3100 San Pablo Avenue Medical Office and R&D Project

Draft Supplemental Environmental Impact Report

SCH#2017012056

prepared by

City of Berkeley
Planning and Development Department
1947 Center Street, 2nd Floor
Berkeley, California 94704
Contact: Nicholas Armour, Associate Planner

prepared with the assistance of

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

May 2020

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Executive Summary

This document is a Supplemental Environmental Impact Report (SEIR) analyzing the environmental effects of the proposed 3100 San Pablo Avenue Medical Office and R&D Project (proposed project). This section summarizes the characteristics of the proposed project, alternatives to the proposed project, and the environmental impacts and mitigation measures associated with the proposed project.

Project Synopsis

Project Applicant

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Project Location

The project site is located at 3100 San Pablo Avenue (Assessor's Parcel # 052-151200103). The 4.1-acre site comprises an entire block bounded by San Pablo Avenue to the east, Folger Avenue to the north, the Emeryville Greenway bicycle path to the west, and 67th Street to the south. The project site is located at the intersection of and partially within the jurisdictions of each of the cities of Berkeley, Oakland, and Emeryville.

2017 EIR and 2018 EIR Addendum

In July 2017 the City of Berkeley (City) Zoning Adjustments Board (ZAB) certified the Final EIR (State Clearinghouse [SCH] # 2017012056) for an Outpatient Center Project in the subject building, which involved converting approximately 97,443 square feet of space in the existing Foundry 31 building to an Outpatient Center. This project was located in the eastern portion of the existing building on parts of the first and second floors and all of the third and fourth floors. The 2017 EIR determined that significant unavoidable impacts would occur in

the issue areas of operational noise as a result of traffic, greenhouse gas emissions, and transportation. Therefore, the City adopted a Statement of Overriding Considerations for these significant and unavoidable impacts per CEQA Guidelines Section 15093.

An addendum to the 2017 EIR was prepared in April 2018 ("2018 EIR Addendum") for an Office and R&D project which involved interior modeling and modifications to establish 49,000 square feet of use by the Premier Nutrition Corporation (PNC) within the subject building. The 2018 EIR Addendum was approved by the ZAB along with the PNC project in April 2018 pursuant to CEQA Guidelines Section 15162.

Project Description

This SEIR has been prepared to examine the potential environmental effects of the 3100 San Pablo Avenue Medical Office and R&D Project. The following is a summary of the full project description, which can be found in Section 2, *Project Description*.

The proposed project would establish new uses in two vacant suites (Suite 180 and Suite 200) within the existing "Foundry 31" building. Suite 180 is located on the first floor and Suite 200 is located on the second floor, and both suites are located in the northern area of the existing building, adjacent to Folger Avenue. The proposed uses would be 1) an extension of the BayHealth Outpatient Center in Suite 180 with an Oncology laboratory and 2) R&D, office, and laboratory uses within Suite 200. The combined square footage of the two suites is 87,500 square feet, as detailed in Table ES-1.

Table ES-1 Project Characteristics

Suite	Square Feet	Use
180	17,700	BayHealth Outpatient Oncology Laboratory
200	69,800	R&D, office, and laboratory
Total	**87,500**	

Interior tenant improvements would also occur as a result of the proposed project. No changes to the exterior of the building, building height, lot coverage, or building footprint would occur. The proposed oncology laboratory in Suite 180 would operate 7:00 AM to 9:00 PM Monday through Friday and 7:00 AM to 7:00 PM on Saturday and Sunday. The R&D uses in Suite 200 would operate 6:00 AM to 9:00 PM every day of the week. The oncology laboratory in Suite 180 would accommodate 25 employees and up to 25 patients at any given time. R&D uses within Suite 200 would accommodate approximately 443 employees and up to 10 customers at a time.

Parking and Site Access

Existing parking for the Foundry 31 building is located in the basement and on the roof of the building, as well as in surface parking lots surrounding the property. Parking to accommodate the Oncology laboratory use in Suite 180 would be located in the parking lot to the north; six on-street parking spaces and an ADA drop-off would be located on the south side of Folger Avenue. Employee parking for other tenants that currently use the north parking lot would be relocated to the Greenway parking lot to the west.

The proposed project would eliminate one ADA van parking spaces on 67th St. and would create a new ADA patient and passenger drop off and shuttle stop near the Foundry 31

entry on San Pablo Avenue. In addition, revisions to the basement parking layout would result in the removal of three parking spaces. Access to parking areas is provided via two driveways off 67th Street. Bicycle parking for the public is provided along San Pablo Avenue with 200 additional secured slots in the basement off 67th Street.

Construction and Grading

All construction activities for the project would be located in the interior of the existing building. No structural changes would be involved, and no exterior changes are included as part of the project. Therefore, no changes to the building footprint would occur, no use of heavy construction equipment would be required, and there would be no grading activities.

Project Objectives

1. Support BayHealth and its patients in cancer prevention, diagnosis, treatment, and care coordination.
2. Provide a wide range of medical services in one conveniently located facility.
3. Provide addition space for high-skilled employment opportunities.
4. Encourage adaptive reuse of space where the new use would be compatible with the structure itself and surrounding area, pursuant to Urban Design and Preservation Policy 6 of the Berkeley General Plan.
5. Provide a variety of jobs with varied skill levels, pursuant to Economic Development Goal 1 of the Berkeley General Plan.

Alternatives

As required by the California Environmental Quality Act (CEQA), this SEIR examines alternatives to the proposed project. Studied alternatives include the following two alternatives. Based on the alternatives analysis, Alternative 2 was determined to be the environmentally superior alternative.

- Alternative 1: No Project
- Alternative 2: Light Manufacturing Use

Alternative 1 (No Project) assumes that the proposed project would not be implemented and the existing space in Suite 180 and Suite 200 within the Foundry 31 building would be left vacant. None of the proposed interior building work associated with the Oncology laboratory and office space and R&D space would occur. This alternative assumes that the building would remain with its current occupants, but the other unoccupied portions of the Foundry 31 building would remain vacant. The No Project Alternative would not achieve any of the objectives of the proposed project because the vacant spaces would not support BayHealth patients or provide high skilled jobs.

Alternative 2 (Light Manufacturing Use) would involve conversion of 87,496 square feet of vacant space on the first and second floors of the building to light manufacturing use with a use permit and public hearing; no Variances would be required, unlike for the proposed project. Under this alternative, Suite 180 and Suite 200 within the Foundry 31 building would be occupied by a light manufacturing use instead of the proposed Oncology laboratory and office space and R&D space. According to Table 23E.64.030 in Section 23E.64.030 of the Berkeley Municipal Code (BMC), light manufacturing uses over 5,000 square feet are allowed with a use permit and public hearing in the C-W district. According to Table

23E.80.030 in Section 23E.80.030 of the BMC, light manufacturing uses over 30,000 square feet are allowed with a use permit and public hearing in the MU-LI zone. Like the proposed project, no changes to the building exterior would occur. The light manufacturing use would operate during typical business hours as other light manufacturing uses and buildings. This alternative would meet the objectives relating to adaptive reuse of an existing building and skilled jobs but would not support the objectives related to BayHealth services or the provision of additional medical opportunities for residents.

Refer to Section 6, *Alternatives*, for the complete alternatives analysis.

Areas of Known Controversy

The EIR scoping process did not identify any areas of known controversy for the proposed project. Responses to the Notice of Preparation of a Draft SEIR are summarized in Section 1 *Introduction*.

Summary of Impacts and Mitigation Measures

Table ES-2 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if required). Mitigation measures from the 2017 EIR that are still applicable to the proposed project are also included. Although distinct from mitigation measures, project design features (PDFs) are also listed because they will be included as conditions of approval by the City to avoid potential biological and geological impacts. Impacts are categorized as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the CEQA Guidelines.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.
- **Less than Significant.** An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact:** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measure (s)	Residual Impact
2017 EIR Impacts and Mitigation Measures		
Noise		
Impact 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?	**N-1 Improvements to Existing Buildings.** The applicant shall offer to carry out noise attenuation improvements for property owners of the existing multi-family residences (units with doors and/or windows facing 67th street), single-family residences, and church on 67th Street south of the project site where interior noise levels are found to exceed the 45 dBA interior noise level standards. An acoustical study shall be prepared to determine which residences would have interior noise levels above standards. A list of potential improvements to be offered to the owners will be created based on the findings of the acoustical study. The acoustical study findings and the list of improvements shall be reviewed and approved by the City's zoning officer. The list of improvements may include, but are not limited to the following: ▪ Installation of doors with a Sound Transmission Class (STC)[1] rating of 30 or higher; ▪ Installation of commercially available windows with a STC rating of 30 or higher; ▪ Replace exterior wall surfaces with stucco or brick veneer provided that it would improve noise attenuation; ▪ Installation of baffled roof or attic vents	Significant and Unavoidable
Transportation		
Impact a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	**T-1 Transportation Demand Management Plan (Implements 2017 EIR Mitigation Measure T-1).** The project applicant shall prepare a Transportation Demand Management (TDM) Plan for City of Berkeley review and approval prior to occupancy to reduce the automobile traffic and parking demand generated by the project. Potential strategies that may be considered include: a. Coordinate with Emery GoRound and/or West Berkeley Shuttle to provide stops near the project site b. Provide bike lockers, showers, and personal lockers onsite to encourage bicycling to the site; encourage tenants to provide shared bicycles that employees can use during the day for errands c. Encourage a local car share company (City Car Share, ZIP Car, etc.) to locate a car share pod at the project site or in close proximity to the site to provide an option for employees who may need a car during the day for meetings/errands but do not need a	Significant and Unavoidable

[1] A single-number rating system for determining the amount of noise reduction provided by a window, door or other building component. The higher the STC rating, the more efficient the component will be in reducing noise. Windows and doors having a minimum STC rating are sometimes required to ensure that a building facade will achieve a minimum Noise Level Reduction (NLR). STC ratings may not be subtracted from exterior noise exposure values to determine interior noise exposure values.

Impact	Mitigation Measure (s)	Residual Impact
	car for the commute trip d. Coordinate with City of Emeryville, City of Oakland, City of Berkeley, and/or other regional agencies to allow installation of a BikeShare station along the project frontage on San Pablo Avenue or the Emeryville Greenway e. Provide preferential carpool parking f. Provide full or partial transit subsidy to project employees g. Provide pre-tax commuter benefits for project employees h. Regularly distribute information on non-automobile commuting options Implement the parking management strategies as described in the Transportation Impact Analysis included as Appendix D to the 2017 EIR **T-2 San Pablo Avenue/Dwight Way Intersection.** The project applicant shall pay a fair share cost towards implementing dedicated westbound and eastbound left-turn lanes at the Dwight Way/San Pablo Avenue intersection. The fair share cost shall be determined by the City's Transportation Division based on the project's trip generation and distribution. Improvements shall occur prior to occupancy clearance. **T-3 Ashby Avenue/San Pablo Intersection.** The project applicant shall pay a fair share cost towards constructing a left turn lane on the westbound Ashby Avenue approach at the Ashby Avenue/San Pablo Avenue intersection (#4) and upgrade the signal equipment to provide protected left-turns for the eastbound and westbound approaches. The fair share cost shall be determined by the City's Transportation Division based on the project's trip generation and distribution. Improvements shall occur prior to occupancy clearance. **T-4 67th Street/San Pablo Avenue Intersection.** The project applicant shall fund signalization of the 67th Street/San Pablo Avenue intersection (#11) with a protected northbound left-turn lane, and coordinate signal timings with the adjacent intersections on San Pablo Avenue. Improvements shall occur prior to occupancy clearance.	

Impact	Mitigation Measure (s)	Residual Impact
SEIR Impacts and Mitigation Measures		
Greenhouse Gas Emissions		
Impact GHG-1. The proposed project's GHG emissions would not exceed applicable GHG thresholds. However, the combined emissions from the proposed project, 2017 EIR, and the EIR Addendum would exceed thresholds. Therefore, impacts would be significant and unavoidable	**GHG-1 GHG Reduction Plan.** The project applicant shall submit a GHG Reduction Plan to the City of Berkeley for review and approval prior to issuance of a Certificate of Occupancy. The plan shall include measures to reduce GHG emissions to the extent feasible, shall be implemented on site by the project applicant, and may include, but is not be limited to, the following components: a. Installing charging stations for electric vehicles b. Installing solar rooftop panels to offset electricity use c. Purchasing an emissions reduction credit to offset emissions. **Mitigation Measure T-1**	Significant and Unavoidable
Impact GHG-2. The proposed project would be consistent with Plan Bay Area 2040 and policies and actions in the City of Berkeley Climate Action Plan and General Plan. However, the project would exceed established thresholds to meet GHG reduction targets and policies. Therefore, impacts would be significant and unavoidable.	**Mitigation measures GHG-1 and T-1**	Significant and Unavoidable

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1 Introduction

This Environmental Impact Report (EIR) has been prepared as a Supplemental EIR (SEIR) to the City of Berkeley Outpatient Center Project Final EIR ("2017 EIR"), State Clearinghouse #2017012056, adopted in July 2017, in accordance with Sections 15162 and 15163 of the *California Environmental Quality Act (CEQA) Guidelines*. This SEIR discusses the potential environmental impacts of medical office and research and development (R&D) uses in addition to the uses analyzed under the 2017 EIR. The proposed 3100 San Pablo Avenue Medical Office and R&D Project (hereafter referred to as the "proposed project" or "project") would be located within the same building as the project analyzed in the 2017 EIR, a 405,000 square-foot mixed-use commercial and light industrial building located at 3100 San Pablo Avenue and known as the Foundry 31 building. The project would involve the establishment of new uses in two vacant suites in the Foundry 31 building. Other components of the project include interior renovations of the two suites.

This section discusses: (1) the basis for preparation of a Supplemental EIR; (2) the project and EIR background; (3) the legal basis for preparing an EIR; (4) the scope and content of the EIR; (5) the lead, responsible, and trustee agencies; and (6) the environmental review process required under CEQA. The proposed project is described in detail in Section 2, *Project Description*.

1.1 Basis for a Supplemental EIR

When an EIR has been adopted and a project is modified or expanded upon, additional CEQA review may be necessary. The key considerations in determining the need for and the appropriate type of additional CEQA review are outlined in Section 21166 of the Public Resources Code (CEQA) and Sections 15162, 15163, and 15164 of the CEQA Guidelines.

Pursuant to Section 15162 of the State CEQA Guidelines, when an EIR has been certified or a negative declaration adopted 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 which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

   (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

   (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Pursuant to Section 15163 of the State CEQA Guidelines, a supplement to an EIR may be prepared by the Lead Agency rather than a subsequent EIR if:

(1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and;

(2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

As discussed in Section 2, Project Description, the proposed project would expand the activity at the site, specifically the establishment of about 87,500 square feet of new uses in the remaining vacant portions of a 405,000 square-foot building. Also, as discussed in Section 4.1, Greenhouse Gas Emissions, the project would increase the severity of previously identified significant effects. Therefore, the City has determined that the preparation of a supplemental EIR is the appropriate approach to CEQA compliance because, while the changes in activity at the building would be significantly different from the prior analysis and result in a more significant impact, the basis for the analysis remains relevant and only minor changes to the prior EIR are needed. Consistent with Section 15050 of the CEQA Guidelines, the 2017 EIR is incorporated into this document by reference. A summary of impacts and applicable mitigation measures identified in the 2017 EIR is included in the Supplemental Initial Study included as Appendix A and in this Supplemental EIR.

1.2 Environmental Impact Report Background

In July 2017 the City of Berkeley (City) Zoning Adjustments Board (ZAB) certified the Final EIR (State Clearinghouse [SCH] # 2017012056) for an Outpatient Center Project, which involved converting approximately 97,443 square feet of space in the existing Foundry 31 building to an Outpatient Center. This project was located in the eastern portion of the existing building on parts of the first and second floors and all of the third and fourth floors. The 2017 EIR determined that significant unavoidable impacts would occur in the issue areas of operational noise as a result of traffic, greenhouse gas emissions, and transportation. Therefore, the City adopted a Statement of Overriding Considerations for these significant and unavoidable impacts per CEQA Guidelines Section 15093.

An addendum to the 2017 EIR was prepared in April 2018 (“2018 EIR Addendum”) for an Office and R&D project which involved interior modeling and modifications to establish 49,000 square feet of use by the Premier Nutrition Corporation (PNC) within the subject building. The 2018 EIR Addendum was approved by the ZAB along with the PNC project in April 2018 pursuant to CEQA Guidelines Section 15162.

The City of Berkeley distributed a Notice of Preparation (NOP) of an SEIR for the present Oncology clinic and R&D project in the remaining vacant space in the building for a 30-day

agency and public review period starting on December 18, 2019 and ending on January 17, 2020. The City received three letters from agencies in response to the NOP during the public review period. The NOP is presented in Appendix B of this SEIR, along with the Initial Study that was prepared for the project and the NOP responses received. Table 1-1 summarizes the content of the letters and where the issues raised are addressed in the SEIR.

Table 1-1 NOP Comments and EIR Response

Commenter	Comment/Request	How and Where It Was Addressed
Agency Comments		
Native American Heritage Commission (NAHC)	The NAHC specified their general approach for the impact analysis to historical resources, which should look at all historical resources in the project area. The NAHC recommends consultation with California Native American tribes that are affiliated with the geographic area of the project. The NAHC provided information regarding AB 52 and SB 18 requirements as well as consultation recommendations.	As discussed in Section 2, *Project Description*, and in the Cultural Resources section of the Initial Study included as Appendix B, the project would not affect the exterior of the existing building and there would be no impacts to historical resources. In addition, no ground disturbance or subsurface work is proposed as part of the project. Comments are addressed in Appendix B, Initial Study Section 3.5, *Cultural Resources.* This comment is noted, but no response is required.
Governor's Office of Planning and Research (OPR)	OPR provided a copy of the NOP and distribution list for City records.	No response required.
East Bay Municipal Utility District (EBMUD)	EBMUD states that their Central Pressure Zone will continue to provide water service to the site and to contact the District if additional water service is needed. EBMUD states that the Main Wastewater Treatment Plant would have adequate dry weather capacity for the project.	Impacts to potable water are discussed in Appendix B, Initial Study Section 3.19, *Utilities and Service Systems*.
	EBMUD recommends the City require the project comply with EBMUD's Regional Private Sewer Lateral Ordinance and recommends two mitigation measures to assist the District with their wet weather flow capacity issues.	Impacts to wastewater are discussed in Appendix B, Initial Study Section 3.19, *Utilities and Service Systems*. The project would not update or add to the existing wastewater infrastructure.

1.3 Purpose and Legal Authority

The proposed project requires the discretionary approval of the City of Berkeley; therefore, the project is subject to the environmental review requirements of CEQA. In accordance with Section 15121 of the *CEQA Guidelines* (California Code of Regulations, Title 14), the purpose of this EIR is to serve as an informational document that:

> "will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

As discussed above, this document is an SEIR to the 2017 EIR pursuant to Section 15162 and 15163 of the *CEQA Guidelines*. An SEIR is appropriate when "substantial changes are proposed in the project which will require major revisions of the previous EIR."

This SEIR is to serve as an informational document for the public and City of Berkeley decision makers. The process will include public hearings before the Zoning Adjustments Board to consider certification of a Final SEIR and approval of the proposed project.

This SEIR contains a project-level environmental review that fulfills the requirement of a project-level SEIR. As defined in *CEQA Guidelines* Section 15161:

> "This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project, including planning, construction, and operation."

1.4 Scope and Content

This EIR addresses impacts identified by the Initial Study to be potentially significant. The following issues were found to include potentially significant impacts and have been studied in this EIR:

- Greenhouse Gas Emissions

The remaining environmental issues were found to be less than significant and not studied in this EIR. An analysis of these issues is included in the Initial Study, Appendix A of this EIR.

In preparing the EIR, use was made of pertinent City policies and guidelines, certified EIRs and adopted CEQA documents, and other background documents. A full reference list is contained in Section 7, *References and Preparers*.

The alternatives section of the EIR (Section 6) was prepared in accordance with Section 15126.6 of the *CEQA Guidelines* and focuses on alternatives that are capable of eliminating or reducing significant adverse effects associated with the project while feasibly attaining most of the basic project objectives. In addition, the alternatives section identifies the "environmentally superior" alternative among the alternatives assessed. The alternatives evaluated include the CEQA-required "No Project" alternative and an alternative development scenario for the subject building space.

The level of detail contained throughout this SEIR is consistent with the requirements of CEQA and applicable court decisions. Section 15151 of the *CEQA Guidelines* provides the standard of adequacy on which this document is based. The *Guidelines* state:

> An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure.

1.5 Lead, Responsible, and Trustee Agencies

The *CEQA Guidelines* define lead, responsible and trustee agencies. The City of Berkeley is the lead agency for the project because it holds principal responsibility for approving the project.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the project. There are no responsible agencies for the proposed project.

A trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. There are no trustee agencies for the proposed project.

Portions of the Foundry 31 building are in three cities: Berkeley (northern and majority portion), Oakland (most of the southern potion), and Emeryville (a small part of the westernmost portion). The specific area of the building proposed for the project is partially in Berkeley (the northern portion) and partially in Oakland (the southern portion). An MOU executed in 2013 between the cities of Oakland, Emeryville, and Berkeley establishes Berkeley as the lead city for land use approvals.

1.6 Environmental Review Process

The environmental impact review process, as required under CEQA, is summarized below and illustrated in Figure 1-1. The steps are presented in sequential order.

(1) **Notice of Preparation (NOP) and Initial Study**. After deciding that an EIR is required, the lead agency (City of Berkeley) must file a NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. The NOP may be accompanied by an Initial Study that identifies the issue areas for which the project could create significant environmental impacts. (For this project, an Initial Study did not accompany the NOP. An Initial Study was prepared and is included as an appendix to this SEIR.

(2) **Draft EIR.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes.

(3) **Notice of Completion (NOC).** The lead agency must file a NOC with the State Clearinghouse when it completes a Draft EIR and prepare a Public Notice of Availability of a Draft EIR. The lead agency must place the NOC in the County Clerk's office for 30 days (Public Resources Code Section 21092) and send a copy of the NOC to anyone requesting it (*CEQA Guidelines* Section 15087). Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the State Clearinghouse approves a shorter period (Public Resources Code 21091).

(4) **Final EIR.** A Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.

(5) **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).

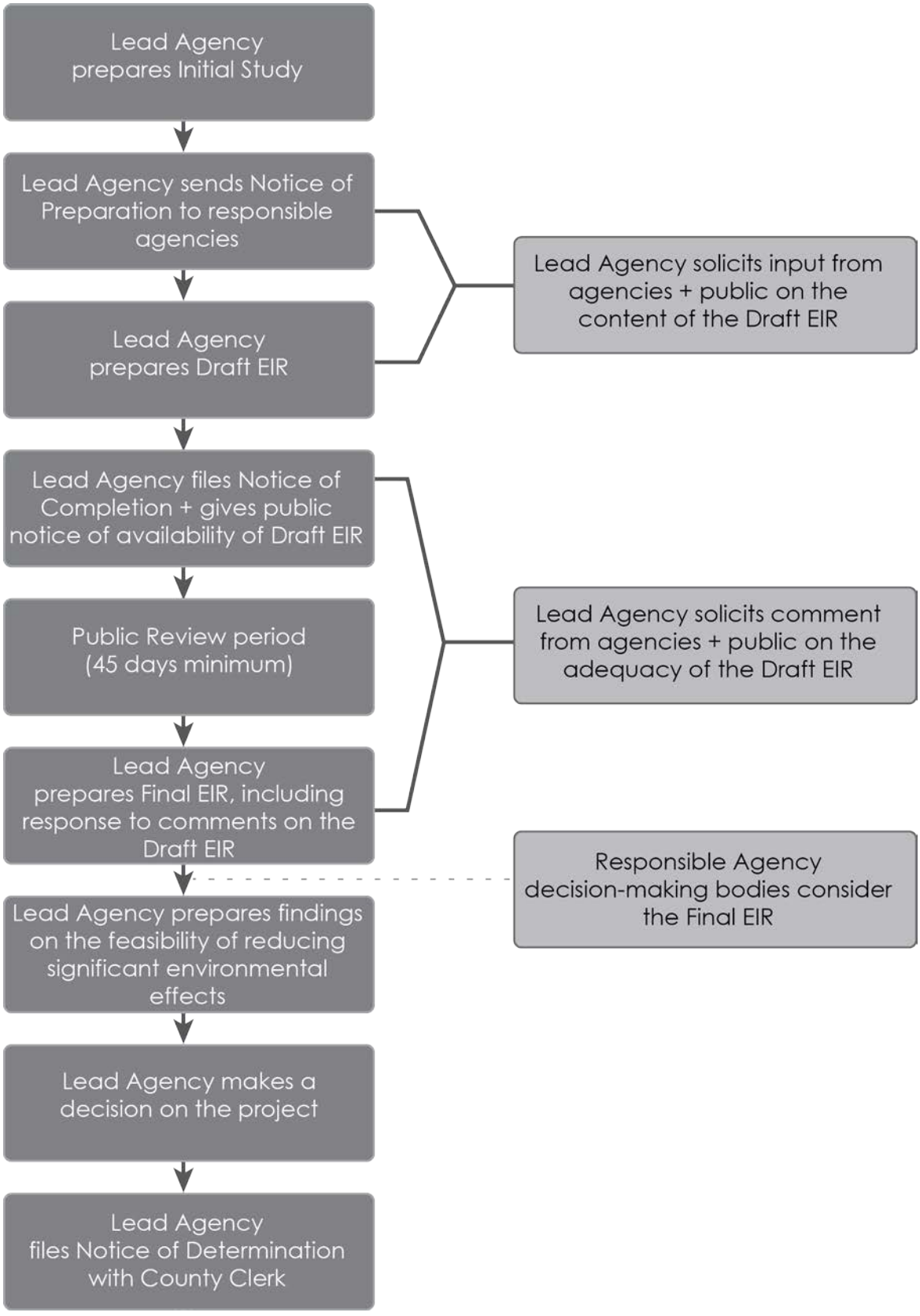
(6) **Lead Agency Project Decision.** The lead agency may a) disapprove the project because of its significant environmental effects; b) require changes to the project to reduce or avoid significant environmental effects; or c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).

(7) **Findings/Statement of Overriding Considerations**. For each significant impact of the project identified in the EIR, the lead agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.

(8) **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.

(9) **Notice of Determination (NOD).** The lead agency must file a NOD after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 Environmental Review Process



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2 Project Description

This section describes the proposed project, including the project applicant, the project site and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

2.1 Project Applicant

Applicant

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Property Owner

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2.2 Lead Agency

City of Berkeley,
Planning and Development Department
1947 Center Street, 2nd Floor
Berkeley, California 94704

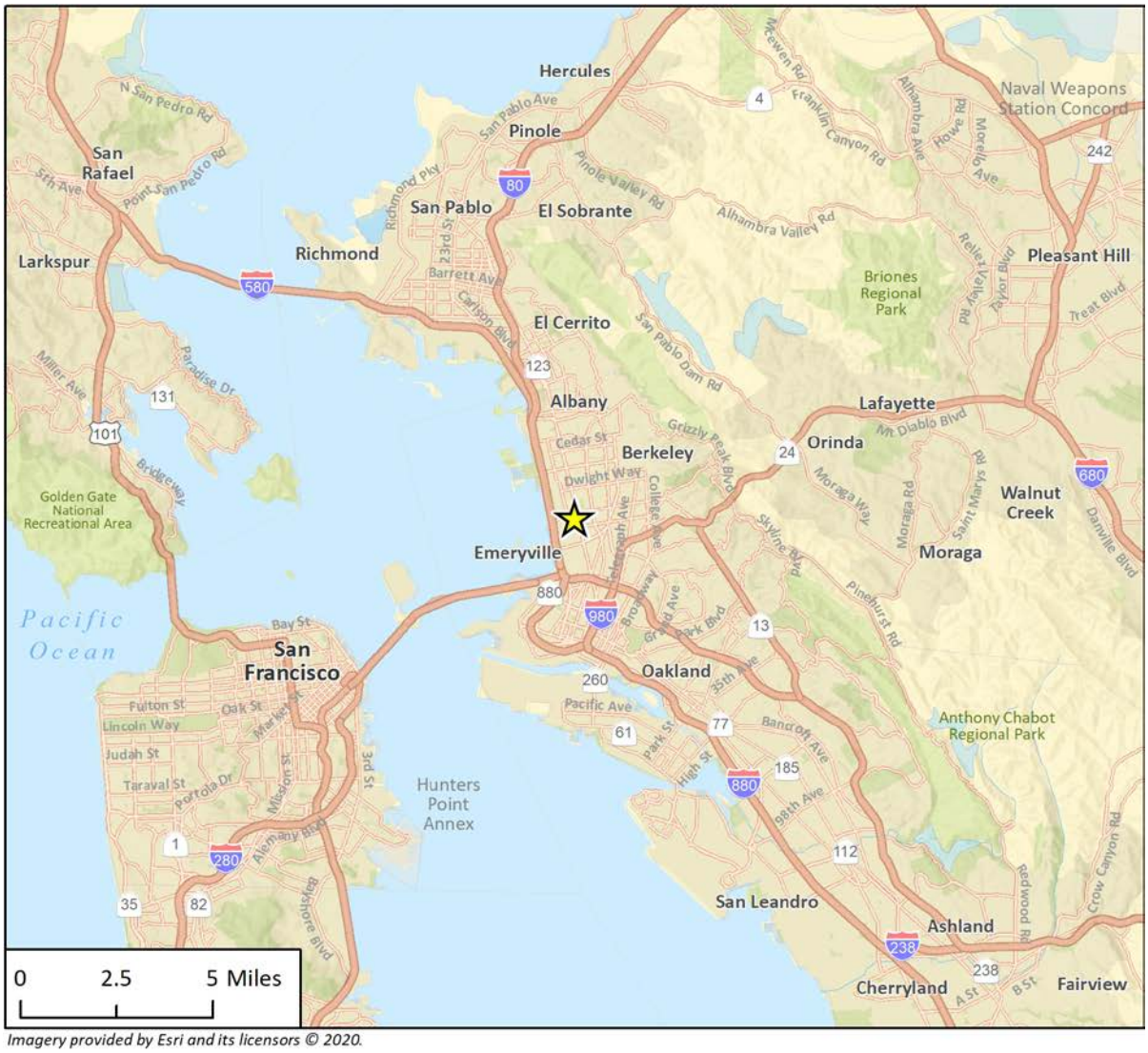
2.3 Contact Person and Phone Number

Nicholas Armour, Associate Planner
NArmour@cityofberkeley.info
(510) 981-7485

2.4 Project Location

The project site is located at 3100 San Pablo Avenue (Assessor's Parcel # 052-151200103). The 4.1-acre site comprises an entire block bounded by San Pablo Avenue to the east, Folger Avenue to the north, the Emeryville Greenway bicycle path to the west, and 67th Street to the south. The project site is located at the intersection of and partially within the jurisdiction of the cities of Berkeley, Oakland, and Emeryville. The regional location of the project is shown in Figure 2-1. Figure 2-2 shows the project site location in local context.

Figure 2-1 Regional Location



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★ Project Location

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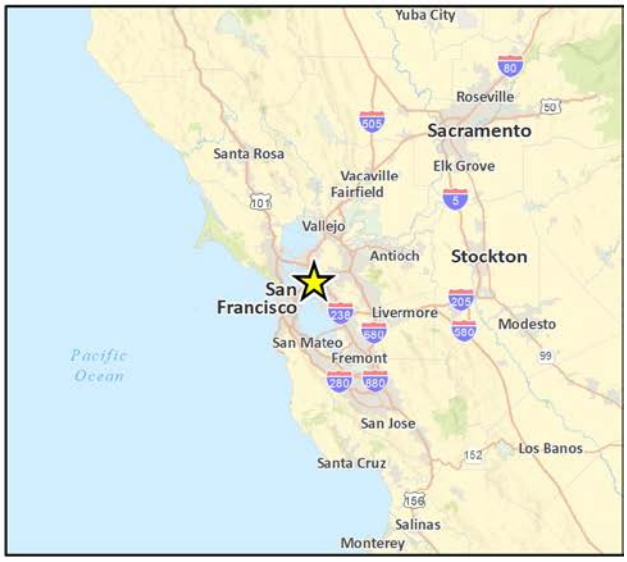

Figure 2-2 Project Site Location

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Fig 2 Project Location

2.5 Existing Site Characteristics

The project site is developed with an existing approximately 405,000 square foot mixed-use commercial and light industrial building known as “Foundry 31” (formerly the “Marchant on Greenway” building). Figure 2-3 includes photographs of the Foundry 31 building. The Foundry 31 building is mostly two-stories in height except for the tower portion of the building along San Pablo Avenue which is four-stories in height. The building also has a partial basement level for parking.

Current uses at the Foundry 31 building include an Amazon Fulfillment Center warehouse and offices (23,500 square feet), TCHO chocolates manufacturing/warehouse (34,122 square feet), and Clif Bar manufacturing/commercial kitchen (15,900 square feet). Currently, a 42,479-square-foot health club (City Sports) occupies portions of the first and second floor. In addition, the BayHealth Outpatient Center occupies 97,443 square-feet of former office space on portions of the first and second floor and all of the third and fourth floors. Most recently, 49,000 square-feet of office and research and development space became occupied by Premier Nutrition Corporation (PNC) on the second floor, in portions of the building within the City of Oakland and Emeryville. The proposed project would occupy the remaining vacant space within the building.

2.5.1 Current Land Use Designation and Zoning

Within the Foundry 31 building, the portion of the building containing the two vacant suites where the new uses are proposed is within two city jurisdictions. Within the City of Berkeley portion of project site, the eastern portion has an “Avenue Commercial” land use designation and the remaining has a “Manufacturing,” land use designation. The City of Oakland portion of project site has a “Housing and Business Mix” land use designation.

The portion of the project site in the City of Berkeley is zoned Commercial (C-W) and Mixed Use – Light Industrial (MU-LI), and the portion in the City of Oakland is zoned Community Commercial-2 (CC-2) and Housing and Business Mix-2 (HBX-2).

2.5.2 Surrounding Land Uses

The project site is bounded by San Pablo Avenue (a four-lane State highway with a landscaped median) to the east, Folger Avenue to the north, the Emeryville Greenway bicycle path to the west, and 67th Street to the south. To the north of the project site across Folger Avenue are one- and two-story industrial, warehouse, commercial, and parking uses. Across San Pablo Avenue to the east are one- and two-story commercial and retail uses. Across 67th Avenue to the south are fast food (McDonald’s), commercial, religious assembly, and residential uses, including two one-story, single family homes and three-story apartment buildings. The Emeryville Greenway bicycle path is adjacent to the property’s western boundary and on the other side of the bike path is a parking lot under the same ownership as the project site.

Figure 2-3 Site Photographs

View of the southeast corner of the Foundry 31 building from San Pablo Avenue

View of the northeast corner of the Foundry 31 building from San Pablo Avenue

2.6 Project Characteristics

The proposed project would establish new uses in two vacant suites (Suite 180 and Suite 200) within the existing Foundry 31 building. Suite 180 is located on the first floor and Suite 200 is located on the second floor, and both suites are located in the northern area of the existing building, adjacent to Folger Avenue, as shown in the site plan in Figure 2-4 through Figure 2-7 below. The proposed uses would be 1) an extension of the BayHealth Outpatient Center with an Oncology laboratory and in Suite 180 and 2) R&D, office, and laboratory uses within Suite 200. The combined square footage of the two suites is 87,495 square feet, as detailed in Table 2-1. The most recent prior occupants of the suites were Marchant Calculator, Inc. and UC Berkeley museum for artifact storage and office space.

Table 2-1 Proposed Project Floor Area and Use

Suite	Square Feet	Use
180	17,700	BayHealth Outpatient Oncology Laboratory
200	69,800	R&D, office, and laboratory
Total	**87,500**	

The proposed oncology laboratory in Suite 180 would operate 7:00 AM to 9:00 PM Monday through Friday and 7:00 AM to 7:00 PM on Saturday and Sunday. The uses in Suite 200 would operate 6:00 AM to 9:00 PM every day of the week. The oncology laboratory in Suite 180 would accommodate 25 employees and up to 25 patients at any given time. Uses within Suite 200 would accommodate approximately 443 employees and up to 10 customers at a time. Interior tenant improvements would also occur as a result of the proposed project. No changes to the exterior of the building, building height, lot coverage, or building footprint would occur.

Figure 2-4 though Figure 2-7shows the proposed site plans, including basement parking plans, first floor Suite 180 floor plans, and second floor Suite 200 floor plans.

Figure 2-4 Proposed Basement Parking Floor Plan

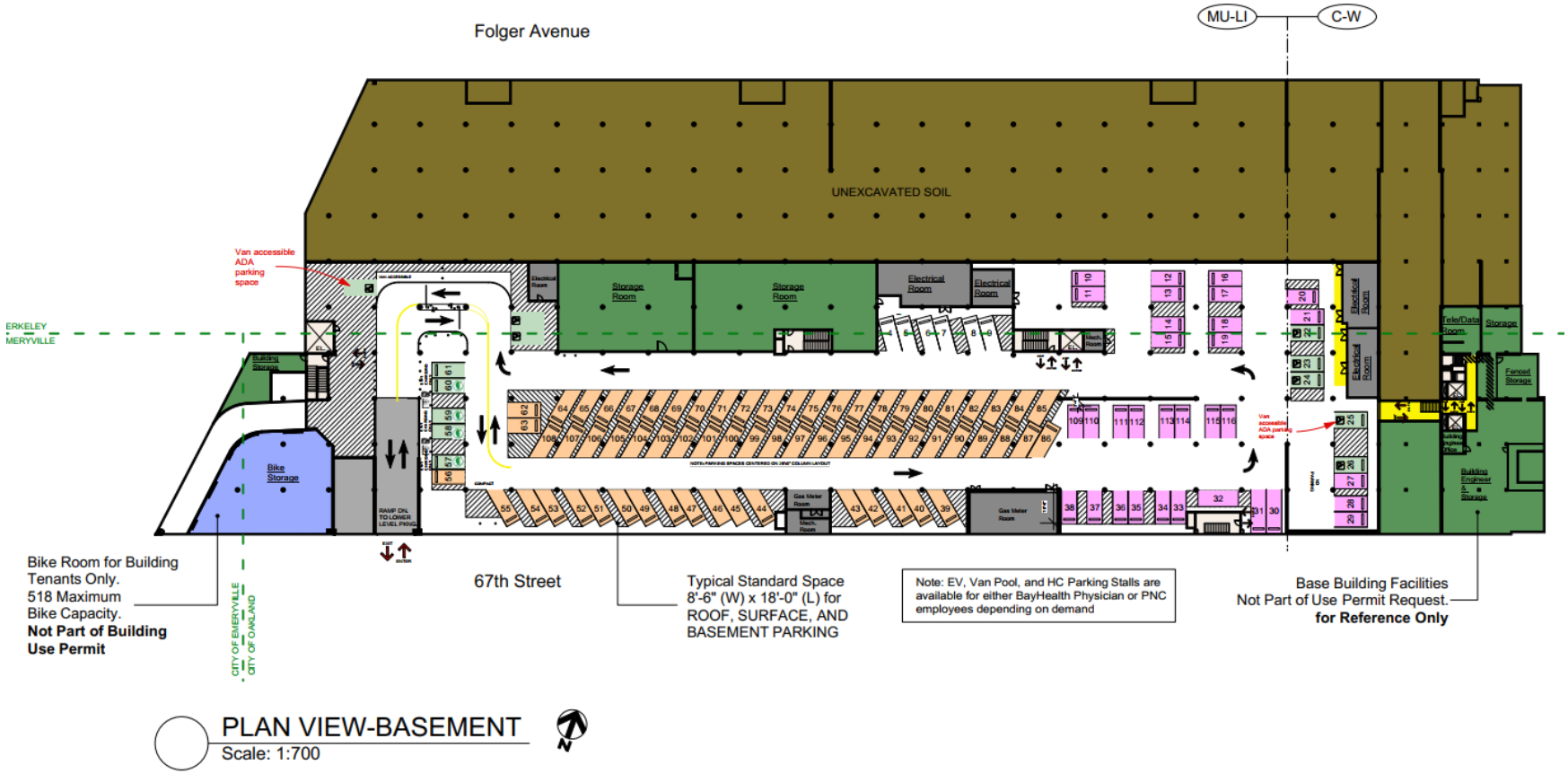


Figure 2-5 Proposed Streetscape and Site Plan

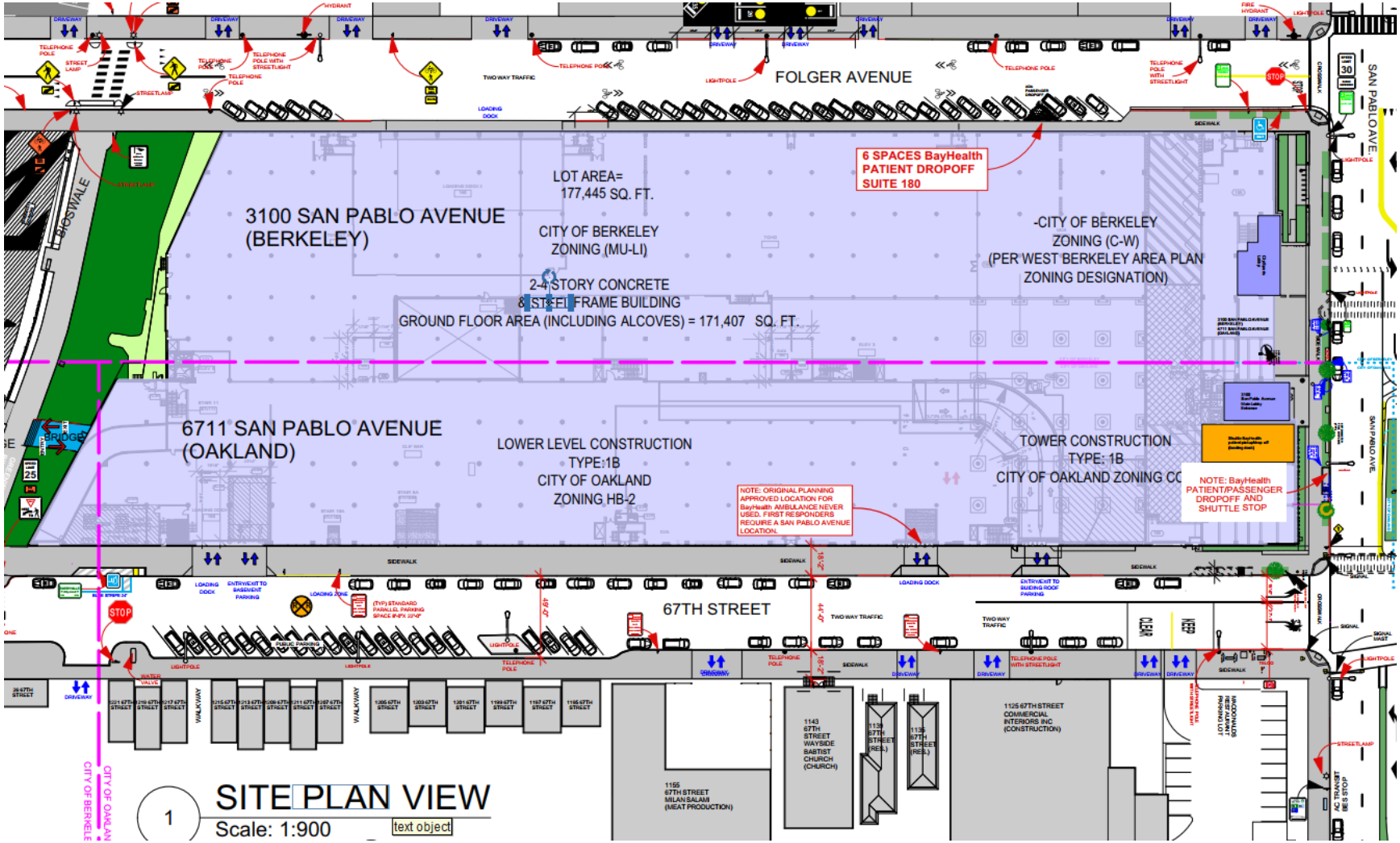


Figure 2-6 Proposed First Floor Suite 180 Floor Plan

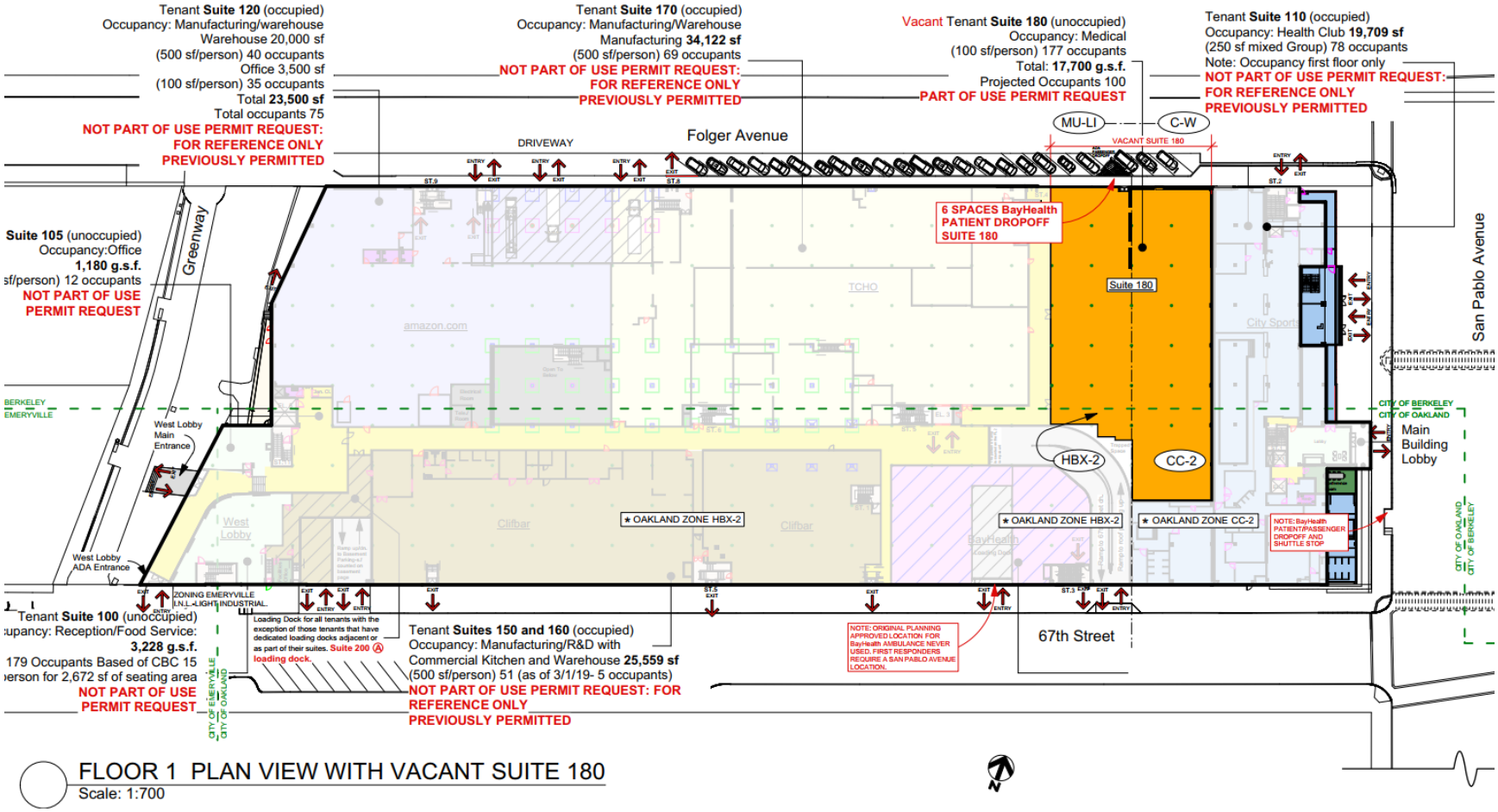
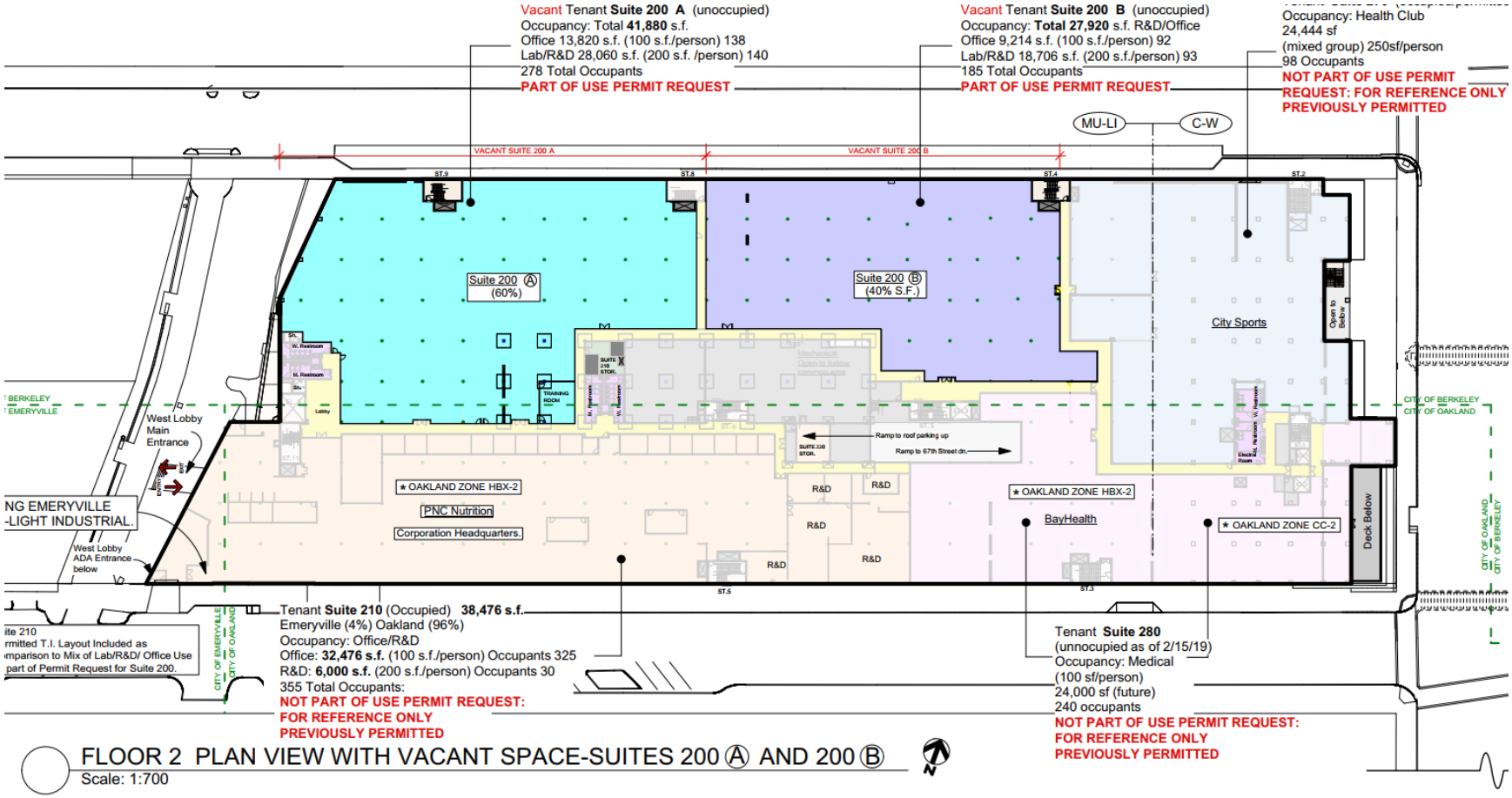


Figure 2-7 Proposed Second Floor Suite 200 Floor Plan



2.6.1 Parking and Site Access

Existing parking for the Foundry 31 building is located in the basement and on the roof of the building, as well as in surface parking lots surrounding the property. Parking to accommodate the Oncology laboratory use in Suite 180 would be located in the parking lot to the north. Existing Amazon employee parking would be relocated to the Greenway parking lot to the west across the Emeryville Greenway.

The proposed project would eliminate one ADA van parking spaces on 67th St and would create a new ADA patient and passenger drop off and shuttle stop near the Foundry 31 entry on San Pablo Avenue. In addition, revisions to the basement parking layout to include diagonal parking spaces would result in a loss of three parking spaces. Access to parking areas is provided via two driveways off 67th Street. Bicycle parking for the public is provided along San Pablo Avenue with 200 additional secured spaces in the basement off 67th Street.

2.6.2 Utilities

The City of Berkeley Public Works Department provides the following utility services: solid waste and stormwater and wastewater collection. Wastewater treatment and potable water is provided by the East Bay Municipal Utility District (EBMUD). East Bay Community Energy (EBCE), a partner of Pacific Gas & Electric (PG&E), provides electricity and PG&E provides natural gas.

2.6.3 Construction and Grading

All construction activities for the project would be located in the interior of the existing building. No structural changes would be involved, and no exterior changes are included as part of the project. Therefore, no changes to the building footprint would occur, no use of heavy construction equipment would be required, and there would be no grading activities.

2.7 Project Objectives

The objectives of the proposed project are to:

1. Support BayHealth and its patients in cancer prevention, diagnosis, treatment, and care coordination.
2. Provide a wide range of medical services in one, conveniently located facility.
3. Provide addition space for high-skilled employment opportunities.
4. Encourage adaptive reuse of space where the new use would be compatible with the structure itself and surrounding area, pursuant to Urban Design and Preservation Policy 6 of the Berkeley General Plan.
5. Provide a variety of jobs with varied skill levels, pursuant to Economic Development Goal 1 of the Berkeley General Plan

2.8 Required Approvals

- **Use Permit** to establish a Testing Laboratory over 10,000 square feet in the C-W District under BMC Section 23E.64.030

- **Use Permit** to establish an Office use over 5,000 square feet in the C-W District under BMC Section 23E.64.030
- **Use Permit** to establish an Office use over 20,000 square feet in the MU-LI District under BMC Section 23E.80.030
- **Use Permit** to establish a Laboratory use between 20,000 and 30,000 square feet in the MU-LI District under BMC Section 23E.80.030
- **Variance** to allow a medical use within the MU-LI District where they are otherwise prohibited under BMC Section 23E.80.030.

2.9 Approval from Other Public Agencies

As noted above, portions of the Foundry 31 building are in three cities: Berkeley (northern and majority portion), Oakland (most of the southern potion), and Emeryville (a small part of the westernmost portion). A MOU executed in 2013 between the Cities of Oakland, Emeryville, and Berkeley establishes Berkeley as the lead city for land use approvals. The project would require use permits, a variance, and building permits from the City of Berkeley. No other public agency approvals would be required.

3 Environmental Setting

This section provides a general overview of the environmental setting for the proposed project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4, *Environmental Impact Analysis*.

3.1 Regional Setting

The project site is located at the intersection of the cities of Berkeley, Oakland, and Emeryville, in Alameda County, within the greater San Francisco Bay Area (refer to Figure 2-1, Regional Location, and Figure 2-2, Project Location, in Section 2, *Project Description*). The area has a Mediterranean climate with dry summers and wet winters. Summers in the area are cooler than typical Mediterranean climates due to upwelling ocean currents along the California coast. The average rainfall is 24 inches per year. The region is subject to various natural hazards, including earthquakes, landslides, and wildfires.

3.2 Project Site Setting

The project site is located in an urban, built-out setting in the cities of Berkeley, Oakland, and Emeryville and is developed with the existing 405,000-square-foot Foundry 31 building. Current and past uses of the building include manufacturing, shipping and receiving warehouse, printing facilities, laboratories, offices, and commercial kitchens.

The project site is generally flat and is almost entirely developed. The building occupies 171,407 square feet (97 percent) of the 177,455-square-foot project site. An approximately 6,000-square foot landscape and stormwater retention area is located on the western end of the project site adjacent to the Emeryville Greenway. Additional landscaping and trees are located on the building frontage along San Pablo Avenue.

Portions of the Foundry 31 building are in three cities: Berkeley (northern and majority portion), Oakland (most of the southern potion), and Emeryville (a small part of the westernmost portion). The specific area of the building proposed for the project is partially in Berkeley (the northern portion) and partially in Oakland (the southern portion). An MOU executed in 2013 between the cities of Oakland, Emeryville, and Berkeley establishes Berkeley as the lead city for land use approvals. The building is split between the West Berkeley Commercial (C-W) (along San Pablo Avenue) and Mixed Use – Light Industrial (MU-LI) (west of the C-W portion) zoning districts.

3.3 Cumulative Development

In addition to the specific impacts of individual projects, CEQA requires EIRs to consider potential cumulative impacts of the proposed project. CEQA defines “cumulative impacts” as two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts. Cumulative impacts are the combined changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, traffic impacts of two nearby projects may be less than significant when analyzed separately but could have a significant impact when analyzed together. Cumulative impact analysis allows the EIR to provide a reasonable

forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.

CEQA requires cumulative impact analysis in EIRs to consider either a list of planned and pending projects that may contribute to cumulative effects or a forecast of future development potential. Currently planned and pending projects are listed in Table 3-1. These projects are considered in the cumulative analyses in Section 4, *Environmental Impact Analysis*.

Table 3-1 Cumulative Projects List

Jurisdiction[1]	Project Location	Size	Description
City of Berkeley	600 Addison Street	475,000 sf	Research & Development
City of Berkeley	2200 Fifth Street	9 du	Residential apartments
City of Berkeley	2100 San Pablo Avenue	95 du 5,600 sf restaurant 3,000 sf retail	Mixed-Use
City of Berkeley	1050 Parker Street	53,000 sf	Medical Office
City of Berkeley	2720 San Pablo Avenue	39 du 800 sf restaurant 800 sf retail	Mixed-Use
City of Berkeley	2748 San Pablo Avenue	23 du 2,100 sf retail	Mixed-Use
City of Berkeley	2747 San Pablo Avenue	50 du 1,500 sf commercial	Mixed-Use
City of Berkeley	3020 San Pablo Avenue	29 du 800 sf restaurant 800 sf retail	Mixed-Use
City of Berkeley	3100 San Pablo Avenue	23,500 sf	Commercial
City of Berkeley	3000 San Pablo Avenue	78 du 1,248 sf commercial	Mixed-Use
City of Berkeley	2910 Seventh Street	44,000 sf	R&D
City of Berkeley	1035 Heinz Avenue	9,400 sf	Commercial
City of Berkeley	1331 Ashby Avenue	6 du	Residential
City of Berkeley	2795 San Pablo Avenue	4 du	Residential
City of Berkeley	901 Grayson Street	3,961 sf	School
City of Berkeley	800 Dwight Way	32,000 sf	Commercial
City of Emeryville	6701 Shellmound Street	211 du	Anton Emeryville, Residential
City of Emeryville	1265 65th Street	17 du 6,700 sf restaurant	Baker Metal Live/Work
City of Emeryville	1225 65th Street	24 du	Residential apartments

[1] As of the NOP issue date there were no substantial approved or proposed developments in the City of Oakland in the vicinity of the project site.

du = dwelling units, sf = square feet

4 Environmental Impact Analysis

This section discusses the potentially significant environmental effects, as identified through the scoping process, of the 3100 San Pablo Avenue Medical Office and R&D Project. A "significant effect" as defined by the *CEQA Guidelines* §15382:

> [A] substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

Significant and Unavoidable. An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved under §15093 of the CEQA Guidelines.

Less than Significant with Mitigation Incorporated. An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.

Less than Significant. An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.

No Impact. The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measure(s). In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other planned and pending developments in the area listed in Section 3, *Environmental Setting*. The Executive Summary of this EIR summarizes all impacts and mitigation measures that apply to the proposed project.

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4.1 Greenhouse Gas Emissions

This section discusses the proposed project's potential impacts related to greenhouse gas (GHG) emissions and climate change. The project's trip generation rates used in emissions estimates are based on the Trip Generation Memorandum prepared by Fehr & Peers in February 2020 and included in Initial Study Appendix 1. This analysis also includes the existing GHG emissions from the Outpatient Center project analyzed in the 2017 EIR and from the Office and R&D project analyzed in the 2018 EIR Addendum.

4.1.1 Setting

Climate Change and Greenhouse Gases

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are 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 its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both 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 largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills.

Man-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] 2018). Different types of GHGs have varying global warming potentials (GWPs). 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 emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane CH_4 has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2007).

Greenhouse Gas Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 46,000 million metric tons (MMT, or gigatonne) CO_2e in 2010 (IPCC 2014). CO_2 emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, carbon dioxide was the most abundant accounting for 76 percent of total 2010 emissions. Methane emissions accounted for 16 percent of the 2010 total, while nitrous oxide and fluorinated gases accounted for 6 percent and 2 percent respectively (IPCC 2014).

Federal Emissions Inventory

Total United States GHG emissions were 6,511.3 MMT of CO_2e in 2016 (U.S. EPA 2018). Total United States emissions have increased by 2.4 percent since 1990; emissions

decreased by 1.9 percent from 2015 to 2016 (U.S. EPA 2018). The decrease from 2015 to 2016 was a result of multiple factors, including: (1) substitution from coal to natural gas and other non-fossil energy sources in the electric power sector and (2) warmer winter conditions in 2016 resulting in a decreased demand for heating fuel in the residential and commercial sectors (U.S. EPA 2018). Since 1990, U.S. emissions have increased at an average annual rate of 0.1 percent. In 2015, the industrial and transportation end-use sectors accounted for 29 percent each of GHG emissions (with electricity-related emissions distributed), respectively. Meanwhile, the residential and commercial end-use sectors accounted for 15 percent and 16 percent of CO_2e emissions, respectively (U.S. EPA 2018).

California Emissions Inventory

Based on the California Air Resource Board's (CARB) California Greenhouse Gas Inventory for 2000-2017, California produced 424.1 MMT of CO_2e in 2017 (CARB 2019). The major source of GHGs in California is associated with transportation, contributing 41 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 24 percent of the state's GHG emissions, and electric power accounted for approximately 9 percent (CARB 2018a). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. CARB has projected that statewide unregulated GHG emissions for the year 2020 will be 509 MMT of CO_2e (CARB 2018a). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

City of Berkeley Emissions Inventory

The City of Berkeley conducted a GHG emissions inventory for 2005, which determined the City produced approximately 576,000 MT of CO_2e in 2005 (Berkeley 2009). The major source of GHG emissions in the City are associated with transportation, which contributed 47 percent of the City's total GHG emissions, followed by commercial and residential electricity and natural gas use at 27 percent and 26 percent, respectively (Berkeley 2009).

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) for the decade from 2006 to 2015 was approximately 0.87°C (0.75°C to 0.99°C) higher than the average GMST over the period from 1850 to 1900. Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations are in agreement that LSAT as well as sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014 and 2018).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 1°F to 2°F higher than those recorded from 1901 to 1960.

Potential impacts of climate change in California may include loss in water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018a). While there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state as well as regionally-specific climate change case studies (State of California 2018a). Below is a summary of some of the potential effects that could be experienced in California and the San Francisco Bay Area region as a result of climate change.

Air Quality

Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. As temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have been occurring at higher elevations in the Sierra Nevada Mountains (State of California 2018a). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality would worsen. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (California Natural Resources Agency 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Precipitation in the Bay Area will continue to exhibit high year-to-year variability, with very wet and very dry years (State of California 2018b). Bay area droughts and winter storms will become more intense and more damaging. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. However, the average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 5.9 inches along the central and southern California coast (State of California 2018). The Sierra snowpack provides the majority of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers. A warmer climate is predicted to reduce the fraction of precipitation falling as snow and result in less snowfall at lower elevations, thereby reducing the total snowpack (DWR 2008; State of California 2018a). The State of California projects that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018a).

Hydrology and Sea Level Rise

As discussed above, climate change could potentially affect the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Climate change has the potential to induce substantial sea level rise in the coming century (State of California 2018). The rising sea level increases the likelihood and risk of flooding. The rate of increase of global mean sea levels over the 2001-2010 decade, as observed by satellites, ocean buoys and land gauges, was approximately 3.2 mm per year, which is double the observed 20th century trend of 1.6 mm per year (World Meteorological Organization [WMO] 2013). As a result, global mean sea levels averaged over the last decade were about 8 inches higher than those of 1880 (WMO 2013). Sea level in the Bay Area has risen over 20 centimeters (8 inches) in the last 100 years (State of California 2018b). Sea levels are rising faster now than in the previous two millennia, and the rise is expected to accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea–level rise of 10 to 37 inches by 2100 (IPCC 2018). A rise in sea levels could completely erode 31 to 67 percent of southern California beaches, result in flooding of approximately 370 miles of coastal highways during 100-year storm events, jeopardize California's water supply due to salt water intrusion, and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018). In addition, increased CO_2 emissions can cause oceans to acidify due to the carbonic acid it forms. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Wildfire

Wildland fire is a recurrent feature of ecosystems in semi-arid climates throughout the world, including San Francisco Bay Area. There is strong evidence that climate change, especially related to rising temperatures and periodic droughts, have made substantial contributions to the increase in area burned in wildfires in California and Bay Area. The North Bay fires of October 2017 burned more than twice the area of any previous year, following close by the Lake County fires of 2015. As of 2018, six of the top 20 most destructive fires in California history (in terms of buildings lost) have occurred in the Bay Area. The impact of climate change on future fire activity is area specific. In the Bay Area, although there is a strong moisture gradient from the coast inland, fire is not generally fuel limited. As a result, there are more consistent projections of increased fire activity due to a warmer climate (State of California 2018b).

Agriculture

California has a $50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2018). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent; water demand could increase as hotter conditions lead to the loss of soil moisture; crop-yield could be threatened by water-induced stress and extreme heat waves; and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems and Wildlife

Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the annual average maximum daily temperatures in California could rise by 4.4 to 5.8°F in the next 50 years and by 5.6 to 8.8°F in the next century (State of California 2018). Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals related to (1) timing of ecological events; (2) geographic distribution and range; (3) species' composition and the incidence of nonnative species within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

4.1.2 Regulatory Setting

Federal Regulations

The U.S. Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al*. ([2007] 549 U.S. 05-1120) held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the U.S. EPA issued a Final Rule that establishes the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In 2014, the U.S. Supreme Court in *Utility Air Regulatory Group v. EPA* (134 S. Ct. 2427 [2014]) held that U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits that are otherwise required (based on emissions of other pollutants) may continue to require limitations on GHG emissions based on the application of Best Available Control Technology (BACT).

California Regulations

California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. California has numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

California Advanced Clean Cars Program

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, U.S. EPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles beginning with the 2009 model year. Pavley I regulates model years from 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs, and would provide major

reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," which was signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2e. The Scoping Plan was approved by CARB on December 11, 2008 and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 statewide goals. The update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State's longer-term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Natural Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

Senate Bill 375

SB 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Association of Bay Area Governments (ABAG) was assigned targets of a 10 percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction by 2035 (CARB 2018b). ABAG's Plan Bay Area RTP/SCS per-capita CO2 emissions reductions meet and exceed the Senate Bill 375 target for year 2035 due to robust funding of the Climate Initiatives Program.

Senate Bill 32

On September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, extending AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, 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, as well as implementation of recently adopted policies, such as SB 350 and SB 1383 (see 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 that local governments adopt policies and locally-appropriate quantitative thresholds consistent with statewide per capita goals of six metric tons (MT) CO_2e by 2030 and two MT CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Senate Bill 1383

Adopted in September 2016, SB 1383 requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. The bill requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

The bill also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Senate Bill 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, which was last updated by SB 350 in 2015. 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.

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.

California Environmental Quality Act

Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the *State CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted *CEQA Guidelines* provide general regulatory guidance on the

analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, a variety of air districts have adopted quantitative significance thresholds for GHGs.

For more information on the Senate and Assembly Bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

Local Regulations

Climate Action Plan

Adopted in June of 2009, the City of Berkeley's Climate Action Plan (CAP; City of Berkeley 2009) sets a year 2020 target to achieve a 33 percent absolute reduction below 2000 community-wide emissions and identifies actions to achieve the target with the ultimate goal of 80 percent emission reductions below 2000 levels by 2050. The CAP contains GHG-reduction policies for transportation and land use, building energy use, and waste reduction and recycling.

General Plan

The City of Berkeley also addresses GHG emissions in its General Plan, primarily in the Environmental Management Element. Policies in the General Plan that would reduce GHG emissions include developing a green building certification program and encouraging compliance with green building standards (Policy EM-4, Policy EM-5), increased waste diversion (Policy EM-7), construction and demolition material recycling (Policy EM-8), support and implementation of local emission reduction programs (Policy EM-19), promotion of energy-efficient design techniques (Policy EM-35), and implementation of energy conservation techniques (Policy EM-36).

4.1.3 Impact Analysis

a. Methodology

The issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]). As discussed in Section 1, *Introduction*, this Supplemental EIR is being prepared to the 2017 EIR because minor changes to the previous EIR would be necessary to make the environmental analysis apply to the proposed project. The 2017 EIR and 2018 EIR Addendum estimated GHG emissions from those associated projects. This analysis estimates the proposed project's GHG emissions and combines the GHG emissions from 2017 EIR and 2018 EIR Addendum in order to accurately identify the combined GHG emissions.

GHG emissions associated with the proposed project were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 (See Appendix C for the Greenhouse Gas analysis). Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98.9 percent of all GHG emissions by volume (IPCC 2014)

and are the GHG emissions that the project would emit in the largest quantities. Emissions of all GHGs are converted into their equivalent weight in CO_2 (CO_2e).

Construction Emissions

Construction of the proposed project would require interior remodeling and no use of heavy construction equipment. Therefore, construction emissions were not estimated since the project would not require the use of heavy construction equipment.

Operational Emissions

CalEEMod provides operational emissions of CO_2 and CH_4. Emissions from energy use include electricity and natural gas use. The emissions factors for natural gas combustion are based on EPA's AP-42 (*Compilation of Air Pollutant Emissions Factors*) and CCAR General Reporting Protocol. Electricity emissions are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (CAPCOA 2017). The project would be served by East Bay Community Energy (EBCE). Therefore, EBCE's specific energy intensity factors (i.e., the amount of CO_2, CH_4, and N_2O per kilowatt-hour) are used in the calculations of GHG emissions. EBCE has three utility options: Bright Choice, Brilliant 100, and Renewable 100. Since Brilliant 100 and Renewable 100 are optional, Bright Choice carbon intensity factor of 142 lbs of CO_2e was utilized (EBCE 2018).

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from CARB, USEPA, and emission factor values provided by the local air district (CAPCOA 2017). Emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CAPCOA 2017). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by CalRecycle. Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for northern and southern California.

Emissions of CO_2 and CH_4 from transportation sources for the proposed project were quantified using the Traffic Memorandum prepared by Fehr & Peers. Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using guidance from CARB and the Emission Factors (EMFAC) 2017 Emissions Inventory for the Alameda County region for the year 2030 using the EMFAC2011 categories. Trip generation rates used in the model were based on the project's Trip Generation Memorandum (Initial Study Appendix 1).

Non-residential energy usage was reduced by 30 percent to account for the requirements of 2019 Title 24 standards (CEC 2019). In addition, CalEEMod does not incorporate water use reductions achieved by 2016 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. An additional 25 percent reduction in solid waste emissions was included in the waste calculations to account for the actions of recycling requirements under state law (i.e., AB 341). The City of Berkeley was meeting the 75 percent reduction requirements in 2014 and is working towards their zero-waste goal (Berkeley 2014).

b. Significance Thresholds

Based on Appendix G of the CEQA Guidelines, impacts related to GHG emissions from the project would be significant if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

In 2017, the BAAQMD adopted their updated CEQA Air Quality Guidelines, which outlines an approach to determine the significance of project-related GHG emissions. The BAAQMD recommends that lead agencies determine appropriate thresholds of significance for GHG emissions based on substantial evidence in the record. The City of Berkeley's CAP is not a qualified GHG reduction strategy pursuant to BAAQMD's CEQA Air Quality Guidelines. Among other requirements, a qualified strategy must establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable. The City's CAP does not set such a threshold, nor was it subject to independent environmental impact analysis under CEQA. Therefore, for this EIR, the City of Berkeley has determined that the significance thresholds in the BAAQMD's 2017 CEQA Guidelines are the most appropriate thresholds.

The BAAQMD's significance thresholds in the updated May 2017 CEQA Air Quality Guidelines for project operations within the SFBAAB are the most appropriate thresholds for use in determining GHG emission impacts of the proposed project. The BAAQMD developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant GHG emission impacts. If all screening criteria are met by a project, then the lead agency or applicant would not need to perform a detailed assessment of their project's GHG emissions. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration (BAAQMD 2017).

This SEIR concludes that the combined operational impacts from the Outpatient Center project, Office and R&D project, and the proposed project, which would exceed the operational GHG screening size of 53,000 square feet for office buildings and 22,000 square feet for medical offices. Therefore, the project's GHG emissions are compared in this EIR to the BAAQMD's significance thresholds shown in Table 4.1-1.

Table 4.1-1 GHG Emissions Thresholds of Significance

GHG Emission Source Category	Operational Emissions
Non-Stationary Sources	1,100 MT of CO_2e/year or 4.6 MT of CO_2e/SP/year (residents + employees)
Stationary Sources	10,000 MT/year
Plans	6.6 MT of CO_2e/SP/year (residents + employees)

MT = metric tons; CO_2e = carbon dioxide equivalents; SP = service population;

Notes: Project emissions can be expressed on a per-capita basis as MT of CO_2e/service population/year, which represents the project's total estimated annual GHG emissions divided by the estimated total number of new residents and/or employees that would be accommodated by a project.

Source: BAAQMD 2017

It should be noted that the BAAQMD's thresholds were established based on achieving the 2020 GHG emission reduction targets set forth in the AB 32 Scoping Plan. Therefore, because the project would have a post-2020 buildout year, the threshold of significance (1,100 metric tons (MT) of carbon dioxide equivalents (CO_2e) per year) was adjusted based on the SB 32 target of a 40 percent reduction in GHG emissions below 1990 levels (Association of Environmental Professionals [AEP] 2016). Since the 2020 GHG emissions targets set forth in the AB 32 Scoping Plan are designed to reduce GHG emissions to 1990 levels, it follows that the BAAQMD threshold of 1,100 MT of CO_2e per year or 4.6 MT of CO_2e per service population per year must decrease by 40 percent by 2030 to meet the statewide 2030 GHG emission reduction targets. Therefore, for the purposes of this analysis, the project's year 2030 GHG emissions would be significant if they would exceed 660 MT of CO_2e per year or 2.8 MT of CO_2e per SP per year.

c. Project Impacts and Mitigation Measures

The 2017 EIR examined potential impacts to GHG emissions that would result from the Outpatient Center within the Foundry 31 building. The 2017 EIR determined that GHG emissions associated with the operation of the Outpatient Center would exceed BAAQMD significance thresholds and result in significant impacts to GHG emissions. The 2017 EIR identified measures that would reduce GHG emissions to the extent feasible through a GHG reduction plan (Mitigation Measure GHG-1) and a Transportation Demand Management (TDM) Plan (Mitigation Measure T-1). However, the analysis found that GHG emissions would still be significant with the implementation of these mitigation measures, and impacts were determined to be significant and unavoidable.

The 2017 EIR also examined consistency withGHG reduction plans and policies such as the City's Climate Action Plan and General Plan and statewide reduction goals under AB 32 and SB 32. The 2017 EIR concluded that the Outpatient Center project was consistent with the GHG reduction policies in the City's Climate Action Plan and General Plan. However, because the project would exceed BAAQMD's GHG significance thresholds, the 2017 EIR concluded the project would not be consistent with statewide goals and regulations under AB 32 and SB 32 and impacts were significant and unavoidable. A finding of overriding considerations was made when the project was approved.

Impacts and mitigation measures described in the 2017 EIR are incorporated in the proposed project analysis below.

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

Impact GHG-1 THE PROPOSED PROJECT'S GHG EMISSIONS WOULD NOT EXCEED APPLICABLE GHG THRESHOLDS. HOWEVER, THE COMBINED EMISSIONS FROM THE PROPOSED PROJECT, 2017 EIR, AND THE EIR ADDENDUM WOULD EXCEED THRESHOLDS. THEREFORE, IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Construction emissions were not estimated for the proposed project since the project involves reuse of an existing building and would not require the use of heavy construction equipment. GHG emissions associated with the operation of the proposed project would include onsite area and stationary sources as well as those associated with energy use, solid waste, water, and transportation. Table 4.1-2 details the GHG emissions associated with the proposed project.

Table 4.1-2 2030 Annual Emissions of Greenhouse Gases for Proposed Project

Emission Source	Annual Emissions (MT of CO_2e)
Operational	
Area	<0.1
Energy	131.0
Solid Waste	74.1
Water	50.1
Mobile	
CO_2 and CH_4	640.1
N_2O	9.9
Total Emissions	905.2
Threshold	660
Exceeds Threshold?	Yes

MT of CO_2e = metric tons of carbon dioxide equivalent
Source: CalEEMod Output Files, Appendix C

The project would result in approximately 905 MT CO_2e per year from area, energy, waste, water, and mobile emissions, which exceeds BAAQMD GHG threshold of 660 MT CO_2e per year.

The 2017 EIR and 2018 EIR Addendum used BAAQMD's bright line threshold of 1,100 MT CO_2e per year. As a conservative approach and to be consistent with the current approach to meet the statewide 2030 GHG emission reduction targets, the bright line threshold of 660 MT CO_2e per year is used. Table 4.1-3 provides the combined GHG emissions of the proposed project, the 2017 EIR, and the 2018 EIR Addendum.

Table 4.1-3 Combined Annual Emissions of Greenhouse Gases

Project Source	Annual Emissions (MT of CO_2e)
2017 EIR (BayHealth and PNC)	3,071.0
2018 EIR Addendum (Office and R&D)	671.0
Proposed Project (Oncology and R&D)	905.2
Total	**4,647.2**
Threshold	660
Exceeds Threshold?	**Yes**

MT of CO_2e = metric tons of carbon dioxide equivalent
Source: CalEEMod Output Files, Appendix C; City of Berkeley 2017; and City of Berkeley 2018

As shown in Table 4.1-3, the combined annual GHG emissions would be approximately 4,647 MT CO_2e per year and would exceed the BAAQMD threshold of 660 MT CO_2e per year. Therefore, consistent with the findings of the 2017 EIR, GHG emissions resulting from the Outpatient Center, Office and R&D project, and the proposed project would be potentially significant.

Mitigation Measures

The 2017 EIR required Mitigation Measure GHG-1 for the preparation of a GHG reduction plan to reduce GHG emissions to the extent feasible and Mitigation Measure T-1 for the

preparation of a TDM plan to reduce mobile GHG emissions. These mitigation measures would apply to the proposed project and are included below.

GHG-1 GHG Reduction Plan

The project applicant shall submit a GHG Reduction Plan to the City of Berkeley for review and approval prior to issuance of a Certificate of Occupancy. The plan shall include measures to reduce GHG emissions to the extent feasible, shall be implemented on site by the project applicant, and may include, but is not be limited to, the following components:

a. Installing charging stations for electric vehicles
b. Installing solar rooftop panels to offset electricity use
c. Purchasing an emissions reduction credit to offset emissions

T-1 Transportation Demand Management Plan (Implements 2017 EIR Mitigation Measure T-1)

The project applicant shall prepare a Transportation Demand Management (TDM) Plan for City of Berkeley review and approval prior to occupancy to reduce the automobile traffic and parking demand generated by the project. Potential strategies that may be considered include:

a. Coordinate with Emery GoRound and/or West Berkeley Shuttle to provide stops near the project site
b. Provide bike lockers, showers, and personal lockers onsite to encourage bicycling to the site; encourage tenants to provide shared bicycles that employees can use during the day for errands
c. Encourage a local car share company (City Car Share, ZIP Car, etc.) to locate a car share pod at the project site or in close proximity to the site to provide an option for employees who may need a car during the day for meetings/errands but do not need a car for the commute trip
d. Coordinate with City of Emeryville, City of Oakland, City of Berkeley, and/or other regional agencies to
allow installation of a BikeShare station along the project frontage on San Pablo Avenue or the Emeryville Greenway
e. Provide preferential carpool parking
f. Provide full or partial transit subsidy to project employees
g. Provide pre-tax commuter benefits for project employees
h. Regularly distribute information on non-automobile commuting options
i. Implement the parking management strategies as described in the Transportation Impact Analysis included as Appendix D to the 2017 EIR

Significance After Mitigation

Mitigation Measure GHG-1 would reduce area, energy, solid waste, and wastewater emissions to the extent feasible. However, consistent with the findings in the 2017 EIR, the project's mobile GHG emissions would still account for the majority of GHG emissions as shown in Table 4.1-2. The TDM Plan required in Mitigation Measure T-1 would encourage employees and customers to commute on bicycles and on transit, which would result in a reduction of trips to and from the project site. However, similar to the 2017 EIR, because it is unknown to what extent the TDM measures would be adopted by individuals, a quantitative

reduction cannot be relied upon and mobile GHG emissions would still exceed thresholds. GHG emissions associated with the proposed project would be significant and unavoidable. GHG impacts in the 2017 EIR were also found to be significant and unavoidable.

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

Impact GHG-2 THE PROPOSED PROJECT WOULD BE CONSISTENT WITH PLAN BAY AREA 2040 AND POLICIES AND ACTIONS IN THE CITY OF BERKELEY CLIMATE ACTION PLAN AND GENERAL PLAN. HOWEVER, THE PROJECT WOULD EXCEED ESTABLISHED THRESHOLDS TO MEET STATE GHG REDUCTION TARGETS AND POLICIES. THEREFORE, IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Plan Bay Area 2040

SB 375, signed in August 2008, requires the inclusion of Sustainable Communities' Strategies (SCS) in Regional Transportation Plans (RTP) to reduce GHG emissions. ABAG adopted the Plan Bay Area 2040, which is a state-mandated, integrated long-range transportation, land-use, and housing plan that supports a growing economy, provides more housing and transportation choices and reduces transportation-related pollution in the nine-county San Francisco Bay Area (ABAG 2017). The goals of Plan Bay Area 2040 related to GHG emissions include:

1. **Climate Protection.** Reduce per capita CO_2 emissions.
2. **Healthy and Safe Communities.** Reduce adverse health impacts.
3. **Open Space and Agricultural Preservation.** Direct development within urban footprint.
4. **Transportation.** Increase non-auto mode share.

Plan Bay Area 2040 was adopted after the 2017 EIR and was not included in the original analysis. As discussed in the Supplemental Initial Study included as Appendix A, the project is adjacent to AC Transit bus stops along a high-quality transit corridor. In addition, as detailed in the Transportation Memorandum included as Initial Study Appendix 1, the project would occupy remaining vacant spaces in an existing building, which would increase the density of the project site and contribute to the project having a low vehicle-miles-traveled (VMT). The project is consistent with the existing land use which was used to develop Plan Bay Area 2040. Therefore, the proposed project would not conflict with the goals or implementation of Plan Bay Area 2040 and there would be no new impacts than were analyzed in the 2017 EIR.

City of Berkeley Climate Action Plan and General Plan

The City of Berkeley adopted its Climate Action Plan in 2009, which includes goals, policies, and implementing actions which seek to reduce GHG emissions throughout the City. In addition, the City's General Plan Environmental Management Element also contains policies and actions to reduce GHG emissions. The 2017 EIR and 2018 Addendum concluded the projects would not conflict with applicable policies and implementing actions of the Climate Action Plan and General Plan. Table 4.1-4 similarly compares the proposed project with applicable policies and implementing actions.

Table 4.1-4 Project Consistency with Applicable Climate Action and General Plan Implementation Strategies

Goals, Policies, and Actions	Project Consistency
City of Berkeley Climate Action Plan	
Sustainable Transportation & Land Use Actions: **1. Goal: Increase density along transit corridors** a. Policy: Encourage the development of housing (including affordable housing) retail services, and employment centers in areas of Berkeley best served by transit	**Consistent.** The proposed project is located on San Pablo Avenue which is a high-quality transit corridor. The project site is the same as discussed in the 2017 EIR and 2018 EIR Addendum, which is adjacent to AC Transit Line 72/72M bus stops and 0.2 miles from AC Transit Line 72R.
2. Goal: Increase and enhance urban green and open space, including local food production, to improve the health and quality of life for residents, protect biodiversity, conserve natural resources, and foster walking and cycling b. Policy: Promote tree planting, landscaping, and the creation of green and open space that is safe and attractive and that helps to restore natural processes. c. Policy: Increase access to healthy and affordable foods for the community by supporting efforts to build more complete and sustainable local food production and distribution systems.	**Not Applicable.** Similar to the 2017 EIR, the proposed project does not involve any changes to the building exterior, and only involves interior renovations.
3. Goal: Manage parking more effectively to minimize driving demand and to encourage and support alternatives to driving a. Policy: Design and implement parking strategies to create disincentives for driving – especially for single-occupancy commuting – and, where possible, to build revenue for transportation services.	**Consistent.** In accordance with Mitigation Measure GHG-1b, the project applicant would be required to implement Transportation Demand Management measures that would reduce vehicle trips.
5. Goal: Accelerate Implementation of the City's Bicycle & Pedestrian Plans a. Policy: Continue to expand and improve Berkeley's bicycle and pedestrian infrastructure	**Consistent.** Similar to the 2017 EIR, the project site includes bicycle parking in the basement garage and along San Pablo Avenue. Visitors and employees would be able to use the existing bicycle parking spaces.
6. Goal: Make public transit more frequent, reliable, integrated and accessible d. Policy: Partner with AC Transit, BART, UC Berkeley and other employers to provide subsidized transit passes and fare-free zones.	**Consistent.** In accordance with Mitigation Measure GHG-1b, the project would be required to implement Transportation Demand Management measures that would reduce vehicle trips. This may include providing subsidized transit passes.
7. Goal: Enhance and expand car sharing and ridesharing programs a. Policy: Make car sharing convenient and available to all Berkeley residents by providing additional incentives and by removing disincentives to car sharing	**Consistent.** In accordance with Mitigation Measure GHG-1b, the project applicant would be required to implement Transportation Demand Management measures that would reduce vehicle trips. This may involve promoting car sharing services.

Goals, Policies, and Actions	Project Consistency
City of Berkeley General Plan Environmental Management Element	
Policy EM-4: Green Building Certification. Develop a green building certification program. **Actions**: A. Requiring City-owned buildings, buildings developed by private developers on City-owned and controlled land, and projects that include City financial assistance to be Green Building certified. B. Encouraging all private buildings to be Green Building certified. C. Developing a green design assistance program. D. The minimization of greenhouse gases produced by new buildings especially as related to space heating efficiencies.	**Consistent.** The proposed project would be required to comply with all standards of Title 24 of the 2019 California Building Code. The 2019 Title 24 standards are more efficient than the 2016 Title 24 standards that were used in the 2017 EIR analysis.
Policy EM-5: "Green" Buildings. Promote and encourage compliance with "green" building standards. (Also see Urban Design and Preservation Policy UD-33.) **Actions**: A. Encourage, and where appropriate require, new construction and major remodel projects to be sited, designed, constructed, and operated to enhance the well-being of their occupants, and to minimize present and future impacts on the community and the natural environment. (Also see Policy EM-39.) B. Encourage landscaping for water and energy efficiency. (Also see Policy EM-26.) C. Encourage buildings to incorporate renewable energy and energy- and water-efficient technologies. (Also see Policies EM-38 and EM-39.) D. Encourage use of recycled-content construction materials. (Also see Policy EM-6.) E. Encourage efforts to improve indoor air quality and to provide a comfortable and healthy environment. F. Encourage reduction of construction and demolition waste. (Also see Policy EM-6.) G. Encourage construction of durable buildings. H. Establish a green design assistance and green building certification program.	**Consistent.** The proposed project would be required to comply with all standards of Title 24 of the 2019 California Building Code. The 2019 Title 24 standards are more efficient than the 2016 Title 24 standards that were used in the 2017 EIR analysis. The project would also be required to comply with all State and local measures that address water use and conservation that are in effect at the time of development, including CALGreen water efficiency standards.
Policy EM-7: Reduced Wastes. Continue to reduce solid and hazardous wastes. **Actions**: A. Achieve a 64 percent diversion of waste from landfills. B. Manage wastes locally to the greatest extent feasible to minimize the export of wastes and pollution to other communities. C. Encourage the Lawrence Berkeley Laboratory and the University of California to minimize to the greatest extent feasible the storage of radioactive and other toxic wastes in Berkeley. D. Encourage reduction in the use of toxic materials. E. Encourage reuse, recycling, and composting. F. Facilitate battery and used oil recycling. G. Support programs and incentives to reduce the manufacture and use of materials which are non-recyclable or hazardous to people and the environment. H. Develop education and promotion programs to	**Consistent.** The City of Berkeley is responsible for complying with AB 939, which mandates 50% of solid waste diverted from landfills. The City is currently meeting its AB 341 goal of a 75 percent diversion rate. The proposed project would participate in the City's waste diversion programs and would continue diverting a minimum of 75% of its solid waste. The project would also be subject to all applicable State and County requirements for solid waste reduction as they change in the future, consistent with the 2017 EIR.

Goals, Policies, and Actions	Project Consistency
increase recycling by occupants of multifamily buildings. I. Through legislation and other means, reduce the use of plastic by eliminating multiple layers in packaging and encourage reusable shipping containers such as collapsible pallets and refillable bottles for bulk liquids. J. Encourage reusable bags and packaging such as reusable bottles, whether glass or plastic. K. Link collection of plastic to mandated recycled content in plastic packaging. L. Advocate at the state level for higher disposal fees for products that are designed for single use and for products that do not incorporate any post-consumer recycled content.	
Policy EM-8: Building Reuse and Construction Waste. Encourage rehabilitation and reuse of buildings whenever appropriate and feasible in order to reduce waste, conserve resources and energy, and reduce construction costs. (Also see Urban Design and Preservation Policy UD-6.) **Actions:** A. Encourage the reuse of demolition materials and recycling of construction scraps. B. Expand the existing yard-waste recycling program to include restaurant and institutional food waste.	**Consistent.** The City of Berkeley requires that Building Permit applicants are required to divert Construction and Demolition (C&D) waste and debris from landfill disposal in accordance with Construction & Demolition Debris Diversion Requirements (BMC 19.24) and the Berkeley Green Code (BMC 19.37). Upon building permit issuance, the proposed project would comply with applicable City requirements. Construction of the project would only involve interior renovations and would not generate a significant amount of construction waste.
Policy EM-19: 15 percent Emission Reduction: Global Warming Plan. Make efforts to reduce local emissions by 15 percent by the year 2010. (Also see Transportation Policy T-19.) **Action**: A. Continue to support and implement local emission reduction programs, such as the City of Berkeley Employee Fleet Bicycle Program, the Police Bicycle Program, and the actions recommended in the City of Berkeley Resource Conservation and Global Warming Abatement Plan.	**Consistent.** In accordance with Mitigation Measure GHG-1b, the project would be required to implement Transportation Demand Management measures that would reduce vehicle trips.
Policy EM-35: Energy-Efficient Design. Promote high-efficiency design and technologies that provide cost-effective methods to conserve energy and use renewable energy sources. (Also see Urban Design and Preservation Policy UD-33.) **Action**: A. Promote statewide code revisions necessary to enable the use of new methods and materials to conserve resources and prevent pollution.	**Consistent.** Similar to the project analyzed in the 2017 EIR, the proposed project would not involve construction of a new building or change the design of the existing Foundry 31 building. The project would be required to comply with all applicable efficiency requirements in the 2019 Title 24 code, including mandatory CALGreen standards.
Policy EM-36: Energy Conservation. Continue to implement energy conservation requirements for residential and commercial buildings at the time of sale and at time of major improvements. **Actions**: A. Encourage patterns of development, building designs, and construction methods that are energy-efficient and reduce pollution. B. Encourage the use of lighting that is energy-efficient and non-intrusive.	**Consistent.** The proposed project would be required to comply with all applicable energy efficiency requirements in the 2019 Title 24 code, including mandatory CALGreen standards. The proposed project would be subject to more efficient standards than those under the 2016 Title 24 and analyzed in the 2017 EIR.

2017 Scoping Plan and EO B-55-18

The 2017 Scoping Plan outlines a pathway to achieving the reduction targets set under SB 32, which is considered an interim target toward meeting the State's long-term 2045 goal established by EO B-55-18. The 2017 Scoping Plan provides policies and outlines a pathway to achieving the reduction targets set under SB 32. The project would impede substantial progress toward meeting the SB 32 and EO B-55-18 targets if GHG emissions exceeded the locally-appropriate GHG emissions threshold. As discussed under checklist item GHG-1, the combined GHG emissions would exceed the BAAQMD GHG significance threshold. As a result, the project would conflict with the reduction targets of 2017 Scoping Plan and EO B-55-18.

Mitigation Measures

Mitigation Measures GHG-1a and GHG-1b would reduce GHG emissions by requiring a GHG reduction plan and TDM plan be prepared for the proposed project.

Significance After Mitigation

As discussed above under checklist item a, with the implementation of Mitigation Measures GHG-1a and GHG-1b, GHG emissions would still exceed thresholds established to meet reduction goals set under SB 32 and EO B-55-18. Therefore, impacts would be significant and unavoidable, consistent with the findings in the 2017 EIR.

4.1.4 Cumulative Impacts

As discussed in Section 3, *Environmental Setting*, cumulative development in the City of Berkeley and surrounding area would include residential development, mixed-use, medical office, R&D, commercial, and public facilities. Development under cumulative conditions would generate GHG emissions from vehicle trips, electrical and water use, and other sources. The analysis of GHG emissions is cumulative in nature, as emissions affect the accumulation of GHGs in the earth's atmosphere. Projects that fall below provided thresholds are considered to have a less than significant impact, both individually and cumulatively.

As indicated in Impact GHG-1 and Impact GHG-2, the project would have a significant and unavoidable impact on GHG emissions, primarily from mobile emissions resulting from the 2017 EIR, EIR Addendum, and the proposed project. The Advanced Clean Cars program would provide major reductions in GHG emissions. By 2025, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011). In addition, new regulations governing fuel efficiencies in passenger vehicles and trucks would further help reduce GHG emissions of the proposed project and cumulative projects. However, as this project would exceed current thresholds and there are no feasible mitigation measures to reduce GHG emissions to a less than significant level, the project would still result in a cumulatively considerable contribution and would have a significant and unavoidable cumulative impact.

5 Other CEQA Required Discussions

This section discusses growth-inducing impacts, irreversible environmental impacts, and energy impacts that would be caused by the proposed project.

5.1 Growth Inducement

Section 15126(d) of the CEQA Guidelines requires a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed project's growth inducing potential is therefore considered significant if project-induced growth could result in significant physical effects in one or more environmental issue areas.

5.1.1 Population Growth

As discussed in Section 14, *Population and Housing*, of the Supplemental Initial Study (Appendix B), the proposed project would not directly generate population growth because it does not include residential uses. However, the proposed medical office and R&D space may indirectly increase the population if all new employees relocated to the City of Berkeley. As discussed in Section 2, *Project Description*, the project would generate approximately 468 new employees. Considering the most conservative scenario, if all projected employees and their families were to relocate to Berkeley, there would be a population growth of 1,067 persons based on the average household of 2.28 persons for the City of Berkeley (California DOF 2019). According to the U.S. Census, the current population of Berkeley is approximately 121,643 (U.S. Census 2019). As determined by the City's 2015-2023 Housing Element, the population growth forecast is 140,100 in 2040 (Berkeley 2015). Therefore, a population growth of 1,067 could be accommodated within the City's growth projections. In addition, most of the employees would likely be drawn from the local population and would also disperse between various jurisdictions in the area.

Additionally, the project involves only interior changes and new uses in an existing building within a fully urbanized area that lacks significant scenic resources, native biological habitats, known cultural resource remains, surface water, or other environmental resources. Therefore, potential population growth associated with the project would not result in significant long-term physical environmental effects.

5.1.2 Economic Growth

The proposed project would generate limited, temporary employment opportunities during construction due to the minimal interior remodeling required for the project. Because construction workers would be expected to be drawn from the existing regional work force, construction of the project would not be growth-inducing from a temporary employment standpoint. The proposed project would also add approximately 468 long-term employment opportunities associated with operation of a medical office and R&D space within the building. Though some employees may relocate to the area as a result of the jobs generated by the project, the increase would be insignificant in the context of the regional employment numbers, which are currently estimated to be over four million (ABAG 2017). Existing employment patterns in Berkeley and the Bay Area region largely consists of

commuting workers. In addition, the workforce in the region is highly educated and trained for the skilled jobs associated with the proposed project. Therefore, consistent with the discussion under *Population Growth* above, workers would likely be drawn primarily from the existing regional workforce. Therefore, the proposed project would not induce substantial economic expansion to the extent that direct physical environmental effects would result.

5.1.3 Removal of Obstacles to Growth

The proposed project is located in a fully urbanized area that is served by existing infrastructure. As discussed in Section 19, *Utilities,* and Section 17, *Transportation,* of the Supplemental Initial Study (Appendix B), existing infrastructure would be adequate to serve the project. With or without the proposed project, minor improvements to water, sewer, and drainage connection infrastructure could be needed, but would be sized to specifically serve the proposed project. No new roads would be required. Because the project constitutes redevelopment within an urbanized area and does not require the extension of new infrastructure through undeveloped areas, project implementation would not remove an obstacle to growth.

5.2 Irreversible Environmental Effects

The CEQA Guidelines require that EIRs contain a discussion of significant irreversible environmental changes. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, and irreversible impacts associated with the proposed project.

The proposed project involves the adaptive reuse of vacant portions of an existing building in the City of Berkeley. Construction and operation of the project would involve an irreversible commitment of non-renewable energy resources. The project would involve the use of energy, some of which would be non-renewable resources, for interior renovations and the operation of new uses in the vacant spaces. Consumption of these resources would occur with other development in the region and are not unique to the proposed project.

The proposed project would also irreversibly increase local demand for non-renewable energy resources such as petroleum products and natural gas. However, increasingly efficient building design would offset this demand to some degree by reducing energy demands of the project. The project would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California, and the Green Building Standards Code requires solar access, natural ventilation, and stormwater capture. Consequently, the project would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and slowly renewable resources would be less than significant. Again, consumption of these resources would occur with other development in the region and is not unique to the proposed project.

The project would also require a commitment of law enforcement, fire protection, water supply, wastewater treatment, and solid waste disposal services. However, as discussed in

Section 15, *Public Services*, and Section 19, *Utilities and Service Systems*, in the Supplemental Initial Study, impacts to these service systems would not be significant.

CEQA requires decision makers to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project. The analysis contained in this EIR concludes that the proposed project would result in significant and unavoidable impacts to GHG emissions. As discussed in Section 4.1, *Greenhouse Gas Emissions*, the GHG emissions of the proposed project, when combined with the emissions of the Outpatient Center determined in the 2017 EIR and the emissions of the PNC use determined in the 2018 EIR Addendum, would exceed applicable GHG thresholds. A finding of overriding considerations will be required as part of project approval.

5.3 Energy Effects

Public Resources Code Section 21100(b)(2) and Appendix F of the State *CEQA Guidelines* requires an EIR to discuss the potential for a project to result in impacts related to energy consumption and/or conservation. A project may have the potential to cause such impacts if it would result in inefficient, wasteful, or unnecessary consumption of energy, including electricity, natural gas, or transportation fuel supplies and/or resources. The project's impacts on energy consumption and conservation are discussed in Section 6 of the Supplemental Initial Study and were determined to be less than significant.

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6 Alternatives

As required by Section 15126.6 of the *CEQA Guidelines*, this EIR examines a range of reasonable alternatives to the proposed project that would attain most of the basic project objectives (stated in Section 2 of this EIR) but would avoid or substantially lessen the significant adverse impacts.

As discussed in Section 2, *Project Description*, the objectives for the proposed project, are as follows:

1. Support BayHealth and its patients in cancer prevention, diagnosis, treatment, and care coordination.
2. Provide a wide range of medical services in one, conveniently located facility.
3. Provide addition space for high-skilled employment opportunities.
4. Encourage adaptive reuse of space where the new use would be compatible with the structure itself and surrounding area, pursuant to Urban Design and Preservation Policy 6 of the Berkeley General Plan.
5. Provide a variety of jobs with varied skill levels, pursuant to Economic Development Goal 1 of the Berkeley General Plan.

This analysis examines two alternatives, including the CEQA-required “no project” alternative, that involve changes to the project that may reduce the project-related environmental impacts as identified in this EIR. Alternatives have been conceptualized to provide a range of reasonable options to consider that would help decision makers and the public understand the general implications of revising or eliminating certain components of the proposed project.

The following alternatives are evaluated in this EIR:

- Alternative 1: No Project
- Alternative 2: Light Manufacturing Use

Descriptions of the alternatives are included in the discussions for each alternative below. The potential environmental impacts of each alternative are analyzed in Sections 6.1 through 6.2.

6.1 Alternative 1: No Project Alternative

Description

This alternative assumes that the proposed project would not be implemented and the existing space in Suite 180 and Suite 200 within the Foundry 31 building would be left vacant. None of the proposed interior building work associated with the Oncology laboratory and office space and R&D space would occur. The No Project Alternative would not achieve any of the objectives of the proposed project because the vacant spaces would not support BayHealth patients or provide high skilled jobs.

Impact Analysis

Greenhouse Gas Emissions

Under the No Project alternative, GHG emissions resulting from the Outpatient Center analyzed in the 2017 EIR and the EIR Addendum would still occur and would be significant and unavoidable under CEQA. However, trips associated with the Oncology laboratory and office space and R&D use at the Foundry 31 building would not occur. In addition, there would be no uses generating additional area, energy, solid waste, or water GHG emissions over existing conditions. Therefore, no impact related to GHG emissions would occur and impacts would be reduced compared to those under the proposed project. No additional mitigation measures would be required for the No Project alternative

Other Issue Areas

Like the proposed project, no changes to the building footprint or ground disturbance would occur under this alternative, and Suite 180 and Suite 200 would remain vacant. Therefore, Alternative 1 would have reduced impacts related to aesthetics, agricultural resources, air quality, biological resources, cultural resources, energy, geology, hazardous materials, hydrology and water quality, land use, mineral resources, noise, population and housing, public services, recreation, transportation, tribal resources, utilities, and wildfire compared to the proposed project. No impacts associated with these issues would occur under the No Project alternative.

6.2 Alternative 2: Light Manufacturing Use

Description

This alternative would involve conversion of 87,500 square feet of vacant space on the first and second floors of the building to light manufacturing use with a use permit and public hearing; no Variances would be required, unlike for the proposed project. Under this alternative, Suite 180 and Suite 200 within the Foundry 31 building would be occupied by a light manufacturing use instead of the proposed Oncology laboratory and office space and R&D space. According to Table 23E.64.030 in Section 23E.64.030 of the Berkeley Municipal Code (BMC), light manufacturing uses over 5,000 square feet are allowed with a use permit and public hearing in the C-W district. According to Table 23E.80.030 in Section 23E.80.030 of the BMC, light manufacturing uses over 30,000 square feet are allowed with a use permit and public hearing in the MU-LI zone. Like the proposed project, no changes to the building exterior would occur. The light manufacturing use would operate during typical business hours as other light manufacturing uses and buildings. This alternative would meet the objectives relating to adaptive reuse of an existing building and skilled jobs but would not support the objectives related to BayHealth services or the provision of additional medical opportunities for residents.

Impact Analysis

Greenhouse Gas Emissions

GHG emissions associated with a light manufacturing use in Suite 180 and Suite 200 are shown in Table 6-1 below. Compared to the proposed project's GHG emissions shown in Table 4.1-1 in Section 4.1, *Greenhouse Gas Emissions*, Alternative 2 would result in fewer GHG emissions from area, solid waste, and water sources. In addition, Alternative 2 would

result in fewer vehicle trips and mobile GHG emissions compared to the proposed project. Overall, annual GHG emissions under Alternative 2 would be approximately 487 MT CO_2e per year compared to 920 MT CO_2e per year from the proposed project.

Table 6-1 Estimated Annual GHG Emissions of Alternative 2

Emission Source	Annual Emissions (MT of CO_2e)
Operational	
Area	<0.1
Energy	131.7
Solid Waste	40.9
Water	27.7
Mobile	
CO_2 and CH_4	282.7
N_2O	4.4
Total	487.4
Threshold	660
Exceeds Threshold?	No

MT of CO_2e = metric tons of carbon dioxide equivalent
Source: CalEEMod Output Files, Appendix C

However, when Alternative 2 GHG emissions are combined with GHG emissions from the previous two projects analyzed in the 2017 EIR and the 2018 EIR Addendum, emissions would exceed BAAQMD thresholds as shown in Table 6-2. Therefore, this alternative would not eliminate the significant and unavoidable GHG emissions impact.

Table 6-2 Combined Annual Emissions of Greenhouse Gases

Project Source	Annual Emissions (MT of CO_2e)
2017 EIR (BayHealth and PNC)	3,071.0
2018 EIR Addendum (Office and R&D)	671.0
Alternative 2 (Light Manufacturing)	487.4
Total	**4,229.4**
Threshold	660
Exceeds Threshold?	**Yes**

MT of CO_2e = metric tons of carbon dioxide equivalent
Source: CalEEMod Output Files, Appendix C; City of Berkeley 2017; and City of Berkeley 2018

Impacts would be reduced compared to the proposed project but would remain significant and unavoidable. Mitigation Measures GHG-1 and GHG-2 would continue to apply to Alternative 2.

Other Issue Areas

Like the proposed project, this alternative would involve reuse of space in an existing building. No changes to the building footprint or ground disturbance would occur. Therefore, Alternative 2 would have similar aesthetic, biological, cultural, construction noise, land use, hydrology, geology, public services, recreation, tribal cultural resources, and wildfire as the

proposed project. For these issue areas, no impacts would occur, or impacts would be less than significant.

Light manufacturing would operate during typical business hours as other light manufacturing uses and buildings, which would be shorter in duration than the proposed Oncology use. Therefore, energy consumption would be incrementally less than the proposed project.

Light manufacturing uses may involve the use, storage, disposal, or transportation of hazardous materials such as the petrochemicals, polymers, and basic inorganics. However, as with any commercial activities that involve the storage and use of hazardous materials, onsite activity involving hazardous substances and the transport, storage, handling of these substances, must adhere to applicable local, state, and federal safety standards, ordinances, or regulations. Compliance with existing laws and regulations would reduce impacts related to exposure of the public or environment to hazardous materials to less than significant, similar to the proposed project.

Light manufacturing uses would generate fewer daily trips than under the proposed project. Therefore, traffic noise and transportation impacts would be reduced under Alternative 2.

Compared to medical uses, light manufacturing uses typically use less water, and generate less wastewater and solid waste. However, if the manufacturing process is water-intensive or involves a lot of waste byproducts impacts related to utilities and service systems may be increased compared to the proposed project. However, it is assumed that utility and service systems would be able to serve the manufacturing use and impacts would be less than significant, the same as under the proposed project.

6.3 Alternatives Considered but Rejected

According to Table 23E.80.030 in Section 23E.80.030 of the BMC, there are multiple uses, up to 20,000 square feet, that could re-tenant the space with only a Zoning Certificate. For example, similar to previous uses, warehouse or storage use, manufacturing, wholesale trade, and repair services could be implemented. Alternatives that re-tenant the space with smaller uses were considered but rejected. As per the applicant's statement, LBA Realty has been marketing Suite 180 since its last vacancy and Suite 200 since 2016 with the help from Colliers and Newmark Knight as brokers. The proposed project is the first economically viable use considered by the applicant team. The expansion of existing tenants in the Foundry31 building was considered, but there has not been an identified need. All potential tenants of the space since vacancy have required a mix of R&D and office space. There have been no prospective tenants interested in the vacant spaces that have been small manufacturing uses or uses that do not require multiple uses within the suite.

6.4 Environmentally Superior Alternative

CEQA requires the identification of the environmentally superior alternative among the options studied. The environmentally superior alternative must be an alternative to the proposed project that reduces some of the environmental impacts of the proposed project, regardless of the financial costs associated with that alternative. Identification of the environmentally superior alternative is an informational procedure and the alternative identified as environmentally superior may not be the one that best meets the goals or needs of the proposed project.

Based on the alternatives analysis provided above, Alternative 1: No Project would be the environmentally superior alternative since it would avoid or lessen all project impacts. However, the No Project Alternative would not fulfill the objectives of the proposed project.

When the “No Project” alternative is determined to be environmentally superior, State CEQA Guidelines also require identification of the environmentally superior alternative among the development options. Therefore, Alternative 2: Light Manufacturing Use is determined to be the environmentally superior alternative. Alternative 2 would have less overall GHG emissions than the proposed project, but would still have a significant and unavoidable impact. Also, Alternative 2 would meet the proposed project’s objectives relating to adaptive reuse of an existing building and providing skilled jobs but would not support the objectives related to BayHealth services or the provision of additional medical opportunities for residents.

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7.2 List of Preparers

This EIR was prepared by the City of Berkeley, with the assistance of Rincon Consultants, Inc. Consultant staff involved in the preparation of the EIR are listed below.

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Appendix A

Initial Study

3100 San Pablo Avenue Medical Office and R&D Project

Supplemental Initial Study

SCH#2017012056

prepared by

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Appendices

1 Introduction

This Initial Study has been prepared in accordance with the provisions of the California Environmental Quality Act (CEQA) and the *State CEQA Guidelines*. Pursuant to Sections 15162 and 15163 of the CEQA Guidelines, a subsequent EIR is required when substantial changes are proposed for a project, substantial changes to the previous EIR are necessary, and previously-identified impacts will be greater and/or new significant impacts would occur. A supplement to a previous EIR may be prepared if any of the changes to a project would require the preparation of a subsequent EIR and only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed condition. This Initial Study analyzes whether further environmental review is required for the proposed medical office and research and development use of the existing "Foundry 31" building at 3100 San Pablo Avenue under the standards of Public Resources Code section 21166 and CEQA Guidelines Sections 15162 and 15163.

1.1 Previous Projects and Environmental Review

2017 Outpatient Center Project

In July 2017, the City of Berkeley (City) Zoning Adjustments Board (ZAB) approved the 3100 San Pablo Avenue Outpatient Center Project (Outpatient Center Project). This established the BayHealth Outpatient Center in a portion of the existing 405,000-square foot mixed-use commercial and industrial building located at 3100 San Pablo Avenue, also known as the "Foundry 31" building. The approved Outpatient Center Project involved converting approximately 97,443 square feet of space in the existing Foundry 31 building from office space, which was part of or ancillary to the former light industrial uses, to an Outpatient Center, located in the eastern portion of the existing building on parts of the first and second floors and all of the third and fourth floors.

The ZAB certified the Final EIR (State Clearinghouse [SCH] # 2017012056) for the Outpatient Center Project in July 2017 (2017 EIR). The 2017 EIR evaluated potential environmental consequences associated with the Outpatient Center Project. The air quality, greenhouse gas (GHG) emissions, and noise analyses assumed establishment of a 97,443-square foot medical outpatient center use in an existing building. The transportation and traffic analysis took into account trips associated with buildout of the remaining vacant 142,867 square feet of space in the Foundry 31 building in addition to the outpatient center use. The 2017 EIR determined that significant unavoidable impacts would occur in the issue areas of operational noise as a result of traffic, GHG emissions, and transportation. Therefore, the City adopted a Statement of Overriding Considerations for these significant and unavoidable impacts per CEQA Guidelines Section 15093.

2018 R&D Project

The 3100 San Pablo Avenue Office and Research and Development (R&D) Project involved interior remodeling and modifications to establish approximately 43,000 square feet of office space and 6,000 square feet of R&D space (49,000 square feet total) for use by the Premier Nutrition Corporation (PNC) in the 405,000-square-foot Foundry 31 building. The office and R&D space are located in a portion of the remaining space in the Foundry 31 building not occupied by the Outpatient Center and was considered an expansion to the previous project.

An addendum to the 2017 EIR was prepared for that project in April 2018. As outlined in Section 15164 of the CEQA Guidelines, a lead agency may prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred. This addendum was approved by the ZAB along with the PNC project in April 2018.

1.2 Basis for a Supplemental EIR

When an EIR has been adopted and a project is modified or expanded upon, additional CEQA review may be necessary. The key considerations in determining the need for the appropriate type of additional CEQA review are outlined in Section 21166 of the Public Resources Code (CEQA) and Sections 15162, 15163 and 15164 of the *State CEQA Guidelines*.

Section 15162(a) of the *State CEQA Guidelines* provides that a Subsequent EIR is not required unless the following occurs:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

   (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

   (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

   (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

   (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Pursuant to Section 15163 of the State CEQA Guidelines, a supplement to an EIR may be prepared by the Lead Agency rather than a subsequent EIR if:

(1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and;

(2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

As discussed in Section 2, *Project Description*, the proposed project would expand the activity at the site, specifically the establishment of about 87,500 square feet of new uses in the remaining vacant portions of a 405,000 square-foot building. Therefore, the City has determined that the preparation of a supplemental EIR is the appropriate approach to CEQA compliance because, while the changes in activity at the building would be significantly different from the prior analysis and result in a more significant impact, the basis for the analysis remains relevant and only minor changes to the prior EIR are needed. Consistent with Section 15050 of the CEQA Guidelines, the 2017 EIR and 2018 EIR Addendum are incorporated into this document by reference.

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2 Project Description

2.1 Project Title

3100 San Pablo Avenue Medical Office and R&D Project

2.2 Lead Agency Name and Address

City of Berkeley,
Planning and Development Department
1947 Center Street, 2nd Floor
Berkeley, California 94704

2.3 Contact Person and Phone Number

Nicholas Armour, Associate Planner
NArmour@cityofberkeley.info
510-981-7485

2.4 Project Sponsor's Name and Address

Applicant

Darrell de Tienne
deTienne Associates
3435 Cesar Chavez, #312
San Francisco, California 94110
detassoc@sbcglobal.net, 415 407 1005

Property Owner

LBA Realty
3347 Michelson Drive, Suite 200
Irvine, California 92612

2.5 Project Location

The project site is located at 3100 San Pablo Avenue (Assessor's Parcel # 052-151200103). The 4.1-acre site comprises an entire block bounded by San Pablo Avenue to the east, Folger Avenue to the north, the Emeryville Greenway bicycle path to the west, and 67th Street to the south. The project site is located at the intersection of and partially within the jurisdictions of the cities of Berkeley, Oakland, and Emeryville. The regional location of the project is shown in Figure 1. Figure 2 shows the project site location in local context.

Figure 1 Regional Location

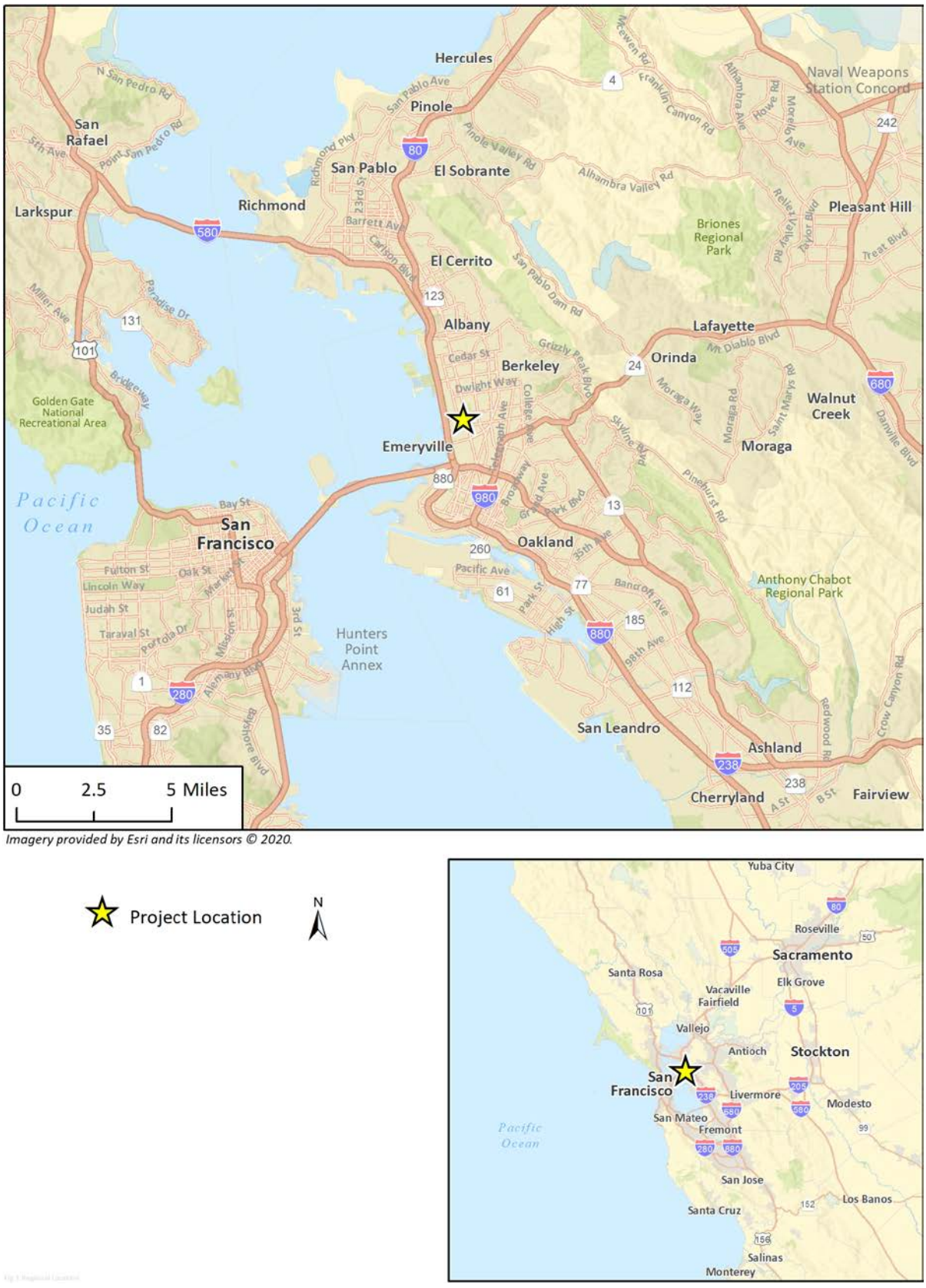


Figure 2 Project Site Location

Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 2 Project Location

The project site is developed with an existing approximately 405,000-square-foot mixed-use commercial and light industrial building known as “Foundry 31” (formerly the “Marchant on Greenway” building). The Foundry 31 building is mostly two stories in height except for the tower portion of the building along San Pablo Avenue, which is four stories in height. The building also has a partial basement level. Parking is provided in the partial basement level and in a rooftop lot over the two-story portion. The basement currently has 103 parking spaces and the rooftop has 374 parking spaces. Adjacent offsite parking lots used by building tenants provide additional parking capacity. Access to parking areas is provided via two driveways off 67th Street. Bicycle parking is provided along San Pablo Avenue with 200 additional slots in the basement off 67th Street.

Current and past uses of the building include manufacturing, shipping and receiving warehouse, printing facilities, laboratories, offices, and commercial kitchens. Current uses at the Foundry 31 building include an Amazon Fulfillment Center warehouse and offices (23,500 square feet), TCHO chocolates manufacturing/warehouse (34,122 square feet), and Clif Bar manufacturing/commercial/ kitchen (15,900 square feet). Currently, a 42,479-square-foot health club (City Sports) occupies portions of the first and second floor. In addition, the BayHealth Outpatient Center occupies 97,443 square-feet of former office space on portions of the first and second floor and all of the third and fourth floors. Most recently, 49,000 square-feet of office and R&D space was occupied by Premier Nutrition Corporation (PNC) on the second floor, in portions of the building within the City of Oakland and Emeryville. The proposed project would occupy the remaining vacant space within the building.

The project site is generally flat and is almost entirely developed. The building occupies 171,407 square feet (97 percent) of the 177,455-square-foot project site. An approximately 6,000-square-foot landscape and stormwater retention area is located on the western end of the project site adjacent to the Emeryville Greenway. Additional landscaping and trees are located on the building frontage along San Pablo Avenue.

Portions of the Foundry 31 building are in three cities: Berkeley (northern and majority portion), Oakland (most of the southern potion), and Emeryville (a small part of the westernmost portion). The specific area of the building proposed for the project is partially in Berkeley (the northern portion) and partially in Oakland (the southern portion). An MOU executed in 2013 between the cities of Oakland, Emeryville, and Berkeley establishes Berkeley as the lead city for land use approvals. In terms of the City of Berkeley zoning, the building is split between the West Berkeley Commercial (C-W) (along San Pablo Avenue) and Mixed Use – Light Industrial (MU-LI) (west of the C-W portion) zoning districts.

2.6 Surrounding Land Uses and Setting

The project site is bounded by San Pablo Avenue (a four-lane State highway with a landscaped median) to the east, Folger Avenue to the north, the Emeryville Greenway bicycle path to the west, and 67th Street to the south. To the north of the project site across Folger Avenue are one- and two-story industrial, warehouse, commercial, and parking uses. Across San Pablo Avenue to the east are one- and two-story commercial and retail uses. Across 67th Avenue to the south are fast food (McDonald’s), commercial, religious assembly, and residential uses, including two one-story, single family homes and three-story apartment buildings. The Emeryville Greenway bicycle path is adjacent to the property’s western boundary and on the other side of the bike path is a parking lot under the same ownership as the project site.

2.7 General Plan Designation

Within the Foundry 31 building, the portion of the building containing the two vacant suites where the new uses are proposed is within two city jurisdictions. The City of Berkeley portion of project site is "Avenue Commercial" and "Manufacturing," and the City of Oakland portion of project site is "Housing and Business Mix."

2.8 Zoning

City of Berkeley portion of project site is zoned Commercial (C-W) and Mixed Use – Light Industrial (MU-LI), and the City of Oakland portion of project site is zoned Community Commercial-2 (CC-2) and Housing and Business Mix-2 (HBX-2). Figure 3 and Figure 4 show the suites' locations in the building and in relation to their respective zoning.

2.9 Description of Project

The proposed project would establish new uses in two vacant suites (Suite 180 and Suite 200) within the existing Foundry 31 building. The proposed uses would be 1) an extension of the BayHealth Outpatient Center in Suite 180 with an Oncology laboratory, and 2) office, laboratory, and R&D uses within Suite 200. The combined square footage of the two suites is 87,500 square feet (sf), as detailed in Table 1. The most recent prior occupants of the suites were Marchant Calculator, Inc. and UC Berkeley museum for artifact storage and office space.

Table 1 Proposed Project Floor Area and Use

Suite	Square Feet	Use
180	17,700	BayHealth Outpatient Oncology Laboratory
200	69,800	Office, laboratory, and R&D
Total	**87,500**	

Suite 180 is located on the first floor and Suite 200 is located on the second floor, and both suites are located in the northern portion of the existing building, adjacent to Folger Avenue, as shown on the first and second floor plans in Figure 3 and Figure 4. There would be no retail sales in or public access to either suite. Tenant improvements would not increase the size, lot coverage, or building height of the existing building.

The proposed oncology laboratory in Suite 180 would operate 7:00 AM to 9:00 PM Monday through Friday and 7:00 AM to 7:00 PM on Saturday and Sunday. The uses in Suite 200 would operate 6:00 AM to 9:00 PM every day. The oncology laboratory in Suite 180 would accommodate 25 employees and up to 25 patients at any given time. Uses within Suite 200 would accommodate approximately 443 employees and up to 10 customers at a time. Interior tenant improvements would also occur as a result of the proposed project. No changes to the exterior of the building, building height, lot coverage, or building footprint would occur.

Parking

Existing parking for the Foundry 31 building is located in the basement and roof of the building, as well as in surface parking lots surrounding the property. Parking to

accommodate the Oncology laboratory use in Suite 180 would be located in the parking lot to the north. Existing Amazon employee parking would be relocated to the Greenway parking lot to the west across the Emeryville Greenway.

Figure 3 Project First Floor Suite 180 Floor Plan

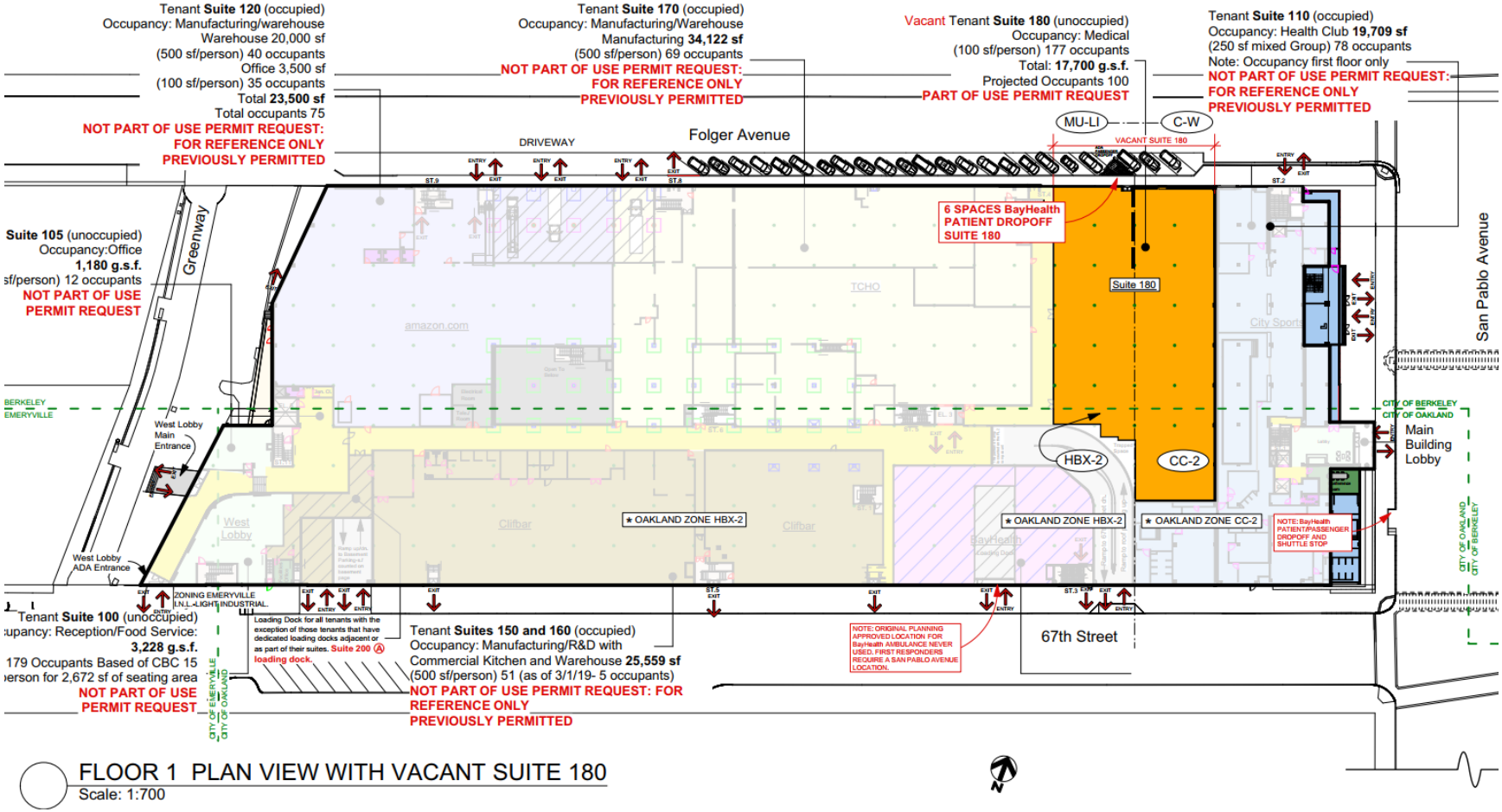
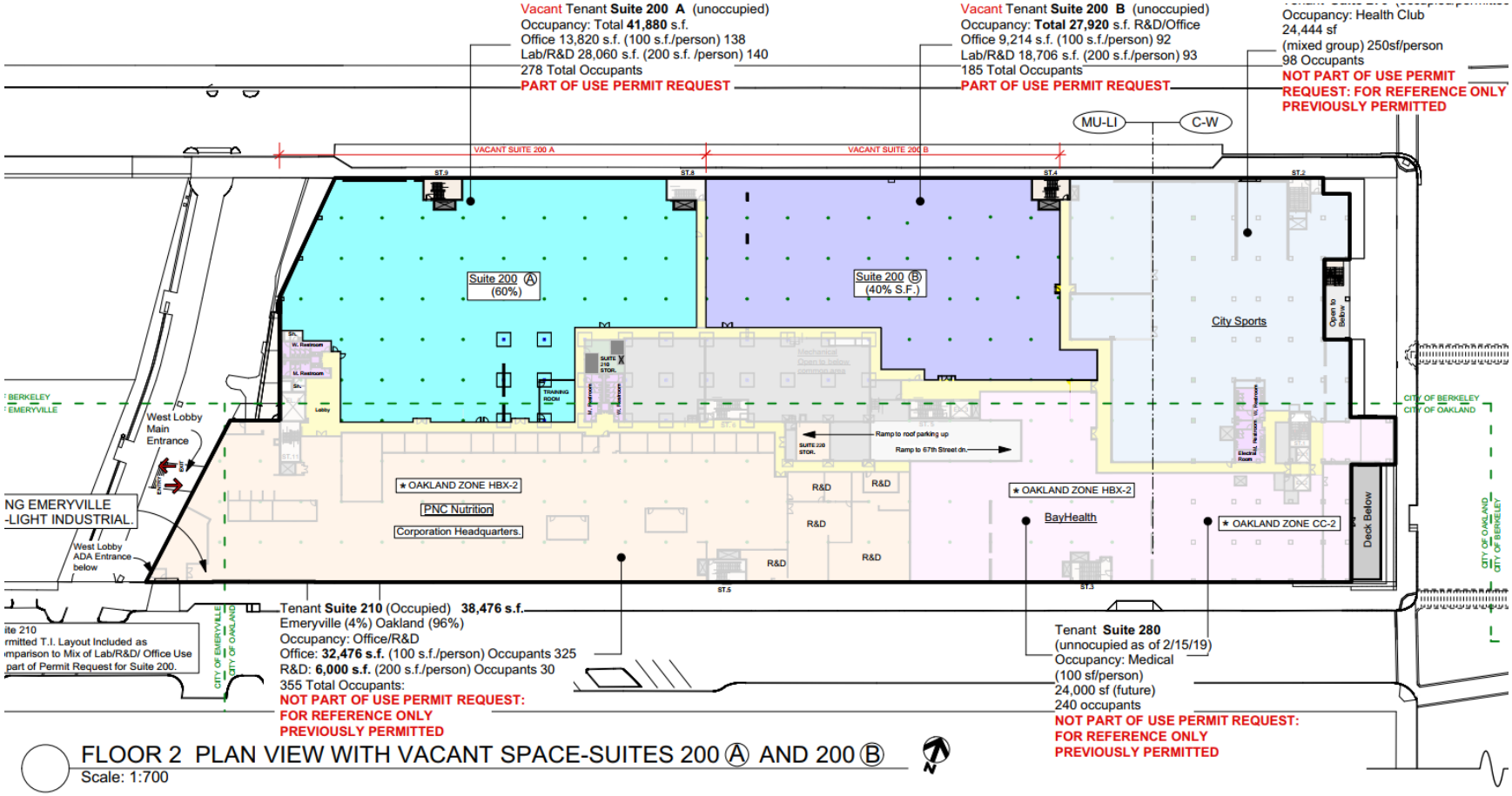


Figure 4 Project Second Floor Suite 200 Floor Plan



Construction

All construction activities for the project would be located in the interior of the existing building. No structural changes would be involved, and no exterior changes are included as part of the project. Therefore, no changes to the building footprint would occur.

2.10 Required Approvals

- **Use Permit** to establish a Testing Laboratory over 10,000 square feet in the C-W District under BMC Section 23E.64.030
- **Use Permit** to establish an Office use over 5,000 square feet in the C-W District under BMC Section 23E.64.030
- **Use Permit** to establish an Office use over 20,000 square feet in the MU-LI District under BMC Section 23E.80.030
- **Use Permit** to establish a Laboratory use between 20,000 and 30,000 square feet in the MU-LI District under BMC Section 23E.80.030
- **Variance** to allow a medical use within the MU-LI District where they are otherwise prohibited under BMC Section 23E.80.030.

2.11 Other Public Agencies Whose Approval is Required

As noted above, portions of the Foundry 31 building are in three cities: Berkeley (northern and majority portion), Oakland (most of the southern potion), and Emeryville (a small part of the westernmost portion). The specific area of the building proposed for the project is in Berkeley. An MOU executed in 2013 between the Cities of Oakland, Emeryville, and Berkeley establishes Berkeley as the lead city for land use approvals. The project would require use permits and building permits from the City of Berkeley. No other public agency approvals would be required.

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

The City of Berkeley prepares and mails a formal notification letter with the City's list of active projects to the Chochenyo Ohlone on a monthly basis, in accordance with the provisions of AB 52. The email including this project was sent out on May 16, 2019. As of the date of this report, no response has been received regarding this project, and no tribal cultural resources have been identified on site.

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3 Impact Analysis

A comparative analysis of the potential impacts associated with the proposed project and those of the approved Outpatient Center Project analyzed in the adopted Final EIR has been prepared using the CEQA checklist as a guide. This checklist is consistent with the format and environmental topics and questions of the checklist used in the Final EIR, but also includes recent updates to reflect the most recently adopted checklist provided in Appendix G of the *State CEQA Guidelines*. The checklist considers the full range of environmental issues subject to analysis under CEQA (in rows), and then poses a series of questions (in columns) aimed at identifying the degree to which the issue was analyzed in the Final EIR. The checklist also includes a column identifying whether the proposed project constitutes new information of substantial importance relative to each environmental issue. The questions posed in each column are described below.

Where was the impact analyzed?

This column provides a cross-reference to the portions of the adopted Final EIR and other environmental documents where information and analyses may be found relative to the environmental issue listed under each topic. The cross-references identified in this column correspond with page numbers and section numbers of the adopted Final EIR.

Do proposed changes involve new significant impacts or substantially more severe impacts?

In accordance with Section 15162(a)(1) of the *State CEQA Guidelines*, this column indicates whether the proposed project would involve new significant environmental impacts or a substantial increase in the severity of previously identified significant impacts that, in turn, would require major revisions of the adopted Final EIR.

Are there new circumstances involving new significant impacts or substantially more severe impacts?

In accordance with Section 15162(a)(2) of the *State CEQA Guidelines*, this column indicates whether changes to the circumstances under which the proposed project is undertaken or implemented have occurred that would involve new significant environmental impacts or a substantial increase in the severity of previously identified significant impacts that, in turn, would require major revisions of the adopted Final EIR.

Is there new information requiring new analysis or verification?

In accordance with Sections 15162(a)(3)(A) and 15162(a)(3)(B) of the *State CEQA Guidelines*, this column indicates whether 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 adopted Final EIR was certified, shows additional or substantially more severe significant impacts not discussed in the adopted Final EIR.

Do mitigation measures included in the adopted Final IS-MND address and/or resolve impacts?

In accordance with Sections 15162(a)(3)(C) and 15162(a)(3)(D) of the *State CEQA Guidelines*, this column indicates whether 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 adopted Final EIR was certified, shows that mitigation measures or alternatives

in the adopted Final EIR would now be feasible, or identifies new mitigation measures or alternatives not in the adopted Final EIR that would reduce significant impacts, but which the applicant declines to adopt.

3.1 Aesthetics

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Have a substantial adverse effect on a scenic vista?	Appendix A, Initial Study	No	No	No	n/a
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Appendix A, Initial Study	No	No	No	n/a
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from 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?	Appendix A, Initial Study	No	No	No	n/a
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	Appendix A, Initial Study	No	No	No	n/a

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

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

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?

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

The proposed project does not involve changes to the exterior of the existing on-site building. All tenant improvements for the implementation of the project would occur in the interior of the structure, and no changes to the building's height, lot coverage, or exterior facade would occur. No new exterior lighting would be installed and interior lighting would be typical to the surrounding urban area. Therefore, no scenic views or vistas would be altered, no damage to scenic resources would occur, and no impacts to daytime or nighttime views would occur. Signage is not proposed as part of the project, but future signage would be required to comply with Title 20, Signs, of the Berkeley Municipal Code (BMC).

There would be no new or substantially more severe impacts to aesthetics than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.2 Agriculture and Forestry Resources

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. 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?	Appendix A, Initial Study	No	No	No	n/a
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	Appendix A, Initial Study	No	No	No	n/a
c. 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))?	Appendix A, Initial Study	No	No	No	n/a
d. Result in the loss of forest land or conversion of forest land to non-forest use?	Appendix A, Initial Study	No	No	No	n/a
e. 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?	Appendix A, Initial Study	No	No	No	n/a

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?

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?

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?

As described in the Initial Study associated with the adopted 2017 EIR, the project site is located in an urban area and there are no areas of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Williamson Act lands on or near the project site. Additionally, the project would take place entirely within an existing building. As the project site does not constitute forest land and is not zoned for forest land or timber land production, would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production, nor would it result in the loss of forest land or conversion of forest land to non-forest use.

Therefore, there would be no new or substantially more severe impacts to agricultural resources than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.3 Air Quality

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	Appendix A, Initial Study	No	No	No	n/a
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Page 39	No	No	No	n/a
c. Expose sensitive receptors to substantial pollutant concentrations?	Pages 39 and 40	No	No	No	n/a
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Appendix A, Initial Study	No	No	No	n/a

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

As discussed in the Initial Study prepared for the 2017 EIR, a project may be inconsistent with the applicable clean air plan if it would result in either population or employment growth that exceeds growth estimates included in the plan. The Bay Area Air Quality Management District's (BAAQMD) 2010 Clean Air Plan was the applicable plan during the 2017 environmental analysis. The Outpatient Center was determined to not induce substantial population growth as it did not include housing, and the employees would likely be drawn primarily from the existing regional population.

The BAAQMD adopted the 2017 Clean Air Plan after the 2017 environmental analysis. The 2017 Clean Air Plan seeks to improve Bay Area air quality and protect public health through reducing emissions of ozone precursors, reducing the transport of ozone precursor to other basins, and reduce emissions of fine particulate matter and toxic air contaminants (BAAQMD 2017a). The proposed project does not include housing units that would directly increase the population in the area. In addition, the project does not involve a change in land use which would increase the development potential of the project site. The project includes adaptive reuse of the existing Foundry 31 building. As discussed in Section 2, Project Description, the project would include approximately 468 employees for all new uses. Employees of the proposed oncology laboratory and office and R&D uses would likely be drawn primarily from the existing population and not induce substantial population growth

that was not already accounted for in the 2017 Clean Air Plan. Therefore, the proposed project would not conflict or obstruct implementation of the 2017 Clean Air Plan and there would be no new or substantially more severe impacts to air quality than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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?

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

The BAAQMD has screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts (BAAQMD 2017b). If all of the screening criteria are met by a project, then the lead agency or applicant would not need to perform a detailed air quality assessment of a given project's air pollutant emissions. The BAAQMD does not provide screening criteria for laboratory or R&D uses, making general office a conservative and appropriate land use screening criteria level for this project. The construction related screening size for a general office building is 277,000 square feet and the operational criteria pollutant screening size is 346,000 square feet.

The proposed project would involve the adaptive reuse of 87,500 square feet of an existing building. Combined with the 97,433 square-foot Outpatient Center, the total square footage would be 184,933. Therefore, the proposed project in addition to the Outpatient Center is below the construction and operational screening criteria and a detailed air quality assessment is not necessary for the proposed project.

The 2017 EIR concluded that because construction of the project only involved interior remodeling and no use of heavy construction equipment, construction emissions would be less than significant. Also, as seen in Table 9 of the 2017 EIR, the operational emissions of the Outpatient Center would also be less than significant and not expose sensitive receptors to substantial pollutant concentrations from onsite emissions.

Similarly, construction of the proposed project also only involves interior remodeling. In addition, mobile emissions typically represent the greatest source of operational emissions. As detailed in Section 3.17, *Transportation*, the proposed project would generate fewer daily trips than assumed in the 2017 EIR, and the proposed project does not involve onsite emergency generators. Therefore, the proposed project would not result in a cumulatively considerable increase in criteria pollutants or expose sensitive receptors to substantial pollutant concentrations. There would be no new or substantially more severe impacts to air quality than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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

Similar to the Outpatient Center, the proposed project does not include land uses typically associated with odors, which include agriculture, wastewater treatment, industrial uses, or landfills. Therefore, there would be no new or substantially more severe impacts to odors than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.4 Biological Resources

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Appendix A, Initial Study	No	No	No	n/a
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Appendix A, Initial Study	No	No	No	n/a
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Appendix A, Initial Study	No	No	No	n/a
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Appendix A, Initial Study	No	No	No	n/a

		Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Appendix A, Initial Study	No	No	No	n/a
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Appendix A, Initial Study	No	No	No	n/a

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?

As described in the Initial Study prepared for the 2017 EIR, the project site is in a fully urbanized area, and the project would take place within an existing building. Neither the site nor adjacent properties support native biological resources or habitats, nor are they within the area of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There is no riparian habitat or sensitive natural communities, federally protected wetlands, or migratory wildlife corridors or native wildlife nurseries on-site or in the project area.

The proposed project is located within the same project site as the adopted 2017 EIR. In addition, implementation of the project would only involve interior renovations. Therefore, there would be no new or substantially more severe impacts to biological resources than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.5 Cultural Resources

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	Appendix A, Initial Study	No	No	No	n/a
b. Cause a substantial adverse change in the significance of an archaeological pursuant to §15064.5?	Appendix A, Initial Study	No	No	No	n/a
c. Disturb any human remains, including those interred outside of formal cemeteries?	Appendix A, Initial Study	No	No	No	n/a

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

The Foundry 31 building was constructed in the late 1950s and was home to the Marchant Corporation, which manufactured calculating machines. As detailed above in the Project Description, the interior of the building has changed and been updated over time to accommodate various uses, and only minor changes to the building exterior have occurred since it was constructed. The proposed project would include interior tenant improvements and renovations. The project does not include exterior alterations. Therefore, the project would not impact the building's historic status. There would be no new or substantially more severe impacts to historical resources than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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

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

As discussed in the Initial Study prepared for the 2017 EIR, the project site is fully built out with the existing Foundry 31 building, and there are no known archaeological resources or human remains present on the project site. Similar to the Outpatient Center Project, the proposed project involved the change in use of the building and interior renovations. There would be no ground disturbing activities as a result of the project. Therefore, the project would not impact undiscovered archaeological resources or human remains and there would be no new or substantially more severe impacts to archaeological resources or

human remains than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.6 Energy

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Pages 114 through 116	No	No	No	n/a
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Pages 113 and 114	No	No	No	n/a

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?

The 2017 EIR did not include a separate section analyzing potential environmental impacts related to the topic of Energy because it was not required under the CEQA Guidelines in effect at the time. The topic of energy use was, however, addressed in Section 5, *Other CEQA Required Discussions*, in the 2017 EIR. The 2017 EIR calculated the energy use associated with the electricity, natural gas, and fuel consumption from vehicle trips associated with the Outpatient Center. It concluded that the project's overall energy demand represents a nominal increase in the overall statewide energy resources and demand. In addition, the Outpatient Center project would be subject to mitigation measures GHG-1 and T-1 and subject to energy conservation requirements in the California Energy Code and CALGreen standards and, therefore, would not result in wasteful or inefficient energy consumption.

The proposed project would also be located in an existing building with existing electricity and natural gas connections. Construction of the project would involve interior renovations and not require heavy equipment. Therefore, construction energy consumption would not be significant. Fuel consumption from vehicle trips represents a large portion of a project's energy use. As discussed in Section 3.17, *Transportation*, the proposed project would result in fewer overall daily trips than what was assumed in the 2017 EIR, which analyzed transportation impacts related to full occupancy of the building, including Suites 180 and 200. Therefore, the proposed project would not result in new or substantially more fuel consumption.

The project would increase the electricity and natural gas use within the building over the amount analyzed in the 2017 EIR. The proposed project would occupy less area in the existing building than the project analyzed in the 2017 EIR, and the new uses would not operate 24 hours a day. Therefore, the proposed project would use less electricity and natural gas than the existing Outpatient Center.

The project would be required to comply with all standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation**.** California's Green Building Standards Code (CALGreen; California Code of Regulations, Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires additions and alternations to residential and nonresidential buildings to meet energy performance standards set by the Energy Commission. These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. The standards are updated every three years and each iteration is more energy efficient than the previous standards. For example, according to the CEC, nonresidential buildings with the 2019 standards will use about 30 percent less energy due mainly to lighting upgrades (CEC 2018). Furthermore, the project would further reduce its use of nonrenewable energy resources as the electricity to the project would be provided by East Bay Community Energy (EBCE), which purchases electricity from renewable sources such as solar and wind.

In conclusion, the construction of the project would require less energy than typical projects and not result in the wasteful use of energy. Operation of the project would increase the consumption of energy from existing conditions of vacant building spaces. However, development would improve the energy efficiency of the suites through conformance with the applicable version of California Green Building Standards Code and the Building Energy Efficiency Standards. Therefore, the project would not result in wasteful, inefficient, or unnecessary use of energy resources and there would be no new or substantially more severe impacts to energy than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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

The proposed project involves the interior remodeling of an existing building to support laboratory, office, and R&D uses, and is not located on a site designated for renewable energy production. As discussed above under Impact a, the project would comply with all standards set in California Building Code (CBC) Title 24 and California's Green Building Standards Code set to improve energy efficiency within buildings.

The proposed project would not conflict with any implementing actions or policies in the City of Berkeley Climate Action Plan (CAP). The project would be subject to all applicable green building requirements by the City, including the Building Energy Saving Ordinance (BESO). Therefore, the project would not conflict with plans for renewable energy or energy efficiency and there would be no new or substantially more severe impacts to energy than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.7 Geology and Soils

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
1. 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?	Appendix A, Initial Study	No	No	No	n/a
2. Strong seismic ground shaking?	Appendix A, Initial Study	No	No	No	n/a
3. Seismic-related ground failure, including liquefaction?	Appendix A, Initial Study	No	No	No	n/a
4. Landslides?	Appendix A, Initial Study	No	No	No	n/a
b. Result in substantial soil erosion or the loss of topsoil?	Appendix A, Initial Study	No	No	No	n/a
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Appendix A, Initial Study	No	No	No	n/a

		Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
d.	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?	Appendix A, Initial Study	No	No	No	n/a
e.	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?	Appendix A, Initial Study	No	No	No	n/a
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Appendix A, Initial Study	No	No	No	n/a

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

a.1 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?

a.2 Strong seismic ground shaking?

a.3 Seismic-related ground failure, including liquefaction?

a.4 Landslides?

As described in the Initial Study prepared for the 2017 EIR and shown on the most recent California Department of Conservation maps, the project site is not located within an Alquist-Priolo Earthquake Fault Zone or landslide zone (CDC 2019). However, this project site is approximately 2.5 miles west of the Hayward Fault Zone, which is a north-south active fault in the area. Because the project site, and surrounding area, is located in a seismically active area, all structures could be subject to ground shaking in the event of an earthquake. In addition, the Initial Study found the project site is in an area with historical occurrences of liquefaction and the potential for ground displacement exists (CDC 2019).

The proposed project would involve interior construction inside an existing building. The project would not expand the existing building or alter the topography of the project site. Interior upgrades and tenant improvements would be subject to standard engineering practices and California Building Code (CBC) requirements related to seismic hazards. Therefore, the exposure to potential adverse effects involving seismic ground shaking and

seismic related ground failure, including liquefaction would not be increased from the existing building conditions. There would be no new or substantially more severe impacts to seismic hazards than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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

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?

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

The proposed project is located on a relatively flat site in a fully urbanized community. Similar to the Outpatient Center project, the proposed project would not require grading or ground disturbance of the project site. Therefore, the project would not change existing conditions related to soil erosion, soil instability, or expansive soil risks. There would be no new or substantially more severe impacts to geologic hazards than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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?

The proposed project would not require the installation of septic tanks or an alternative wastewater disposal system. There would be no new or substantially more severe impacts to soil than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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

The proposed project involves a change in use of an existing building and interior renovations. There would be no ground disturbing activities as a result of the project. Therefore, the project would not impact any undiscovered paleontological resources, and there would be no new or substantially more severe impacts to paleontological resources than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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3.8 Greenhouse Gas Emissions

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Pages 52 through 54	Yes	Yes	Yes	No
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Pages 54 through 59	Yes	Yes	Yes	No

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

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

The 2017 EIR concluded that greenhouse gas (GHG) emissions from the operation of the Outpatient Center would exceed BAAQMD thresholds and be potentially significant. Therefore, Mitigation Measure T-1, detailed in Section 3.17, *Transportation*, and the following mitigation measure were required:

GHG-1: GHG Reduction Plan

The project applicant shall submit a GHG Reduction Plan to the City of Berkeley for review and approval prior to issuance of a Certificate of Occupancy. The plan shall include measures to reduce GHG emissions to the extent feasible, shall be implemented on site by the project applicant, and may include, but is not be limited to, the following components:

a. Installing charging stations for electric vehicles
b. Installing solar rooftop panels to offset electricity use
c. Purchasing an emissions reduction credit to offset emissions

With the implementation of Mitigation Measure GHG-1 and T-1, the 2017 EIR concluded impacts would remain significant. Therefore, impacts related to greenhouse gas emissions were determined to be significant and unavoidable.

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. As a result, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. The proposed project would establish approximately 87,000 square feet of new uses which

would result in additional GHG emissions. The 2017 EIR concluded GHG emissions would be significant and unavoidable; the proposed project could directly or indirectly increase GHG impacts. In addition, the BAAQMD's operational screening threshold for an office building is 53,000 square feet, which is lower than the combined 2017 EIR outpatient center and the proposed project. Therefore, impacts related to GHG emissions are potentially significant and are analyzed further in a Supplemental EIR.

3.9 Hazards and Hazardous Materials

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Appendix A, Initial Study	No	No	No	n/a
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Appendix A, Initial Study	No	No	No	n/a
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	Appendix A, Initial Study	No	No	No	n/a
d. 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?	Appendix A, Initial Study	No	No	No	n/a
e. For a project located in 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?	Appendix A, Initial Study	No	No	No	n/a

		Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Appendix A, Initial Study	No	No	No	n/a
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Appendix A, Initial Study	No	No	No	n/a

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

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?

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?

As described in the Initial Study prepared for the 2017 EIR, the proposed project is located less than 0.25 miles south from the Berkeley campus of John F. Kennedy University and just over 0.25 miles north from Yu Ming Charter School. Construction of the project would involve interior renovations and hand tools, which would not create reasonable foreseeable accidents involving hazardous materials.

As detailed in the Project Description, the proposed project would establish an oncology laboratory and R&D uses, which could involve the use of hazardous chemicals and materials for medical/research use or the generation of hazardous materials from medical waste. As discussed in the Initial Study prepared for the 2017 EIR, medical activities that involve the storage and use of hazardous materials, onsite activity involving hazardous substances and the transport, storage, and handling of these substances, must adhere to applicable local, state, and federal safety standards, ordinances, or regulations. Businesses that are engaged in the use, sale, storage, or transport of hazardous substances are monitored by various local (e.g., City of Berkeley Toxics Management Division and the Berkeley Fire Department) and state (e.g., Department of Toxic Substance Control) entities. The proposed project would be required to store hazardous materials in designated areas designed to prevent accidental release into the environment. Potentially hazardous waste produced during operation would also be collected, stored, and disposed of in accordance with applicable laws and regulations, including the Medical Waste Management Act, which establishes new definitions and requirements for generators of medical waste. Medical waste generators who generate more than 200 pounds of medical waste per month and/or perform onsite treatment of medical wastes must register with the State. The Medical Waste Management Act establishes handling, tracking, storing, hauling, treating, and disposal requirements for medical waste which would reduce potential impacts to the public.

Therefore, the project would not create a significant hazard to the public or environment from hazardous materials. There would be no new or substantially more severe impacts to the public or environmental from hazardous materials than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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?

As discussed in the Initial Study prepared for the 2017 EIR, the groundwater beneath the property and to the west of the property is contaminated with trichloroethylene (TCE) and its degradation product cis-1,2-dichloroethylene (cis-1,2-DCE). TCE is a solvent commonly used for cleaning metal parts, and cis-1,2-DCE is used for dissolving waxes and resins. TCE has also been found in soil beneath the existing building and in some areas immediately adjacent to the project site. Remedial actions have been on-going with the California Department of Toxic Substances Control (DTSC) and the status of the site remains an open case (DTSC 2019). However, the proposed project would involve interior work only and would not change the building footprint. Because no new construction or ground disturbance would occur, the proposed project would not disturb potentially contaminated groundwater or soils, would not interfere with any cleanup activities, and would not have the potential to release contaminated hazardous materials into the environment. There would be no new or substantially more severe impacts from hazardous materials than what was analyzed in the 2017 EIR, and further analysis is not warranted.

e. For a project located in 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?

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

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

The project site is outside of the Airport Land Use Plan for the nearest airport, Oakland International Airport, which is over 10 miles from the project site. The project is located entirely within an existing building and would not interfere with an emergency response or evacuation plan. In addition, the project site is located in an urbanized area and is not adjacent to wildland and wildlife risk areas. Therefore, there would be no new or substantially more severe impacts to hazards than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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3.10 Hydrology and Water Quality

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Appendix A, Initial Study	No	No	No	n/a
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Appendix A, Initial Study	No	No	No	n/a
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	Appendix A, Initial Study	No	No	No	n/a
(i) Result in substantial erosion or siltation on- or off-site	Appendix A, Initial Study	No	No	No	n/a
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site	Appendix A, Initial Study	No	No	No	n/a
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	Appendix A, Initial Study	No	No	No	n/a

		Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
	(iv) Impede or redirect flood flows?	Appendix A, Initial Study	No	No	No	n/a
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Appendix A, Initial Study	No	No	No	n/a
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	n/a	No	No	No	n/a

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

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?

Similar to the project analyzed in the Initial Study for the 2017 EIR, the proposed project would involve change of use in an existing building and would not alter the existing building footprint. As discussed in Section 3.19, Utilities and Service Systems, wastewater generated by the proposed office use would be conveyed and treated by existing wastewater treatment infrastructure. Development of the proposed project would not violate water quality standard or waste discharge requirements.

The change in use would also not increase the amount of impervious surfaces on-site and, therefore, would not interfere with groundwater recharge. The project site is not located in a designated groundwater recharge site and is in an urbanized area. As discussed in Section 3.19, Utilities and Service System, sufficient water supply is available to serve the project and therefore the proposed project would not substantially deplete groundwater supplies. Therefore, there would be no new or substantially more severe impacts to water quality and groundwater resources than what was analyzed in the 2017 EIR, and further analysis is not warranted.

c. 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:

i. Result in substantial erosion or situation on- or off-site?

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

iv. Impede or redirect flood flows?

The proposed project would occur within an existing building and no changes to the building footprint or ground disturbance would occur. Therefore, the existing drainage pattern would not be altered as a result of the project and there would be no new or substantially more severe impacts to hydrology and water quality than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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

As discussed in the Initial Study prepared for the 2017 EIR, the project site is located in an Area of Minimal Flood hazard Zone X. Zone X is defined as "areas determined to be outside 500-year flood-plain." Although the project site is located less than one mile from San Francisco Bay, according to California Governor's Office of Emergency Services (CalOES), the project site is not located within a tsunami hazard zone (CalOES 2015). Any risk of inundation by seiche, tsunami, or mudflow would be remote and would not be increased as a result of an oncology laboratory and office, laboratory, and R&D space moving into the Foundry 31 building. Therefore, there would be no new or substantially more severe risks from flood hazards than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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

This impact was not explicitly addressed in the Initial Study prepared for the 2017 EIR or the 2017 EIR because it was not included in the CEQA Guidelines in effect at the time. As discussed above under criterion a, the project would not violate water quality standards or degrade water quality during construction or operation and, therefore, would not conflict with the implementation of Water Quality Control Plan adopted by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

The proposed project is located within the Santa Clara Valley Groundwater Basin, East Bay Sub-basin. Currently the Basin is designated a medium priority basin with respect to management (DWR 2018). The proposed project would not include direct extraction or injection of groundwater. The project would involve interior renovations for a new use within an existing building and would not conflict with or obstruct the implementation of sustainable groundwater management plan. In addition, as discussed throughout this section of the Supplemental Initial Study, the project would have no new or more severe significant impacts related to water quality or groundwater than those identified in the previously adopted Initial Study and 2017 Final EIR. The proposed project would therefore also not have new or more severe significant impacts related to its potential to conflict with or

obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.11 Land Use and Planning

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Physically divide an established community?	Appendix A, Initial Study	No	No	No	n/a
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Appendix A, Initial Study	No	No	No	n/a

a. Would the project physically divide an established community?

The proposed project involves a change of use in an existing building. The establishment of an oncology laboratory and office, laboratory, and R&D space in the existing Foundry 31 building would not divide an established community. Therefore, there would be no new or substantially more severe impacts related to dividing an established community than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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?

The proposed oncology laboratory and office, laboratory, and R&D uses would be in the section of the building that includes both the cities of Berkeley and Oakland. An executed Memorandum of Understanding (April 2013) between the cities of Oakland, Emeryville, and Berkeley establishes Berkeley as the lead city for land use approvals. Pursuant to Berkeley's role administering land use approvals under the MOU, the City of Berkeley has responsibility for processing the project and applying its land use regulations.

The Foundry 31 building straddles two City of Berkeley zoning districts. The four-story section of the building facing San Pablo Avenue is zoned Commercial (C-W) and the remainder of the building is zoned Mixed Use–Light Industrial (MU-LI). Under the City of Oakland's zoning for the portion of the site in Oakland, the four-story section of the building is Community Commercial-2 (CC-2) and the two-story section is zoned Housing and Business Mix-2 (HBX-2).

The proposed oncology laboratory in Suite 180 would be within the C-W and MU-LI zones in the City of Berkeley. The office, laboratory, and R&D uses in Suite 200 would be within the MU-LI zone. The City of Berkeley is processing the project under the C-W zoning for all parts of the building within the City of Oakland because the C-W designation is most

consistent with the full array of uses under the two applicable Oakland zoning designations. Except for the medical use within the MU-LI zone, the proposed uses in Suite 180 and 200 are allowed in each of the respective zones with the approval of a use permit. As detailed in Section 2, *Project Description*, the proposed project includes four applicable use permits to establish the uses within the building. The proposed Oncology Laboratory in Suite 180 is an allowed use within the C-W zone, but not within the MU-LI zone in the first floor of the suite. The project includes a variance request to establish the medical use within the MU-LI portion of the suite. Approval of a variance for the use would not cause a significant environmental impact because the use would be similar to and would operate in connection with the existing BayHealth Outpatient Center in the floors above; the environmental impacts of the project as a whole, including the components that would be allowed by the Variance, are analyzed throughout this Initial Study. Therefore, with approval of the use permits and variance, the project would not cause a significant environmental impact due to a conflict with land use regulations.

There would be no new or substantially more severe impacts related to land use than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.12 Mineral Resources

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. 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?	Appendix A, Initial Study	No	No	No	n/a
b. 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?	Appendix A, Initial Study	No	No	No	n/a

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?

As described in the Initial Study prepared for the 2017 EIR, there are no known mineral resources areas in the City, and the City has no active mineral resource industries. In addition, the proposed project is located within an existing building and would not impact any undiscovered mineral resources, should they exist. Therefore, there would be no new or substantially more severe impacts related to mineral resources than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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3.13 Noise

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Generate 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?	Pages 68 through 71	No	No	No	Yes
b. Generate excessive groundborne vibration or groundborne noise levels?	Appendix A, Initial Study	No	No	No	n/a
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, expose people residing or working in the project area to excessive noise levels?	Appendix A, Initial Study	No	No	No	n/a

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?

Onsite Operational Noise

The 2017 EIR analyzed the onsite activities associated with the operation of the BayHealth Outpatient Center, which would include parking lot activity, pedestrian noise, ambulance noise, emergency generators, and loading activity. The 2017 EIR concluded that these onsite activities would not generate noise which would exceed the City of Berkeley's or the City of Oakland's established noise thresholds at the nearby sensitive receptors, which consist of single- and multi-family residences and Wayside Baptist Church approximately 80 feet south across 67th Street.

The proposed project includes an extension of BayCenter Outpatient Center with an Oncology laboratory in Suite 180 and space for office, laboratory, or R&D uses in Suite 200. The proposed project would generate similar parking lot activity noise from general movement and periodic instantaneous activity such as car honking, doors slamming, and

conversations that could be audible at the residential uses south of the project site. The 2017 EIR concluded that parking lot sweeping activity would be the highest noise source, but concluded that it would not exceed established thresholds at nearby sensitive receptors because parking lot sweepers are constantly mobile and would not generate noise in a specific area for a prolonged period of time. The proposed project would not increase or expand parking lot sweeping activities and, therefore, would generate similar parking lot noise as analyzed in the 2017 EIR.

Similar to the 2017 EIR, pedestrian noise from patients and staff talking as they enter and leave the building would be located near the Folger Street entry/exit or the building entrance on San Pablo Avenue, away from sensitive receptors on 67th Street. In addition, delivery trucks and trash hauling for the proposed project would utilize the same loading docks as those analyzed in the 2017 EIR, which would be enclosed and not result in significant idling noise at the adjacent sensitive receptors. The proposed project would not require emergency generators or result in ambulance noise, both sources that were analyzed as part of the 2017 EIR, and the proposed project would not operate 24-hours a day. Therefore, there would be no new or substantially more severe impacts related to onsite operational noise than what was analyzed in the 2017 EIR, and further analysis is not warranted.

Traffic Noise

The 2017 EIR analyzed traffic noise accounting for the buildout of the entire Foundry 31 building. The analysis concluded that traffic noise on surrounding roadways would exceed the applicable Federal Transit Administration (FTA) significance thresholds under existing conditions, near-term pipeline conditions, and cumulative (2040) conditions at the nearest noise-sensitive receptors with the implementation of the BayCenter Outpatient Center. The 2017 EIR contained the following mitigation measure to reduce noise impacts to the existing noise sensitive receptors (single- and multi-family residences and a church).

N-1: Improvements to Existing Buildings

The applicant shall offer to carry out noise attenuation improvements for property owners of the existing multi-family residences (units with doors and/or windows facing 67th street), single-family residences, and church on 67th Street south of the project site where interior noise levels are found to exceed the 45 dBA interior noise level standards. An acoustical study shall be prepared to determine which residences would have interior noise levels above standards. A list of potential improvements to be offered to the owners will be created based on the findings of the acoustical study. The acoustical study findings and the list of improvements shall be reviewed and approved by the City's zoning officer. The list of improvements may include, but are not limited to the following:

- Installation of doors with a Sound Transmission Class (STC)[1] rating of 30 or higher;
- Installation of commercially available windows with a STC rating of 30 or higher;
- Replace exterior wall surfaces with stucco or brick veneer provided that it would improve noise attenuation;
- Installation of baffled roof or attic vents

[1] A single-number rating system for determining the amount of noise reduction provided by a window, door or other building component. The higher the STC rating, the more efficient the component will be in reducing noise. Windows and doors having a minimum STC rating are sometimes required to ensure that a building facade will achieve a minimum Noise Level Reduction (NLR). STC ratings may not be subtracted from exterior noise exposure values to determine interior noise exposure values.

The 2017 EIR concluded Mitigation Measure N-1 would reduce impacts to existing sensitive receptors to the extent feasible. However, because the mitigation measure relied on the cooperation of existing property owners, the implementation of the measure could not be assured and impacts were determined to be significant and unavoidable. A finding of overriding consideration was adopted. Efforts to implement the measure have not resulted in successful retrofits. However, there has also been limited impacts compared to what was anticipated in the EIR because ambulances and other trips have been less than projected and no complaints have been received by the City.

Traffic generated by the proposed project would increase noise along nearby roads over existing conditions. According to the Trip Generation Memorandum by Fehr & Peers prepared for the proposed project, the project would generate approximately 960 daily trips, including 125 during the AM peak hour and 130 during PM peak hour (Appendix 1 of this Initial Study). The traffic analysis in the 2017 EIR accounted for full buildout of the Foundry 31 building. As discussed in Section 3.17, Transportation, the traffic generated by the proposed project would be less than was assumed in the buildout analysis in the 2017 EIR. Therefore, the proposed project would not result in additional traffic noise at the nearby sensitive receptors beyond what was determined in the 2017 EIR. Mitigation Measure N-1 in the 2017 EIR would continue to be required to be implemented, but there would be no new or substantially more severe impacts related to traffic noise than what was analyzed in the 2017 EIR, and further analysis is not warranted.

b. Would the project generate excessive groundborne vibration or groundborne noise levels?

As described in the Initial Study prepared for the 2017 EIR, operation of the Outpatient Center would not involve sources of vibration, and construction would be entirely within the existing building and not involve the use of vibration-generating equipment. Similarly, the proposed project would not involve any uses which generate vibration and construction would be limited to interior tenant improvements and remodeling, which would not utilize vibration-generating equipment. Therefore, there would be no new or substantially more severe impacts related to vibration than what was analyzed in the 2017 EIR, and further analysis is not warranted.

c. Would the project be 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, and expose people residing or working in the project area to excessive noise levels?

The proposed project is outside the Airport Land Use Plan for the Oakland International Airport, which is over ten miles from the project site. The proposed project is located at the same site as analyzed in the 2017 EIR and, therefore, there would be no new or substantially more severe impacts related to airport noise than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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3.14 Population and Housing

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	Appendix A, Initial Study	No	No	No	n/a
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Appendix A, Initial Study	No	No	No	n/a

a. Would the project induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

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

Similar to the Outpatient Center Project as analyzed in the 2017 EIR, the project site is occupied by the Foundry 31 building and no residential units would be constructed or removed as a part of the proposed project. Therefore, the project would not displace people or housing nor result in direct population growth. The proposed oncology laboratory and office, laboratory, and R&D uses could indirectly induce population growth from employment opportunities. As discussed in Section 2, Project Description, the project would include approximately 468 employees. However, similar to employees of the Outpatient Center Project as analyzed in the Initial Study for the 2017 EIR, most of these employees would likely be drawn from the local population. Though some employees may relocate to the area as a result of job opportunities resulting from the proposed project, a substantial change in employment growth in the area would not occur. Therefore, there would be no new or substantially more severe impacts related to population and housing than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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3.15 Public Services

		Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:						
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
1	Fire protection?	Appendix A, Initial Study	No	No	No	n/a
2	Police protection?	Appendix A, Initial Study	No	No	No	n/a
3	Schools?	Appendix A, Initial Study	No	No	No	n/a
4	Parks?	Appendix A, Initial Study	No	No	No	n/a
5	Other public facilities?	Appendix A, Initial Study	No	No	No	n/a

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

   1. *Fire protection?*
   2. *Police protection?*

3. *Schools?*
4. *Parks?*
5. *Other public facilities?*

As described in the Initial Study prepared for the 2017 EIR, the project site is currently developed with an existing building and is already served by the City of Berkeley Fire and Police Departments. The proposed project involves the establishment of new uses in vacant spaces within an existing building, but would not increase demand for fire or police services such that service ratios or response times would be impacted. The project does not include residential uses that would generate new residents and subsequently increase demand on schools or on park facilities. As discussed above in Section 3.14, *Population and Housing*, the employees of the proposed uses would not substantially increase demand as most of these employees would be drawn from the local population. Impacts associated with other public facilities such as wastewater, water, or stormwater infrastructure and facilities are discussed in Section 3.19, *Utilities and Service Systems*. As discussed there, the proposed project would not place a significant demand on other public facilities due to the existing capacity and the limited demand from the proposed project. Therefore, the proposed project would not result in new or substantially more severe impacts related to public facilities than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.16 Recreation

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. 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?	Appendix A, Initial Study	No	No	No	n/a
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Appendix A, Initial Study	No	No	No	n/a

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. Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

As described in the Initial Study prepared for the 2017 EIR, parks that could potentially be impacted by the project include San Pablo Park, approximately 0.5 mile northeast of the project site, and Haskell-Mabel Mini Park, less than 0.2 mile east of the project site. Employees of the proposed oncology laboratory and office, laboratory, and R&D uses could visit these parks during breaks or before/after their work day. As discussed in Section 3.14, *Population and Housing*, most of these employees would likely be drawn primarily from the local population and the proposed project would not induce substantial unplanned population growth. The proposed project does not involve residential uses that would generate new residents and subsequently increase demand for park space and facilities. In addition, a 42,000 sf health club and gym is location within the Foundry31 building which employees could utilize instead of nearby parks. Therefore, the project would not increase the use of parks and recreational facilities such that a substantial deterioration would occur and would not require the construction or expansion of recreational facilities. The proposed project would not create any new or substantially more severe impacts related to recreational facilities than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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3.17 Transportation

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Pages 93 through 105	No	No	No	Yes
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	n/a	No	No	No	n/a
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	Pages 106 and 107	No	No	No	n/a
d. Result in inadequate emergency access?	Page 106	No	No	No	n/a

The 2017 EIR determined that transportation and traffic impacts from implementation of the Outpatient Center Project would be significant and unavoidable. Section 4.4, *Transportation and Traffic*, of the 2017 Final EIR analyzed impacts associated with full buildout of the Foundry 31 building, including the Outpatient Center Project. Therefore, the transportation and traffic impacts of the proposed project were included in the Outpatient Center Project impact analysis. Traffic conditions along roadway segments were evaluated for the following four scenarios:

- Pipeline No Project
- Pipeline Plus Project
- Cumulative (2040) No Project
- Cumulative (2040) Plus Project

The Pipeline scenario accounted for traffic generated by approved and proposed projects in the vicinity of the Outpatient Center project site that are likely to be completed in the near future. The 2017 EIR found that an increase in traffic for the Outpatient Center Project under Pipeline Plus Project conditions would result in operating conditions in excess of one or more significance thresholds at the following intersections:

- San Pablo Avenue/Dwight Way intersection (#1) during the PM peak hour.
- Ashby Avenue/7th Street intersection (#2) during the PM peak hour.

- Ashby Avenue/San Pablo Avenue intersection (#4) during the PM peak hour.

In addition, the 2017 EIR found that the 67th Street/San Pablo Avenue unsignalized intersection (#11) would meet the California Manual on Uniform Traffic Control Devices (MUTCD) peak hour signal warrant criteria. Therefore, the following mitigation measures were required:

T-1: Transportation Management Plan

The project applicant shall prepare a Transportation Demand Management (TDM) Plan for City of Berkeley review and approval prior to occupancy to reduce the automobile traffic and parking demand generated by the project. Potential strategies that may be considered include:

a. Coordinate with Emery GoRound and/or West Berkeley Shuttle to provide stops near the project site
b. Provide bike lockers, showers, and personal lockers onsite to encourage bicycling to the site; encourage tenants to provide shared bicycles that employees can use during the day for errands
c. Encourage a local car share company (City Car Share, ZIP Car, etc.) to locate a car share pod at the project site or in close proximity to the site to provide an option for employees who may need a car during the day for meetings/errands but do not need a car for the commute trip
d. Coordinate with City of Emeryville, City of Berkeley, and/or other regional agencies to allow installation of a BikeShare station along the project frontage on San Pablo Avenue or the Emeryville Greenway
e. Provide preferential carpool parking
f. Provide full or partial transit subsidy to project employees
g. Provide pre-tax commuter benefits for project employees
h. Regularly distribute information on non-automobile commuting options
i. Implement parking management strategies as described in the project *Transportation Impact Analysis* included in Appendix D of this EIR (Fehr & Peers, 2017)

T-2: San Pablo Avenue/Dwight Way Intersection

The project applicant shall pay a fair share cost towards implementing dedicated westbound and eastbound left-turn lanes at the Dwight Way/San Pablo Avenue intersection. The fair share cost shall be determined by the City's Transportation Division based on the project's trip generation and distribution. Improvements shall occur prior to occupancy clearance.

T-3: Ashby Avenue/San Pablo Intersection

The project applicant shall pay a fair share cost towards constructing a left turn lane on the westbound Ashby Avenue approach at the Ashby Avenue/San Pablo Avenue intersection (#4) and upgrade the signal equipment to provide protected left-turns for the eastbound and westbound approaches. The fair share cost shall be determined by the City's Transportation Division based on the project's trip generation and distribution. Improvements shall occur prior to occupancy clearance.

T-4: 67th Street/San Pablo Avenue Intersection

The project applicant shall fund signalization of the 67th Street/San Pablo Avenue intersection (#11) with a protected northbound left-turn lane, and coordinate signal timings with the adjacent intersections on San Pablo Avenue. Improvements shall occur prior to occupancy clearance.

The 2017 EIR concluded that implementation of Mitigation Measures T-1 through T-4 would reduce impacts of the Outpatient Center project through the implementation of a TDM plan and the requirement of a fair share cost towards intersection and signalization improvements. However, because no feasible mitigation measures were available to reduce impacts at the Ashby Avenue/7th Street intersection, Pipeline plus Project impacts were determined to be significant and unavoidable. A finding of overriding consideration was adopted.

The 2017 EIR also found that an increase in traffic for the Outpatient Center Project under Cumulative (2040) Plus Project conditions would cause operating conditions to fall below Level of Service (LOS) standards at the following three signalized study intersections:

- San Pablo Avenue/Dwight Way intersection (#1) during the PM peak hour.
- Ashby Avenue/7th Street intersection (#2) during the PM peak hour.
- Ashby Avenue/San Pablo Avenue intersection (#4) during the PM peak hour.

In addition, the 2017 EIR found that the 67th Street/San Pablo Avenue unsignalized intersection (#11) would meet the MUTCD peak hour signal warrant criteria. The 2017 EIR concluded that Mitigation Measure T-2, detailed above, would be required, but no other feasible mitigation measures were available for the remaining two of the significantly impacted signalized intersections. Mitigation measure T-4 would reduce cumulative plus project impacts, but because the intersection is not located within the City of Berkeley, the 2017 EIR concluded its implementation could not be guaranteed. Therefore, impacts under cumulative plus project conditions were determined to be significant and unavoidable. A finding of overriding consideration was adopted.

As discussed under Impact T-3 in the 2017 EIR, the Outpatient Center project was found to contribute to increases in traffic congestion along roadway segments studied under both the 2020 and 2040 scenarios. However, the project would not cause a segment to exceed its County Congestion Management Plan (CMP) LOS threshold (LOS F) or increase the volume-to-capacity ratio of a roadway segment that would operate at LOS F by more than 0.03. Therefore, the Outpatient Center Project was found not to conflict with the CMP.

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

The Traffic Study used in the transportation analysis and included as Appendix D in the 2017 EIR modeled traffic based on full buildout of the Foundry 31 building. A technical memorandum was prepared to address potential traffic impacts from the use of the remaining vacant space of the building, approximately 87,500 square feet, with an oncology laboratory and office, laboratory, and R&D uses (Appendix 1 of this Initial Study). The memorandum concluded that the proposed project would result in 960 daily trips, 125 of which would occur during AM peak hours and 130 during PM peak hours. When combined with the existing Outpatient Center and PNC traffic, all uses in the Foundry 31 building would generate approximately 4,220 daily trips, 367 during AM peak hours and 461 during PM peak hours. The overall trip generation of the proposed project combined with the

existing Outpatient Center and PNC traffic corresponds to 99 percent of the daily trips analyzed in the 2017 EIR, 95 percent of the AM peak hour trips, and 99 percent of the PM peak hour trips[2].

The trip generation from the proposed project when combined with the Outpatient Center and PNC uses would be less than the overall trip generation used in the 2017 EIR analysis; therefore, the proposed project would not result in additional impacts to surrounding intersections, roadways, or congestion management plans than what was determined in the 2017 EIR. Measures T-1 though T-4 in the 2017 EIR would continue to be required to be implemented, but there would be no new or substantially more severe impacts related to the circulation system than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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

CEQA Guidelines section 15064.3, subdivision (b) was added to the CEQA Guidelines as part of the update adopted by the State in November 2018 and therefore was not addressed in the Initial Study prepared for the 2017 EIR or the 2017 EIR. It defines acceptable criteria for analyzing transportation impacts under CEQA. It states that land use projects with vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact, and that projects that decrease VMT compared to existing conditions should be presumed to have a less than significant transportation impact.

The City of Berkeley does not have established thresholds for VMT. Pursuant to CEQA Guidelines 15064.3 (b)(1), VMT impacts from projects located within 0.5 miles of a major transit stop or transit corridor would be presumed less than significant. The project is located adjacent to AC Transit Line 72/72M bus stops along San Pablo Avenue just south of 67th Street in the southbound direction and just south of Haskell Street in the northbound direction. San Pablo Avenue adjacent to the site is a major transit corridor according to the Alameda County Transportation Commission (ACTC 2019). The project site is also within 0.2 miles of AC Transit Line 72R bus stops on both direction of San Pablo Avenue at Ashby Avenue. Line 72/72M buses operate at 15-minute headways and Line 72R buses operate at 11 to 15-minute headways during weekday peak commute periods. Therefore, the project is located within 0.5 miles of a high-quality transit corridor and would not be inconsistent with nor conflict with CEQA Guidelines 15064.3. There would be no impacts.

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)?

e. Would the project result in inadequate emergency access?

The 2017 EIR concluded that the project would not disrupt existing or planned transit, bicycle, or pedestrian facilities or conflict with applicable transit, bicycle, or pedestrian plans and policies. Emergency access to the project site would be from an ambulance bay on 67th Street and was deemed adequate. In addition, the 2017 EIR included recommendations to improve the onsite circulation but concluded that the proposed project would not significantly increase hazards from site circulation and access and impacts would be less than significant.

[2] 4,220/4,260 = 99% daily trips; 367/387 = 95% AM peak hour; 461/468 = 99% PM peak hour

The proposed project would be located within the existing building and would not change the existing onsite circulation system, access points, or emergency access. In addition, as mentioned under criterion a, the proposed project would result in fewer daily trips than assumed in the 2017 EIR analysis for buildout of the Foundry 31 building. Therefore, there would be fewer potential hazards related to daily traffic. There would be no new or substantially more severe impacts related to a hazardous design feature or emergency access than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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3.18 Tribal Cultural Resources

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	Appendix A, Initial Study	No	No	No	n/a
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Appendix A, Initial Study	No	No	No	n/a

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

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

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

As discussed in the Initial Study prepared for the 2017 EIR, there are no known tribal cultural resources on the project site and the Outpatient Center project would only require work confined to the interior of an existing building. The proposed project is located on the same site and construction and operation of the project would be within the interior of the existing Foundry 31 building. No ground disturbing activities would occur as a result of the project. Therefore, there would be no new or substantially more severe impacts related to tribal cultural resources than what was analyzed in the 2017 EIR, and further analysis is not warranted. Additionally, the City of Berkeley prepares and mails a formal notification letter with the City's list of active projects to the Chochenyo Ohlone on a monthly basis, in accordance with the provisions of AB 52. The email containing this project was sent on May 16, 2019. As of the date of this report, no response has been received regarding this project.

3.19 Utilities and Service Systems

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
Would the project:					
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Appendix A, Initial Study	No	No	No	n/a
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Appendix A, Initial Study	No	No	No	n/a
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Appendix A, Initial Study	No	No	No	n/a
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Appendix A, Initial Study	No	No	No	n/a
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Appendix A, Initial Study	No	No	No	n/a

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?

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?

As described in the Initial Study prepared for the 2017 EIR, wastewater from the project site enters the City's wastewater collection system which is then conveyed to the East Bay Municipal Utility District's (EBMUD's) Wastewater Treatment Plant (WWTP), which is located in Oakland near the entrance of the San Francisco Bay Bridge. EBMUD treats the City's domestic, commercial, and industrial grade wastewater that is delivered to EBMUD interceptors via the City's sanitary sewer collection system. The WWTP provides secondary treatment for a maximum flow of 168 million gallons per day (MGD), primary treatment is provided for up to 320 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 2019).

The proposed project is located within the same building as the one analyzed in the 2017 EIR, which is served by existing sewer lines and utilities such as electricity and natural gas. Therefore, the proposed project would not require the construction of new or expanded water, wastewater, or utility infrastructure. The California Emissions Estimator Model (CalEEMod) provides water use rates by land use types. For a conservative approach, the general office land use indoor water generation rates was used to estimate the wastewater generated by the proposed project. Table 2 shows the estimated daily water use by the project.

Table 2 Proposed Project Indoor Water Use

Use	Size	Generation Factor	Average Daily Flow
Office Park	87,500 sf	177.734 gallons/year[1]	42,607 gallons/day

[1] CAPCOA 2017

Notes: sf = square foot

As shown in Table 2 above, if 100 percent of the estimated indoor water use would become wastewater, the proposed project could use 42,607 gallons of indoor water per day. The Initial Study prepared for the 2017 EIR estimated the Outpatient Center would produce 22,255 gallons of wastewater per day. With the addition of the proposed project, approximately 64,862 gallons of wastewater would be generated each day. This would represent less than one hundredth of one percent of the 65 million gallons currently treated each day by EBMUD's WWTP. In addition, the Outpatient Center is currently operational and receiving water and wastewater services. With the additional wastewater from the project, the daily treated wastewater would be well within the WWTP's total 168 MGD secondary treatment capacity and 320 MGD primary treatment capacity. Therefore, the EBMUD would have adequate capacity to service the project and there would be no new or substantially more severe impacts related to wastewater and utility infrastructure than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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?

As described in the Initial Study prepared for the 2017 EIR, potable water to the project site would also be provided by the EBMUD. EBMUD's 2015 Urban Water Management Plan (UWMP) found that in the event of a multi-year drought, the existing water supply would not be sufficient to meet 2040 customer demands without achieving potentially significant water use reductions. Depending on conditions, during such droughts, EBMUD may also need to acquire supplemental supplies to meet customer demands. However, with a combination of reductions in water use and acquisition of supplemental supplies, EBMUD can provide adequate water service in all year types (EBMUD 2016).

The proposed project involves the reuse of an existing building and does not involve new construction. As shown above in Table 2, a conservative estimate for the proposed project's water use is 42,607 gallons per day (outdoor water use would not change or increase as a result of this project). When combined with the water use estimated for the Outpatient Center in the Initial Study prepared for the 2017 EIR, the total water use would be 73,313 gallons per day. EBMUD's 2015 UWMP estimated the average daily water demand in its service area to be 170 million gallons per day (EBMUD 2016). The additional water demand created by the project in addition to the Outpatient Center represents 0.04 percent of the current water demand. In addition, EBMUD's future water supply assessment is based on population growth and, as discussed in Section 3.14, *Population and Housing*, the proposed project would not directly or indirectly increase population growth of the region. The interior upgrades would also comply with CALGreen standards and install low-flow water fixtures and toilets. Therefore, the proposed project would have sufficient water supplies and there would be no new or substantially more severe impacts related to water supply than what was analyzed in the 2017 EIR, and further analysis is not warranted.

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?

As described in the Initial Study prepared for the 2017 EIR, solid waste generated by the Outpatient Center would be less than significant and would comply with solid waste regulations. Solid waste from the project site would be disposed of at the Vasco Road Landfill located at 4001 North Vosco Road in the City of Livermore, which has a maximum permitted throughput of 2,518 tons of solid waste per day and a remaining capacity of 7,379,000 cubic yards (CalRecycle 2018).

The proposed project would generate additional solid waste over existing conditions. Table 3 shows the estimated solid waste generated by the proposed project, which represents a conservative estimate as a general office is a more intense land use than the proposed oncology laboratory and office, laboratory, and R&D uses.

Table 3 Proposed Project Solid Waste Generation

Use	Size	Generation Factor	Average Daily Waste
General Office	87,500 sf	0.93 tons/1,000 sf/year[1]	445 pounds per day

[1] CAPCOA 2017

Notes: sf = square foot

As shown in Table 3, the proposed project could generate approximately 81 tons of waste per year, or 445 pounds per day. When added to the estimated solid waste generated by the proposed Oncology Laboratory in the Initial Study for the 2017 EIR, approximately 979 pounds of solid waste per day would be generated. This would account for less than 0.02 percent of the daily permitted waste at the Vasco Road Landfill.

The City of Berkeley is responsible for complying with AB 939, which mandates 50 percent of solid waste diverted from landfills. Between 1995 and 2010, the City diverted 76 percent of waste, meeting the City's goal of 75 percent waste diversion by 2010. Compliance with Berkeley's Municipal Code Title 11 is required of all businesses in the City. Section 11.60.010 regulates solid waste and recycling and is consistent with the City of Berkeley's 1986 Solid Waste Management Plan, the County of Alameda Solid Waste Management Plan, and the legislative intent and findings of the State of California Solid Waste Management and Resource Recovery Act of 1972 (Government Code §66700 et seq.) Therefore, the proposed project would comply with all applicable regulations related to solid waste and would not generate waste in excess of available capacity. There would be no new or substantially more severe impacts related to solid waste than what was analyzed in the 2017 EIR, and further analysis is not warranted.

3.20 Wildfire

	Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	n/a	No	No	No	n/a
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	n/a	No	No	No	n/a
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	n/a	No	No	No	n/a
d. 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?	n/a	No	No	No	n/a

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

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

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

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

d. 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?

The 2017 EIR did not include a separate section analyzing potential environmental impacts related to the topic of Energy because it was not required under the CEQA Guidelines in effect at the time. The project site is the same analyzed under the 2017 EIR, which is in an urban area surrounding by development and not near any wildlands. The project site is not in a State Responsibility Area or within or near any lands identified as Very High Fire Hazard Zone (Cal Fire 2008). The nearest designated Very High Fire Hazard Zone is located approximately 1.9 miles to the east at the base of Claremont Hills and separated from the project site by dense urban development. Therefore, the proposed project would not have any impacts related to wildfires and there would be no new or substantially more severe impacts related to wildfire than what was analyzed in the 2017 EIR.

3.21 Mandatory Findings of Significance

		Where Impact Was Analyzed in the 2017 EIR.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Do 2017 EIR Mitigation Measures Address/ Resolve Impacts?
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Appendix A, Initial Study	No	No	No	n/a
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)?	Appendix A, Initial Study	Yes	Yes	Yes	No
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Appendix A, Initial Study	No	No	No	No

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?

As described above in Sections 3.1 through 3.20, the proposed project would result in no new or more severe direct or indirect impacts beyond those identified in the 2017 EIR in terms of its 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. Therefore, further analysis is not warranted.

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)?)?

The 2017 EIR concluded there would be cumulatively considerable traffic and traffic noise impacts. As discussed in Sections 3.13 and 3.17 traffic and traffic noise impacts from the operation of Suite 180 and Suite 200 was included in the 2017 EIR, and the proposed project would generate less traffic than was estimated in the 2017 EIR. The proposed project would not have additional cumulatively considerable traffic or traffic noise impacts than those discussed in the 2017 EIR. However, as described above in Section 3.8, the proposed project has the potential to result in cumulatively considerable GHG emissions over those identified in the 2017 EIR. Therefore, GHG impacts are analyzed and discussed in a supplemental EIR.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Impacts to human beings are generally associated with air quality, geology and soils, hazards and hazardous materials, noise, traffic safety, and wildfire. As discussed throughout the environmental checklist Sections 3.1 through 3.20, the redevelopment of the existing Foundry 31 building would not cause substantially impacts with respect to air quality, geology, hazardous materials, traffic safety, or wildfire. Traffic noise impacts was determined to be significant and unavoidable in the 2017 EIR. The proposed project would not cause further adverse traffic noise effects as the traffic associated from the proposed project was accounted for in the 2017 EIR. Therefore, further analysis is not warranted.

4 References

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_____. 2017b. 3100 San Pablo Avenue Outpatient Center Project Environmental Impact Report. April 2017.

Appendix B

Notice of Preparation (NOP) and NOP Responses

Planning and Development Department
Land Use Planning Division

NOTICE OF PREPARATION (NOP) OF A DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED 3100 SAN PABLO AVENUE MEDICAL OFFICE AND RESEARCH AND DEVELOPMENT PROJECT

The City of Berkeley is preparing a Draft Supplemental Environmental Impact Report (SEIR) for the project identified below. An Initial Study checklist is also being prepared and will be released with the Draft SEIR. Project plans and other information are available at the City of Berkeley Planning and Development Department, Land Use Planning Division, 1947 Center Street, 2nd Floor, Berkeley, California or online at:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/3100_San_Pablo_(2019).aspx

The City of Berkeley, as the Lead Agency for the project, invites you to comment on the proposed scope of the Draft SEIR. This notice is also being sent to the State Clearinghouse, the Alameda County Clerk, the cities of Oakland and Emeryville, and other interested agencies and parties. Please direct comments on this NOP to: *Nicholas Armour, Associate Planner, Planning and Development Department, Land Use Planning Division, 1947 Center Street, Berkeley, California 94704; or NArmour@cityofberkeley.info.* Comments on the NOP must be received **on or before January 17, 2020**. Comments should focus on possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the project.

PROJECT LOCATION: The project site is an existing 177,455 square-foot parcel at 3100 San Pablo Avenue, on the west side of San Pablo Avenue between Folger Avenue and 67th Street, in the southern part of West Berkeley. The Emeryville Greenway bicycle path is adjacent to the property's western boundary. Portions of the building are in three cities: Berkeley (northern and majority portion), Oakland (most of the southern potion), and Emeryville (a small part of the westernmost portion). An executed Memorandum of Understanding (April 2013) between the Cities of Oakland, Emeryville, and Berkeley establishes Berkeley as the lead city for land use approvals. The assessor's parcel number (APN) for the project site is 052-151200103. The attached figure shows the project site location and immediate surroundings.

EXISTING CONDITIONS and BACKGROUND: The site is developed with one existing building, a 492,706 gross (360,389 net) square-foot mixed use commercial and light industrial building. Current building tenants include an Amazon Fulfillment Center

warehouse and offices (23,500 square feet), TCHO chocolates manufacturing / warehouse (34,122 square feet), and Clif Bar manufacturing/commercial/ kitchen (15,900 square feet). A 42,479-square-foot health club (City Sports) occupies portions of the first and second floor. In addition, the BayHealth Outpatient Center occupies 97,443 square-feet of former office space on portions of the first and second floor and all of the third and fourth floors. Most recently, 49,000 square-feet of office and research and development space was occupied by Premier Nutrition Corporation (PNC) on the second flood, in portions of the building within the City of Oakland and Emeryville. The building is split between the West Berkeley Commercial (C-W) (along San Pablo Avenue) and Mixed Use – Light Industrial (MU-LI) (west of the C-W portion) zoning districts. The basement currently has 103 parking spaces and the roof top has 374 parking spaces. Adjacent off-site parking lots used by building tenants provide additional parking capacity.

The City of Berkeley Zoning Adjustments Board (ZAB) certified the Final EIR (State Clearinghouse [SCH] # 2017012056) for the BayHealth Outpatient Center Project in July 2017 (2017 EIR). The 2017 EIR determined that significant unavoidable impacts would occur in the issue areas of operational noise as a result of traffic, GHG emissions, and transportation. Therefore, the City adopted a Statement of Overriding Considerations for these significant and unavoidable impacts per CEQA Guidelines Section 15093.

PROJECT APPLICANT: Darrell de Tienne, de Tienne Associates, 3435 Cesar Chavez Street, #312, San Francisco, CA 94110

PROJECT DESCRIPTION: The proposed project would establish new uses in two vacant suites (Suite 180 and Suite 200) within the existing building. The proposed uses would be 1) an extension of the BayHealth Outpatient Center in Suite 180 with an Oncology laboratory and office, laboratory, and 2) R&D uses within Suite 200. The combined square footage of the two suites is 87,495 square feet. Suite 180 is located on the first floor and Suite 200 is located on the second floor, and both suites are located in the northern portion of the existing building, adjacent to Folger Avenue. There would be no retail sales in or public access to either suite. Tenant improvements would not increase the size, lot coverage, or building height of the existing building.

When an EIR has been adopted and a project is modified or expanded upon, additional CEQA review may be necessary. The key considerations in determining the need for the appropriate type of additional CEQA review are outlined in Section 21166 of the Public Resources Code (CEQA) and Sections 15162, 15163 and 15164 of the State CEQA Guidelines. The City of Berkeley, as the lead agency, proposes to prepare a Supplemental EIR to the 2017 EIR to support the proposed medical office and R&D project for establishing new uses in Suites 180 and 200 of the Foundry 31 building.

REQUESTED APPROVALS: The proposed project is subject to approvals by the City of Berkeley's Zoning Adjustments Board. The project would require the following discretionary entitlements from the City of Berkeley:

- **Use Permit** to establish a Testing Laboratory over 10,000 square feet in the C-W District under BMC Section 23E.64.030

- **Use Permit** to establish an Office use over 5,000 square feet in the C-W District under BMC Section 23E.64.030
- **Use Permit** to establish an Office use over 20,000 square feet in the MU-LI District under BMC Section 23E.80.030
- **Use Permit** to establish a Laboratory use between 20,000 and 30,000 square feet in the MU-LI District under BMC Section 23E.80.030
- **Variance** to allow a medical use within the MU-LI zone in Suite 180.

POTENTIAL ENVIRONMENTAL EFFECTS: Based on site-specific characteristics and City standard conditions of approval, the project is not anticipated to have significant impacts related to the CEQA issue topics listed below. It is anticipated that these issue topics will only be analyzed in an Initial Study checklist, which will be included as an appendix to the Draft SEIR.

- Aesthetics
- Agriculture and Forest Resources
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

It is anticipated that the following topics will be analyzed in the Draft SEIR.

- Greenhouse Gas Emissions

However, the Initial Study Checklist analysis will confirm which topics ultimately require study in the Draft SEIR. The Draft SEIR will also examine a reasonable range of alternatives to the project, including the CEQA-mandated No Project Alternative and other potential alternatives that may be capable of reducing or avoiding potential environmental effects while generally meeting the project objectives.

Nicholas Armour

Nicholas Armour, Associate Planner

Date of Distribution: December 18, 2019

Attachments: Figure 1: Project Location Map

Project Location

Imagery provided by Google and its licensors © 2016.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

Notice of Preparation

December 17, 2019

To: Reviewing Agencies

Re: 3100 San Pablo Avenue Medical Office and Research And Development Project
SCH# 2019120374

Attached for your review and comment is the Notice of Preparation (NOP) for the 3100 San Pablo Avenue Medical Office and Research And Development Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Nicholas Armour
Berkeley, City of
194 7 Center Street
Berkely, CA 94704

with a copy to the State Clearinghouse in the Office of Planning and Research at state.clearinghouse@opr.ca.gov . Please refer to the SCH number noted above in all correspondence concerning this project on our website; https://ceqanet.opr.ca.gov/2019120374/2.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

NOP Distribution List

County: ALAMEDA **SCH#** 2019120374

Resources Agency

- [■] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** Denise Peterson
- [ ] **California Coastal Commission** Allyson Hitt
- [ ] **Colorado River Board** Elsa Contreras
- [■] **Dept. of Conservation** Crina Chan
- [ ] **Cal Fire** Dan Foster
- [ ] **Central Valley Flood Protection Board** James Herota
- [ ] **Office of Historic Preservation** Ron Parsons
- [■] **Dept of Parks & Recreation** Environmental Stewardship Section
- [■] **S.F. Bay Conservation & Dev't. Comm.** Steve Goldbeck
- [■] **Dept. of Water Resources** Resources Agency Nadell Gayou

Fish and Wildlife

- [ ] **Depart. of Fish & Wildlife** Scott Flint Environmental Services Division
- [ ] **Fish & Wildlife Region 1** Curt Babcock
- [ ] **Fish & Wildlife Region 1E** Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2** Jeff Drongesen
- [■] **Fish & Wildlife Region 3** Craig Weightman
- [ ] **Fish & Wildlife Region 4** Julie Vance
- [ ] **Fish & Wildlife Region 5** Leslie Newton-Reed Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6** Tiffany Ellis Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M** Heidi Calvert Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M** William Paznokas Marine Region

Other Departments

- [ ] **California Department of Education** Lesley Taylor
- [ ] **OES (Office of Emergency Services)** Monique Wilber
- [ ] **Food & Agriculture** Sandra Schubert Dept. of Food and Agriculture
- [ ] **Dept. of General Services** Cathy Buck Environmental Services Section
- [ ] **Housing & Comm. Dev.** CEQA Coordinator Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission** Erik Vink
- [ ] **Delta Stewardship Council** Anthony Navasero
- [ ] **California Energy Commission** Eric Knight
- [■] **Native American Heritage Comm.** Debbie Treadway
- [■] **Public Utilities Commission** Supervisor
- [ ] **Santa Monica Bay Restoration** Guangyu Wang
- [ ] **State Lands Commission** Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)** Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] **Caltrans - Division of Aeronautics** Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR** Christian Bushong
- [■] **California Highway Patrol** Suzann Ikeuchi Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1** Rex Jackman
- [ ] **Caltrans, District 2** Marcelino Gonzalez
- [ ] **Caltrans, District 3** Susan Zanchi
- [■] **Caltrans, District 4** Patricia Maurice
- [ ] **Caltrans, District 5** Larry Newland
- [ ] **Caltrans, District 6** Michael Navarro
- [ ] **Caltrans, District 7** Dianna Watson
- [ ] **Caltrans, District 8** Mark Roberts
- [ ] **Caltrans, District 9** Gayle Rosander
- [ ] **Caltrans, District 10** Tom Dumas
- [ ] **Caltrans, District 11** Jacob Armstrong
- [ ] **Caltrans, District 12** Maureen El Harake

Cal EPA

Air Resources Board

- [ ] **Airport & Freight** Jack Wursten
- [ ] **Transportation Projects** Nesamani Kalandiyur
- [■] **Industrial/Energy Projects** Mike Tollstrup
- [ ] **California Department of Resources, Recycling & Recovery** Kevin Taylor/Jeff Esquivel
- [ ] **State Water Resources Control Board** Regional Programs Unit Division of Financial Assistance
- [■] **State Water Resources Control Board** Cindy Forbes – Asst Deputy Division of Drinking Water
- [ ] **State Water Resources Control Board Div. Drinking Water #_____**
- [ ] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Phil Crader Division of Water Rights
- [■] **Dept. of Toxic Substances Control Reg. #_____** CEQA Tracking Center
- [ ] **Department of Pesticide Regulation** CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1** Cathleen Hudson North Coast Region (1)
- [■] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [ ] **RWQCB 4** Teresa Rodgers Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
  - [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
  - [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
  - [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [ ] **RWQCB 8** Santa Ana Region (8)
- [ ] **RWQCB 9** San Diego Region (9)

- [■] **Other** OSHPD
- [ ] _____ Conservancy

Last Updated 5/22/18

Print Form

Appendix C

2019120374

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: 3100 San Pablo Avenue Medical Office and Research And Development Project

Lead Agency: City of Berkeley — Contact Person: Nicholas Armour
Mailing Address: 1947 Center Street — Phone: (510) 981-7485
City: Berkeley — Zip: 94704 — County: Alameda

Project Location: County: Alameda — City/Nearest Community: Berkeley
Cross Streets: San Pablo Avenue between Folger Avenue and 67th Street — Zip Code: 94702
Longitude/Latitude (degrees, minutes and seconds): ____ ° ____ ' ____ " N / ____ ° ____ ' ____ " W Total Acres: ____
Assessor's Parcel No.: 052-151200103 — Section: ____ Twp.: ____ Range: ____ Base: ____
Within 2 Miles: State Hwy #: SR123, SR13, I-580 — Waterways: San Francisco Bay
Airports: ____ — Railways: UP/Amtrak — Schools: ____

Document Type:

CEQA: ☒ NOP ☐ Draft EIR — NEPA: ☐ NOI — Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ____ ☐ Draft EIS ☐ Other: ____
☐ Mit Neg Dec Other: ____ ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☒ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other: ____

Development Type:

Governor's Office of Planning & Research
DEC 17 2019
STATE CLEARINGHOUSE

☐ Residential: Units ____ Acres ____
☒ Office: Sq.ft. 17,700 Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☒ Industrial: Sq.ft. 69,800 Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☒ Vegetation
☒ Agricultural Land ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Air Quality ☒ Forest Land/Fire Hazard ☒ Septic Systems ☒ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☒ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Land Use
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Cumulative Effects
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Zoning: Commercial (C-W) and Mixed Use – Light industrial (MU-LI) / General Plan: Avenue Commercial and Manufacturing

Project Description: *(please use a separate page if necessary)*

The proposed project would establish new uses in two vacant suites (Suite 180 and Suite 200) within the existing building. The proposed uses would be 1) an extension of the BayHealth Outpatient Center in Suite 180 with an Oncology laboratory and office, laboratory, and 2) R&D uses within Suite 200. The combined square footage of the two suites is 87,495 square feet. Suite 180 is located on the first floor and Suite 200 is located on the second floor, and both suites are located in the northern portion of the existing building, adjacent to Folger Avenue.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

December 17, 2019

Nicholas Armour
Berkeley, City of
194 7 Center Street
Berkely, CA 94704

RE: SCH# 2019120374, 3100 San Pablo Avenue Medical Office and Research And Development Project, Alameda County

Dear Mr. Armour:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

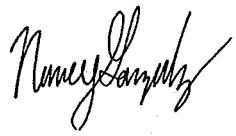
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Staff Services Analyst

cc: State Clearinghouse

EAST BAY
MUNICIPAL UTILITY DISTRICT

January 13, 2020

Nicholas Armour, Associate Planner
Planning and Development Department
Land Use Planning Division
1947 Center Street
Berkeley, CA 94704

Re: Notice of Preparation of a Draft Supplemental Environmental Impact Report – 3100 San Pablo Avenue Medical Office and Research Project, Berkeley

Dear Mr. Armour:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Draft Supplemental Environmental Impact Report (EIR) for the 3100 San Pablo Avenue Medical Office and Research Project located in the City of Berkeley (City). EBMUD has the following comments.

WATER SERVICE

EBMUD's Central Pressure Zone, with a service elevation between 0 and 100 feet, will serve the proposed development. The property currently has water service. If additional water service is needed, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing additional water service to the existing parcel. Engineering and installation of water services require substantial lead time, which should be provided for in the project sponsor's development schedule.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to accommodate the proposed wastewater flows from this project and to treat such flows provided that the wastewater generated by the project meets the requirements of the EBMUD Wastewater Control Ordinance. However, wet weather flows are a concern. The East Bay regional wastewater collection system experiences exceptionally high peak flows during storms due to excessive infiltration and inflow (I/I) that enters the system through cracks and misconnections in both public and private sewer lines. EBMUD has historically operated three Wet Weather Facilities (WWFs) to provide primary treatment and disinfection for peak wet weather flows that exceed the treatment capacity of the MWWTP. Due to reinterpretation of applicable law, EBMUD's National Pollutant Discharge Elimination System (NPDES) permit now prohibits discharges from EBMUD's WWFs. Additionally,

the seven wastewater collection system agencies that discharge to the EBMUD wastewater interceptor system ("Satellite Agencies") hold NPDES permits that prohibit them from causing or contributing to WWF discharges. These NPDES permits have removed the regulatory coverage the East Bay wastewater agencies once relied upon to manage peak wet weather flows.

A federal consent decree, negotiated among EBMUD, the Satellite Agencies, the Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Board (RWQCB), requires EBMUD and the Satellite Agencies to eliminate WWF discharges by 2036. To meet this requirement, actions will need to be taken over time to reduce I/I in the system. The consent decree requires EBMUD to continue implementation of its Regional Private Sewer Lateral Ordinance (www.eastbaypsl.com), construct various improvements to its interceptor system, and identify key areas of inflow and rapid infiltration over a 22-year period. Over the same time period, the consent decree requires the Satellite Agencies to perform I/I reduction work including sewer main rehabilitation and elimination of inflow sources. EBMUD and the Satellite Agencies must jointly demonstrate at specified intervals that this work has resulted in a sufficient, pre-determined level of reduction in WWF discharges. If sufficient I/I reductions are not achieved, additional investment into the region's wastewater infrastructure would be required, which may result in significant financial implications for East Bay residents.

To ensure that the proposed project contributes to these legally required I/I reductions, the lead agency should require the project applicant to comply with EBMUD's Regional Private Sewer Lateral Ordinance. Additionally, it would be prudent for the lead agency to require the following mitigation measures for the proposed project: (1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines to ensure that such systems and lines are free from defects or, alternatively, disconnected from the sanitary sewer system, and (2) ensure any new wastewater collection systems, including sewer lateral lines, for the project are constructed to prevent I/I to the maximum extent feasible while meeting all requirements contained in the Regional Private Sewer Lateral Ordinance and applicable municipal codes or Satellite Agency ordinances.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD requests that the City include in its conditions of approval, a requirement that the project sponsor comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The project sponsor should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:DWG:sjp
sb20_002 3100 San Pablo Ave Medical Office & Research Project

cc: Darrell de Tienne, de Tienne Associates
3435 Cesar Chavez Street #312
San Francisco, CA 94110

Appendix C

Greenhouse Gas Emissions Modeling Results

3100 San Pablo Ave Oncology and R&D Project

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	17.70	1000sqft	0.41	17,700.00	0
Research & Development	69.80	1000sqft	1.60	69,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2030
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	142	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EBCE specific energy factors

Land Use -

Construction Phase - Only limited interior remodeling

Vehicle Trips - Per Traffic Memorandum by Fehr and Peers

Energy Use -

Energy Mitigation - Per Title 24 Energy Requirements

Water Mitigation - Per 2016 CALGreen requirements

Waste Mitigation - Per City meeting AB 341 requirements

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	0	142
tblVehicleTrips	WD_TR	36.13	19.80
tblVehicleTrips	WD_TR	8.11	8.74

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					
2020	0.1024	0.8043	0.6713	1.3000e-003	0.0132	0.0402	0.0534	3.5900e-003	0.0385	0.0421	0.0000	111.0294	111.0294	0.0188	0.0000	111.4996
2021	0.6055	1.2037	1.0670	2.1200e-003	0.0215	0.0564	0.0779	5.8800e-003	0.0540	0.0599	0.0000	180.5390	180.5390	0.0296	0.0000	181.2778
Maximum	**0.6055**	**1.2037**	**1.0670**	**2.1200e-003**	**0.0215**	**0.0564**	**0.0779**	**5.8800e-003**	**0.0540**	**0.0599**	**0.0000**	**180.5390**	**180.5390**	**0.0296**	**0.0000**	**181.2778**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1024	0.8043	0.6713	1.3000e-003	0.0132	0.0402	0.0534	3.5900e-003	0.0385	0.0421	0.0000	111.0293	111.0293	0.0188	0.0000	111.4995
2021	0.6055	1.2037	1.0670	2.1200e-003	0.0215	0.0564	0.0779	5.8800e-003	0.0540	0.0599	0.0000	180.5389	180.5389	0.0296	0.0000	181.2776
Maximum	**0.6055**	**1.2037**	**1.0670**	**2.1200e-003**	**0.0215**	**0.0564**	**0.0779**	**5.8800e-003**	**0.0540**	**0.0599**	**0.0000**	**180.5389**	**180.5389**	**0.0296**	**0.0000**	**181.2776**

	ROG	NOx	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	9-7-2020	12-6-2020	0.7018	0.7018
2	12-7-2020	3-6-2021	0.6521	0.6521
3	3-7-2021	6-6-2021	0.6492	0.6492
4	6-7-2021	9-6-2021	0.6979	0.6979
		Highest	0.7018	0.7018

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	0.3874	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Energy	0.0112	0.1015	0.0852	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	158.6630	158.6630	2.1200e-003	2.0200e-003	159.3193
Mobile	0.1258	0.9678	1.3502	6.8900e-003	0.6388	4.3000e-003	0.6431	0.1716	4.0100e-003	0.1756	0.0000	639.5531	639.5531	0.0236	0.0000	640.1430
Waste						0.0000	0.0000		0.0000	0.0000	39.8796	0.0000	39.8796	2.3568	0.0000	98.8000
Water						0.0000	0.0000		0.0000	0.0000	11.5929	12.8308	24.4237	1.1907	0.0281	62.5694
Total	**0.5244**	**1.0693**	**1.4363**	**7.5000e-003**	**0.6388**	**0.0120**	**0.6508**	**0.1716**	**0.0117**	**0.1833**	**51.4725**	**811.0485**	**862.5209**	**3.5732**	**0.0301**	**960.8334**

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	0.3874	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Energy	8.6200e-003	0.0784	0.0658	4.7000e-004		5.9600e-003	5.9600e-003		5.9600e-003	5.9600e-003	0.0000	130.4913	130.4913	1.6400e-003	1.5600e-003	130.9982
Mobile	0.1258	0.9678	1.3502	6.8900e-003	0.6388	4.3000e-003	0.6431	0.1716	4.0100e-003	0.1756	0.0000	639.5531	639.5531	0.0236	0.0000	640.1430
Waste						0.0000	0.0000		0.0000	0.0000	29.9097	0.0000	29.9097	1.7676	0.0000	74.1000
Water						0.0000	0.0000		0.0000	0.0000	9.2743	10.2838	19.5580	0.9526	0.0225	50.0746
Total	**0.5219**	**1.0462**	**1.4169**	**7.3600e-003**	**0.6388**	**0.0103**	**0.6491**	**0.1716**	**9.9700e-003**	**0.1816**	**39.1840**	**780.3297**	**819.5136**	**2.7454**	**0.0241**	**895.3175**

	ROG	NOx	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	**0.48**	**2.16**	**1.35**	**1.87**	**0.00**	**14.57**	**0.27**	**0.00**	**14.93**	**0.95**	**23.87**	**3.79**	**4.99**	**23.17**	**20.18**	**6.82**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	9/7/2020	7/9/2021	5	220	
2	Architectural Coating	Architectural Coating	7/10/2021	7/23/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,250; Non-Residential Outdoor: 43,750; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
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
Building Construction	8	28.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0961	0.7322	0.6257	1.0500e-003		0.0398	0.0398		0.0382	0.0382	0.0000	87.2107	87.2107	0.0177	0.0000	87.6532
Total	**0.0961**	**0.7322**	**0.6257**	**1.0500e-003**		**0.0398**	**0.0398**		**0.0382**	**0.0382**	**0.0000**	**87.2107**	**87.2107**	**0.0177**	**0.0000**	**87.6532**

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	2.2100e-003	0.0691	0.0149	1.6000e-004	3.8600e-003	3.2000e-004	4.1800e-003	1.1200e-003	3.1000e-004	1.4200e-003	0.0000	15.5532	15.5532	8.9000e-004	0.0000	15.5756
Worker	4.0700e-003	3.0000e-003	0.0308	9.0000e-005	9.3000e-003	6.0000e-005	9.3600e-003	2.4700e-003	6.0000e-005	2.5300e-003	0.0000	8.2656	8.2656	2.1000e-004	0.0000	8.2709
Total	**6.2800e-003**	**0.0721**	**0.0457**	**2.5000e-004**	**0.0132**	**3.8000e-004**	**0.0135**	**3.5900e-003**	**3.7000e-004**	**3.9500e-003**	**0.0000**	**23.8188**	**23.8188**	**1.1000e-003**	**0.0000**	**23.8465**

3.2 Building Construction - 2020

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	0.0961	0.7322	0.6257	1.0500e-003		0.0398	0.0398		0.0382	0.0382	0.0000	87.2105	87.2105	0.0177	0.0000	87.6531
Total	**0.0961**	**0.7322**	**0.6257**	**1.0500e-003**		**0.0398**	**0.0398**		**0.0382**	**0.0382**	**0.0000**	**87.2105**	**87.2105**	**0.0177**	**0.0000**	**87.6531**

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	2.2100e-003	0.0691	0.0149	1.6000e-004	3.8600e-003	3.2000e-004	4.1800e-003	1.1200e-003	3.1000e-004	1.4200e-003	0.0000	15.5532	15.5532	8.9000e-004	0.0000	15.5756
Worker	4.0700e-003	3.0000e-003	0.0308	9.0000e-005	9.3000e-003	6.0000e-005	9.3600e-003	2.4700e-003	6.0000e-005	2.5300e-003	0.0000	8.2656	8.2656	2.1000e-004	0.0000	8.2709
Total	**6.2800e-003**	**0.0721**	**0.0457**	**2.5000e-004**	**0.0132**	**3.8000e-004**	**0.0135**	**3.5900e-003**	**3.7000e-004**	**3.9500e-003**	**0.0000**	**23.8188**	**23.8188**	**1.1000e-003**	**0.0000**	**23.8465**

3.2 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	0.1391	1.0899	0.9903	1.7000e-003		0.0556	0.0556		0.0533	0.0533	0.0000	141.2011	141.2011	0.0278	0.0000	141.8956
Total	**0.1391**	**1.0899**	**0.9903**	**1.7000e-003**		**0.0556**	**0.0556**		**0.0533**	**0.0533**	**0.0000**	**141.2011**	**141.2011**	**0.0278**	**0.0000**	**141.8956**

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	2.9500e-003	0.1018	0.0216	2.6000e-004	6.2500e-003	2.1000e-004	6.4600e-003	1.8100e-003	2.0000e-004	2.0100e-003	0.0000	24.9396	24.9396	1.3700e-003	0.0000	24.9739
Worker	6.0800e-003	4.3300e-003	0.0454	1.4000e-004	0.0151	1.0000e-004	0.0152	4.0000e-003	9.0000e-005	4.1000e-003	0.0000	12.9181	12.9181	3.1000e-004	0.0000	12.9258
Total	**9.0300e-003**	**0.1062**	**0.0670**	**4.0000e-004**	**0.0213**	**3.1000e-004**	**0.0216**	**5.8100e-003**	**2.9000e-004**	**6.1100e-003**	**0.0000**	**37.8577**	**37.8577**	**1.6800e-003**	**0.0000**	**37.8997**

3.2 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	0.1391	1.0899	0.9903	1.7000e-003		0.0556	0.0556		0.0533	0.0533	0.0000	141.2010	141.2010	0.0278	0.0000	141.8955
Total	**0.1391**	**1.0899**	**0.9903**	**1.7000e-003**		**0.0556**	**0.0556**		**0.0533**	**0.0533**	**0.0000**	**141.2010**	**141.2010**	**0.0278**	**0.0000**	**141.8955**

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	2.9500e-003	0.1018	0.0216	2.6000e-004	6.2500e-003	2.1000e-004	6.4600e-003	1.8100e-003	2.0000e-004	2.0100e-003	0.0000	24.9396	24.9396	1.3700e-003	0.0000	24.9739
Worker	6.0800e-003	4.3300e-003	0.0454	1.4000e-004	0.0151	1.0000e-004	0.0152	4.0000e-003	9.0000e-005	4.1000e-003	0.0000	12.9181	12.9181	3.1000e-004	0.0000	12.9258
Total	**9.0300e-003**	**0.1062**	**0.0670**	**4.0000e-004**	**0.0213**	**3.1000e-004**	**0.0216**	**5.8100e-003**	**2.9000e-004**	**6.1100e-003**	**0.0000**	**37.8577**	**37.8577**	**1.6800e-003**	**0.0000**	**37.8997**

3.3 Architectural Coating - 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					
Archit. Coating	0.4563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**0.4574**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

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	1.0000e-004	7.0000e-005	7.2000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2035	0.2035	0.0000	0.0000	0.2037
Total	**1.0000e-004**	**7.0000e-005**	**7.2000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2035**	**0.2035**	**0.0000**	**0.0000**	**0.2037**

3.3 Architectural Coating - 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					
Archit. Coating	0.4563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**0.4574**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

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	1.0000e-004	7.0000e-005	7.2000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2035	0.2035	0.0000	0.0000	0.2037
Total	**1.0000e-004**	**7.0000e-005**	**7.2000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2035**	**0.2035**	**0.0000**	**0.0000**	**0.2037**

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	0.1258	0.9678	1.3502	6.8900e-003	0.6388	4.3000e-003	0.6431	0.1716	4.0100e-003	0.1756	0.0000	639.5531	639.5531	0.0236	0.0000	640.1430
Unmitigated	0.1258	0.9678	1.3502	6.8900e-003	0.6388	4.3000e-003	0.6431	0.1716	4.0100e-003	0.1756	0.0000	639.5531	639.5531	0.0236	0.0000	640.1430

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	350.46	158.59	27.44	541,970	541,970
Research & Development	610.05	132.62	77.48	1,167,323	1,167,323
Total	960.51	291.21	104.91	1,709,293	1,709,293

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
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
Research & Development	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	45.1821	45.1821	0.0000	0.0000	45.1821
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	48.2164	48.2164	0.0000	0.0000	48.2164
NaturalGas Mitigated	8.6200e-003	0.0784	0.0658	4.7000e-004		5.9600e-003	5.9600e-003		5.9600e-003	5.9600e-003	0.0000	85.3091	85.3091	1.6400e-003	1.5600e-003	85.8161
NaturalGas Unmitigated	0.0112	0.1015	0.0852	6.1000e-004		7.7100e-003	7.7100e-003		7.7100e-003	7.7100e-003	0.0000	110.4466	110.4466	2.1200e-003	2.0200e-003	111.1029

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					
Medical Office Building	342141	1.8400e-003	0.0168	0.0141	1.0000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	18.2580	18.2580	3.5000e-004	3.3000e-004	18.3664
Research & Development	1.72755e+006	9.3200e-003	0.0847	0.0711	5.1000e-004		6.4400e-003	6.4400e-003		6.4400e-003	6.4400e-003	0.0000	92.1887	92.1887	1.7700e-003	1.6900e-003	92.7365
Total		**0.0112**	**0.1015**	**0.0852**	**6.1000e-004**		**7.7100e-003**	**7.7100e-003**		**7.7100e-003**	**7.7100e-003**	**0.0000**	**110.4466**	**110.4466**	**2.1200e-003**	**2.0200e-003**	**111.1029**

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					
Medical Office Building	244862	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	13.0668	13.0668	2.5000e-004	2.4000e-004	13.1444
Research & Development	1.35377e+006	7.3000e-003	0.0664	0.0557	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	72.2424	72.2424	1.3800e-003	1.3200e-003	72.6717
Total		**8.6200e-003**	**0.0784**	**0.0658**	**4.7000e-004**		**5.9500e-003**	**5.9500e-003**		**5.9500e-003**	**5.9500e-003**	**0.0000**	**85.3091**	**85.3091**	**1.6300e-003**	**1.5600e-003**	**85.8161**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	220896	14.2279	0.0000	0.0000	14.2279
Research & Development	527688	33.9885	0.0000	0.0000	33.9885
Total		**48.2164**	**0.0000**	**0.0000**	**48.2164**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	199125	12.8257	0.0000	0.0000	12.8257
Research & Development	502351	32.3565	0.0000	0.0000	32.3565
Total		**45.1821**	**0.0000**	**0.0000**	**45.1821**

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	0.3874	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Unmitigated	0.3874	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-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	tons/yr										MT/yr					
Architectural Coating	0.0456					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Total	**0.3874**	**1.0000e-005**	**8.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5600e-003**	**1.5600e-003**	**0.0000**	**0.0000**	**1.6600e-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	tons/yr										MT/yr					
Architectural Coating	0.0456					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Total	**0.3874**	**1.0000e-005**	**8.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5600e-003**	**1.5600e-003**	**0.0000**	**0.0000**	**1.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.5580	0.9526	0.0225	50.0746
Unmitigated	24.4237	1.1907	0.0281	62.5694

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	2.22101 / 0.423049	1.5741	0.0724	1.7100e-003	3.8926
Research & Development	34.3202 / 0	22.8496	1.1183	0.0264	58.6768
Total		**24.4237**	**1.1907**	**0.0281**	**62.5694**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	1.7768 / 0.423049	1.2783	0.0579	1.3700e-003	3.1331
Research & Development	27.4562 / 0	18.2797	0.8947	0.0211	46.9414
Total		**19.5580**	**0.9526**	**0.0225**	**50.0746**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	29.9097	1.7676	0.0000	74.1000
Unmitigated	39.8796	2.3568	0.0000	98.8000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	191.16	38.8038	2.2932	0.0000	96.1347
Research & Development	5.3	1.0759	0.0636	0.0000	2.6654
Total		**39.8796**	**2.3568**	**0.0000**	**98.8000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	143.37	29.1028	1.7199	0.0000	72.1010
Research & Development	3.975	0.8069	0.0477	0.0000	1.9990
Total		**29.9097**	**1.7676**	**0.0000**	**74.1000**

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: 3100 San Pablo Ave Oncology and R&D Project

Vehicle Population Breakdown*	
1265276	Gasoline vehicles
72772	Diesel vehicles
94.6%	Gasoline vehicle %
5.4%	Diesel vehicle %

VMT per Vehicle Type	
1731382	Project VMT (CalEEMod output)
1637218	Gasoline vehicle VMT
94164	Diesel vehicle VMT

Gasoline Vehicles	
94.6%	Gasoline vehicle %
1.05	Tons per year mobile NOX emissions (annual output in CalEEMod)
0.99	Gasoline vehicle tons per year NOX emissions
4.16%	Percentage to convert NOX emissions to N2O **
0.0413	Tons per year N2O emissions for gasoline vehicles
0.0375	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
0.3316	grams N2O per gallon of fuel for diesel vehicles**
198216.86	Diesel average miles per gallon*
0.00000	grams per mile N2O for diesel vehicles
0.2	grams per year N2O for diesel vehicles
0.0000002	Metric tons per year N2O emissions for diesel vehicles

CO2E Emissions from N2O	
0.0375	Metric tons per year from gasoline + diesel vehicles
265	GWP of N2O***
9.9	**CO2E emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources
***Vehicle population source:** EMFAC2017 (v1.0.2) Emissions Inventory Region Type: County Region: ALAMEDA Calendar Year: 2030 Season: Annual Vehicle Classification: EMFAC2011 Categories ****Methodology source:** EMFAC2011 Frequently Asked Questions https://www.arb.ca.gov/msei/emfac2011-faq.htm *****GWP source:** Intergovernmental Panel on Climate Change (IPCC). 2014. AR5 Climate Change 2014 Contrbution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

3100 San Pablo Ave Alternative 2 GHG Emissions

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	87.50	1000sqft	2.01	87,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2030
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	142	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EBCE Specific Energy Factors

Land Use -

Construction Phase -

Energy Use -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	0	142

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					
2020	0.0370	0.2876	0.2433	4.8000e-004	5.7700e-003	0.0144	0.0201	1.5700e-003	0.0138	0.0153	0.0000	40.6022	40.6022	6.7400e-003	0.0000	40.7708
2021	0.6671	1.6806	1.5073	3.0200e-003	0.0368	0.0786	0.1154	9.9900e-003	0.0753	0.0853	0.0000	257.4708	257.4708	0.0414	0.0000	258.5055
Maximum	**0.6671**	**1.6806**	**1.5073**	**3.0200e-003**	**0.0368**	**0.0786**	**0.1154**	**9.9900e-003**	**0.0753**	**0.0853**	**0.0000**	**257.4708**	**257.4708**	**0.0414**	**0.0000**	**258.5055**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0370	0.2876	0.2433	4.8000e-004	5.7700e-003	0.0144	0.0201	1.5700e-003	0.0138	0.0153	0.0000	40.6022	40.6022	6.7400e-003	0.0000	40.7707
2021	0.6671	1.6806	1.5073	3.0200e-003	0.0368	0.0786	0.1154	9.9900e-003	0.0753	0.0853	0.0000	257.4706	257.4706	0.0414	0.0000	258.5052
Maximum	**0.6671**	**1.6806**	**1.5073**	**3.0200e-003**	**0.0368**	**0.0786**	**0.1154**	**9.9900e-003**	**0.0753**	**0.0853**	**0.0000**	**257.4706**	**257.4706**	**0.0414**	**0.0000**	**258.5052**

	ROG	NOx	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**	**0.01**	**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	**10-12-2020**	**1-11-2021**	0.4029	0.4029
2	**1-12-2021**	**4-11-2021**	0.6374	0.6374
3	**4-12-2021**	**7-11-2021**	0.6434	0.6434
4	**7-12-2021**	**9-30-2021**	0.5232	0.5232
		Highest	0.6434	0.6434

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	0.3874	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Energy	0.0117	0.1062	0.0892	6.4000e-004		8.0700e-003	8.0700e-003		8.0700e-003	8.0700e-003	0.0000	158.1733	158.1733	2.2200e-003	2.1200e-003	158.8600
Mobile	0.0496	0.3773	0.5783	3.0400e-003	0.2893	1.8900e-003	0.2912	0.0777	1.7600e-003	0.0795	0.0000	282.4735	282.4735	9.7100e-003	0.0000	282.7162
Waste						0.0000	0.0000		0.0000	0.0000	22.0245	0.0000	22.0245	1.3016	0.0000	54.5648
Water						0.0000	0.0000		0.0000	0.0000	6.4194	7.0522	13.4716	0.6593	0.0156	34.5944
Total	**0.4487**	**0.4835**	**0.6683**	**3.6800e-003**	**0.2893**	**9.9600e-003**	**0.2992**	**0.0777**	**9.8300e-003**	**0.0875**	**28.4440**	**447.7005**	**476.1445**	**1.9729**	**0.0177**	**530.7371**

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	0.3874	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Energy	9.1500e-003	0.0832	0.0699	5.0000e-004		6.3200e-003	6.3200e-003		6.3200e-003	6.3200e-003	0.0000	131.1232	131.1232	1.7400e-003	1.6600e-003	131.6614
Mobile	0.0496	0.3773	0.5783	3.0400e-003	0.2893	1.8900e-003	0.2912	0.0777	1.7600e-003	0.0795	0.0000	282.4735	282.4735	9.7100e-003	0.0000	282.7162
Waste						0.0000	0.0000		0.0000	0.0000	16.5184	0.0000	16.5184	0.9762	0.0000	40.9236
Water						0.0000	0.0000		0.0000	0.0000	5.1356	5.6417	10.7773	0.5275	0.0125	27.6755
Total	**0.4462**	**0.4605**	**0.6490**	**3.5400e-003**	**0.2893**	**8.2100e-003**	**0.2975**	**0.0777**	**8.0800e-003**	**0.0858**	**21.6539**	**419.2400**	**440.8939**	**1.5151**	**0.0141**	**482.9783**

	ROG	NOx	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	**0.56**	**4.75**	**2.89**	**3.80**	**0.00**	**17.57**	**0.58**	**0.00**	**17.80**	**2.00**	**23.87**	**6.36**	**7.40**	**23.20**	**20.24**	**9.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	11/20/2020	9/23/2021	5	220	
2	Architectural Coating	Architectural Coating	10/8/2021	10/21/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,250; Non-Residential Outdoor: 43,750; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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
Building Construction	8	37.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.2615	0.2235	3.8000e-004		0.0142	0.0142		0.0136	0.0136	0.0000	31.1467	31.1467	6.3200e-003	0.0000	31.3047
Total	**0.0343**	**0.2615**	**0.2235**	**3.8000e-004**		**0.0142**	**0.0142**		**0.0136**	**0.0136**	**0.0000**	**31.1467**	**31.1467**	**6.3200e-003**	**0.0000**	**31.3047**

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	7.9000e-004	0.0247	5.3200e-003	6.0000e-005	1.3800e-003	1.1000e-004	1.4900e-003	4.0000e-004	1.1000e-004	5.1000e-004	0.0000	5.5547	5.5547	3.2000e-004	0.0000	5.5627
Worker	1.9200e-003	1.4200e-003	0.0145	4.0000e-005	4.3900e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.9009	3.9009	1.0000e-004	0.0000	3.9034
Total	**2.7100e-003**	**0.0261**	**0.0198**	**1.0000e-004**	**5.7700e-003**	**1.4000e-004**	**5.9100e-003**	**1.5700e-003**	**1.4000e-004**	**1.7100e-003**	**0.0000**	**9.4556**	**9.4556**	**4.2000e-004**	**0.0000**	**9.4661**

3.2 Building Construction - 2020

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	0.0343	0.2615	0.2235	3.8000e-004		0.0142	0.0142		0.0136	0.0136	0.0000	31.1466	31.1466	6.3200e-003	0.0000	31.3047
Total	**0.0343**	**0.2615**	**0.2235**	**3.8000e-004**		**0.0142**	**0.0142**		**0.0136**	**0.0136**	**0.0000**	**31.1466**	**31.1466**	**6.3200e-003**	**0.0000**	**31.3047**

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	7.9000e-004	0.0247	5.3200e-003	6.0000e-005	1.3800e-003	1.1000e-004	1.4900e-003	4.0000e-004	1.1000e-004	5.1000e-004	0.0000	5.5547	5.5547	3.2000e-004	0.0000	5.5627
Worker	1.9200e-003	1.4200e-003	0.0145	4.0000e-005	4.3900e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.9009	3.9009	1.0000e-004	0.0000	3.9034
Total	**2.7100e-003**	**0.0261**	**0.0198**	**1.0000e-004**	**5.7700e-003**	**1.4000e-004**	**5.9100e-003**	**1.5700e-003**	**1.4000e-004**	**1.7100e-003**	**0.0000**	**9.4556**	**9.4556**	**4.2000e-004**	**0.0000**	**9.4661**

3.2 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	0.1943	1.5226	1.3835	2.3800e-003		0.0776	0.0776		0.0744	0.0744	0.0000	197.2663	197.2663	0.0388	0.0000	198.2366
Total	**0.1943**	**1.5226**	**1.3835**	**2.3800e-003**		**0.0776**	**0.0776**		**0.0744**	**0.0744**	**0.0000**	**197.2663**	**197.2663**	**0.0388**	**0.0000**	**198.2366**

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	4.1200e-003	0.1423	0.0301	3.6000e-004	8.7300e-003	3.0000e-004	9.0300e-003	2.5300e-003	2.8000e-004	2.8100e-003	0.0000	34.8421	34.8421	1.9100e-003	0.0000	34.8899
Worker	0.0112	8.0000e-003	0.0838	2.6000e-004	0.0278	1.9000e-004	0.0280	7.3900e-003	1.7000e-004	7.5700e-003	0.0000	23.8483	23.8483	5.7000e-004	0.0000	23.8626
Total	**0.0153**	**0.1503**	**0.1139**	**6.2000e-004**	**0.0365**	**4.9000e-004**	**0.0370**	**9.9200e-003**	**4.5000e-004**	**0.0104**	**0.0000**	**58.6904**	**58.6904**	**2.4800e-003**	**0.0000**	**58.7525**

3.2 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	0.1943	1.5226	1.3835	2.3800e-003		0.0776	0.0776		0.0744	0.0744	0.0000	197.2661	197.2661	0.0388	0.0000	198.2363
Total	**0.1943**	**1.5226**	**1.3835**	**2.3800e-003**		**0.0776**	**0.0776**		**0.0744**	**0.0744**	**0.0000**	**197.2661**	**197.2661**	**0.0388**	**0.0000**	**198.2363**

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	4.1200e-003	0.1423	0.0301	3.6000e-004	8.7300e-003	3.0000e-004	9.0300e-003	2.5300e-003	2.8000e-004	2.8100e-003	0.0000	34.8421	34.8421	1.9100e-003	0.0000	34.8899
Worker	0.0112	8.0000e-003	0.0838	2.6000e-004	0.0278	1.9000e-004	0.0280	7.3900e-003	1.7000e-004	7.5700e-003	0.0000	23.8483	23.8483	5.7000e-004	0.0000	23.8626
Total	**0.0153**	**0.1503**	**0.1139**	**6.2000e-004**	**0.0365**	**4.9000e-004**	**0.0370**	**9.9200e-003**	**4.5000e-004**	**0.0104**	**0.0000**	**58.6904**	**58.6904**	**2.4800e-003**	**0.0000**	**58.7525**

3.3 Architectural Coating - 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					
Archit. Coating	0.4563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**0.4574**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

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	1.1000e-004	8.0000e-005	8.3000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2375	0.2375	1.0000e-005	0.0000	0.2376
Total	**1.1000e-004**	**8.0000e-005**	**8.3000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2375**	**0.2375**	**1.0000e-005**	**0.0000**	**0.2376**

3.3 Architectural Coating - 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					
Archit. Coating	0.4563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**0.4574**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

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	1.1000e-004	8.0000e-005	8.3000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2375	0.2375	1.0000e-005	0.0000	0.2376
Total	**1.1000e-004**	**8.0000e-005**	**8.3000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2375**	**0.2375**	**1.0000e-005**	**0.0000**	**0.2376**

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	0.0496	0.3773	0.5783	3.0400e-003	0.2893	1.8900e-003	0.2912	0.0777	1.7600e-003	0.0795	0.0000	282.4735	282.4735	9.7100e-003	0.0000	282.7162
Unmitigated	0.0496	0.3773	0.5783	3.0400e-003	0.2893	1.8900e-003	0.2912	0.0777	1.7600e-003	0.0795	0.0000	282.4735	282.4735	9.7100e-003	0.0000	282.7162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	334.25	130.38	54.25	774,035	774,035
Total	334.25	130.38	54.25	774,035	774,035

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
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	40.5615	40.5615	0.0000	0.0000	40.5615
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	42.6073	42.6073	0.0000	0.0000	42.6073
NaturalGas Mitigated	9.1500e-003	0.0832	0.0699	5.0000e-004		6.3200e-003	6.3200e-003		6.3200e-003	6.3200e-003	0.0000	90.5617	90.5617	1.7400e-003	1.6600e-003	91.0999
NaturalGas Unmitigated	0.0117	0.1062	0.0892	6.4000e-004		8.0700e-003	8.0700e-003		8.0700e-003	8.0700e-003	0.0000	115.5660	115.5660	2.2200e-003	2.1200e-003	116.2528

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					
Manufacturing	2.16563e+006	0.0117	0.1062	0.0892	6.4000e-004		8.0700e-003	8.0700e-003		8.0700e-003	8.0700e-003	0.0000	115.5660	115.5660	2.2200e-003	2.1200e-003	116.2528
Total		**0.0117**	**0.1062**	**0.0892**	**6.4000e-004**		**8.0700e-003**	**8.0700e-003**		**8.0700e-003**	**8.0700e-003**	**0.0000**	**115.5660**	**115.5660**	**2.2200e-003**	**2.1200e-003**	**116.2528**

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					
Manufacturing	1.69706e+006	9.1500e-003	0.0832	0.0699	5.0000e-004		6.3200e-003	6.3200e-003		6.3200e-003	6.3200e-003	0.0000	90.5617	90.5617	1.7400e-003	1.6600e-003	91.0999
Total		**9.1500e-003**	**0.0832**	**0.0699**	**5.0000e-004**		**6.3200e-003**	**6.3200e-003**		**6.3200e-003**	**6.3200e-003**	**0.0000**	**90.5617**	**90.5617**	**1.7400e-003**	**1.6600e-003**	**91.0999**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	661500	42.6073	0.0000	0.0000	42.6073
Total		**42.6073**	**0.0000**	**0.0000**	**42.6073**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	629738	40.5615	0.0000	0.0000	40.5615
Total		**40.5615**	**0.0000**	**0.0000**	**40.5615**

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	0.3874	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Unmitigated	0.3874	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-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	tons/yr										MT/yr					
Architectural Coating	0.0456					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Total	**0.3874**	**1.0000e-005**	**8.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5600e-003**	**1.5600e-003**	**0.0000**	**0.0000**	**1.6600e-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	tons/yr										MT/yr					
Architectural Coating	0.0456					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Total	**0.3874**	**1.0000e-005**	**8.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5600e-003**	**1.5600e-003**	**0.0000**	**0.0000**	**1.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.7773	0.5275	0.0125	27.6755
Unmitigated	13.4716	0.6593	0.0156	34.5944

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.2344 / 0	13.4716	0.6593	0.0156	34.5944
Total		**13.4716**	**0.6593**	**0.0156**	**34.5944**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.1875 / 0	10.7773	0.5275	0.0125	27.6755
Total		**10.7773**	**0.5275**	**0.0125**	**27.6755**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.5184	0.9762	0.0000	40.9236
Unmitigated	22.0245	1.3016	0.0000	54.5648

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	108.5	22.0245	1.3016	0.0000	54.5648
Total		**22.0245**	**1.3016**	**0.0000**	**54.5648**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	81.375	16.5184	0.9762	0.0000	40.9236
Total		**16.5184**	**0.9762**	**0.0000**	**40.9236**

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: Alternative 3100 San Pablo Ave Oncology and R&D Project

Vehicle Population Breakdown*	
1265276	Gasoline vehicles
72772	Diesel vehicles
94.6%	Gasoline vehicle %
5.4%	Diesel vehicle %

VMT per Vehicle Type	
774035	Project VMT (CalEEMod output)
731938	Gasoline vehicle VMT
42097	Diesel vehicle VMT

Gasoline Vehicles	
94.6%	Gasoline vehicle %
0.46	Tons per year mobile NOX emissions (annual output in CalEEMod)
0.43	Gasoline vehicle tons per year NOX emissions
4.16%	Percentage to convert NOX emissions to N2O **
0.0181	Tons per year N2O emissions for gasoline vehicles
0.0164	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
0.3316	grams N2O per gallon of fuel for diesel vehicles**
198216.86	Diesel average miles per gallon*
0.00000	grams per mile N2O for diesel vehicles
0.1	grams per year N2O for diesel vehicles
0.0000001	Metric tons per year N2O emissions for diesel vehicles

CO2E Emissions from N2O	
0.0164	Metric tons per year from gasoline + diesel vehicles
265	GWP of N2O***
4.4	**CO2E emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources
***Vehicle population source:** EMFAC2017 (v1.0.2) Emissions Inventory Region Type: County Region: ALAMEDA Calendar Year: 2030 Season: Annual Vehicle Classification: EMFAC2011 Categories ****Methodology source:** EMFAC2011 Frequently Asked Questions https://www.arb.ca.gov/msei/emfac2011-faq.htm *****GWP source:** Intergovernmental Panel on Climate Change (IPCC). 2014. AR5 Climate Change 2014 Contrbution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.