (Hibma, M.)	Recommended eligible for NRHP	Outside

Source: Northwest Information Center, 2020

Aerial Imagery and Historical Topographic Maps Review

Rincon completed a review of historical topographic maps and aerial imagery to ascertain the development history of the project site. Aerial imagery available from 1946 to 2005 depict the project site with buildings bounded by Monroe Street and Jackson Street (NETR Online 2020). Aerial imagery from 2009 show that buildings to the east were demolished, then all buildings within the project site were demolished by 2010 (NETR Online 2020). Aerial imagery from 2012 depicts the project site in its current condition (NETR Online 2020). Historic topographic maps from 1895 to 1899 depict the project site as vacant with development emerging on the 1915 *San Francisco, California* quadrangle map (USGS 2020). Historic topographic maps from 1947 to 1980 confirm the aerial imagery (USGS 2020; NETR Online 2020).

Sacred Lands File Search

Rincon contacted the Native American Heritage Commission (NAHC) on August 10, 2020, to request a Sacred Lands File (SLF) search of the project site. As part of this request, Rincon asked the NAHC to provide a list of Native American groups and/or individuals culturally affiliated with the area who may have knowledge of cultural resources in the project site (Attachment C). The NAHC emailed a response on August 13, 2020, stating that the SLF search returned negative results. Rincon sent letters to the Native American contacts provided by the NAHC to request information regarding their knowledge of cultural resources within the vicinity that may be impacted by the project on August 18, 2020. As of the date of this report, no responses have been received.

Pedestrian Field Survey

Rincon Archaeologist Elaine Foster, M.A., conducted an archaeological field survey of the project site on October 16, 2020. The project site has been disturbed by the previous construction and demolition activities. Ms. Foster inspected areas of exposed ground for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone),

soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features that indicate the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows and drainages were also visually inspected.

Ms. Foster did not identify any evidence of archaeological resources within the project site. Development, modern debris, dense vegetation, paving of the roads, and landscaping reduced visibility of surface sediments to 10 to 30 percent (Figures 3-5). The CNR replacement site was additionally disturbed by agricultural activity. Three pieces of brick tile fragments were observed near the CNR Fields (Figures 6-8). None of these fragments had diagnostic features indicative of a particular time period.

Findings and Recommendations

During the pedestrian survey of the project site, the Rincon archaeologist did not identify any recorded or newly identified archaeological resources. Resource P-01-010811 was originally recorded as a historic district consisting of 40 buildings, structures, features, and objects; however, due to the demolition of over 90% of the features, the district is no longer intact and was recommended as no longer eligible for the NRHP. The district does not include any archaeological features. Given the results of the background research and the pedestrian survey, Rincon recommends a finding of ***less than significant impact to archaeological resources*** for the purposes of CEQA and does not recommend any additional cultural resources work at this time for archaeological resources. Built environment cultural resources will be evaluated separately in the EIR Addendum. The project should comply with existing measures regarding unanticipated discovery of archaeological resources, which are written in the 2004 Master Plan and are repeated below. Also included below is a summary of existing regulations regarding the unanticipated discovery of human remains.

Unanticipated Discovery of Archaeological Resources

2004 Master Plan Policy 17-16: If evidence of cultural artifacts is found during construction, cease construction and earthmoving activity in the area and retain a qualified archaeologist to evaluate the find and perform data artifact recovery if deemed appropriate. 17-15: Where it is not feasible to avoid disturbing significant cultural resources, coordinate with applicable agencies and relevant organizations to identify feasible measures to mitigate such disruption.

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner makes a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access.

Please do not hesitate to contact Rincon with any questions regarding this cultural resources assessment.

Sincerely,
Rincon Consultants, Inc.

Courtney Montgomery, M.A.
Archaeologist

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Christopher A. Duran, M.A., RPA
Principal/ Senior Archaeologist

Elaine Foster, M.A., RPA
Archaeologist

Attachment:
Attachment A. Figures
Attachment B. CHRIS Cultural Resources Report List
Attachment C. NAHC SLF Results

References

Hibma, M.
2012 *Historical Resources Evaluation Report for the Buchanan Street Bicycle/Pedestrian Path Project, Albany, Alameda County, California; Caltrans District 4, Federal Project No. CML 5178(012).* Report on file at the North West Information Center at Sonoma State University.

Jones, T.
2012 *Cultural Resources Letter Report, proposed bicycle / pedestrian paths, EBMUD PVC pipeline, various streetscape improvements, and installation of traffic signals, CML-5178, E-FIS #0000020109.* Report on file at the North West Information Center at Sonoma State University.

Jones, E. and M. Hibma
2012 *Historic Property Survey Report and Historical Resources Evaluation Report for the Buchanan Street Bicycle/Pedestrian Path Project, 04-ALA-CML-5178, E-FIS Project No. 0000020109, Albany, Alameda County, California.* Report on file at the North West Information Center at Sonoma State University.

Marvin, J., R. Groza, and A. Pulcheon
2003 *Historical Architectural Inventory of the Step 2 and Step 3 Areas of University Village, Albany, Alameda County, California.* Report on file at the North West Information Center at Sonoma State University.

NETR Online
2020 Historic Aerials. https://www.historicaerials.com/viewer. Accessed September 2020.

Pastron, A.
1997 *Cultural Resources Evaluation – Consisting of a Focused Archival Literature Review and an on-site Archaeological Surface Reconnaissance of the University Village Albany/Northwest Berkeley Properties Master Plan Project, located in the Cities of Albany and Berkeley, Alameda County, California.* Report on file at the North West Information Center at Sonoma State University.

United States Geological Survey (USGS)
2020 Historical Topographic Map Explorer. [online map database]. www.historicalmaps.arcgis.comm/usgs/. Accessed September 2020.

Attachment A.

Figures

Figure 1 Project Location Map

Imagery provided by Esri and its licensors © 2020.

Project Location

N

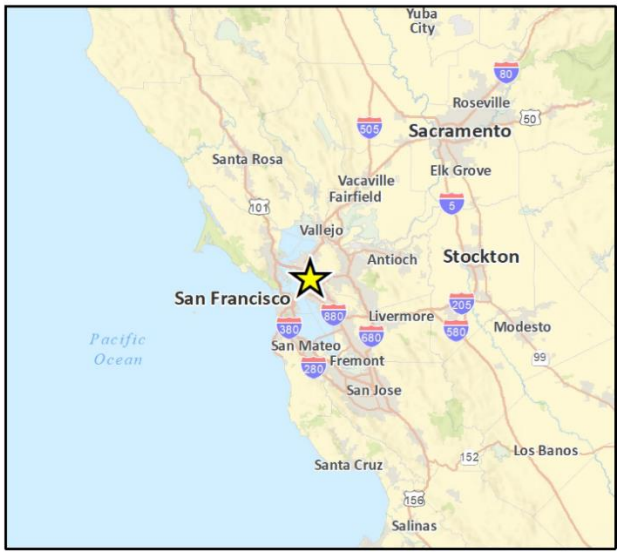


Figure 2 Project Boundary Map

Imagery provided by Microsoft Bing and its licensors © 2021.

Fig 2 Project Site in its Neighborhood Context

Figure 3 Main Project Location Facing Northeast

Figure 4 Main Project Location Facing East

Figure 5 CNR Replacement Site Facing North

Figure 6 Brick Tile Fragment 1

Figure 7 Brick Tile Fragment 2

Figure 8 Brick Tile Fragment 3

Attachment B.

CHRIS Cultural Resource Report List

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-023778	Voided - S-25603; Voided - S-26419	2000	David Chavez and Jan M. Hupman	Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California	David Chavez & Associates	01-000026, 01-000031, 01-000038, 01-000042, 01-000082, 01-000083, 01-000084, 01-000086, 01-000087, 01-000088, 01-000089, 01-000090, 01-000091, 01-000120
S-023778a		2002	David Chavez	Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California: Supplemental Report	David Chavez & Associates	
S-023778b		2002	Daivd Chavez and Jan M. Hupman	Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California: Additional Pipeline Alignments	David Chavez & Associates	
S-025172		1997	Allen Pastron	Cultural Resources Evaluation -- Consisting of a Focused Archival Literature Review and an on-site Archaeological Surface Reconnaissance -- of the University Village Albany/Northwest Berkeley Properties Master Plan Project, located in the Cities of Albany and Berkeley, Alameda County, California (letter report)	Archeo-Tec	
S-030406	Submitter - LSA Project No. UCB330	2003	Judith Marvin, Randy Groza, and Andrew Pulcheon	Historical Architectural Inventory of the Step 2 and Step 3 Areas of University Villiage, Albany, Alameda County, California.	LSA Associates, Inc.	01-010810, 01-010811
S-030574		2005	Allen G. Pastron	Historic Property Survey Report for the Pedestrian/Bicycle Path Portion of the Codornices Creek Improvements Project.	Archeo-Tec, Inc.	
S-030574a		2005	Allen G. Pastron and Andrew Gottsfield	Archaeological Survey Report for the Pedestrian/Bicycle Path Portion of the Codornices Creek Improvements Project Cities of Albany and Berkeley, Alameda County, Caltrans District 4	Archeo-Tec Inc.	
S-037861		2010	Nihal Oztek and Emmy Andrews	Site clearance letter for the proposed disposal of excess land adjacent to the Berkeley Detached Delivery Unit Facility (letter report)	Tetra Tech	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-039236		2012	E. Timothy Jones and Michael Hibma	Historic Property Survey Report and Historical Resources Evaluation Report for the Buchanan Street Bicycle/Pedestrian Path Project, 04-ALA-CML-5178, E-FIS Project No. 0000020109, Albany, Alameda County, California	LSA Associates, Inc.	01-010811, 01-011361
S-039236a		2012	Michael Hibma	Historical Resources Evaluation Report for the Buchanan Street Bicycle/Pedestrian Path Project, Albany, Alameda County, California; Caltrans District 4, Federal Project No. CML 5178(012)	LSA Associates, Inc.	
S-039236b		2012	E. Timothy Jones	Cultural Resources Letter Report, proposed bicycle/pedestrian paths, EBMUD PVC pipeline, various streetscape improvements, and installation of traffic signals, CML-5178, E-FIS #0000020109	LSA Associates, Inc.	
S-047379	Submitter - Ensite #23034 (286638)	2015	Stephen Forrest	Submission Packet, FCC Form 620, for proposed New Tower Project, 1000 San Pablo Avenue, Albany, Alameda County, California 94706, San Pablo and Marin / Ensite #23034, EBI Project Number: 61149409	EBI Consulting	
S-047379a		2015	Andrea K. Fink	Cultural Resources Survey, San Pablo and Marin / Ensite #23034 (286638), 1000 San Pablo Avenue, Albany, Alameda County, California 94706, EBI Project No. 61149409	EBI Consulting	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-01-010810		Resource Name - University Village District; Other - Cordornices Village/The Gill Tract	District	Historic	HP39	2003 (Judith Marvin, LSA Associates, Inc.)	S-030406
P-01-010811		Resource Name - U.C. Berkeley Experiment Station District; Other - Gill Nursery/Gill Tract/Division of Biological Control	District, Other	Historic	HP39	2003 (Judith Marvin & Joy Longfellow, LSA Associates, Inc,); 2011 (Michael Hibma, LSA)	S-030406, S-039236
P-01-011361		Resource Name - USDA Western Regional Research Center	Building	Historic	HP14; HP30	2011 (Michael Hibma, LSA)	S-039236

Attachment C.

NAHC SLF Results

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

August 13, 2020

Courtney Montgomery, Archaeologist
Rincon Consultants, Inc.

Via Email to: cmontgomery@rinconconsultants.com

Re: University Village Step 3 Project, Alameda County

Dear Ms. Montgomery:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Sarah.Fonseca@nahc.ca.gov.

Sincerely,

Sarah Fonseca
Cultural Resources Analyst

Attachment

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612
510 834 4455 OFFICE AND FAX
info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano
20885 Redwood Road, Suite 232
Castro Valley, California 94546
Via email: marellano@muwekma.org

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Ms. Arellano:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.
4825 J Street, Suite 200
Sacramento, California 95819

910 706 1673 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street
Pomona, California 91766
Via email: rumsen@aol.com

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Chairperson Cerda:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.
4825 J Street, Suite 200
Sacramento, California 95819

910 706 1673 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3388
Fremont, California 94539
Via email: chochenyo@aol.com

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Mr. Galvan:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, California 94603
Via email: cvltribe@gmail.com

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Chairperson Gould:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.
4825 J Street, Suite 200
Sacramento, California 95819

910 706 1673 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717
Linden, California 95236
Via email: canutes@verizon.net

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Chairperson Perez:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

Guidiville Indian Reservation
Merlene Sanchez, Chairperson
P.O. Box 339
Talmage, California 95481
Via email: admin@guidiville.net

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Chairperson Sanchez:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.
4825 J Street, Suite 200
Sacramento, California 95819

910 706 1673 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, California 95204
Via email: ams@indiancanyon.org

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Chairperson Sayers:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

North Valley Yokuts Tribe
Timothy Perez, MLD Contact
P.O. Box 717
Linden, California 95236
Via email: huskanam@gmail.com

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Mr. Perez:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612
510 834 4455 OFFICE AND FAX
info@rinconconsultants.com
www.rinconconsultants.com

August 18, 2020

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irene Zwierlein, Chairperson
789 Canada Road
Woodside, California 94062
Via email: amahmutsuntribal@gmail.com

RE: Native American Outreach for the Proposed University Village Step 3 Project, Berkeley, Alameda County, California

Dear Chairperson Zwierlein:

Rincon Consultants, Inc. (Rincon) was retained by the University of California, Berkley to prepare a Cultural Resources Assessment for the proposed University Village Step 3 Project (project) located in the City of Berkley, Alameda County, California. This project is subject to the California Environmental Quality Act (CEQA) and the University of California, Berkeley is the lead agency. The project proposes to construct a building approximately 5,000 square feet, up to six stories tall to house graduate students. Additionally, the proposed project includes the demolition of the existing structures and development of parking spaces. This letter does not constitute notification under Assembly Bill 52 (AB 52) of 2014. Any AB 52 consultation will be carried out separately by the lead agency.

As part of the process of identifying cultural resources for this project, Rincon has contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources within or near the project site. Rincon received a response from the NAHC on August 13, 2020, which stated the SLF search had been completed with "negative" results. The NAHC suggested we contact you to discuss this project further.

If you have knowledge of cultural resources that may exist within or near the project site, please do not hesitate to contact me at hhaas@rinconconsultants.com, or by telephone at (760) 918-9444 ext. 230. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas

Hannah Haas, M.A., RPA
Senior Archaeologist & Project Manager

Enclosed: Project Location Map

Appendix ENG

Energy Caluclations

University Village: Albany Graduate Student Housing Project - residences

Last Updated: February 5, 2021

Populate one of the following tables (Leave the other blank):

Annual VMT		OR	Daily Vehicle Trips	
Annual VMT:	702,121		Daily Vehicle Trips:	
			Average Trip Distance:	

Fleet Class	Fleet Mix
Light Duty Auto (LDA)	0.562515
Light Duty Truck 1 (LDT1)	0.038056
Light Duty Truck 2 (LDT2)	0.190319
Medium Duty Vehicle (MDV)	0.106285
Light Heavy Duty 1 (LHD1)	0.014814
Light Heavy Duty 2 (LHD2)	0.005157
Medium Heavy Duty (MHD)	0.024895
Heavy Heavy Duty (HHD)	0.046887
Other Bus (OBUS)	0.002221
Urban Bus (UBUS)	0.002358
Motorcycle (MCY)	0.005460
School Bus (SBUS)	0.000343
Motorhome (MH)	0.000690

Fuel Economy (MPG) [1]	
Passenger Vehicles	24.4
Light-Med Duty Trucks	17.9
Heavy Trucks/Other	7.5
Motorcycles	44

Fleet Mix

Vehicle Type	Percent	Fuel Type	Annual VMT: VMT	Vehicle Trips: VMT	Fuel Consumption (Gallons)
Passenger Vehicles	*56.25%*	*Gasoline*	394954	0.00	16186.62
Light-Medium Duty Trucks	*33.47%*	*Gasoline*	234972	0.00	13126.92
Heavy Trucks/Other	*9.74%*	*Diesel*	68362	0.00	9114.93
Motorcycle	*0.55%*	*Gasoline*	3834	0.00	87.13

Total Gasoline Consumption (gallons)	**29400.67**
Total Diesel Consumption (gallons)	**9114.93**

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2019. National Transportation Statistics 2019. Available at: https://www.bts.gov/topics/national-transportation-statistics.

University Village: Albany Graduate Student Housing Project - CNR and UV buildings

Last Updated: March 12, 2021

Populate one of the following tables (Leave the other blank):

Annual VMT		OR	Daily Vehicle Trips	
Annual VMT:	239,236		Daily Vehicle Trips:	
			Average Trip Distance:	

Fleet Class	Fleet Mix
Light Duty Auto (LDA)	0.562515
Light Duty Truck 1 (LDT1)	0.038056
Light Duty Truck 2 (LDT2)	0.190319
Medium Duty Vehicle (MDV)	0.106285
Light Heavy Duty 1 (LHD1)	0.014814
Light Heavy Duty 2 (LHD2)	0.005157
Medium Heavy Duty (MHD)	0.024895
Heavy Heavy Duty (HHD)	0.046887
Other Bus (OBUS)	0.002221
Urban Bus (UBUS)	0.002358
Motorcycle (MCY)	0.005460
School Bus (SBUS)	0.000343
Motorhome (MH)	0.000690

Fuel Economy (MPG) [1]	
Passenger Vehicles	24.4
Light-Med Duty Trucks	17.9
Heavy Trucks/Other	7.5
Motorcycles	44

Fleet Mix

Vehicle Type	Percent	Fuel Type	Annual VMT: VMT	Vehicle Trips: VMT	Fuel Consumption (Gallons)
Passenger Vehicles	*56.25%*	*Gasoline*	134574	0.00	5515.32
Light-Medium Duty Trucks	*33.47%*	*Gasoline*	80063	0.00	4472.78
Heavy Trucks/Other	*9.74%*	*Diesel*	23293	0.00	3105.76
Motorcycle	*0.55%*	*Gasoline*	1306	0.00	29.69

Total Gasoline Consumption (gallons)	**10017.79**
Total Diesel Consumption (gallons)	**3105.76**

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2019. National Transportation Statistics 2019. Available at: https://www.bts.gov/topics/national-transportation-statistics.

University Village: Albany Graduate Student Housing Project - residences

Last Updated: February 5, 2021

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Rubber Tired Dozers	3	8	247	0.4	Site Preparation Phase	2,882.80
Tractors/Loaders/Backhoes	4	8	97	0.37	Site Preparation Phase	1,552.26
Graders	1	8	187	0.41	Grading Phase	1,718.34
Excavators	1	8	158	0.38	Grading Phase	1,345.63
Rubber Tired Dozers	1	8	247	0.4	Grading Phase	2,214.33
Tractors/Loaders/Backhoes	3	8	97	0.37	Grading Phase	2,682.71
Cranes	1	7	231	0.29	Building Construction Phase	13,955.18
Forklifts	3	8	89	0.2	Building Construction Phase	14,133.59
Generator Sets	1	8	84	0.74	Building Construction Phase	16,452.14
Tractors/Loaders/Backhoes	3	7	97	0.37	Building Construction Phase	24,935.27
Welders	1	8	46	0.45	Building Construction Phase	5,478.75
Air Compressors	1	6	78	0.48	Architectural Coating Phase	1,742.50
Cement and Mortar Mixers	2	6	9	0.56	Paving Phase	469.14
Pavers	1	8	130	0.42	Paving Phase	3,047.72
Rollers	2	6	80	0.38	Paving Phase	2,829.71
Tractors/Loaders/Backhoes	1	8	97	0.37	Architectural Coating Phase	2,227.15
Paving Equipment	2	6	132	0.36	Paving Phase	3,978.79
					Total Fuel Used	**101,646.02**
						(Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	23
Grading Phase	53
Building Construction Phase	563
Paving Phase	132
Architectural Coating Phase	132
Total Days	903

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.4	18	10.8	183.25
Grading Phase	24.4	15	10.8	351.89
Building Construction Phase	24.4	109	10.8	27162.44
Paving Phase	24.4	20	10.8	1168.52
Architectural Coating Phase	24.4	22	10.8	1285.38
			Fuel	**30,151.48**

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	0	20.0	0.00
Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
		Fuel		**-**
VENDOR TRIPS				
Site Preparation Phase	7.5	0	7.3	0.00
Grading Phase	7.5	0	7.3	0.00
Building Construction Phase	7.5	16	7.3	8767.79
Paving Phase	7.5	0	7.3	0.00
Architectural Coating Phase	7.5	0	7.3	0.00
		Fuel		**8,767.79**

Total Gasoline Consumption (gallons)	**30,151.48**
Total Diesel Consumption (gallons)	**110,413.81**

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b* . July 2018. Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2019. *National Transportation Statistics 2019* . Available at: https://www.bts.gov/topics/national-transportation-statistics.

University Village: Albany Graduate Student Housing Project - CNR and UV buildings

Last Updated: March 12, 2021

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Graders	1	8	187	0.41	Site Preparation Phase	745.70
Tractors/Loaders/Backhoes	1	8	97	0.37	Site Preparation Phase	388.06
Concrete/Industrial Saws	1	8	81	0.73	Grading Phase	1,473.28
Rubber Tired Dozers	1	1	247	0.4	Grading Phase	276.79
Tractors/Loaders/Backhoes	2	6	97	0.37	Grading Phase	1,341.35
Cranes	1	4	231	0.29	Building Construction Phase	7,974.39
Forklifts	2	6	89	0.2	Building Construction Phase	7,066.80
Tractors/Loaders/Backhoes	2	8	97	0.37	Building Construction Phase	18,998.30
Air Compressors	1	6	78	0.48	Architectural Coating Phase	1,742.50
Cement and Mortar Mixers	4	6	9	0.56	Paving Phase	938.27
Pavers	1	7	130	0.42	Paving Phase	2,666.76
Rollers	1	7	80	0.38	Paving Phase	1,650.66
Tractors/Loaders/Backhoes	1	7	97	0.37	Architectural Coating Phase	1,948.76
					Total Fuel Used	**47,211.64**
						(Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	23
Grading Phase	53
Building Construction Phase	563
Paving Phase	132
Architectural Coating Phase	132
Total Days	903

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.4	5	10.8	50.90
Grading Phase	24.4	10	10.8	234.59
Building Construction Phase	24.4	4	10.8	996.79
Paving Phase	24.4	18	10.8	1051.67
Architectural Coating Phase	24.4	1	10.8	58.43
			Fuel	**2,392.38**

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	0	20.0	0.00

Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
			Fuel	**-**
		VENDOR TRIPS		
Site Preparation Phase	7.5	0	7.3	0.00
Grading Phase	7.5	0	7.3	0.00
Building Construction Phase	7.5	2	7.3	1095.97
Paving Phase	7.5	0	7.3	0.00
Architectural Coating Phase	7.5	0	7.3	0.00
			Fuel	**1,095.97**

Total Gasoline Consumption (gallons)	**2,392.38**
Total Diesel Consumption (gallons)	**48,307.61**

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b* . July 2018. Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2019. *National Transportation Statistics 2019* . Available at: https://www.bts.gov/topics/national-transportation-statistics.

Appendix NOI

Noise Data

Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
www.rinconconsultants.com

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: UCB Addendum **Job Number:** 20-09926

Date: 11/19/20 **Operator Name:** Leslie Trejo

Measurement #1

Location: NM 1 - JV Replacement Site **Begin time:** 11:06AM **Finish time:** 11:21 AM

Measurement No.: 1 **Wind (mph):** 1.7mph **Direction:** SE

Cloud Cover Class: Overcast (>80%) (Light (20-80%)) Sunny (<20%)

Calibration (dB): Start: 94.0 End: 94.1

Primary Noise Sources: Traffic on Jackson & 8th St **Distance:** ~50 ft away

Secondary Noise Sources:

Notes:

Traffic Count: Passenger Cars: 𝍸 𝍸 𝍸 𝍸 | (21)

Medium Trucks (2 axles, 6 tires): Heavy Trucks (3+ axles): 1

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.):

L_{eq}:	53.8	SEL:	*83.3	L_{max}:	69.6	L_{min}:	48.3	PK:	93.0
L(05):	57.2	L(10):	55.1	L(50):	50.8	L(90):	49.1	L(95):	48.8

Response: (Slow) Fast Peak Impulse

Measurement #2

Location: NM 2 - CNR Replacement Site **Begin time:** 11:26AM **Finish time:** 11:43AM

Measurement No.: 2 **Wind (mph):** 1mph **Direction:** SE

Cloud Cover Class: Overcast (>80%) (Light (20-80%)) Sunny (<20%)

Calibration (dB): Start: 94.1 End: 93.3

Primary Noise Sources: Traffic on Jackson St. **Distance:** 50 ft

Secondary Noise Sources: Construction NW of meter

Notes: 11:31 - truck backing up noise, 11:32 loud music from vehicle

Traffic Count: Passenger Cars: 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 | | | (39)

Medium Trucks (2 axles, 6 tires): 11 Heavy Trucks (3+ axles):

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.):

L_{eq}:	62.3	SEL:	91.8	L_{max}:	82.4	L_{min}:	51.2	PK:	92.8
L(05):	66.7	L(10):	64.4	L(50):	55.7	L(90):	52.5	L(95):	52.1

Response: (Slow) Fast Peak Impulse

Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
www.rinconconsultants.com

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: UCB Addendum **Job Number:** 20-09926

Date: 11/19/20 **Operator Name:** Leslie Trejo

Measurement #1

Location: NM 3 - along Jackson St. **Begin time:** 11:45 AM **Finish time:** 12:03 PM

Measurement No.: 3 **Wind (mph):** 4 mph **Direction:** SE

Cloud Cover Class: Overcast (>80%) (Light (20-80%)) Sunny (<20%)

Calibration (dB): Start: 93.9 End: 93.5

Primary Noise Sources: Traffic on Jackson St. **Distance:** 50 ft

Secondary Noise Sources:

Notes: 11:50 AM - train horn in distance

Traffic Count: Passenger Cars: 45

Medium Trucks (2 axles, 6 tires): 1 Heavy Trucks (3+ axles):

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.):

L_{eq}:	60.1	SEL:	89.6	L_{max}:	74.3	L_{min}:	47.8	PK:	94.7
L(05):	65.9	L(10):	64.2	L(50):	54.7	L(90):	50.6	L(95):	50.1

Response: (Slow) Fast Peak Impulse

Measurement #2

Location: **Begin time:** **Finish time:**

Measurement No.: **Wind (mph):** **Direction:**

Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)

Calibration (dB): Start: End:

Primary Noise Sources: **Distance:**

Secondary Noise Sources:

Notes:

Traffic Count: Passenger Cars:

Medium Trucks (2 axles, 6 tires): Heavy Trucks (3+ axles):

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.):

L_{eq}:		SEL:		L_{max}:		L_{min}:		PK:	
L(05):		L(10):		L(50):		L(90):		L(95):	

Response: Slow Fast Peak Impulse

Form Updated: 11/26/2019

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 69.6 - 2020/11/19 11:11:40
- Level Range : 40-100
- SEL : 83.3
- Leq : 53.8
-

No.s	Date Time	(dB)
1	2020/11/19 11:06:30	61.0
2	2020/11/19 11:06:33	61.9
3	2020/11/19 11:06:36	58.7
4	2020/11/19 11:06:39	57.4
5	2020/11/19 11:06:42	55.0
6	2020/11/19 11:06:45	53.5
7	2020/11/19 11:06:48	52.6
8	2020/11/19 11:06:51	53.2
9	2020/11/19 11:06:54	51.5
10	2020/11/19 11:06:57	52.6
11	2020/11/19 11:07:00	52.6
12	2020/11/19 11:07:03	57.0
13	2020/11/19 11:07:06	55.0
14	2020/11/19 11:07:09	53.5
15	2020/11/19 11:07:12	53.4
16	2020/11/19 11:07:15	52.4
17	2020/11/19 11:07:18	51.5
18	2020/11/19 11:07:21	52.3
19	2020/11/19 11:07:24	52.5
20	2020/11/19 11:07:27	55.2
21	2020/11/19 11:07:30	58.8
22	2020/11/19 11:07:33	54.9
23	2020/11/19 11:07:36	58.1
24	2020/11/19 11:07:39	53.0
25	2020/11/19 11:07:42	52.3
26	2020/11/19 11:07:45	52.4
27	2020/11/19 11:07:48	55.2
28	2020/11/19 11:07:51	53.2
29	2020/11/19 11:07:54	52.0
30	2020/11/19 11:07:57	54.4
31	2020/11/19 11:08:00	51.7
32	2020/11/19 11:08:03	51.7
33	2020/11/19 11:08:06	51.1
34	2020/11/19 11:08:09	49.9
35	2020/11/19 11:08:12	50.1
36	2020/11/19 11:08:15	50.6
37	2020/11/19 11:08:18	50.9
38	2020/11/19 11:08:21	49.7
39	2020/11/19 11:08:24	49.6
40	2020/11/19 11:08:27	49.5
41	2020/11/19 11:08:30	49.9
42	2020/11/19 11:08:33	49.7
43	2020/11/19 11:08:36	49.7
44	2020/11/19 11:08:39	48.6
45	2020/11/19 11:08:42	49.0
46	2020/11/19 11:08:45	49.8
47	2020/11/19 11:08:48	50.4
48	2020/11/19 11:08:51	51.7
49	2020/11/19 11:08:54	52.5
50	2020/11/19 11:08:57	51.1
51	2020/11/19 11:09:00	51.1
52	2020/11/19 11:09:03	50.8
53	2020/11/19 11:09:06	49.5
54	2020/11/19 11:09:09	49.8
55	2020/11/19 11:09:12	50.3
56	2020/11/19 11:09:15	49.7
57	2020/11/19 11:09:18	50.0
58	2020/11/19 11:09:21	50.0
59	2020/11/19 11:09:24	51.0
60	2020/11/19 11:09:27	50.4
61	2020/11/19 11:09:30	52.2
62	2020/11/19 11:09:33	51.3
63	2020/11/19 11:09:36	50.1
64	2020/11/19 11:09:39	50.3
65	2020/11/19 11:09:42	50.8
66	2020/11/19 11:09:45	51.0
67	2020/11/19 11:09:48	51.3
68	2020/11/19 11:09:51	51.0
69	2020/11/19 11:09:54	50.5
70	2020/11/19 11:09:57	50.6
71	2020/11/19 11:10:00	50.6
72	2020/11/19 11:10:03	50.6
73	2020/11/19 11:10:06	51.1
74	2020/11/19 11:10:09	51.7
75	2020/11/19 11:10:12	55.5
76	2020/11/19 11:10:15	56.8
77	2020/11/19 11:10:18	57.2
78	2020/11/19 11:10:21	56.0
79	2020/11/19 11:10:24	56.5
80	2020/11/19 11:10:27	55.0
81	2020/11/19 11:10:30	54.2
82	2020/11/19 11:10:33	52.3
83	2020/11/19 11:10:36	53.0
84	2020/11/19 11:10:39	51.8

85	2020/11/19	11:10:42	50.7
86	2020/11/19	11:10:45	51.0
87	2020/11/19	11:10:48	51.2
88	2020/11/19	11:10:51	50.6
89	2020/11/19	11:10:54	50.9
90	2020/11/19	11:10:57	52.1
91	2020/11/19	11:11:00	53.2
92	2020/11/19	11:11:03	50.5
93	2020/11/19	11:11:06	50.7
94	2020/11/19	11:11:09	51.5
95	2020/11/19	11:11:12	51.5
96	2020/11/19	11:11:15	51.4
97	2020/11/19	11:11:18	51.6
98	2020/11/19	11:11:21	52.5
99	2020/11/19	11:11:24	56.5
100	2020/11/19	11:11:27	57.1
101	2020/11/19	11:11:30	60.0
102	2020/11/19	11:11:33	65.1
103	2020/11/19	11:11:36	67.8
104	2020/11/19	11:11:39	67.2
105	2020/11/19	11:11:42	59.9
106	2020/11/19	11:11:45	54.3
107	2020/11/19	11:11:48	56.6
108	2020/11/19	11:11:51	52.7
109	2020/11/19	11:11:54	51.7
110	2020/11/19	11:11:57	52.6
111	2020/11/19	11:12:00	52.8
112	2020/11/19	11:12:03	53.2
113	2020/11/19	11:12:06	54.9
114	2020/11/19	11:12:09	53.3
115	2020/11/19	11:12:12	51.5
116	2020/11/19	11:12:15	51.1
117	2020/11/19	11:12:18	51.2
118	2020/11/19	11:12:21	50.2
119	2020/11/19	11:12:24	50.9
120	2020/11/19	11:12:27	51.2
121	2020/11/19	11:12:30	49.8
122	2020/11/19	11:12:33	50.4
123	2020/11/19	11:12:36	51.6
124	2020/11/19	11:12:39	50.8
125	2020/11/19	11:12:42	49.8
126	2020/11/19	11:12:45	50.4
127	2020/11/19	11:12:48	49.9
128	2020/11/19	11:12:51	49.7
129	2020/11/19	11:12:54	49.5
130	2020/11/19	11:12:57	49.7
131	2020/11/19	11:13:00	50.8
132	2020/11/19	11:13:03	50.4
133	2020/11/19	11:13:06	50.5
134	2020/11/19	11:13:09	51.3
135	2020/11/19	11:13:12	52.2
136	2020/11/19	11:13:15	54.2
137	2020/11/19	11:13:18	51.5
138	2020/11/19	11:13:21	51.1
139	2020/11/19	11:13:24	53.3
140	2020/11/19	11:13:27	52.6
141	2020/11/19	11:13:30	56.4
142	2020/11/19	11:13:33	60.6
143	2020/11/19	11:13:36	60.5
144	2020/11/19	11:13:39	57.0
145	2020/11/19	11:13:42	62.8
146	2020/11/19	11:13:45	55.9
147	2020/11/19	11:13:48	53.4
148	2020/11/19	11:13:51	54.1
149	2020/11/19	11:13:54	54.5
150	2020/11/19	11:13:57	51.5
151	2020/11/19	11:14:00	52.2
152	2020/11/19	11:14:03	52.5
153	2020/11/19	11:14:06	52.8
154	2020/11/19	11:14:09	52.2
155	2020/11/19	11:14:12	52.3
156	2020/11/19	11:14:15	51.1
157	2020/11/19	11:14:18	51.2
158	2020/11/19	11:14:21	51.6
159	2020/11/19	11:14:24	50.4
160	2020/11/19	11:14:27	50.9
161	2020/11/19	11:14:30	51.0
162	2020/11/19	11:14:33	52.3
163	2020/11/19	11:14:36	51.7
164	2020/11/19	11:14:39	50.2
165	2020/11/19	11:14:42	49.8
166	2020/11/19	11:14:45	49.7
167	2020/11/19	11:14:48	49.3
168	2020/11/19	11:14:51	49.0
169	2020/11/19	11:14:54	49.2
170	2020/11/19	11:14:57	48.6
171	2020/11/19	11:15:00	49.3
172	2020/11/19	11:15:03	50.0
173	2020/11/19	11:15:06	48.9
174	2020/11/19	11:15:09	49.6
175	2020/11/19	11:15:12	50.1
176	2020/11/19	11:15:15	51.8
177	2020/11/19	11:15:18	49.4
178	2020/11/19	11:15:21	49.1
179	2020/11/19	11:15:24	49.4
180	2020/11/19	11:15:27	49.9
181	2020/11/19	11:15:30	50.0
182	2020/11/19	11:15:33	49.6

183	2020/11/19	11:15:36	48.7
184	2020/11/19	11:15:39	48.9
185	2020/11/19	11:15:42	48.9
186	2020/11/19	11:15:45	49.6
187	2020/11/19	11:15:48	49.7
188	2020/11/19	11:15:51	49.0
189	2020/11/19	11:15:54	48.8
190	2020/11/19	11:15:57	49.4
191	2020/11/19	11:16:00	49.1
192	2020/11/19	11:16:03	48.8
193	2020/11/19	11:16:06	48.9
194	2020/11/19	11:16:09	48.9
195	2020/11/19	11:16:12	50.1
196	2020/11/19	11:16:15	51.2
197	2020/11/19	11:16:18	54.4
198	2020/11/19	11:16:21	54.5
199	2020/11/19	11:16:24	51.8
200	2020/11/19	11:16:27	50.5
201	2020/11/19	11:16:30	49.0
202	2020/11/19	11:16:33	51.0
203	2020/11/19	11:16:36	49.4
204	2020/11/19	11:16:39	50.7
205	2020/11/19	11:16:42	52.2
206	2020/11/19	11:16:45	52.5
207	2020/11/19	11:16:48	51.8
208	2020/11/19	11:16:51	49.5
209	2020/11/19	11:16:54	50.6
210	2020/11/19	11:16:57	50.5
211	2020/11/19	11:17:00	50.6
212	2020/11/19	11:17:03	50.7
213	2020/11/19	11:17:06	49.9
214	2020/11/19	11:17:09	52.7
215	2020/11/19	11:17:12	49.8
216	2020/11/19	11:17:15	51.1
217	2020/11/19	11:17:18	49.8
218	2020/11/19	11:17:21	49.4
219	2020/11/19	11:17:24	53.2
220	2020/11/19	11:17:27	51.8
221	2020/11/19	11:17:30	50.0
222	2020/11/19	11:17:33	49.9
223	2020/11/19	11:17:36	50.3
224	2020/11/19	11:17:39	50.0
225	2020/11/19	11:17:42	49.6
226	2020/11/19	11:17:45	50.1
227	2020/11/19	11:17:48	49.9
228	2020/11/19	11:17:51	51.2
229	2020/11/19	11:17:54	53.2
230	2020/11/19	11:17:57	51.3
231	2020/11/19	11:18:00	50.4
232	2020/11/19	11:18:03	50.3
233	2020/11/19	11:18:06	49.9
234	2020/11/19	11:18:09	50.1
235	2020/11/19	11:18:12	51.2
236	2020/11/19	11:18:15	51.1
237	2020/11/19	11:18:18	50.4
238	2020/11/19	11:18:21	54.3
239	2020/11/19	11:18:24	62.0
240	2020/11/19	11:18:27	61.7
241	2020/11/19	11:18:30	57.1
242	2020/11/19	11:18:33	51.1
243	2020/11/19	11:18:36	51.3
244	2020/11/19	11:18:39	50.7
245	2020/11/19	11:18:42	49.6
246	2020/11/19	11:18:45	49.6
247	2020/11/19	11:18:48	49.4
248	2020/11/19	11:18:51	50.8
249	2020/11/19	11:18:54	51.6
250	2020/11/19	11:18:57	50.9
251	2020/11/19	11:19:00	50.5
252	2020/11/19	11:19:03	50.8
253	2020/11/19	11:19:06	53.0
254	2020/11/19	11:19:09	54.4
255	2020/11/19	11:19:12	51.8
256	2020/11/19	11:19:15	52.8
257	2020/11/19	11:19:18	53.8
258	2020/11/19	11:19:21	51.4
259	2020/11/19	11:19:24	49.7
260	2020/11/19	11:19:27	48.6
261	2020/11/19	11:19:30	49.4
262	2020/11/19	11:19:33	49.2
263	2020/11/19	11:19:36	48.9
264	2020/11/19	11:19:39	49.7
265	2020/11/19	11:19:42	49.3
266	2020/11/19	11:19:45	48.9
267	2020/11/19	11:19:48	48.7
268	2020/11/19	11:19:51	48.8
269	2020/11/19	11:19:54	49.3
270	2020/11/19	11:19:57	49.8
271	2020/11/19	11:20:00	50.8
272	2020/11/19	11:20:03	49.6
273	2020/11/19	11:20:06	49.7
274	2020/11/19	11:20:09	50.4
275	2020/11/19	11:20:12	49.3
276	2020/11/19	11:20:15	49.3
277	2020/11/19	11:20:18	49.0
278	2020/11/19	11:20:21	48.3
279	2020/11/19	11:20:24	48.7
280	2020/11/19	11:20:27	48.8

281	2020/11/19	11:20:30	48.7
282	2020/11/19	11:20:33	48.7
283	2020/11/19	11:20:36	48.9
284	2020/11/19	11:20:39	49.2
285	2020/11/19	11:20:42	49.5
286	2020/11/19	11:20:45	49.7
287	2020/11/19	11:20:48	50.5
288	2020/11/19	11:20:51	50.8
289	2020/11/19	11:20:54	49.8
290	2020/11/19	11:20:57	49.7
291	2020/11/19	11:21:00	52.6
292	2020/11/19	11:21:03	52.4
293	2020/11/19	11:21:06	51.4
294	2020/11/19	11:21:09	53.0
295	2020/11/19	11:21:12	51.3
296	2020/11/19	11:21:15	49.8
297	2020/11/19	11:21:18	49.0
298	2020/11/19	11:21:21	49.1
299	2020/11/19	11:21:24	52.6
300	2020/11/19	11:21:27	49.4

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 82.4 - 2020/11/19 11:31:45
- Level Range : 40-100
- SEL : 91.8
- Leq : 62.3
-

No.s	Date Time	(dB)
1	2020/11/19 11:29:15	51.9
2	2020/11/19 11:29:18	51.8
3	2020/11/19 11:29:21	52.2
4	2020/11/19 11:29:24	52.1
5	2020/11/19 11:29:27	51.8
6	2020/11/19 11:29:30	52.3
7	2020/11/19 11:29:33	52.0
8	2020/11/19 11:29:36	52.4
9	2020/11/19 11:29:39	52.4
10	2020/11/19 11:29:42	52.3
11	2020/11/19 11:29:45	52.4
12	2020/11/19 11:29:48	52.5
13	2020/11/19 11:29:51	52.5
14	2020/11/19 11:29:54	53.4
15	2020/11/19 11:29:57	55.3
16	2020/11/19 11:30:00	61.3
17	2020/11/19 11:30:03	60.1
18	2020/11/19 11:30:06	57.8
19	2020/11/19 11:30:09	59.4
20	2020/11/19 11:30:12	61.9
21	2020/11/19 11:30:15	57.6
22	2020/11/19 11:30:18	54.8
23	2020/11/19 11:30:21	54.1
24	2020/11/19 11:30:24	53.7
25	2020/11/19 11:30:27	56.1
26	2020/11/19 11:30:30	58.8
27	2020/11/19 11:30:33	62.3
28	2020/11/19 11:30:36	65.5
29	2020/11/19 11:30:39	64.7
30	2020/11/19 11:30:42	57.0
31	2020/11/19 11:30:45	52.7
32	2020/11/19 11:30:48	52.4
33	2020/11/19 11:30:51	51.7
34	2020/11/19 11:30:54	51.8
35	2020/11/19 11:30:57	51.8
36	2020/11/19 11:31:00	52.2
37	2020/11/19 11:31:03	52.6
38	2020/11/19 11:31:06	54.3
39	2020/11/19 11:31:09	52.8
40	2020/11/19 11:31:12	59.0
41	2020/11/19 11:31:15	71.5
42	2020/11/19 11:31:18	63.7
43	2020/11/19 11:31:21	56.0
44	2020/11/19 11:31:24	53.6
45	2020/11/19 11:31:27	56.5
46	2020/11/19 11:31:30	67.0
47	2020/11/19 11:31:33	63.8
48	2020/11/19 11:31:36	67.5
49	2020/11/19 11:31:39	78.5
50	2020/11/19 11:31:42	76.6
51	2020/11/19 11:31:45	76.4
52	2020/11/19 11:31:48	64.3
53	2020/11/19 11:31:51	57.3
54	2020/11/19 11:31:54	55.1
55	2020/11/19 11:31:57	53.8
56	2020/11/19 11:32:00	56.4
57	2020/11/19 11:32:03	57.9
58	2020/11/19 11:32:06	63.3
59	2020/11/19 11:32:09	67.4
60	2020/11/19 11:32:12	63.9
61	2020/11/19 11:32:15	56.4
62	2020/11/19 11:32:18	53.7
63	2020/11/19 11:32:21	55.3
64	2020/11/19 11:32:24	58.8
65	2020/11/19 11:32:27	60.2
66	2020/11/19 11:32:30	59.1
67	2020/11/19 11:32:33	64.6
68	2020/11/19 11:32:36	68.3
69	2020/11/19 11:32:39	59.5
70	2020/11/19 11:32:42	65.0
71	2020/11/19 11:32:45	68.3
72	2020/11/19 11:32:48	64.4
73	2020/11/19 11:32:51	63.5
74	2020/11/19 11:32:54	61.9
75	2020/11/19 11:32:57	58.9
76	2020/11/19 11:33:00	56.5
77	2020/11/19 11:33:03	54.1
78	2020/11/19 11:33:06	55.2
79	2020/11/19 11:33:09	54.5
80	2020/11/19 11:33:12	56.9
81	2020/11/19 11:33:15	55.2
82	2020/11/19 11:33:18	54.7
83	2020/11/19 11:33:21	53.9
84	2020/11/19 11:33:24	52.5

85	2020/11/19	11:33:27	52.3
86	2020/11/19	11:33:30	55.2
87	2020/11/19	11:33:33	54.4
88	2020/11/19	11:33:36	52.6
89	2020/11/19	11:33:39	51.9
90	2020/11/19	11:33:42	52.9
91	2020/11/19	11:33:45	52.9
92	2020/11/19	11:33:48	53.1
93	2020/11/19	11:33:51	52.7
94	2020/11/19	11:33:54	53.5
95	2020/11/19	11:33:57	54.9
96	2020/11/19	11:34:00	54.5
97	2020/11/19	11:34:03	55.0
98	2020/11/19	11:34:06	55.1
99	2020/11/19	11:34:09	56.3
100	2020/11/19	11:34:12	61.0
101	2020/11/19	11:34:15	60.9
102	2020/11/19	11:34:18	60.0
103	2020/11/19	11:34:21	61.6
104	2020/11/19	11:34:24	58.9
105	2020/11/19	11:34:27	61.2
106	2020/11/19	11:34:30	59.5
107	2020/11/19	11:34:33	68.4
108	2020/11/19	11:34:36	61.5
109	2020/11/19	11:34:39	61.4
110	2020/11/19	11:34:42	56.9
111	2020/11/19	11:34:45	54.1
112	2020/11/19	11:34:48	54.5
113	2020/11/19	11:34:51	52.7
114	2020/11/19	11:34:54	52.6
115	2020/11/19	11:34:57	56.2
116	2020/11/19	11:35:00	59.1
117	2020/11/19	11:35:03	62.2
118	2020/11/19	11:35:06	56.1
119	2020/11/19	11:35:09	58.8
120	2020/11/19	11:35:12	66.4
121	2020/11/19	11:35:15	58.1
122	2020/11/19	11:35:18	59.5
123	2020/11/19	11:35:21	56.1
124	2020/11/19	11:35:24	54.8
125	2020/11/19	11:35:27	53.6
126	2020/11/19	11:35:30	55.3
127	2020/11/19	11:35:33	63.4
128	2020/11/19	11:35:36	58.3
129	2020/11/19	11:35:39	56.1
130	2020/11/19	11:35:42	53.8
131	2020/11/19	11:35:45	53.0
132	2020/11/19	11:35:48	52.6
133	2020/11/19	11:35:51	52.2
134	2020/11/19	11:35:54	52.4
135	2020/11/19	11:35:57	52.2
136	2020/11/19	11:36:00	52.5
137	2020/11/19	11:36:03	53.1
138	2020/11/19	11:36:06	52.9
139	2020/11/19	11:36:09	54.0
140	2020/11/19	11:36:12	54.2
141	2020/11/19	11:36:15	53.8
142	2020/11/19	11:36:18	54.4
143	2020/11/19	11:36:21	53.2
144	2020/11/19	11:36:24	53.8
145	2020/11/19	11:36:27	53.2
146	2020/11/19	11:36:30	51.7
147	2020/11/19	11:36:33	51.4
148	2020/11/19	11:36:36	53.7
149	2020/11/19	11:36:39	56.1
150	2020/11/19	11:36:42	53.8
151	2020/11/19	11:36:45	57.5
152	2020/11/19	11:36:48	56.1
153	2020/11/19	11:36:51	56.3
154	2020/11/19	11:36:54	56.1
155	2020/11/19	11:36:57	54.0
156	2020/11/19	11:37:00	54.4
157	2020/11/19	11:37:03	54.4
158	2020/11/19	11:37:06	56.0
159	2020/11/19	11:37:09	60.3
160	2020/11/19	11:37:12	60.8
161	2020/11/19	11:37:15	71.1
162	2020/11/19	11:37:18	64.7
163	2020/11/19	11:37:21	56.5
164	2020/11/19	11:37:24	55.0
165	2020/11/19	11:37:27	53.1
166	2020/11/19	11:37:30	53.3
167	2020/11/19	11:37:33	53.5
168	2020/11/19	11:37:36	53.9
169	2020/11/19	11:37:39	55.2
170	2020/11/19	11:37:42	59.9
171	2020/11/19	11:37:45	64.3
172	2020/11/19	11:37:48	66.5
173	2020/11/19	11:37:51	68.0
174	2020/11/19	11:37:54	63.3
175	2020/11/19	11:37:57	58.1
176	2020/11/19	11:38:00	55.6
177	2020/11/19	11:38:03	54.9
178	2020/11/19	11:38:06	55.1
179	2020/11/19	11:38:09	54.7
180	2020/11/19	11:38:12	54.7
181	2020/11/19	11:38:15	53.9
182	2020/11/19	11:38:18	53.8

183	2020/11/19	11:38:21	54.0
184	2020/11/19	11:38:24	54.4
185	2020/11/19	11:38:27	53.8
186	2020/11/19	11:38:30	53.9
187	2020/11/19	11:38:33	53.0
188	2020/11/19	11:38:36	54.2
189	2020/11/19	11:38:39	61.0
190	2020/11/19	11:38:42	63.9
191	2020/11/19	11:38:45	57.5
192	2020/11/19	11:38:48	61.8
193	2020/11/19	11:38:51	66.0
194	2020/11/19	11:38:54	58.9
195	2020/11/19	11:38:57	54.2
196	2020/11/19	11:39:00	54.2
197	2020/11/19	11:39:03	61.6
198	2020/11/19	11:39:06	65.1
199	2020/11/19	11:39:09	58.1
200	2020/11/19	11:39:12	54.4
201	2020/11/19	11:39:15	55.4
202	2020/11/19	11:39:18	55.5
203	2020/11/19	11:39:21	54.6
204	2020/11/19	11:39:24	56.7
205	2020/11/19	11:39:27	70.0
206	2020/11/19	11:39:30	62.4
207	2020/11/19	11:39:33	56.6
208	2020/11/19	11:39:36	55.4
209	2020/11/19	11:39:39	55.4
210	2020/11/19	11:39:42	55.4
211	2020/11/19	11:39:45	55.0
212	2020/11/19	11:39:48	55.6
213	2020/11/19	11:39:51	55.2
214	2020/11/19	11:39:54	55.0
215	2020/11/19	11:39:57	54.9
216	2020/11/19	11:40:00	54.8
217	2020/11/19	11:40:03	56.0
218	2020/11/19	11:40:06	56.5
219	2020/11/19	11:40:09	62.5
220	2020/11/19	11:40:12	63.6
221	2020/11/19	11:40:15	57.0
222	2020/11/19	11:40:18	62.6
223	2020/11/19	11:40:21	66.7
224	2020/11/19	11:40:24	59.3
225	2020/11/19	11:40:27	54.8
226	2020/11/19	11:40:30	55.1
227	2020/11/19	11:40:33	55.3
228	2020/11/19	11:40:36	54.0
229	2020/11/19	11:40:39	54.4
230	2020/11/19	11:40:42	62.3
231	2020/11/19	11:40:45	67.5
232	2020/11/19	11:40:48	58.6
233	2020/11/19	11:40:51	54.7
234	2020/11/19	11:40:54	56.9
235	2020/11/19	11:40:57	57.3
236	2020/11/19	11:41:00	57.9
237	2020/11/19	11:41:03	56.4
238	2020/11/19	11:41:06	55.8
239	2020/11/19	11:41:09	55.2
240	2020/11/19	11:41:12	56.0
241	2020/11/19	11:41:15	56.5
242	2020/11/19	11:41:18	57.4
243	2020/11/19	11:41:21	62.4
244	2020/11/19	11:41:24	58.7
245	2020/11/19	11:41:27	55.5
246	2020/11/19	11:41:30	54.7
247	2020/11/19	11:41:33	54.7
248	2020/11/19	11:41:36	54.8
249	2020/11/19	11:41:39	54.4
250	2020/11/19	11:41:42	54.3
251	2020/11/19	11:41:45	53.6
252	2020/11/19	11:41:48	53.8
253	2020/11/19	11:41:51	54.6
254	2020/11/19	11:41:54	62.0
255	2020/11/19	11:41:57	65.9
256	2020/11/19	11:42:00	59.0
257	2020/11/19	11:42:03	56.9
258	2020/11/19	11:42:06	57.8
259	2020/11/19	11:42:09	58.9
260	2020/11/19	11:42:12	73.7
261	2020/11/19	11:42:15	72.8
262	2020/11/19	11:42:18	63.5
263	2020/11/19	11:42:21	59.3
264	2020/11/19	11:42:24	68.2
265	2020/11/19	11:42:27	67.1
266	2020/11/19	11:42:30	61.6
267	2020/11/19	11:42:33	56.5
268	2020/11/19	11:42:36	55.6
269	2020/11/19	11:42:39	55.1
270	2020/11/19	11:42:42	54.4
271	2020/11/19	11:42:45	55.2
272	2020/11/19	11:42:48	58.1
273	2020/11/19	11:42:51	58.8
274	2020/11/19	11:42:54	57.3
275	2020/11/19	11:42:57	55.9
276	2020/11/19	11:43:00	54.8
277	2020/11/19	11:43:03	54.7
278	2020/11/19	11:43:06	54.5
279	2020/11/19	11:43:09	54.3
280	2020/11/19	11:43:12	54.2

281	2020/11/19	11:43:15	54.6
282	2020/11/19	11:43:18	55.0
283	2020/11/19	11:43:21	53.9
284	2020/11/19	11:43:24	57.1
285	2020/11/19	11:43:27	57.9
286	2020/11/19	11:43:30	57.0
287	2020/11/19	11:43:33	63.0
288	2020/11/19	11:43:36	66.1
289	2020/11/19	11:43:39	59.4
290	2020/11/19	11:43:42	58.4
291	2020/11/19	11:43:45	58.3
292	2020/11/19	11:43:48	64.5
293	2020/11/19	11:43:51	58.5
294	2020/11/19	11:43:54	58.4
295	2020/11/19	11:43:57	57.2
296	2020/11/19	11:44:00	56.1
297	2020/11/19	11:44:03	58.3
298	2020/11/19	11:44:06	56.9
299	2020/11/19	11:44:09	54.8
300	2020/11/19	11:44:12	56.9

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 74.3 - 2020/11/19 11:51:56
- Level Range : 40-100
- SEL : 89.6
- Leq : 60.1
-

No.s	Date Time	(dB)
1	2020/11/19 11:49:06	52.6
2	2020/11/19 11:49:09	51.7
3	2020/11/19 11:49:12	51.2
4	2020/11/19 11:49:15	51.4
5	2020/11/19 11:49:18	51.5
6	2020/11/19 11:49:21	51.2
7	2020/11/19 11:49:24	51.4
8	2020/11/19 11:49:27	55.1
9	2020/11/19 11:49:30	59.3
10	2020/11/19 11:49:33	58.8
11	2020/11/19 11:49:36	54.5
12	2020/11/19 11:49:39	51.0
13	2020/11/19 11:49:42	52.8
14	2020/11/19 11:49:45	54.2
15	2020/11/19 11:49:48	55.8
16	2020/11/19 11:49:51	54.2
17	2020/11/19 11:49:54	54.4
18	2020/11/19 11:49:57	55.5
19	2020/11/19 11:50:00	58.8
20	2020/11/19 11:50:03	57.0
21	2020/11/19 11:50:06	53.9
22	2020/11/19 11:50:09	53.8
23	2020/11/19 11:50:12	53.0
24	2020/11/19 11:50:15	53.9
25	2020/11/19 11:50:18	62.9
26	2020/11/19 11:50:21	67.3
27	2020/11/19 11:50:24	60.9
28	2020/11/19 11:50:27	56.4
29	2020/11/19 11:50:30	54.3
30	2020/11/19 11:50:33	62.7
31	2020/11/19 11:50:36	58.5
32	2020/11/19 11:50:39	63.1
33	2020/11/19 11:50:42	59.8
34	2020/11/19 11:50:45	62.8
35	2020/11/19 11:50:48	66.0
36	2020/11/19 11:50:51	60.9
37	2020/11/19 11:50:54	57.6
38	2020/11/19 11:50:57	59.8
39	2020/11/19 11:51:00	54.2
40	2020/11/19 11:51:03	51.4
41	2020/11/19 11:51:06	51.7
42	2020/11/19 11:51:09	51.7
43	2020/11/19 11:51:12	53.6
44	2020/11/19 11:51:15	52.0
45	2020/11/19 11:51:18	54.1
46	2020/11/19 11:51:21	58.2
47	2020/11/19 11:51:24	57.8
48	2020/11/19 11:51:27	63.0
49	2020/11/19 11:51:30	68.1
50	2020/11/19 11:51:33	66.3
51	2020/11/19 11:51:36	59.8
52	2020/11/19 11:51:39	62.5
53	2020/11/19 11:51:42	64.0
54	2020/11/19 11:51:45	58.1
55	2020/11/19 11:51:48	59.6
56	2020/11/19 11:51:51	65.3
57	2020/11/19 11:51:54	74.3
58	2020/11/19 11:51:57	67.5
59	2020/11/19 11:52:00	59.8
60	2020/11/19 11:52:03	54.5
61	2020/11/19 11:52:06	52.4
62	2020/11/19 11:52:09	52.2
63	2020/11/19 11:52:12	50.2
64	2020/11/19 11:52:15	50.4
65	2020/11/19 11:52:18	51.2
66	2020/11/19 11:52:21	50.5
67	2020/11/19 11:52:24	50.1
68	2020/11/19 11:52:27	51.0
69	2020/11/19 11:52:30	52.1
70	2020/11/19 11:52:33	52.0
71	2020/11/19 11:52:36	51.1
72	2020/11/19 11:52:39	50.2
73	2020/11/19 11:52:42	50.3
74	2020/11/19 11:52:45	50.2
75	2020/11/19 11:52:48	50.3
76	2020/11/19 11:52:51	53.3
77	2020/11/19 11:52:54	51.2
78	2020/11/19 11:52:57	52.1
79	2020/11/19 11:53:00	53.6
80	2020/11/19 11:53:03	56.8
81	2020/11/19 11:53:06	59.7
82	2020/11/19 11:53:09	55.0
83	2020/11/19 11:53:12	51.0
84	2020/11/19 11:53:15	51.2

85	2020/11/19	11:53:18	51.6
86	2020/11/19	11:53:21	51.5
87	2020/11/19	11:53:24	51.7
88	2020/11/19	11:53:27	56.8
89	2020/11/19	11:53:30	62.3
90	2020/11/19	11:53:33	64.1
91	2020/11/19	11:53:36	67.6
92	2020/11/19	11:53:39	65.4
93	2020/11/19	11:53:42	57.7
94	2020/11/19	11:53:45	54.5
95	2020/11/19	11:53:48	55.7
96	2020/11/19	11:53:51	55.9
97	2020/11/19	11:53:54	52.4
98	2020/11/19	11:53:57	51.1
99	2020/11/19	11:54:00	50.2
100	2020/11/19	11:54:03	49.5
101	2020/11/19	11:54:06	50.1
102	2020/11/19	11:54:09	51.9
103	2020/11/19	11:54:12	53.8
104	2020/11/19	11:54:15	54.0
105	2020/11/19	11:54:18	56.1
106	2020/11/19	11:54:21	64.6
107	2020/11/19	11:54:24	65.4
108	2020/11/19	11:54:27	64.7
109	2020/11/19	11:54:30	57.1
110	2020/11/19	11:54:33	53.0
111	2020/11/19	11:54:36	51.5
112	2020/11/19	11:54:39	60.2
113	2020/11/19	11:54:42	69.1
114	2020/11/19	11:54:45	65.2
115	2020/11/19	11:54:48	57.3
116	2020/11/19	11:54:51	53.5
117	2020/11/19	11:54:54	50.3
118	2020/11/19	11:54:57	49.6
119	2020/11/19	11:55:00	50.6
120	2020/11/19	11:55:03	51.4
121	2020/11/19	11:55:06	49.9
122	2020/11/19	11:55:09	50.8
123	2020/11/19	11:55:12	54.6
124	2020/11/19	11:55:15	65.1
125	2020/11/19	11:55:18	67.7
126	2020/11/19	11:55:21	67.0
127	2020/11/19	11:55:24	59.8
128	2020/11/19	11:55:27	56.2
129	2020/11/19	11:55:30	64.6
130	2020/11/19	11:55:33	66.0
131	2020/11/19	11:55:36	59.2
132	2020/11/19	11:55:39	63.4
133	2020/11/19	11:55:42	65.2
134	2020/11/19	11:55:45	59.4
135	2020/11/19	11:55:48	56.4
136	2020/11/19	11:55:51	55.0
137	2020/11/19	11:55:54	60.6
138	2020/11/19	11:55:57	61.6
139	2020/11/19	11:56:00	61.9
140	2020/11/19	11:56:03	64.7
141	2020/11/19	11:56:06	65.9
142	2020/11/19	11:56:09	66.2
143	2020/11/19	11:56:12	66.4
144	2020/11/19	11:56:15	64.0
145	2020/11/19	11:56:18	59.4
146	2020/11/19	11:56:21	54.2
147	2020/11/19	11:56:24	54.2
148	2020/11/19	11:56:27	53.5
149	2020/11/19	11:56:30	52.6
150	2020/11/19	11:56:33	51.7
151	2020/11/19	11:56:36	52.6
152	2020/11/19	11:56:39	53.1
153	2020/11/19	11:56:42	54.5
154	2020/11/19	11:56:45	59.5
155	2020/11/19	11:56:48	62.9
156	2020/11/19	11:56:51	61.1
157	2020/11/19	11:56:54	65.1
158	2020/11/19	11:56:57	60.7
159	2020/11/19	11:57:00	54.3
160	2020/11/19	11:57:03	54.5
161	2020/11/19	11:57:06	56.3
162	2020/11/19	11:57:09	59.1
163	2020/11/19	11:57:12	61.2
164	2020/11/19	11:57:15	61.5
165	2020/11/19	11:57:18	59.7
166	2020/11/19	11:57:21	53.1
167	2020/11/19	11:57:24	56.1
168	2020/11/19	11:57:27	58.9
169	2020/11/19	11:57:30	62.3
170	2020/11/19	11:57:33	57.3
171	2020/11/19	11:57:36	53.9
172	2020/11/19	11:57:39	53.7
173	2020/11/19	11:57:42	52.7
174	2020/11/19	11:57:45	53.0
175	2020/11/19	11:57:48	52.6
176	2020/11/19	11:57:51	53.9
177	2020/11/19	11:57:54	56.6
178	2020/11/19	11:57:57	62.2
179	2020/11/19	11:58:00	62.5
180	2020/11/19	11:58:03	57.4
181	2020/11/19	11:58:06	53.9
182	2020/11/19	11:58:09	51.4

183	2020/11/19	11:58:12	55.0
184	2020/11/19	11:58:15	55.0
185	2020/11/19	11:58:18	50.8
186	2020/11/19	11:58:21	50.9
187	2020/11/19	11:58:24	58.3
188	2020/11/19	11:58:27	52.6
189	2020/11/19	11:58:30	53.0
190	2020/11/19	11:58:33	59.2
191	2020/11/19	11:58:36	62.6
192	2020/11/19	11:58:39	60.7
193	2020/11/19	11:58:42	53.7
194	2020/11/19	11:58:45	51.6
195	2020/11/19	11:58:48	52.0
196	2020/11/19	11:58:51	50.1
197	2020/11/19	11:58:54	51.4
198	2020/11/19	11:58:57	52.8
199	2020/11/19	11:59:00	55.7
200	2020/11/19	11:59:03	63.0
201	2020/11/19	11:59:06	63.3
202	2020/11/19	11:59:09	60.8
203	2020/11/19	11:59:12	58.4
204	2020/11/19	11:59:15	55.2
205	2020/11/19	11:59:18	56.9
206	2020/11/19	11:59:21	58.3
207	2020/11/19	11:59:24	61.5
208	2020/11/19	11:59:27	67.8
209	2020/11/19	11:59:30	62.7
210	2020/11/19	11:59:33	60.4
211	2020/11/19	11:59:36	63.2
212	2020/11/19	11:59:39	67.2
213	2020/11/19	11:59:42	64.2
214	2020/11/19	11:59:45	57.6
215	2020/11/19	11:59:48	53.2
216	2020/11/19	11:59:51	52.7
217	2020/11/19	11:59:54	52.0
218	2020/11/19	11:59:57	54.1
219	2020/11/19	12:00:00	52.7
220	2020/11/19	12:00:03	54.2
221	2020/11/19	12:00:06	58.7
222	2020/11/19	12:00:09	65.2
223	2020/11/19	12:00:12	62.2
224	2020/11/19	12:00:15	62.1
225	2020/11/19	12:00:18	66.1
226	2020/11/19	12:00:21	66.8
227	2020/11/19	12:00:24	61.0
228	2020/11/19	12:00:27	57.2
229	2020/11/19	12:00:30	54.5
230	2020/11/19	12:00:33	55.0
231	2020/11/19	12:00:36	50.6
232	2020/11/19	12:00:39	50.4
233	2020/11/19	12:00:42	50.6
234	2020/11/19	12:00:45	51.9
235	2020/11/19	12:00:48	50.0
236	2020/11/19	12:00:51	50.1
237	2020/11/19	12:00:54	54.5
238	2020/11/19	12:00:57	60.3
239	2020/11/19	12:01:00	63.7
240	2020/11/19	12:01:03	57.3
241	2020/11/19	12:01:06	56.6
242	2020/11/19	12:01:09	59.2
243	2020/11/19	12:01:12	64.7
244	2020/11/19	12:01:15	61.4
245	2020/11/19	12:01:18	56.5
246	2020/11/19	12:01:21	54.0
247	2020/11/19	12:01:24	50.4
248	2020/11/19	12:01:27	48.3
249	2020/11/19	12:01:30	50.2
250	2020/11/19	12:01:33	50.5
251	2020/11/19	12:01:36	50.3
252	2020/11/19	12:01:39	50.8
253	2020/11/19	12:01:42	49.6
254	2020/11/19	12:01:45	54.9
255	2020/11/19	12:01:48	54.1
256	2020/11/19	12:01:51	58.4
257	2020/11/19	12:01:54	64.9
258	2020/11/19	12:01:57	61.0
259	2020/11/19	12:02:00	55.2
260	2020/11/19	12:02:03	52.4
261	2020/11/19	12:02:06	53.1
262	2020/11/19	12:02:09	56.6
263	2020/11/19	12:02:12	62.7
264	2020/11/19	12:02:15	62.3
265	2020/11/19	12:02:18	53.6
266	2020/11/19	12:02:21	51.7
267	2020/11/19	12:02:24	53.4
268	2020/11/19	12:02:27	53.0
269	2020/11/19	12:02:30	52.3
270	2020/11/19	12:02:33	52.0
271	2020/11/19	12:02:36	53.7
272	2020/11/19	12:02:39	53.1
273	2020/11/19	12:02:42	53.9
274	2020/11/19	12:02:45	52.6
275	2020/11/19	12:02:48	55.3
276	2020/11/19	12:02:51	54.2
277	2020/11/19	12:02:54	53.8
278	2020/11/19	12:02:57	52.0
279	2020/11/19	12:03:00	53.2
280	2020/11/19	12:03:03	57.7

281	2020/11/19	12:03:06	64.1
282	2020/11/19	12:03:09	62.3
283	2020/11/19	12:03:12	66.4
284	2020/11/19	12:03:15	62.2
285	2020/11/19	12:03:18	55.3
286	2020/11/19	12:03:21	53.4
287	2020/11/19	12:03:24	52.7
288	2020/11/19	12:03:27	54.0
289	2020/11/19	12:03:30	53.7
290	2020/11/19	12:03:33	52.6
291	2020/11/19	12:03:36	51.2
292	2020/11/19	12:03:39	50.2
293	2020/11/19	12:03:42	51.7
294	2020/11/19	12:03:45	51.9
295	2020/11/19	12:03:48	51.8
296	2020/11/19	12:03:51	52.1
297	2020/11/19	12:03:54	50.8
298	2020/11/19	12:03:57	49.8
299	2020/11/19	12:04:00	48.6
300	2020/11/19	12:04:03	49.5

HVAC noise from New Residential Building at Step 3 Site

Combined Noise Level (CNEL) from 47 HVAC units

	dB Value	Conversion Value			
HVAC unit	46.9	4.90E+04	Sum =	62.3	without shiel
HVAC unit	46.9	4.90E+04		-5	shielding by
HVAC unit	46.9	4.90E+04		-9	shielding by
HVAC unit	46.9	4.90E+04		**48.3**	
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			
HVAC unit	46.9	4.90E+04			

Source: Carrier 38AUZ/D 50 Hz Commercial Split Systems
Air Conditioning Condensing Units: Product Data, 2010

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split s
1 ton of HVAC equipment needed per 600 SF of floor area
355,000 SF residential building
Approx. 35 16.7-ton HVAC units needed for project
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shie
Center of HVAC equipment cluster could be as close as 100 feet from residences on Jackson S
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night
Additional HVAC noise at Apparatus Bay and CNR replacement structures is minimal due to th

Appendix TRA

Transportation Findings Memorandum

FEHR PEERS

Draft Memorandum

Date: March 16, 2021

To: Lucy Sundelson, Rincon Consultants

From: Sam Tabibnia and Lee Reis

Subject: Albany University Village Step 3 Housing Project EIR Addendum – Transportation Findings

OK20-0379

This memorandum presents our preliminary findings for the Albany University Village Step 3 Housing Project EIR Addendum. It consists of the following sections:

1. ***Project Description*** – presents a brief description of the project (starts on page 2)
2. ***Trip Generation*** – presents the estimated automobile trip generation for the project (starts on page 2)
3. ***Vehicle Miles Traveled*** – provides the vehicle miles traveled (VMT) evaluation for both the transportation and greenhouse gas analyses (starts on page 4)
4. ***Site Plan Evaluation*** – provides recommendations for each mode at the project site to improve safety of motorists, bicyclists, and pedestrians, and improve multimodal options. (starts on page 8)
5. ***2004 SEIR Findings*** – lists the significant impacts and mitigations from the *Subsequent Focused EIR for the University Village and Albany/Northwest Berkeley Properties Master Plan Amendments* (published February 2004 and referred to as 2004 SEIR in the rest of this document) and their applicability to the proposed project (starts on page 13)

Based on our evaluation:

- The project is estimated to generate 790 daily, 31 AM peak hour, and 60 PM peak hour trips, which is 250 fewer daily trips, 9 fewer AM peak hour trips, and 20 fewer PM peak hour trips than the project in the 2004 SEIR.
- The project would result in the same or fewer transportation impacts as compared to the previously approved project in the 2004 SEIR.

- The project would have a less-than-significant impact on the four transportation-related items in the latest California Environmental Quality Act (CEQA) checklist, including a less-than-significant impact on VMT

1. Project Description

The project is located on the northeast corner of the Monroe Street/Jackson Street intersection in Albany. The project site is currently occupied by structures for University Village operations and the College of Natural Resources. The project would consist of up to 400 multi-family dwelling units accommodating 825 graduate students, with associated residential amenities. The project would include a surface parking lot with up to 250 vehicle parking spaces with driveways on Monroe and Jackson Streets. The project would also include construction of a replacement 6,000 square-foot office and storage building and a replacement 4,500 square-foot recreation building near the new residential building. The relocation of these buildings would not result in any new employees.

The project site is located in the Step 3 area of the University Village and Albany/Northwest Berkeley Properties Master Plan. The 2004 Supplemental Environmental Impact Report (SEIR) analyzed 727 housing units (corresponding to 1,263 beds) in the Step 3 area, and since the 2004 SEIR publication, 175 senior housing units (178 beds) were completed in the Step 3 area in 2017. With construction of the project there would be a total of 575 housing units (1,003 beds) in the Step 3 area, which is 152 fewer housing units (260 beds) than were analyzed in the 2004 SEIR.

Existing Mode Share at University Village

In 2019, UC Berkeley conducted a Campus Travel Survey that included housing location and mode of travel to campus. **Table 1** shows the current mode share for trips from University Village to the campus. About 49 percent of people living in University Village use transit to reach campus, with 27 percent of people riding a bicycle and 20 percent either driving, being dropped off, or taking a ride-hail vehicle (e.g., Uber or Lyft).

2. Trip Generation

Trip generation is the process of estimating the number of vehicles that would likely access the Project on a typical day. **Table 2** summarizes the trip generation for the proposed Project. Trip generation data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual (10th Edition)* for off-campus student apartments is used as a starting point to estimate the vehicle trip generation.

Table 1: Mode Share to Campus from University Village

Mode of Travel	Mode Share
Drive	4%
Dropped Off	14%
Transit	49%
Bicycle	27%
Walk	0%
Ride-hail (e.g., Uber or Lyft)	2%
Did not come to campus	4%
Total	**100%**

Source: UC Berkeley Campus Travel Survey, 2019; Fehr & Peers, 2021.

Table 2: Automobile Trip Generation

Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Student Housing[1]	825 beds	3,420	38	96	134	137	126	263
Non-Auto Reductions (-77%) [2]		-2,630	-29	-74	-103	-105	-97	-203
Total Net Automobile Trips		**790**	**9**	**22**	**31**	**32**	**29**	**60**

Notes:

1. ITE Trip Generation Manual (10th Edition) land use category 225 (Off-Campus Student Apartments over ½ miles from Campus):
   Daily = 4.20 * X – 49.52
   AM Peak Hour = 0.15 * X + 10.12 (28% in, 72% out)
   PM Peak Hour = 0.32 * X - 0.86 (52% in, 48% out)
2. Reduction based on 2019 UC Berkeley Commute Survey for University Village residents compared to national mode share estimates (Table B08006) as compiled in the American Community Survey 2018 five-year estimate.

Source: Fehr & Peers, 2021.

ITE's *Trip Generation Manual* is primarily based on data collected at single-use suburban sites where the automobile is often the only travel mode. However, the project site is in a moderate-density mixed-use urban environment where many trips are walk, bike, or transit trips. According to the 2019 UC Berkeley Commute Survey results, University Village residents have an automobile mode share of 20 percent for trips to Campus Park, which consists of drive-alone, carpool, pick-up/drop off, and ride hail (i.e., Uber and Lyft) trips. In comparison, the US Census 2018 Five-Year Estimates of the American Community Survey (ACS) data shows an automobile mode share of 87 percent for the US. Therefore, this analysis reduces the ITE based trip generation by 77 percent to account for the non-automobile trips.

As summarized in Table 2, the project (400 units or 825 beds) is estimated to generate about 790 daily, 31 AM peak hour, and 60 PM peak hour net new automobile trips.

Comparison to the 2004 SEIR

The 2004 SEIR assumed up to 1,263 beds in the Step 3 area, and of those 178 beds have been constructed as senior housing. This means up to 1,085 additional beds were envisioned in the Step 3 area. **Table 3** compares the peak hour trip generation for the proposed project during peak periods to the remaining units anticipated in the 2004 SEIR. The currently proposed project is estimated to generate 250 fewer daily trips, 9 fewer trips in the AM peak hour, and 20 fewer trips in the PM peak hour than the project evaluated in the 2004 SEIR.

Table 3: Trip Generation Comparison to 2004 SEIR

Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Student Housing, Proposed Project[1]	825 Beds	790	9	22	31	32	29	60
Student Housing, Remaining Beds from 2004 SEIR for Step 3[2]	1,085 Beds	1,040	11	29	40	41	38	80
Difference from 2004 SEIR		**-250**	**-2**	**-7**	**-9**	**-9**	**-9**	**-20**

Notes:
1. From Table 2.
2. Based on trip generation rates and non-auto reductions shown in Table 2.

Source: Fehr & Peers, 2021.

3. Vehicle Miles Traveled

This section presents the preliminary findings on VMT. It addresses both the VMT impact evaluation for the transportation section of the environmental document and also estimates the daily net VMT generated by the project for the greenhouse gas section of the environmental document. As explained above, the project results in 152 fewer housing units (260 beds) in the Step 3 area than were analyzed in the 2004 SEIR. Because the project includes the same land use (residential) on the same site, the project would not result in any new or more severe VMT impacts as compared to buildout of the Step 3 area that was analyzed in the 2004 SEIR. Notwithstanding the above, the following analysis demonstrates the project would have a less than significant VMT impact.

VMT for Transportation Analysis

The university is exempt from compliance with local land use regulations. It may consider local plans and policies when it is appropriate and feasible, but the university is not bound by those plans and policies in its planning efforts. The proposed project is located within the City of

Albany; however, the City of Albany has not yet adopted guidelines with thresholds of significance and screening criteria for evaluating VMT in CEQA documents. Therefore, this analysis primarily relies on the State Office of Planning and Research (OPR) guidelines as described below.

California Senate Bill 743

On September 27, 2013, California Governor Jerry Brown signed Senate Bill (SB) 743 into law and started a process that changed the way transportation impact analysis is conducted as part of CEQA compliance. These changes include elimination of automobile delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to "more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions."

In December 2018, OPR published the *Technical Advisory on Evaluating Transportation Impacts in CEQA* to provide guidelines to implement the SB 743requirements. The OPR Technical Advisory state that VMT must be the metric used to determine significant transportation impacts. The Technical Advisory require all lead agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 2020.

The OPR Technical Advisory recommend developing screening criteria for development projects that meet certain criteria that can readily lead to the conclusion that they would not cause a significant impact on VMT. The OPR Guidelines also recommend evaluating VMT impacts using an efficiency-based version of the metric, such as VMT per resident for residential developments and/or VMT per worker for office or other employment-based developments.

VMT Screening

According to the OPR Technical Advisory, screening thresholds can be used to quickly identify projects that can be expected to cause a less than significant impact without conducting a detailed study. The OPR Technical Advisory includes several screening thresholds. The threshold applicable to the project is the Near Transit Stations threshold.

According to the Near Transit Stations threshold, projects located within 0.5-mile of an existing major transit stop[1] or an existing stop along a high-quality transit corridor[2] are expected to generate low VMT and cause a less than significant VMT impact. This presumption may not apply if project-specific or location-specific information indicates that the project would still generate significant levels of VMT. The presumption may not be appropriate if the project:

- Has a Floor Area Ratio (FAR) of less than 0.75
- Includes substantially more parking for use by residents than required by the jurisdiction or generated by the project
- Is inconsistent with the applicable Sustainable Communities Strategy
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units

The project site is less than 0.1 miles from the bus stops on San Pablo Avenue at Monroe Street, which are served by AC Transit Lines 52 and 72/72M. Both lines operate at service intervals of 15 minutes or shorter[3], so the bus stop qualifies as a major transit stop and the San Pablo Avenue corridor qualifies as a high-quality transit corridor. In addition, the project would meet the following conditions, which indicate that the project would not generate significant levels of VMT:

- The project would have a FAR of 1.7, which would exceed the minimum FAR of 0.75 as recommended by OPR
- The project would provide about 0.62 parking spaces per unit, which is less than the average automobile ownership of 1.0 automobile per dwelling unit in the project census tract[4]
- The project is consistent with Plan Bay Area, which is the applicable Sustainable Communities Strategy, because it would provide new housing without displacing existing housing and reduce per-capita CO_2 emissions by locating the housing in a low-VMT area

---

[1] According to the California Public Resources Code, § 21064.3, 'Major transit stop' is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

[2] According to the California Public Resources Code, § 21155, a 'high-quality transit corridor' is defined as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

[3] The reported service intervals are for conditions prior to the COVID-19 pandemic which has resulted in temporary reductions in transit service. This analysis assumes that long-term bus service would be similar to conditions prior to the pandemic because, at present, the medium- or long-term effects of the COVID-19 pandemic on transit service are not known and it would be speculative to estimate any potential long-term or permanent changes.

[4] American Community Survey 2018 five-year estimate for Census Tract 4204 (Table B08201)

- The project would not replace affordable housing units

Therefore, the project would have a less-than-significant impact on VMT.

The project evaluated in the 2004 SEIR would have had similar characteristics as the currently proposed project, such as similar demographics, setting, development density, and parking supply. Therefore, the previously approved project would have a less-than-significant impact on VMT. The project therefore does not result in a new or more severe impact on VMT.

VMT for GHG Analysis

This subsection estimates the daily VMT generated by the project for the GHG analysis of the environmental document. VMT for a project can be estimated by multiplying the trips generated by the project and the average trip length for those trips. Each is described below:

- **Trip Generation -** As shown in Table 2, the project is estimated to generate 790 daily trips on a typical weekday, which is 250 fewer daily trips than the project in the 2004 SEIR.
- **Trip Length –** as part of the recent work on the UC Berkeley Long Range Development Plan (LRDP) and the LRDP EIR, Fehr & Peers obtained StreetLight data, which is aggregated anonymized Global Positioning System (GPS) device data that can be used to describe various travel characteristics including trip lengths. The obtained data includes various UC Berkeley facilities including University Village. Based on the StreetLight data, the average weekday trip length for trips from the University Village was 5.5 miles in 2018-2019. It is assumed that the project residents would have similar trip making characteristics as the current University Village residents.

Thus, it is estimated that the project would generate about 4,350 VMT (790 trips multiplied by 5.5 miles) on a typical weekday. The project would generate about 1,370 less VMT than the project evaluated in the 2004 SEIR, as shown in **Table 4**.

Table 4: VMT Comparison to 2004 SEIR

Project	VMT[1]
Student Housing, Proposed Project	4,350
Student Housing, Remaining Beds from 2004 SEIR for Step 3	5,720
Difference from 2004 SEIR	**-1,370**

1. VMT estimated by multiplying the trip generation presented in Table 2 by average trip length (5.5 miles) obtained from StreetLight data.

Source: Fehr & Peers, 2021.

4. Site Plan Evaluation

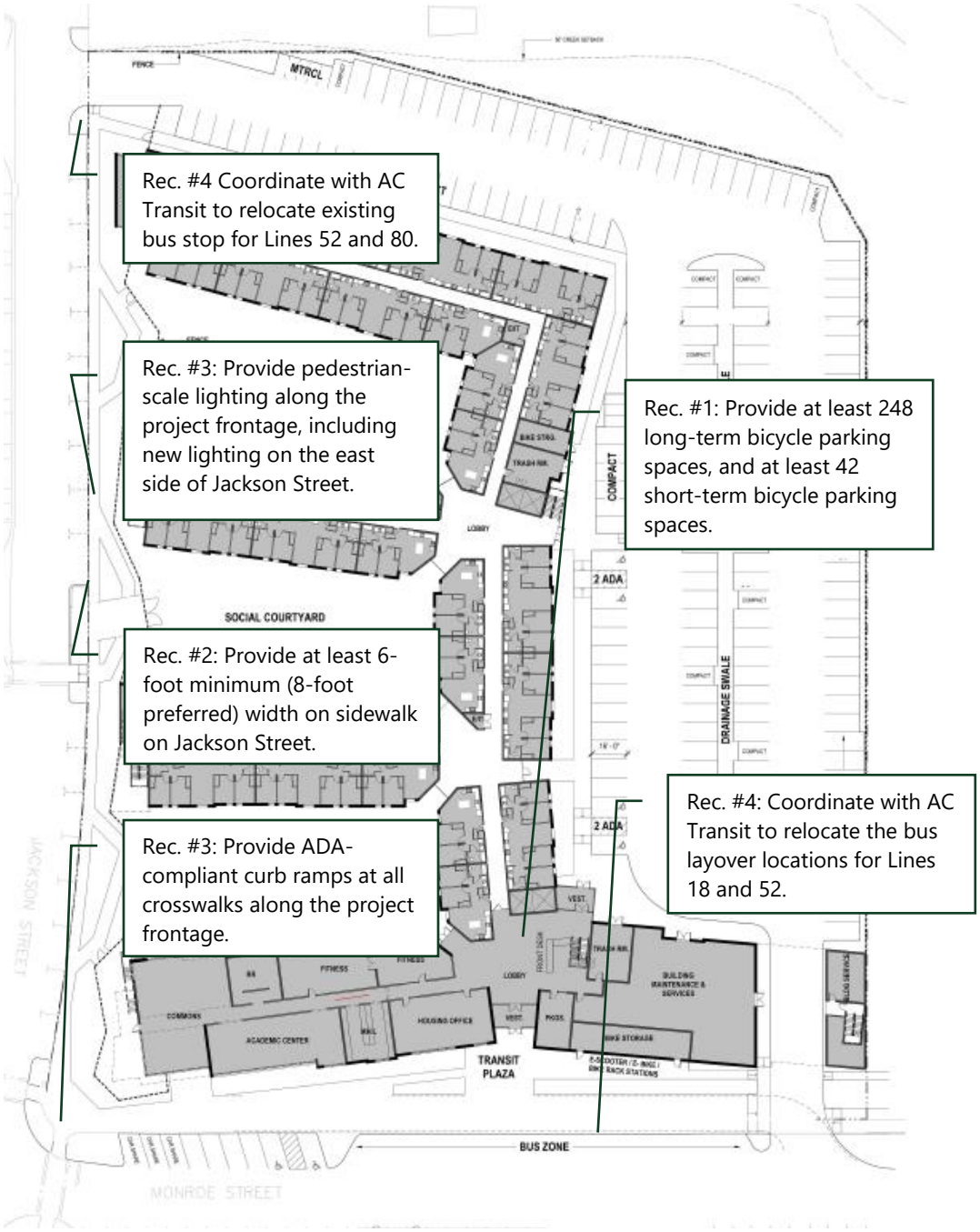
This section evaluates the current site plan concept and adjacent streets to ensure the safety of motorists, bicyclists, and pedestrians. The evaluation is based on the conceptual site plan dated March 2020, shown in **Figure 1**. Based on our evaluation, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The project would not also substantially increase hazards due to a geometric design feature or incompatible uses, and would have a less-than-significant impact on these topics. Access, circulation, and safety for each travel mode, including recommendations to improve access, circulation, and safety, is discussed below. The recommendations provided below and summarized in Figure 1 are not considered significant impacts under CEQA but are provided to improve access, circulation, and safety for all travel modes.

Motor Vehicles

Motor vehicles would access the site parking lot through two driveways: one at the northwest corner of the project site on Jackson Street, and one at the southeast corner of the project on Monroe Street. In addition, the project would continue to provide parallel on-street parking along the Jackson Street frontage and would provide angled parking spaces on both sides of Monroe Street.

Based on the review of the conceptual site plan, both project driveways would have adequate sight distance between vehicles entering and exiting the driveways and pedestrians on the adjacent sidewalk as well as bicycles and motorists in both direction of the adjacent street. The project would not modify the public right-of-way beyond the items discussed above. Project components, such as the project parking lot and driveways will be designed to be compliant with the applicable design standards, such as the UC Facilities Manual, California Building Standards Code, Caltrans Highway Design Manual, and the California Manual on Uniform Traffic Control Devices.

Figure 1 – Site Plan Review Comments



Bicycles

Bicycles would access the site via one of the two driveways mentioned in the Motor Vehicles section above, or directly via the adjacent sidewalks on Jackson or Monroe Streets. Neither of the two fronting streets along the project site include designated bicycle facilities. The nearest designated bicycle facilities to the site are:

- 8th Street: a bicycle boulevard, terminating at Jackson Street about 350 feet south of the project site
- Marin Avenue/Buchanan Street: an eastbound bike lane and westbound buffered bike lane east of San Pablo Avenue; a westbound bike lane and a two-way separated multi-use trail west of San Pablo Avenue
- San Pablo Avenue: a two-way separated bike lane on the west side of street, spanning approximately 350 feet in each direction north and south of Monroe Street.
- Codornices Creek Trail: a shared use path along the north side of the creek between San Pablo Avenue and 10th Street
- 10th Street: a bicycle route between Monroe Street and the Codornices Creek Trail

The 2015 Albany Active Transportation Plan (ATP) proposes the following:

- A shared use path for bicycles and pedestrians on the east side of Jackson Street between 8th and Buchanan Streets along the project frontage
- A southbound bicycle lane and a northbound bicycle boulevard treatment along Jackson Street between 8th and Buchanan Streets
- A bicycle boulevard treatment on Monroe Street between Jackson Street and San Pablo Avenue

The Albany ATP states that shared use paths should be at least 10 feet wide, with 12 feet preferred; and that bicycle lanes should be at least 5 feet wide, with 6 feet preferred. The recently installed two-way separated bike lane with sidewalk on San Pablo Avenue ranges from 15 to 20 feet wide, with 7 to 10 feet of sidewalk and 8 to 10 feet of designated bicycle lanes.

Jackson Street is approximately 34 to 43 feet wide along the project frontage, depending on the provision of on-street parking on one or both sides of the street. The combined recommended facilities would consist of a shared use path along the project frontage that is a minimum of 12 feet wide, a southbound bicycle lane that is a minimum of 5 feet wide, and a northbound bicycle boulevard treatment. The bicycle lane and bicycle boulevard treatment could be accommodated within the existing right of way, and the project would not modify the existing right of way. The proposed project building would provide adequate space for the future construction of the shared path identified in the Albany ATP.

The Albany ATP recommends bicycle boulevard treatment on Monroe Street along the project frontage. The proposed project would provide front-in angled parking on Monroe Street. Implementation of the recommended bicycle boulevard may require converting the proposed front-in angled parking to back-in angled parking, because back-in angled parking improves visibility between drivers and bicyclists along local streets such as Monroe Street. The proposed project design would not preclude conversion of the proposed front-in angled parking to back-in angled parking.

Although the proposed project would not construct the bicycle facilities on Jackson and Monroe Streets identified in the Albany ATP, it would not conflict with their implementation in the future because the project would not modify the right-of-way or add features that would prevent their future implementation. Thus, the proposed project is consistent with the Albany ATP.

Bicycle parking includes long-term, which is covered parking in a restricted-access area intended for project residents, and short-term bicycle parking primarily for visitors that can be indoor or outdoor and may not be covered. The project site plan identifies two long-term bicycle parking rooms in the northeast and southeast corners on the ground level of the building. The site plan does not identify the quantity of the long-term bicycle parking or the location or quantity of the short-term bicycle parking.

With the high estimated non-automobile travel to and from the project site, adequate long-term and short-term bicycle parking should be provided. Existing mode share estimates show that about 27 percent of current Albany Village residents use a bicycle to travel to campus.

> **Recommendation #1:** While not required under CEQA, consider providing at least 248 long-term bicycle parking spaces, corresponding to one space per 3.3 beds, and at least 21 short-term bicycle parking spaces, corresponding to one space per 40 beds.

Pedestrians

Pedestrians would access the site via multiple entrances on Jackson and Monroe Streets through the sidewalks on both streets. The existing sidewalks along the project frontage have a minimum width of 5.5 feet along Monroe Street, and vary between 4 feet and 7.5 feet along Jackson Street. The sidewalk east of the project site along Monroe Street is 8 feet wide.

The Albany ATP states that sidewalks on local streets should be a minimum of 5 feet wide, and that shared use paths should be wider than 10 feet, with 12 feet preferred. With the high estimated non-automobile travel to and from the project site, sidewalks should be wider than the minimum required.

Recommendation #2: While not required under CEQA, consider providing sidewalks along the project frontage on Jackson Street with a minimum width of at least 6 feet, with 8 feet preferred.

There are currently three east-west crosswalks along the project frontage on Jackson Street that would remain with the project, all with standard crosswalk striping. Only the northernmost crosswalk includes truncated domes consistent with current ADA standards. There are two north-south crosswalks along the project frontage on Monroe Street, and one less than 100 feet east of the project at the Monroe Street/10th Street intersection. The crosswalk at the Jackson Street /Monroe Street intersection has standard striping, and the other two have high-visibility features. The crosswalks at the Monroe Street/10th Street intersection have truncated domes, while the other two do not. According to the site plan, the existing mid-block crosswalk on Monroe Street between Jackson Street and 10th Street would be removed by the project, and all other crossings would remain. The site plan shows that the three crossings across Jackson Street would be upgraded to high-visibility crosswalks. There are no streetlights on the east side of Jackson Street along the project frontage. The Albany ATP states that directional curb ramps with truncated domes, high-visibility marked crosswalks, and pedestrian-scale lighting are all preferred treatments for uncontrolled locations.

Recommendation #3: Provide ADA-compliant curb ramps at all crosswalks along the project frontage. Provide pedestrian-scale lighting along the project frontage, including new lighting on the east side of Jackson Street.

Transit

There are existing Alameda-Contra Costa Transit (AC Transit) bus stops and bus layover space along the project's fronting streets at the following locations:

- North side of Monroe Street between 10th and Jackson Street, Line 52 (space for four to six buses, including layovers)
- South side of Monroe Street between Jackson and 10th Streets, Lines 18 and 52 (space for three to four buses, including layovers)
- East side of Jackson Street, 100 feet south of Ohlone Avenue, Lines 52 and 80 (space for one bus, no layovers). This stop is located adjacent to the proposed project and includes a bench.
- West side of Jackson Street, 250 feet south of Ohlone Avenue, Lines 18 and 80 (space for one bus, no layovers)

The project would eliminate the existing layover spaces for AC Transit buses on the north side of Monroe Street by providing angled on-street parking along the project frontage. The project would accommodate the existing bus stop on Monroe Street just west of the project driveway. The project driveway along Jackson Street would also conflict with the existing stop for Lines 52

and 80 along that street. The Project would not generate demand for bus service beyond what was contemplated in the 2004 Master Plan and 2004 SEIR.

Recommendation #4: While not required under CEQA, coordinate with AC Transit on the following:

- Relocate the bus stop for Lines 52 and 80 on Jackson Street at the proposed project driveway.
- Identify bus layover locations for Lines 18 and 52 for both during construction and after project completion to replace the current layover locations on Monroe Street.
- Provide increased bus service to accommodate the bus service demand for the project.

Construction Period Impacts

Construction period activities could potentially interfere with access and circulation for all travel modes. Most construction activities are expected be within the project site with little effect on the public right-of-way. However, some construction activity is expected along the project frontages on Monroe and Jackson Streets that may result in temporary closure of the sidewalk and/or street adjacent to the project site. Mitigation Measure TRANS-3 from the 2004 SEIR, includes the preparation of a Construction Traffic Management Plan to address the impacts during the construction period of the project. Implementation of the Mitigation Measure TRANS-3 from the 2004 SEIR would ensure that the project would not cause a significant impact during the construction period.

Emergency Vehicle Access

Emergency vehicles would access the site from either Monroe or Jackson Streets. In addition, emergency vehicles can also use both project driveways to access the site. Thus, the project building can be accessed from all four sides. Since the project site can be accessed from multiple access points, emergency vehicles would be able to access the site if one of the streets providing access to the site is blocked. Thus, the project impact on emergency impact is less-than-significant, and no mitigation is required.

5. 2004 SEIR Findings

The Transportation impacts and mitigations identified in the 2004 SEIR, and their applicability to the current project are described below:

- **Impact TRANS-1: The project would increase traffic at the Harrison Street/San Pablo Avenue intersection by more than 5 percent and would exacerbate the currently unacceptable LOS.**

Mitigation Measure TRANS-1: The University shall work with the City of Berkeley and Caltrans to design and install a signal at the intersection of Harrison Street and San Pablo Avenue. The University shall work with the City of Berkeley and Caltrans to determine the appropriate schedule and fair share contribution for signal installation.

Level of Significance After Mitigation: With the implementation of this mitigation measure, this intersection would operate at LOS B during both AM and PM peak hours. (LS)

Applicability to Current Project: The project would result in 250 fewer daily trips, 9 fewer AM peak hour and 20 fewer PM peak hour trips than what was analyzed in the 2004 SEIR. Therefore, any congestion-based impacts, where are no longer considered an impact under CEQA, would be less than those disclosed in the 2004 SEIR. However, we understand the University remains committed to working with the City of Berkeley and Caltrans to determine the appropriate schedule and fair share contribution for signal installation. .

- **Impact TRANS-2: Adequate truck turning radii are not provided for 18-wheel tractor-trailer trucks entering the 10th Street/Monroe Avenue traffic circle or the loading docks in Block B.**

  Mitigation Measure TRANS-2: Prior to approval of construction plans, the proposed streets and loading docks within the Step 3 area shall be designed to accommodate all anticipated delivery vehicles. Further, specific truck routes and loading/unloading areas shall be designated for all commercial delivery vehicles that would serve the commercial uses within the Step 3 area.

  Level of Service After Mitigation: Implementation of this mitigation measure would reduce Impact TRANS-2 to a less-than-significant level. (LS)

  Applicability to Current Project: This mitigation measure is not applicable to the proposed project because the project would not have any loading docks and the 10th Street/Monroe Avenue traffic circle has not been constructed.

- **Impact TRANS-3: Construction activities associated with the proposed project would have adverse impacts on traffic congestion. Construction trucks may use the Gilman interchange during peak hours, exacerbating the LOS F conditions at these unsignalized ramp intersections. Detours or lane closures may be required during construction if streets adjacent to the project site need to be closed for work related to the project.**

Mitigation Measure TRANS-3: Prior to construction the University shall require the prime contractor to prepare a Construction Traffic Management Plan which shall include the following elements:

- Proposed truck routes to be used, consistent with the City truck route map.
- Construction hours, including limits on the number of truck trips during the AM and PM peak traffic periods (7:00 a.m. – 9:00 a.m. and 4:00 p.m. – 6:00 p.m.).
- If the dirt haul trucks use the Gilman ramps during the peak commute periods to access the project site, traffic control officers shall be engaged and posted at the intersection.
- Proposed employee parking plan (number of spaces and planned locations).
- Proposed construction equipment and materials staging areas, demonstrating minimal conflicts with traffic, pedestrian and bicycle circulation patterns.
- Expected traffic detours, lane closures, planned duration, and traffic control plans. The Plan shall be prepared in consultation with University staff and the cities of Albany and Berkeley and Caltrans.

Level of Significance After Mitigation: Implementation of this mitigation measure would reduce Impact TRANS-3 to a less-than-significant level. (LS)

Applicability to Current Project: The project would be subject to and comply with Mitigation Measure TRANS-3.

- **Impact TRANS-4: The project would increase cumulative traffic at the Gilman Street/San Pablo Avenue intersection by more than 5 percent and exacerbate an unacceptable LOS during the PM peak hour.**

  Continuing Best Practice TRANS-4: The University offers a comprehensive array of services designed to reduce single-occupant automobile use by students, faculty, staff and visitors. The University shall continue to encourage University Village residents to use alternative transportation modes to replace vehicle trips. The following services and incentives are provided through the Parking and Transportation Office:

  - The "Class Pass" allows registered University students to ride AC Transit (including the Transbay lines to San Francisco) and BEAR Transit campus shuttle buses (except the Richmond Field Station shuttle line) all semester.
  - Website with links to BART, AC Transit and other transit service websites.

- "New Directions" alternative commute program for faculty and staff, offering benefits such as carpool and vanpool programs, transit subsidy programs, and pre-tax transit programs.

Level of Significance After Mitigation: There are no feasible mitigation measures that could be implemented at this intersection to reduce Impact TRANS-4 to a less-than-significant level. Therefore, the project's contribution to cumulative impacts at this intersection would remain significant and adverse. (SU)

Applicability to Current Project: The project would result in 250 fewer daily trips, 9 fewer AM peak hour and 20 fewer PM peak hour trips than what was analyzed in the 2004 SEIR. Therefore, any congestion-based impacts, where are no longer considered an impact under CEQA, would be less than those disclosed in the 2004 SEIR. Notwithstanding the above, we understand the University is committed to implementing Continuing Best Practice TRANS-4 for all projects in the Master Plan, including this one.

- **Impact TRANS-5: The project would increase cumulative traffic at the Harrison Street/San Pablo Avenue intersection by more than 5 percent and would exacerbate the projected unacceptable LOS.**

  Mitigation Measure TRANS-5: Implementation of Mitigation Measure TRANS-1 would reduce the cumulative impact at this intersection.

  Level of Service After Mitigation: With the implementation of this mitigation measure, this intersection would operate at LOS B during both AM and PM peak hours, thus reducing Impact TRANS-5 to a less-than-significant level. (LS)

  Applicability to Current Project The project would result in 250 fewer daily trips, 9 fewer AM peak hour and 20 fewer PM peak hour trips than what was analyzed in the 2004 SEIR. Therefore, any congestion-based impacts, where are no longer considered an impact under CEQA, would be less than those disclosed in the 2004 SEIR. However, we understand the University remains committed to working with the City of Berkeley and Caltrans to determine the appropriate schedule and fair share contribution for signal installation.

- **Impact TRANS-6: The project would increase traffic by at least 5 percent to CMP and MTS roadway segments projected to operate at LOS F in 2010 and 2025. The segments are San Pablo Avenue between Gilman Street and Marin Avenue and Gilman Street between San Pablo Avenue and 6th Street.**

Mitigation Measure TRANS-6: Implementation of Continuing Best Practice TRANS-4 would reduce the cumulative impact at this intersection.

Level of Significance After Mitigation: The current San Pablo SMART Corridor and the San Pablo Avenue BRT projects would provide improvements to roadway operations in the San Pablo corridor. However, no feasible mitigation measures have been identified for these corridors that would improve the LOS of these segments. As noted above, Continuing Best Practice TRANS-4 would reduce the project's contribution to cumulative traffic impacts. However, the project's contribution to cumulative impacts to these segments would remain significant and unavoidable. (SU)

Applicability to Current Project: The project would result in 250 fewer daily trips, 9 fewer AM peak hour and 20 fewer PM peak hour trips than what was analyzed in the 2004 SEIR. Therefore, any congestion-based impacts, where are no longer considered an impact under CEQA, would be less than those disclosed in the 2004 SEIR. Notwithstanding the above, we understand the University is committed to implementing Continuing Best Practice TRANS-4 for all projects in the Master Plan, including this one.

- **Impact TRANS-7: Cumulative conditions at Gilman Street/6th Street and Marin Avenue/San Pablo Avenue, unacceptable without the proposed project, may be exacerbated by the proposed project.**

  For other intersections not addressed above, the addition of project-related traffic would increase intersection volumes by less than 3 percent. However, at the signalized intersections of Gilman Street/6th Street and Marin Avenue/San Pablo Avenue, the project contribution, while still negligible at less than 4 percent, may be noticeable.

  Mitigation Measure TRANS-7: The University will work with local cities and Caltrans to determine appropriate schedule and fair-share contribution for any capital improvements proposed and constructed to address these conditions.

  Level of Significance After Mitigation: Given that the program of capital improvements that might be proposed to address future cumulative conditions is not currently determined, for purposes of this EIR the impact would remain significant and unavoidable. (SU)

  Applicability to Current Project: The project would result in 250 fewer daily trips, 9 fewer AM peak hour and 20 fewer PM peak hour trips than what was analyzed in the 2004 SEIR. Therefore, any congestion-based impacts, where are no longer

considered an impact under CEQA, would be less than those disclosed in the 2004 SEIR. However, we understand the University remains committed to working with local cities and Caltrans to determine appropriate schedule and fair-share contribution for any capital improvements proposed and constructed to address these conditions.

Please contact Sam Tabibnia (stabibnia@fehrandpeers.com or 510-835-1943) or Lee Reis (lreis@fehrandpeers.com or 510-851-7702) with questions or comments.