ROBIN R. BARAL
SENIOR COUNSEL
DIRECT DIAL (916) 491-3052
DIRECT FAX (916) 491-3085
E-MAIL rbaral@hansonbridgett.com

HansonBridgett

April 19, 2024

VIA ELECTRONIC MAIL

Planning and Development Department
1947 Center Street, 2nd Floor
Berkeley, CA 94704
Attn: Lisa Gordon, Senior Contract Planner

Re: CEQA Compliance for SB 330 and Density Bonus Use Permit Application # 2023-0126 (2530 Bancroft Way)

Dear Ms. Gordon:

As you know, our office represents the applicant team for the mixed-use project that is the subject of the above-referenced preliminary SB 330 application ("Project") submitted on September 7, 2023 and deemed complete by the City of Berkeley ("City") on March 12, 2024. In accordance with Assembly Bill 1633 ("AB 1633"),[1] we request that the City find the Project exempt from review under the California Environmental Quality Act ("CEQA") pursuant to the "Class 32" exemption for Infill Development Projects.[2] As detailed herein, substantial evidence supports the Class 32 finding, and the Project satisfies all eligibility criteria for AB 1633. We request that the City find the Project exempt from CEQA under the Class 32 exemption, as now mandated by the Housing Accountability Act ("HAA"),[3] within the next 90 days.

Project Description

The applicant for this Project is Trachtenberg Architects, and the developer and Project sponsor is Legacy Bancroft Property Owner, LLC. The Project is located at 2530 Bancroft Way, a 0.36-acre site located on the south side of Bancroft Way between Telegraph Avenue and Bowditch Street approximately 185 feet east of the intersection of Bancroft Way and Telegraph Avenue. The Project is located within the San Francisco – Oakland, CA urbanized area as defined by the United States Census Bureau. The Project site is currently occupied by a one-story commercial building used by a retail clothing store. The Project entails demolition of the existing single-story commercial structure at 2530 Bancroft, and development of a 12-story mixed use development with 110 residential units with a density bonus. The Project includes 137,638 square feet of residential space, including private patios, courtyard, and roof deck, and 2,195 square feet of ground floor restaurant/retail space as commercial street frontage on Bancroft Way. No parking spaces will be provided on-site.

[1] Gov. Code § 65589.5
[2] 14 Cal. Code Reg. § 15332
[3] Gov. Code§ 65589.5(h)(6)(D)

The following reports demonstrate substantial evidence for the Class 32 exemption to apply to the Project: (1) Air Quality Analysis for the 2530 Bancroft Way Mixed-Use Project in Berkely, Alameda County, California, Philip Ault, First Carbon Solutions ("Air Quality Analysis", attached hereto as **Exhibit A**); (2) Trip Generation and VMT Analysis for the Proposed Mixed-Use Project at 2530 Bancroft Way, Stephan Abrams, Abrams Associates Traffic Engineering, Inc., ("TIS", attached hereto as **Exhibit B**); (3) Memorandum re Landmark Bancroft Way Project Proposed Project Analysis, 2530 Bancroft Way, Berkeley, Page & Turnbull, as amended ("Page & Turnbull Report", attached hereto as **Exhibit C**); (4) Noise Impact Analysis for the Proposed 2530 Bancroft Way Mixed-Use Project in Berkeley, California ("Noise Impact Analysis, attached as **Exhibit D**); and (5) Water Quality Memorandum for the Proposed 2530 Bancroft Way Mixed Use Project in Berkeley, California ("Water Quality Memo," attached as **Exhibit E**).

AB 1633 Makes CEQA Exemptions Mandatory for Qualifying Infill Residential Projects

AB 1633 amended the HAA as of January 1, 2024, to require that cities find certain high-density infill residential projects, such as this Project, exempt from CEQA. For eligible projects, AB 1633 redefines an unlawful disapproval of a housing development project under the HAA to now include "*any* instance in which a local agency… fails to make a determination of whether the project is exempt from [CEQA] or commits an abuse of discretion as defined in [the HAA]."[4]

AB 1633 also amended the HAA to include a new statutory definition of "abuse of discretion" as follows: "'abuse of discretion' means the conditions set forth [by AB 1633] are satisfied, but the local agency does not determine that the project is exempt from [CEQA]."[5] The legislature therefore expressly modified the standard of review under CEQA to *require that* cities find eligible, high-density infill residential projects such as this one exempt in *any* instance in which there is substantial evidence to support a CEQA exemption and lack of exception.[6] As a result, an unlawful denial or abuse of discretion now occurs, for eligible high-density infill residential projects, if (1) an applicant provides substantial evidence that the project is eligible for a CEQA exemption and there are no exceptions to the exemption, but (2) the agency fails to find the project exempt.[7] The legislature therefore revised the substantial evidence standard to establish that an HAA violation occurs if a city fails to make a *mandatory* AB 1633/CEQA exemption finding for eligible infill projects.

AB 1633 directs cities to make required exemption findings promptly, i.e., within 90 days after submission of this notice.[8] Cities may extend this 90-day deadline by an additional 90 days only if an extension is "necessary to determine if there is substantial evidence in the record that the housing development project is eligible for the exemption."[9] Through this notice, the Applicant provides all reports and studies needed to support the exemption. While the applicant has received notice that the City intends to perform a peer review of the Page & Turnbull Report, it bears noting that no additional studies are legally required to confirm that this project is eligible for the Class 32 exemption.

[4] Gov. Code § 65589.5(h)(6)(D)
[5] Gov. Code § 65589.5(h)(6)(D)(ii)(I)
[6] Gov. Code § 65589.5(h)(6)(D)(i)(IV)
[7] Gov. Code § 65589.5(h)(6)(D)(i)(IV)
[8] *Id.* subd. (h)(6)(D)(i)(V)(ia)
[9] *Id.* subd. (h)(6)(D)(i)(V)(ic)

This Project Meets All of the Eligibility Requirements Under AB 1633 to Support the Finding for a Mandatory Class 32 CEQA Exemption

Under AB 1633, the HAA requires the Project to meet the following criteria in order to qualify for a mandatory CEQA exemption:

1. The Project cannot be on an environmentally sensitive site or a site subject to certain environmental hazards;

2. The Project must be on a legal parcel, in an urbanized area that is also a transit priority area, low vehicle miles traveled area, or amenity-rich area;

3. The density of the housing development project must meet or exceed 15 dwelling units per acre; and

4. There must be substantial evidence in the record that the Project qualifies for an exemption and is not subject to any exceptions.

As detailed below, the Project satisfies each criterion and is therefore subject to a mandatory Class 32 CEQA exemption under AB 1633. In other words, this Project meets all requirements imposed by the state legislature to facilitate expedited review under the HAA for high-density residential infill projects. With the applicable findings backed by substantial evidence as detailed below, we respectfully request that the City find this Project categorically exempt under CEQA.

1. The Project is not located on an environmentally sensitive site, and it is not subject to certain environmental hazards.

AB 1633 requires the Project to not be located on any site that is environmentally sensitive, subject to certain environmental hazards, or within a very high fire hazard severity zone.[10] The following environmentally sensitive sites and hazards must be avoided: (A) coastal zones; (B) prime farmland; (C) wetlands; (D) hazardous waste sites; (E) earthquake fault zones; (F) flood hazard areas; (G) regulatory floodways; (H) conservation lands; (I) habitat for protected species; (J) conservation easements; and (K) very-high fire severity zones. As detailed below, the Project site does not contain any of these characteristics.

A. <u>The Project is not located in the Coastal Zone</u>.

AB 1633 applies to projects that are generally not located in an area of the Coastal Zone.[11] The "Coastal Zone" is the land and water area along the entire the California Coast that generally extends 1,000 yards from the mean high tide line of the sea, and is identified on a detailed map adopted by the Coastal Commission.[12] The City of Berkely is not within the Coastal Zone, as documented by **Exhibit F** attached to this letter.

[10] *See* Gov. Code § 65589.5(h)(6)(D)(i)(I), citing Gov. Code § 65913.4(a)(6)(A)-(C) and (E)-(K)
[11] *See*, e.g., Gov. Code, §§ 65913.4(a)(6)(A)(ii) [“An area of the coastal zone that is not subject to a certified local coastal program or certified land use plan.”]; 65913.4(a)(6)(A)(iv) [“In a parcel within the coastal zone that is not zoned for multifamily housing.”]; 65589.5 (h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(A).)
[12] Pub. Res. Code § 30103

B. The Project is not located on prime farmland.

AB 1633 applies to projects that are not (i) located on prime farmland or farmland of statewide importance, as defined by the United States Department of Agriculture and designated on the maps prepared by the Farmland Mapping and Monitoring Program of the Department of Conservation, or (ii) zoned or designated for agricultural protection or preservation by a local ballot measure that was approved by the voters of that jurisdiction.[13] The site is not zoned or designated for agricultural protection or preservation under the Berkeley Municipal Code or Berkeley General Plan. Substantial evidence to support this finding is provided by reference to the Department of Conservation's Important Farmland Finder Map, where the Project site is identified as Urban and Built Up Land. See **Exhibit G**, attached.[14]

C. The Project site is not located in a wetland.

AB 1633 applies to projects that are not located on federally designated wetlands.[15] The Project site is an infill; urbanized location currently occupied by a retail store and has no water features. Accordingly, the U.S. Fish & Wildlife Service has determined the site does not contain any potential for wetlands or aquatic resources, as shown on the portion of the National Wetlands Inventory attached as **Exhibit H**.[16]

D. The Project is not located on a hazardous waste site.

AB 1633 generally applies to projects that are not located on the Cortese List" or on hazardous waste sites designated by the Department of Toxic Substances Control ("DTSC").[17] The Project site is not listed on either of these lists and is not located on a hazardous waste site.[18]

E. The Project is not located in a fault zone.

AB 1633 applies to projects that are not located "[w]ithin a delineated earthquake fault zone as determined by the State Geologist in any official maps published by the State Geologist, unless the development complies with applicable seismic protection building code standards adopted by the California Building Standards Commission under the California Building Standards Law.[19]

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[13] Gov. Code, §§ 65589.5(h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(B)
[14] California Department of Conservation, California Important Farmland Finder [https://maps.conservation.ca.gov/DLRP/CIFF/], accessed February 27, 2024.
[15] Gov. Code, §§ 65589.5 (h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(C)
[16] See U.S. Fish and Wildlife Service, National Wetlands Inventory https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/, accessed February 27, 2024.
[17] Gov. Code, §§ 65589.5 (h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(E); 65962.5; Health and Safety Code § 78760. Note that certain sites on the Cortese List may still be eligible under AB 1633, however those provisions do not apply here as this site is not on the Cortese List.
[18] DTSC, Hazardous Waste and Substance Site List, https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29, accessed February 27, 2024.) The Cortese list as of February 27, 2024, is incorporated by reference into the project's administrative record of proceeding.
[19] Gov. Code §§ 65589.5 (h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(F).

The Project is not located within a delineated earthquake fault zone on an official map published by the United States Geologic Service ("USGS"), as confirmed by the attached **Exhibit I**.[20]

F. The Project is not located in a special flood hazard area or regulatory floodway.

AB 1633 applies to projects that are not located "[w]ithin a special flood hazard area subject to inundation by the 1 percent annual chance flood (100-year flood) as determined by the Federal Emergency Management Agency ("FEMA") in any official maps published by [FEMA],"[21] and to projects that are not located "[w]ithin a regulatory floodway as determined by [FEMA] in any official maps published by [FEMA]. The Project is not located in a special flood hazard area[22] or regulatory floodway[23] as determined by FEMA, and confirmed by the attached **Exhibit J**.

G. The Project site is not identified in a natural resource protection plan.

AB 1633 applies to projects that are not located on land identified for conservation in (i) an adopted natural community conservation plan under the California Fish and Game Code, (ii) a habitat conservation plan pursuant to the federal Endangered Species Act, or (iii) another adopted natural resource protection plan.[24] The Project is located on an urban, infill site near a commercial corridor, and is currently occupied by a retail clothing store. It is not located in an adopted natural community conservation plan, habitat conservation plan or any other adopted natural resource protection plan, as confirmed by the attached **Exhibit K**.[25]

H. The Project site is not habitat for protected species.

AB 1633 applies to projects that are not located on habitat for candidate, sensitive, or special status species as identified under the federal Endangered Species Act, the California Endangered Species Act, or the Native Plant Protection Act.[26] The Project site is located in an urbanized neighborhood in Southside Berkeley, is currently occupied by a retail clothing store and is covered entirely in impervious surfaces, and has no value as habitat for any listed species.

I. The Project site is not under a conservation easement.

AB 1633 applies to projects that are not located on lands under conservation easement.[27] The Project site is in an entirely urbanized infill location, and accordingly is not encumbered by any

[20] See USGS, U.S. Quaternary Faults Map https://www.usgs.gov/programs/earthquake-hazards/faults, accessed February 27, 2024.
[21] Gov. Code §§ 65589.5(h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(G)
[22] See FEMA, National Flood Hazard Layer Viewer https://www.fema.gov/flood-maps/national-flood-hazard-layer, accessed February 27, 2024.
[23] *Id.*
[24] Gov. Code §§ 65589.5 (h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(I)
[25] California Department of Fish and Wildlife, California Natural Community Conservation Plans (August 2023); see also Federal Conservation Plans of West Coast https://www.fisheries.noaa.gov/west-coast/habitat-conservation/habitat-conservation-plans-west-coast, accessed February 27, 2024.
[26] Gov. Code §§ 65589.5(h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(J)
[27] Gov. Code §§ 65589.5 (h)(6)(D)(i)(I)(ia); 65913.4(a)(6)(K)

conservation easement, as confirmed by the attached **Exhibit L**.[28]

J. The Project is not located in a very high fire hazard severity zone.

AB 1633 applies to projects that are not located within a very high fire hazard severity zone, as determined by the Department of Forestry and Fire Protection, or within a high or very high fire hazard severity zone as indicated on maps adopted by the Department of Forestry and Fire Protection.[29] The Project is not located in a very high fire hazard severity zone, as confirmed by the attached **Exhibit M**.[30]

2. The Project is on a legal parcel that meets the requirements of AB 1633

AB 1633 applies to a housing development project "located on a legal parcel or parcels within an urbanized area" that meets at least one of the following four criteria labeled (1) through (4):

(1) The housing development project is located within one-half mile walking distance to either a high-quality transit corridor or a major transit stop;
(2) The housing development project is located in a very low vehicle travel area;
(3) The housing development project is proximal to six or more of the following amenities pursuant to subclause (IV) of clause (ii) as of the date of submission of the project application. For the purposes of (3), “Proximal” to an amenity means either of the following:

(A) Within one-half mile of either of the following amenities:
(i) A bus station.
(ii) A ferry terminal.

(B) Within two miles of any of the following amenities:
(i) A supermarket or grocery store.
(ii) A public park.
(iii) A community center.
(iv) A pharmacy or drugstore.
(v) A medical clinic or hospital.
(vi) A public library.
(vii) A school that maintains a kindergarten or any of grades 1 to 12, inclusive;

(4) Parcels that are developed with urban uses adjoin at least 75 percent of the perimeter of the project site or at least three sides of a four-sided project site. For purposes of this clause, parcels that are only separated by a street or highway shall be considered to be adjoined.[31]

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[28] *See* California Natural Resources Agency, California Conservation Easement Database [https://data.cnra.ca.gov/dataset/california-conservation-easement-database]; [https://databasin.org/datasets/65202ded0d40478a847f019630950570/], accessed February 27, 2024.
[29] Gov. Code, § 65589.5(h)(6)(D)(i)(I)(ia).
[30] See Dept. of Forestry and Fire Protection https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-maps, accessed February 27, 2024.
[31] Gov. Code §65589.5 (h)(6)(D)(i)(II) .

As discussed in the Project description, the Project is located on a legalized parcel (APN 55-1877-16-1) within the San Francisco – Oakland, CA urbanized area as defined by the United States Census Bureau.

The Project also satisfies each of the four above-listed criteria, though only one criterion must be satisfied for AB 1633 to apply, as the Project site is:

- Located within a transit priority area designated by the City of Berkeley, which means it is within 1/2-mile from a rail station and/or 1/4-mile from bus stops with service at least every 15 minutes. This is supported by the transit priority area map included in the City's VMT Criteria and Thresholds guidance, which establishes that the Project site is within the dotted line denoting areas 1/2-mile from a rail station or 1/4-mile from bus stops with service at least every 15 minutes. (*See* **Exhibit N**.)

- Located in a very low vehicle travel area. A "very low vehicle travel area" means an urbanized area, as designated by the United States Census Bureau, where the existing residential development generates vehicle miles traveled ("VMT") per capita that is below 85 percent of either regional vehicle miles traveled per capita, or city vehicle miles traveled per capita. (Gov. Code, § 659159(o)(9).) The City defines low-VMT areas based on the results of the Alameda County Transportation Commission model, and depicts these areas in the map included in Exhibit N. The areas shaded green are those identified as "Low VMT Areas," where "VMT per capita … is 15% lower than the baseline regional [Bay Area] average."[32] The Project is located in a Low VMT Area, as depicted by the green shading in **Exhibit N**.

- Located proximal to the following amenities:

    - Within half a mile of numerous bus stops, as evidenced by inclusion in the City's the transit priority area map (**Exhibit N**);

    - Within one mile of supermarkets and grocery stores, including the Berkeley Student Food Collective (2440 Bancroft Way #102), the Derby Food Center (2707 College Ave); and Whole Foods (3000 Telegraph Ave);

    - Within one mile of public parks including Willard Park and the Claremont Canyon Regional Preserve;

    - Within one mile of community centers including the Multicultural Community Center;

    - Within one mile of a pharmacy or drugstore (Walgreens Pharmacy, 2310 Telegraph Ave);

    - Within one mile of a public library (Berkeley Public Library); and

[32] City of Berkeley VMT Criteria and Thresholds, June 29, 2020, p. 7 and attachments https://berkeleyca.gov/sites/default/files/2022-02/VMT-Criteria-and-Thresholds.pdf, accessed on February 27, 2024.

- Within one mile of a school that maintains a kindergarten or any of grades 1 to 2, inclusive (Berkeley Rose Waldorf School).

- Surrounded on all side by parcels developed for an urban use.

Accordingly, the Project site is located on a legal parcel within an urbanized area that meets at least one of the following four delineated criteria in AB 1633.

3. The Project density satisfies the requirements of AB 1633.

AB 1633 applies to projects that meet or exceed 15 dwelling units per acre.[33] Here, the Project proposes 110 dwelling units on 0.36 acres, resulting in a density that significantly exceeds this threshold.

4. Substantial evidence establishes that the Project is exempt under the Class 32 exemption for infill projects, and there are no applicable exceptions.

A. Substantial evidence establishes that the Class 32 exemption applies to the Project.

The Class 32 exemption applies to infill development projects that are (a) consistent with the applicable general plan and zoning designation, (b) on a site smaller than five acres and substantially surrounded by urban uses with no potential value as habitat for endangered, rare or threatened species, and where (c) approval of the project would not result in any significant effects relating to traffic, noise, air quality or water quality, and (d) the site can be adequately served by all required utilities and public services.[34]

Substantial evidence establishes that the Project meets each of these criteria.

i. The Project is consistent with the applicable general plan and zoning designation.

As established in the Project zoning application and applicant statement, the Project is consistent with General Plan land use designation, zoning district, and all applicable zoning development standards for the site. The Project site is designated as Avenue Commercial in the City's General Plan, and is zoned Telegraph Avenue Commercial District ("C-T") under the City's zoning ordinance. As noted in the Project zoning application, the Project is consistent with C-T zoning use designation, density, and development standards except where waivers and concessions have been applied to increase density under State Density Bonus Law. (See City of Berkeley Zoning Code, §§ 23.204.110(B); *Wollmer v. City of Berkeley* (2011) 193 Cal.App.4th 1329 [zoning standards for height, floor area ratio, and setbacks, which the City waived for the affordable housing project to obtain a density bonus, were not "applicable" for purposes of CEQA guidelines in-fill exemption for projects which comply with applicable general plan and zoning designations and regulations].) The Project is also consistent with relevant policies in the City's General Plan (see, e.g., Policy LU-3 ["Encourage infill development that … is compatible with neighboring land uses…"]) and the Southside Area Plan (see, e.g., Policy LU-D1

[33] Gov. Code § 65589.5(h)(6)(D)(i)(III)
[34] 14 Cal. Code Reg. 15332

["Encourage development of infill buildings along south side of Bancroft Way so that it becomes a more vital corridor serving students and other users of the Southside."].)

ii. The Project meets the site requirements for the Class 32 exemption.

As discussed above in Sections 2 and 3, the Project is on a 0.3-acre site and is substantially surrounded by urban uses. As discussed in Sections 1(C), (G) and (H), the Project site is currently developed with a retail clothing store, does not currently include any habitat for threatened or endangered species, and could not have any potential value for such habitat given its current developed status.

iii. The Project will not result in significant traffic effects.

In November 2020, the City of Berkeley adopted a General Plan amendment replacing Level of Service (LOS) traffic analysis with Vehicle Miles Traveled ("VMT") analysis to determine transportation-related impacts under CEQA.[35] The resulting City of Berkeley VMT Criteria and Thresholds provide screening criteria describing categories of projects presumed to cause a less-than-significant VMT impact. One such category is projects proposed within an identified Transit Priority Area, subject to exceptions for projects with certain characteristics . The proposed Project is within a Transit Priority Area. (*See* **Exhibit N**.) The TIS (**Exhibit B**) makes clear that none of the exceptions set forth in the City of Berkeley VMT Criteria and Thresholds apply to the proposed Project, and the Project therefore meets the City's criteria for a presumption of less than significant VMT impacts. The TIS further demonstrates that the Project will not Impact bicycle or pedestrian facilities, or any plans for such facilities. The project site is not located within two miles of a public or private use airport. It also is not within an Airport Influence Area (AIA) in any land use compatibility plan for any airport. The project would maintain the existing driveway and lane configuration on Bancroft Way and does not include any on-site parking requiring vehicle entries or exits to and from the Project site. Accordingly, the Project would not increase substantially increase transportation hazards due to any design feature or incompatible uses. Lastly, the Project is located on Bancroft Way, which is designated as an emergency access and evacuation route in the City of Berkeley General Plan and would allow for emergency vehicle access to the Project site. The Project will not alter the existing right-of-way on Bancroft Way. Accordingly, the Project will not result in inadequate emergency access. Based on the above substantial evidence, the Project will not result in any significant impacts related to traffic or transportation.

iv. The Project will not result in significant air quality effects.

As detailed in the Air Quality Analysis (**Exhibit A)** The proposed Project would have a less-than-significant impact on air quality when reviewed in accordance with the Bay Area Air Quality Management District's (BAAQMD) thresholds of significance for air quality. The Project will not conflict with or obstruct BAAQMD's 2017 Clean Air Plan, will not result in significant emissions of any criteria pollutants, will not expose sensitive receptors to substantial toxic air pollutant concentrations, and will not result in any other emissions adversely affecting a substantial number of people.

[35] *See* General Plan Amendment: Vehicle Miles Traveled for Transportation Impact Analysis under the California Environmental Quality Act , City Council Staff Report, Office of the City Manager, November 17, 2020, available at: https://berkeleyca.gov/sites/default/files/documents/2020-11-17%20Item%2018%20General%20Plan%20Amendment%20%20Vehicle%20Miles.pdf.

v. The Project will not result in significant noise effects.

The Project will not result in any significant noise effects. The Project will be subject to local code requirements and generally applicable provisions that will ensure that there are no noise impacts. The City's standard Construction COAs, for example, require the Project to implement a noise reduction program to ensure that construction noise and vibration does not violate exterior or interior noise standards on surrounding properties.[36] Furthermore, construction will not involve any pile driving, and the foundation for the Project will be constructed using cast-in-place concrete piles. Additional findings

vi. The Project will not result in significant water quality effects.

The Project will not result in any significant effects with regard to water quality, as documented in the Water Quality Memo attached hereto as **Exhibit E**. Accordingly, the Project will not have any significant effects on water quality.

vii. The Project site can be adequately served by all required utilities and public services.

The Project site is in an urbanized area already developed with a commercial use, and is currently adequately served by utilities and public services. After development, the Project will continue to be served by the same utilities and public services. With regard to water and wastewater capacity, the Project's addition of 110 residential units is consistent with the Alameda County population growth of 577,000 between 2010 and 20240 assumed by the East Bay Municipal Utility District in its 2020 Urban Water Management Plan.[37] ("UWMP"). Accordingly, the UWMP and the programs and measures therein will ensure that the Project is adequately served by EBMUD.

Pursuant to the above analysis and substantial evidence, the Project qualifies for the Class 32 Infill Exemption.

B. <u>Substantial evidence establishes that no exceptions apply to the Class 32 exemption for this Project.</u>

Under CEQA, an exception may prohibit the application of a categorical exemption if the Project (a) is located in an environmentally sensitive area; (b) causes cumulative impacts due to successive projects implemented of the same type, in the same place; (c) causes a significant impact due to unusual circumstances; (d) causes damage to scenic resources within a state scenic highway; (e) is on the "Cortese List" of hazardous sites; or (f) causes a substantial adverse change in the significance of a historical resource.[38]

None of the exceptions to the Class 32 exemption apply here. The Project site is entirely disturbed and does not contain environmentally sensitive features, as the building envelope is virtually coextensive with the entire parcel. There are no cumulative impacts resulting from this project; the project will have the cumulative effect of reducing environmental impacts, such as

[36] Berkeley Municipal Code § 13.40
[37] East Bay Municipal Utility District Urban Water Management Plan 2020 at p. 7, available at: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan.
[38] 14 Cal. Code Reg. § 15300.2

vehicle-miles traveled, by locating higher density housing near high-quality public transit and the University of California, Berkeley campus. There are no unusual circumstances associated with this Project, as it proposes a high-quality mixed-use development on the Bancroft corridor, consistent with the goals of the Southside Plan. The site will cause no impacts to scenic resources within a state scenic highway (to the extent this criterion even applies after the enactment of SB 743), and the site is not located on the Cortese List.

With regard to historical resources, the Page & Turnbull Report found that the Project would not have a significant effect on cultural or historical resources. (See **Exhibit C**) The Page & Turnbull Report concluded that the Project will not have a significant effect on existing historical resources such as the Fred Turner Building, and that the existing Project site is not eligible for listing under the California Register. In addition, the Page & Turnbull Report found that the existing site does not meet any of the historical designation criteria under the City's landmark preservation ordinance, largely due to the building's current condition:

> The subject property at 2530 Bancroft Way does not appear to be eligible as a City of Berkeley Landmark for architectural merit. The subject building was designed and built as a restrained, but good example of a Late Moderne commercial building that was completed for use by retail tenants. It has been altered from its original appearance and is not, in its current condition, a recognizable example of this style. Built in 1949, the building was not an early example its style within the City of Berkeley, and it no longer sufficiently conveys its original design to adequately represent a “last” or “significant” example of the style. In its current condition the building does not demonstrate architectural merit such that it would qualify as a landmark.[39]

Based on the above and other findings, the Page & Turnbull Report concluded with the following professional recommendation:

> While originally a good example of a Late Moderne commercial building, its current appearance does not convey this original architectural style. The subject property does not appear to be eligible for individual listing in the California Register under any criteria, nor does the subject property appear to be eligible for designation as a City of Berkeley Landmark or Structure of Merit. The property does not therefore appear to qualify as a historic resource for the purposes of review under [CEQA]. As such, the California Historical Resource Status Code (CHRSC) of “6Z” is recommended for the building, indicating that it has been found through survey evaluation to be ineligible for listing in the National Register, California Register, or local register.

Here, we note that one of the City's project planners inquired during application review about potential features of the building that may be interior to its envelope but would require removal of portions of the building's exterior façade. The Applicant previously responded that removal of the building façade, such as the existing blue awning, is not appropriate. Even if removal of the blue awning were to expose a highly ornate building of high artistic value, CEQA would still not be implicated under this hypothetical scenario. The "destruction of an irreplaceable antiquity not being perceived by the public does not qualify as a significant effect [under CEQA]."[40] The City's Landmark Preservation Ordinance provides further support that a portion of the building not

[39] Page & Turnbull Report, Exhibit C, DPR p. 22 (emphasis in original)
[40] *Martin v. City & Cnty. of San Francisco* (2005) 135 Cal.App.4th 392, p. 405

visible to the public cannot be landmarked, as the Commission's jurisdiction is limited only to the exterior façade of the building.[41]

The Page & Turnbull report also concluded that the Project's materials, storefront style, and fenestration are compatible with the style and character of the City's Telegraph Commercial Area. The Page & Turnbull report noted that the east façade of the Project would be located nine feet from the west façade of the Fred Turner Building. Accordingly, the Project will not result in any significant impacts related to historical or cultural resources.

As a result, substantial evidence in the zoning application, the materials submitted concurrently with this letter, and the record of proceedings as a whole, supports the finding that there are no impacts to historical resources, unusual circumstances, nor any other exceptions that could apply to the Class 32 exemption for this Project.

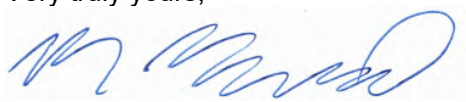
* * *

In summary, this Project meets all of the criteria under the HAA to qualify as an eligible high-density residential infill project subject to an expedited CEQA exemption under AB 1633.

Given the mandatory effect of the HAA as to this Project, the applicant requests that the City find that the Project is exempt from further CEQA review pursuant to the Class 32 Infill Exemption. While up to 90 days may be allowed for this decision, the applicant respectfully requests that a decision be made sooner.

Thank you for considering this request and please do not hesitate to contact me if you have any questions regarding the mandatory Class 32 CEQA exemption under AB 1633 for this Project.

Very truly yours,



Robin R. Baral
Senior Counsel

cc: Farimah Brown, City Attorney, City of Berkeley
Anne Hersch, Planning Manager
Client

[41] See BMC, § 3.24.100, *Martin, supra,* p. 404-6

Exhibit A

Air Quality Analysis for the 2530 Bancroft Way Mixed-Use Project in Berkely, Alameda County, California, Philip Ault, FirstCarbon Solutions

FIRSTCARBON SOLUTIONS
FCS INTERNATIONAL, INC.

Memorandum

Date: February 9, 2024

To: Jared Munneke, Development Manager–Legacy Bancroft Property Owner, LLC

From: Philip Ault, Director of Noise and Air Quality, FirstCarbon Solutions

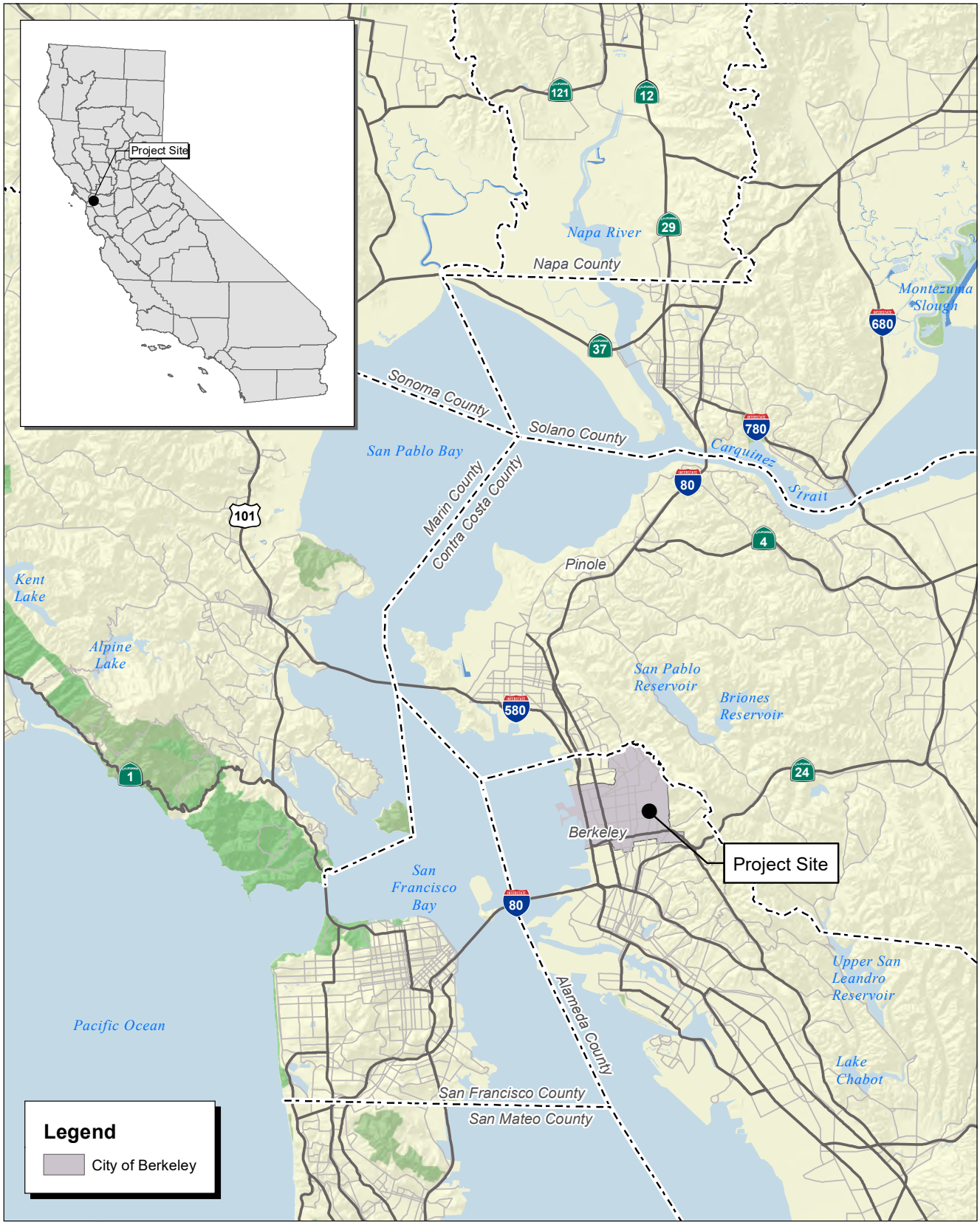
Subject: Air Quality Analysis for the 2530 Bancroft Way Mixed-Use Project in the City of Berkeley, Alameda County, California

On behalf of Legacy Bancroft Property Owner, LLC (project applicant), FirstCarbon Solutions (FCS), prepared this memorandum to summarize the findings of the air quality analysis prepared for the proposed 2530 Bancroft Way Mixed-Use Project (proposed project). The project site is located in the City of Berkeley, in Alameda County, California (Exhibit 1). The proposed project is located at 2530 Bancroft Way, which is the south side of the University of California, Berkeley (Exhibit 2).

PROJECT UNDERSTANDING

The project applicant proposes to demolish the existing commercial building on the project site and construct a 12-story mixed-use building with 110 multi-family residential units (Exhibit 3). The proposed project would develop 137,638 square feet of residential space, including private patios, courtyard, and roof deck. Additionally, 2,195 square feet of retail space would be included on the ground floor. No parking spaces would be provided on-site. The proposed project would have an overall density of 367 dwelling units per acre (du/ac).

The project site is bounded by Bancroft Way to the north, and retail uses to the east, west, and south. According to the City of Berkeley's General Plan (General Plan), The project site is designated as "Avenue" and is zoned Telegraph Avenue Commercial District (C-T) by the City of Berkeley Zoning Ordinance. The C-T zoning permits residential uses above the ground floor of retail uses. The C-T zoning district is intended for higher density residential development and higher density residential-commercial mixed-use development.



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

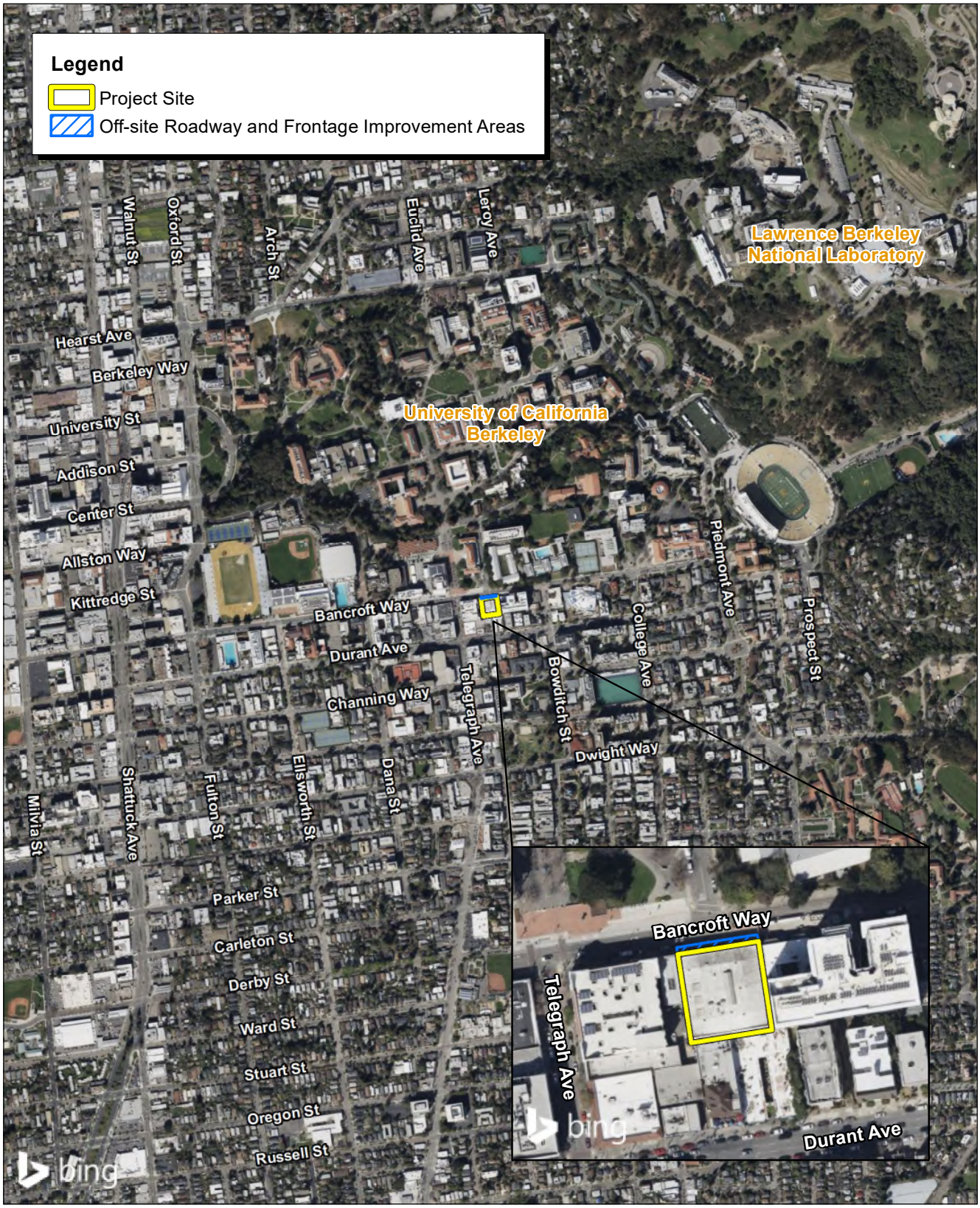
FIRSTCARBON SOLUTIONS™

5 2.5 0 5
Miles

Exhibit 1
Regional Location Map

59440001 • 11/2023 | 1_regional.mxd

CITY OF BERKELEY
2530 BANCROFT WAY MIXED-USE PROJECT
AIR QUALITY MEMORANDUM



Source: Bing Aerial Imagery. City of Berkeley.

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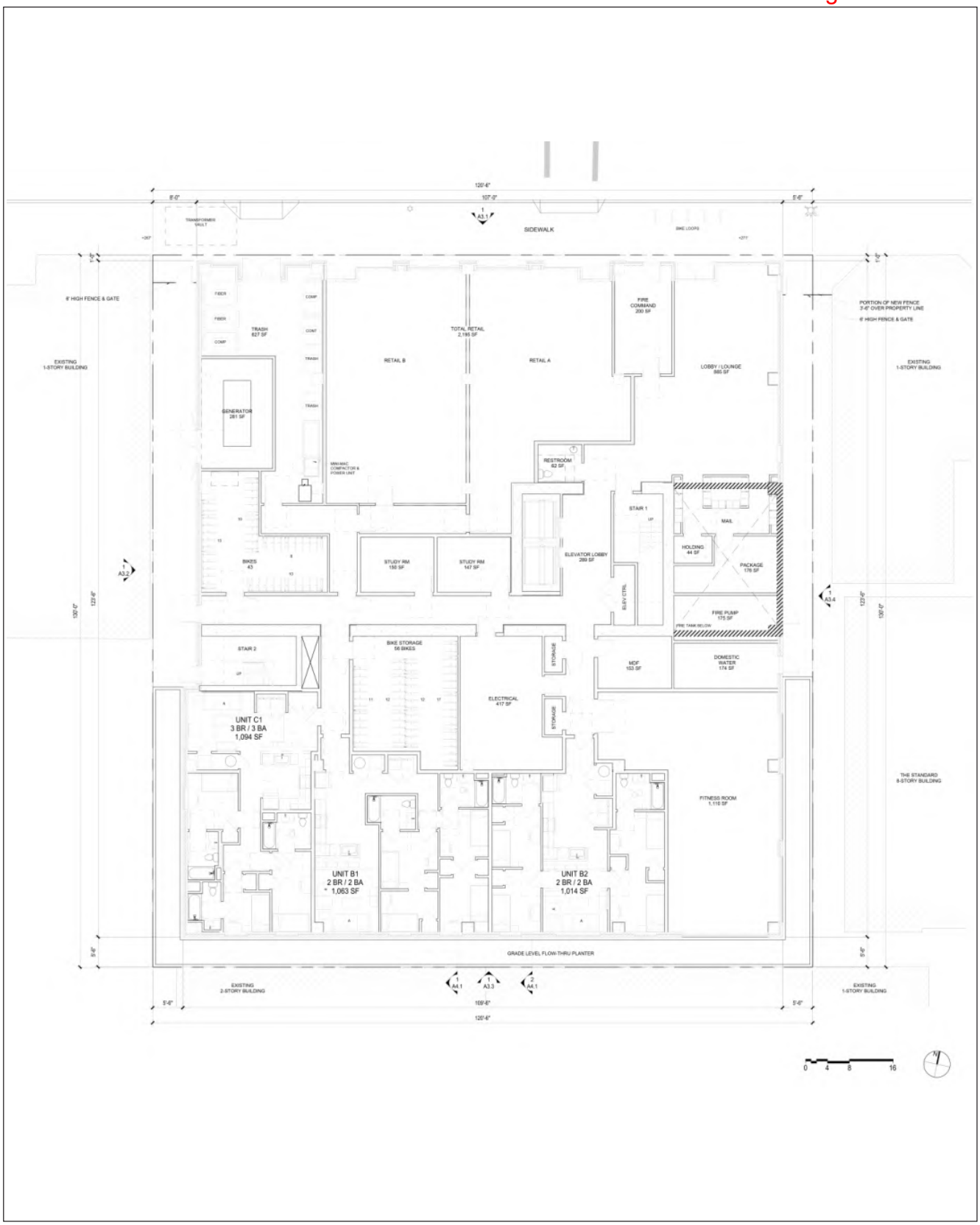
1,000 500 0 1,000
Feet

Exhibit 2
Local Vicinity Map

59440001 • 11/2023 | 2_local_vicinity.mxd



Source: Trachtenberg Architects, MYEFSKI Architects, Landmark Properties. 08/02/2023.

FIRSTCARBON SOLUTIONS™

Exhibit 3
Site Plan

The proposed project is located 200 feet south of Sproul Hall of University of California, Berkeley and is within walking distance of a range of amenities within the campus. Additionally, the project features all-electric building design, and the project site is located in a Priority Development Area (PDA) recognized by Alameda County and the Association of Bay Area Governments (ABAG) as being close to multimodal transportation. PDAs are typically areas near public transit planned for new homes, jobs, and community amenities.[1] The proposed project would accommodate 342 residents, and the project location would encourage future residents to utilize alternative transportation modes, for example, walking, bicycling, and transit to reach their destinations.

SETTING AND REGULATORY FRAMEWORK

Air Quality Regulatory Framework

The proposed project is in the City of Berkeley and within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area Air Basin (Air Basin). Within the Air Basin, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter of 2.5 microns and smaller ($PM_{2.5}$) and 10 microns and smaller (PM_{10}), and lead (Pb) have been established by both the California Environmental Protection Agency (Cal/EPA) and the United States Environmental Protection Agency (EPA).[2] California has also set standards for sulfate concentrations and atmospheric visibility.

The EPA and the California Air Resources Board (ARB) designate air basins, or specific areas within an air basin, as "nonattainment" where ambient air quality standards are exceeded. If standards are met, the area is designated as "attainment." If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The Air Basin is classified as a nonattainment area for the State ozone and particulate matter standards and as nonattainment for federal ozone 8-hour and $PM_{2.5}$ 24-hour standards. This indicates that the BAAQMD has not achieved compliance with these State and federal standards in the Air Basin.

In addition to regulating criteria pollutants for attainment of State and federal standards, the ARB and BAAQMD regulate and control emissions of toxic air contaminants (TACs) to further protect human health. TACs are a class of pollutants that include hundreds of chemicals hazardous to human health. Long-term exposure to TACs may cause more severe health effects such as neurological damage, hormone disruption, developmental defects, and cancer. TAC emissions are highly localized and are emitted from mobile sources such as cars, trucks, and marine and rail sources as well as stationary and area sources. The ARB and BAAQMD addressed their emissions via mobile source strategies, stationary source permitting requirements and health risk thresholds for new development under review in the

[1] Metropolitan Transportation Commission (MTC). 2022. Priority Development Area (PDAs). Website: https://mtc.ca.gov/planning/land-use/priority-development-areas-pdas. Accessed November 2, 2023.

[2] The United States Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for six of the most common air pollutants—carbon monoxide, lead, ground level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as "criteria" air pollutants (or simply "criteria pollutants").

California Environmental Quality Act (CEQA) process. The average cancer risk from TACs in the Bay Area has been reduced by 80 percent since 1990. Diesel exhaust is the primary TAC contributor to health risk in the Bay Area.

For CEQA analysis, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the proposed project's significance impact determinations related to air quality from criteria pollutants and TACs.

Thresholds of Significance

The significance criteria established or recommended by the BAAQMD were used to make CEQA significance determinations related to the proposed project's impacts on air quality. The BAAQMD has adopted standards of significance for construction and operation. Table 1 shows the thresholds of significance. In developing the thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts on the region's existing air quality conditions.

Table 1: BAAQMD Thresholds of Significance

Pollutant	Construction Thresholds Average Daily Emissions (pounds/day)	Operational Thresholds	
		Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)
Criteria Air Pollutants			
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance, other Best Management Practices (BAAQMD Basic Construction Mitigation Measures)	Not Applicable	
Health Risks and Hazards for New Sources			
Excess Cancer Risk	10 per one million	10 per one million	
Chronic or 1-hour Acute Hazard Index	1.0	1.0	
Incremental annual average $PM_{2.5}$	0.3 µg/m^3	0.3 µg/m^3	

Pollutant	Construction Thresholds Average Daily Emissions (pounds/day)	Operational Thresholds	
		Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)
Health Risks and Hazards for Sensitive Receptors (Cumulative from All Sources within 1,000-Foot Zone of Influence) and Cumulative Thresholds for New Sources			
Excess Cancer Risk	100 per 1 million		
Chronic Hazard Index	10.0		
Annual Average $PM_{2.5}$	0.8 µg/m^3		

Notes:
µg/m^3 = micrograms per cubic meter
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter, including dust, 10 micrometers or less in diameter
$PM_{2.5}$ = particulate matter, including dust, 2.5 micrometers or less in diameter
ROG = reactive organic gases
Source: Bay Area Air Quality Management District (BAAQMD). 2022. CEQA Air Quality Guidelines. April.

The BAAQMD requires that all construction projects under the implementation of the General Plan incorporate the most recent Best Management Practices (BMPs) for dust control purposes.

BAAQMD Best Management Practices

Implement BAAQMD BMPs During Construction

All construction projects under the implementation of the General Plan shall incorporate the most recent BMPs as required by the BAAQMD.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered with nonpotable water two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- All roadways, driveways, and sidewalks shall be paved as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure [ATCM] Title 13, Section 2485 of the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

City of Berkeley's General Plan

The General Plan's goals, objectives, and policies guide Citywide development decisions. The following policies include requirements to reduce air quality impacts.

Policy EM-20 **City of Berkeley Fleet.** The City should exceed federal and State standards for all City fleet vehicles and use all means practical to reduce emissions of criteria pollutants and greenhouse gases. Through attrition, eliminate all heavy-duty, diesel-fueled vehicles. All vehicle acquisitions should be of a size and fuel-type (including bicycles, ultra-light vehicles, electric vehicles and/or hybrid vehicles, and premium-efficiency conventional vehicles) that are appropriate for the tasks and have the least amount of emissions.

Policy EM-18 **Regional Air Quality Action.** Continue working with the Bay Area Air Quality Management District and other regional agencies. Improve air quality through pollution prevention methods. Ensure enforcement of air emission standards. Reduce local and regional traffic (the single largest source of air pollution in the City) and promote public transit. Promote regional air pollution prevention plans for business and industry.

Policy EM-21 **Alternative Fuels.** Work with the University of California, the Berkeley Unified School District, and other agencies to establish natural gas fueling and electric vehicle recharging stations accessible to the public.

Policy EM-22 **Public Awareness**. Increase public awareness of air quality problems, rules, and solutions through use of City publications and networks. Work on a local and regional level to improve air quality for Berkeley residents and the region.

City of Berkeley Standard Conditions of Approval

The City of Berkeley 2023-2031 Housing Element Update Final Environment Impact Report (Housing Element Update Final EIR) was published in 2022.[3] Development projects in Berkeley are required to comply with Standard Conditions of Approval (SCA) for use permits under the Zoning Ordinance.

[3] City of Berkeley. 2022. 2023-2031 Housing Element Update Responses to Comments on the Draft Environmental Impact Report and Final Environment Impact Report. Website: https://berkeleyca.gov/sites/default/files/documents/ATT%202%20FEIR_RTC.pdf. Accessed November 9, 2023.

Implementation of the following SCA which has been applied in recent development projects in the City of Berkeley would ensure the associated air quality impact to be less than significant.[4]

SCA Construction Air Quality

Diesel Particulate Matter Controls During Construction

All off-road construction equipment used for projects with construction lasting more than 2 months shall comply with **one** of the following measures:

Measure A The project applicant shall prepare a health Risk Assessment that demonstrates the project's on-site emissions of diesel particulate matter during construction will not exceed health risk screening criteria after a screening-level Health Risk Assessment is conducted in accordance with current guidance from BAAQMD and OEHHA [California Office of Environmental Health Hazard Assessment]. The Health Risk Assessment shall be submitted to the Public Works Department for review and approval prior to the issuance of building permits.

Measure B All construction equipment shall be equipped with Tier 2 or higher engines and the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by the California Air Resources Board (ARB). The equipment shall be properly maintained and tuned in accordance with manufacturer specifications.

In addition, a Construction Emissions Minimization Plan (Emissions Plan) shall be prepared that includes the following:

- An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date.
- A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract. The Emissions Plan shall be submitted to the Public Works Department for review and approval prior to the issuance of building permits.

The Housing Element Update Final EIR also states that future development would be required to implement the City of Berkeley Standard SCA and General Plan Policy EM-18, as shown above.

[4] Zoning Adjustment Board. 2023. Staff Report for 2127-2159 Dwight Way. Website: https://berkeleyca.gov/sites/default/files/documents/2023-11-30_ZAB_Item%202_2127-2159%20Dwight_Staff%20Report%20and%20Attachments.pdf. Accessed December 4, 2023.

Therefore, compliance with the City's SCA, the BAAQMD BMPs, and SCA Measure A **or** Measure B would ensure the proposed project construction emissions would be less than significant. Compliance with BAAQMD BMPs and SCA Measure B would ensure all construction equipment would be equipped with Tier 4 engines (or VDECS, as applicable and available) and would ensure the proposed project would result in a less than significant air quality impact. Therefore, with implementation of BAAQMD BMPs and the City's SCA Air Quality Measure B, a construction Health Risk Assessment (HRA) is not required.

AIR QUALITY EMISSIONS IMPACT ANALYSIS

According to CEQA Guidelines Appendix G, to determine whether impacts related to air quality are significant environmental effects, the following questions are analyzed and evaluated.

Would the project result in:

Impact AIR-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact. The project site is located in the San Francisco Bay Area Air Basin, where the BAAQMD regulates air quality. The EPA is responsible for identifying nonattainment and attainment areas for each criteria pollutant within the Air Basin. The Air Basin is designated nonattainment for State standards for 1-hour and 8-hour ozone, 24-hour respirable particulate matter (PM_{10}), annual PM_{10}, and annual fine particulate matter ($PM_{2.5}$).[5]

The BAAQMD has adopted several air quality policies and plans to address regional air quality standards, the most recent of which is the 2017 Clean Air Plan. The 2017 Clean Air Plan was adopted in April of 2017 and serves as the regional Air Quality Plan (AQP) for the Air Basin for attaining National Air Quality Standards (NAAQS). The primary goals of the 2017 Clean Air Plan are to protect public health and protect the climate. The 2017 Clean Air Plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants[6] and greenhouse gas (GHG) emissions.[7] The 2017 Clean Air Plan also accounts for projections of population growth provided by ABAG and Vehicle Miles Traveled (VMT) provided by the Metropolitan Transportation Commission (MTC) and identifies strategies to bring regional emissions into compliance with federal and State air quality standards. A project would be judged to conflict with or obstruct implementation of the 2017 Clean Air Plan if it would result in substantial new regional emissions not foreseen in the air quality planning process.

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[5] Bay Area Air Quality Management District (BAAQMD). 2022. CEQA Air Quality Guidelines. April. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?la=en. Accessed September 25, 2023.

[6] The EPA has established National Ambient Air Quality Standards (NAAQS) for six of the most common air pollutants—carbon monoxide, lead, ground level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as "criteria" air pollutants (or simply "criteria pollutants").

[7] A greenhouse gas (GHG) emission is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, GHG emissions are responsible for the greenhouse effect, which ultimately leads to global warming.

The BAAQMD does not provide a numerical threshold of significance for project-level consistency analysis with AQPs. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- **Criterion 1:** Does the project support the primary goals of the AQP?
- **Criterion 2:** Does the project include applicable control measures from the AQP?
- **Criterion 3:** Does the project disrupt or hinder the implementation of any AQP control measures?

Criterion 1

The primary goals of the 2017 Clean Air Plan, the current AQP to date, are to:

- Attain air quality standards;
- Reduce population exposure to unhealthy air and protect public health in the Bay Area; and
- Reduce GHG emissions and protect the climate.

A measure for determining whether the proposed project supports the primary goals of the AQP is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. This measure is determined by comparing project emissions to the significance thresholds identified by the BAAQMD for construction- and operation-related pollutants. These significance thresholds are applied in the evaluation of Impact AIR-2, below. As discussed under Impact AIR-2, the proposed project would not contribute to significantly cumulative nonattainment pollutant violations nor expose sensitive receptors to substantial pollutant concentrations after incorporating BAAQMD dust control BMPs and City's construction SCA Measure B, and the proposed project would be consistent with Criterion 1.

Criterion 2

Another measure for determining whether a project is consistent with the AQP is to determine whether the project is inconsistent with the growth assumptions incorporated into the AQP and, thus, whether it would interfere with the region's ability to comply with federal and California air quality standards. The development of the AQP is based in part on the General Plan land use determinations of the various cities and counties that constitute the Air Basin. According to the General Plan, the project site has a land use designation "Avenue" and is zoned C-T by the City of Berkeley Zoning Ordinance. The C-T zoning district is intended for the construction, use, and occupancy of higher density residential development and higher density residential-commercial mixed-use development. The proposed project is intended for university student housing, with a CalEEMod estimate of 342 residents and a small number of employees. The proposed project would be consistent with the C-T zoning ordinance and therefore the General Plan buildout population growth. The proposed project would not create growth that exceeds what is intended in the General Plan, which informs the AQP.

Accordingly, the proposed project would not result in substantial unplanned population growth and the overall development of the project site would be consistent with the growth assumptions incorporated into the Clean Air Plan.

The AQPs also assume that all mandatory regulations to reduce air pollution would be adhered to. Therefore, to conform to the assumptions in the AQP, a project must be consistent with all applicable measures contained in the applicable AQP. The Clean Air Plan contains 85 control measures to reduce air pollutants and GHGs at the local, regional, and global levels. Along with the traditional stationary, area, mobile source, and transportation control measures, the Clean Air Plan contains several control measures designed to protect the climate, promote mixed-use, and compact development to reduce vehicle emissions and exposure to pollutants from stationary and mobile sources. The Clean Air Plan also includes an account of the implementation status of control measures identified in the 2010 Clean Air Plan.

Table 2 lists the relevant Clean Air Plan policies to the proposed project and evaluates the proposed project's consistency with the policies. As shown below, the proposed project would be consistent with applicable measures.

Table 2: Project Consistency with Applicable Clean Air Plan Control Measures

Control Measure	Project Consistency
Buildings Control Measures	
BL1: Green Buildings	**Consistent**. The proposed project would not conflict with the implementation of this measure. The proposed project would comply with the latest energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption.
BL4: Urban Heat Island Mitigation	**Consistent.** The proposed building would occupy the entire project site and would provide planters on-site as part of the landscaping.
Energy Control Measures	
EN1: Decarbonize Electricity Generation	**Consistent.** The proposed project would not conflict with the implementation of this measure. The proposed project would comply with the latest energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption. In addition, the proposed project would be all-electric design and no natural gas would be used, therefore the proposed project would be consistent with this measure.
EN2: Decrease Electricity Demand	**Consistent.** The proposed project would be required to conform to the energy efficiency requirements of the California Building Standards Code (CBC), also known as Title 24, which was adopted to meet an Executive Order in the Green Building Initiative to improve the energy efficiency of buildings through aggressive standards. The 2022 Title 24 Standards are the current State building regulations, which went into effect on January 1, 2023. Proposed buildings that would receive building permits after January 1, 2023, would be subject to the 2022 Title 24 Standards, including the proposed project.
Natural and Working Lands Control Measures	
WA3: Green Waste Diversion	**Consistent.** The waste service provider for the proposed project would be required to meet the Assembly Bill (AB) 341 and Senate Bill (SB) 939 and SB 1374 requirements that require waste service providers to divert green waste. All plant refuse generated during operations of the proposed project would be recycled off-site.

Control Measure	Project Consistency
WA4: Recycling and Waste Reduction	**Consistent.** The waste service provider for the proposed project would be required to meet the AB 341 and SB 939 and SB 1374 requirements that require waste to be recycled.
Stationary Control Measures	
SS36: Particulate Matter from Trackout	**Consistent.** Mud and dirt that could be tracked out onto the nearby public roads during construction activities shall be removed promptly by the Contractor based on the Bay Area Air Quality Management District's (BAAQMD's) requirements, as outlined below in Recommended Construction Requirements. The BAAQMD requires the proposed project to implement BMPs for fugitive dust emissions during construction.
SS37: Particulate Matter from Asphalt Operations	**Consistent.** Asphalt used during project construction would be subject to BAAQMD Regulation 8, Rule 15-Emulsified and Liquid Asphalts. Although this rule does not directly apply to the proposed project, it does limit the reactive organic gas (ROG) content of asphalt available for use during construction by regulating the sale and use of asphalt. Using asphalt from facilities that meet BAAQMD regulations, the proposed project would be consistent with this Clean Air Plan measure.
Transportation Control Measures	
TR9: Bicycle and Pedestrian Access and Facilities	**Consistent.** With respect to planned pedestrian and bicycle facilities in the project area, the City's Bicycle Plan includes a recommendation to implement protected intersections on Telegraph Avenue at Bancroft Way and Durant Street. The proposed project is approximately 200 feet south of the campus of University of California, Berkeley; therefore, the future residents would be able to walk a short distance to the campus. Therefore, the proposed project would not conflict with or significantly impact any of the existing pedestrian or bicycle facilities and should not create any new safety issues in the area. There are existing sidewalks and crosswalks along the route from the project to the Bay Area Rapid Transit (BART) station. In relation to the existing conditions, the proposed project would not cause substantial changes to the pedestrian or bicycle traffic in the area and would not substantially impact any existing bicycle or pedestrian facilities. Therefore, the proposed project would not conflict with, and would be consistent with the BAAQMD's effort to encourage planning for bicycle and pedestrian facilities.
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. April 19.	

In summary, the proposed project would not conflict with any applicable measures under the 2017 Clean Air Plan after implementing BAAQMD construction BMPs and SCA Measure B; therefore, the proposed project would be consistent with Criterion 2.

Criterion 3

The proposed project would not preclude extension of a transit line or bike path, propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures. As shown in Table 2, the proposed project would

incorporate several AQP control measures as project design features, such as utilizing asphalt which would be compliant with BAAQMD regulations, complying with energy efficiency standards contained in the 2022 California Building Standards Code (CBC), and applying all-electric design. Considering this information, the proposed project would not disrupt or hinder the implementation of any AQP control measures. The proposed project is therefore consistent with Criterion 3.

Summary

As discussed above, the proposed project would be consistent with all three criteria with the BAAQMD BMPs (listed under both *Threshold of Significance*, and the *Compliance Requirement* at the end) and the City's SCA Air Quality Measure B as project compliance requirements. Thus, the proposed project would not conflict with the 2017 Clean Air Plan. Therefore, impacts associated with conflicting with or obstructing the 2017 Clean Air Plan would be less than significant.

Impact AIR-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

Less than significant impact. This impact is related to the cumulative effect of a project's criteria pollutant emissions. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants results from past and present development within the Air Basin, and this regional impact is a cumulative impact. Therefore, new development projects (such as the proposed project) within the Air Basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when evaluated in combination with past, present, and future development projects.

Potential regional impacts could result in exceedances of State or federal standards for NO_X, particulate matter (PM_{10} and $PM_{2.5}$), or CO. NO_X emissions are of concern because of potential health impacts from exposure to NO_X emissions during both construction and operation and as a precursor in the formation of airborne ozone. PM_{10} and $PM_{2.5}$ are of concern during construction because of the potential to emit exhaust emissions from the operation of off-road construction equipment and fugitive dust during earth-disturbing activities (construction fugitive dust). CO emissions are of concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion and resulting health effects.

Reactive organic gas (ROG) emissions are also important because of their participation in the formation of ground level ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the project's incremental effects would be cumulatively considerable. Rather, the determination of cumulative air quality impacts for construction and operational emissions is based on whether the proposed project would result in emissions that exceed the BAAQMD thresholds of significance for construction and operations on a project level. The thresholds of significance represent the allowable emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the BAAQMD thresholds of significance on the project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. Construction and operational emissions are discussed separately below.

Construction Emissions

During construction, fugitive dust would principally be generated from demolition, site grading and other earthmoving activities. The majority of fugitive dust would remain localized and would be deposited near the project site; however, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from this source. Exhaust emissions would also be generated from the operation of the off-road construction equipment and on-road construction vehicles.

Construction Fugitive Dust

PM_{10} and $PM_{2.5}$ (fugitive dust) are recognized to impact local communities. Construction-related activities, such as soil disturbance, grading, and material hauling, can also result in fugitive dust emissions (e.g., $PM_{2.5}$ and PM_{10}). With implementation of BAAQMD BMPs, short-term construction fugitive dust impacts would be less than significant.

Construction Air Pollutant Emissions: ROG, NO_X, Exhaust PM_{10}, and Exhaust $PM_{2.5}$

California Emissions Estimator Model (CalEEMod) Version 2022.1 was used to estimate the proposed project's construction emissions. CalEEMod provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the model recommended by the BAAQMD for estimating project emissions. Estimated construction emissions are compared with the applicable thresholds of significance established by the BAAQMD to assess ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$ construction emissions to determine significance for this criterion.

Construction of the proposed project is expected to begin in September 2024 and last 24 months. Note that construction emissions would likely decrease if the construction schedule is deferred to later years because of improvements in technology and more stringent regulatory requirements. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as CEQA Guidelines require.

Table 3: Preliminary Construction Schedule

Phase	Phase Start Date	Phase End Date	Working Days per Week	Total Number of Working Days
Demolition	9/2/2024	9/27/2024	5	20
Earthwork plus Foundations	9/30/2024	2/14/2025	5	100
Building Construction	2/17/2025	11/21/2025	5	200
Core plus Interior Coating	7/14/2025	9/5/2026	5	300
Exterior Coating	2/9/2026	9/5/2026	5	150

The calculations of pollutant emissions from the construction equipment account for the type of equipment, horsepower and load factors of the equipment, and the duration of equipment use. The equipment list is based on typical high-rise building construction practice and information provided by the project applicant. Average daily construction emissions are compared with BAAQMD significance thresholds in Table 4.

Table 4: Construction Emissions (Average Daily Rate)

Parameter	Air Pollutants* (tons/year)				
	Year	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Project Construction					
Demolition; Earthwork plus Foundations	2024	0.046	0.371	0.0093	0.0089
Earthwork plus Foundations; Building Construction; Core plus Interior Coating	2025	0.347	0.383	0.0112	0.0108
Core plus Interior Coating; Exterior Coating	2026	0.756	0.272	0.0079	0.0073
Total Emissions (tons/year)	—	1.15	1.03	0.0283	0.0270
Daily Average					
Total Emissions (lbs/year)		2,297.51	2,053.59	56.66	53.95
Average Daily Emissions (lbs/day)**		4.38	3.91	0.11	0.10
Significance Threshold (lbs/day)		**54**	**54**	**82**	**54**
Exceeds Significance Threshold?		**No**	**No**	**No**	**No**

Notes:
lbs = pounds
NO_X = oxides of nitrogen
PM_{10} = particulate matter, including dust, 10 micrometers or less in diameter
$PM_{2.5}$ = particulate matter, including dust, 2.5 micrometers or less in diameter
ROG = reactive organic gases
* Calculations shown in the table reflect unrounded totals from detailed CalEEMod Excel Output.

Parameter	Air Pollutants* (tons/year)				
	Year	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)

** Calculated by dividing the total lbs of emissions by the total number of nonoverlapping working days of construction (525 workdays).
Source: CalEEMod Excel Output.

As indicated in Table 4, the construction emissions from all construction activities are below the recommended thresholds of significance. The proposed project would implement BAAQMD BMPs to reduce fugitive dust emissions during project construction. In addition, the proposed project would comply with all applicable district rules, including Regulation 6, Rule 1 (General Requirements) and Regulation 6, Rule 6 (Prohibition of Trackout) which require dust generating operations to limit particulate matter emissions. The proposed project would also implement the City's SCA Air Quality Measure B, which significantly reduces diesel particulate matter emissions. Therefore, the proposed project's construction would have a less than significant impact related to emissions of ROG, NO_X, exhaust PM_{10}, exhaust $PM_{2.5}$, and fugitive dust.

Operational Emissions

Operational Air Pollutant Emissions: ROG, NO_X, PM_{10}, and $PM_{2.5}$

Operational emissions would include area, energy, and mobile sources. Area sources would include emissions from architectural coatings, consumer products, and landscape equipment. The proposed project would be all electric and would not have any natural gas infrastructure. Therefore, there are no direct emissions related to building energy use for space or water heating. Mobile sources include exhaust and road dust emissions from the vehicles that would travel to and from the project site. Pollutants of concern include ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Additionally, the proposed project would include an emergency generator of 300 kilowatt (kW) that requires annual testing of 50 hours as part of the project operation. The proposed project's criteria air pollutant and precursor emissions are shown below.

Table 5: Project Operational Criteria Pollutant Emissions

Emissions Source	ROG	NO_X	PM_{10} Total	$PM_{2.5}$ Total
	Tons per Year			
Area	0.7	<0.01	<0.01	<0.01
Energy[1]	0	0	0	0
Mobile	0.218	0.147	0.249	0.064
Stationary	0.02	0.05	0.002	0.002
Total (tons/year)	**0.93**	**0.20**	**0.25**	**0.07**

Emissions Source	ROG	NO_X	PM_{10} Total	$PM_{2.5}$ Total
	Tons per Year			
Significance Threshold (Tons/Year)	10	10	15	10
Exceeds Significance Threshold?	No	No	No	No
Average Daily Emissions				
Total Average (pounds/day)[2]	5.1	1.1	1.4	0.4
Significance Threshold (pounds/day)	54	54	82	54
Exceeds Significance Threshold?	No	No	No	No

Notes:
NO_X = nitrogen oxides
PM_{10} = particulate matter, including dust, 10 micrometers or less in diameter
$PM_{2.5}$ = particulate matter, including dust, 2.5 micrometers or less in diameter
ROG = reactive organic gases
[1] The proposed project would be all-electric design, therefore the direct criteria pollutant emissions would be zero.
[2] The average daily emissions are calculated using 365 operational days in 2026.
Source: CalEEMod Excel Output.
- Calculations shown in the table reflect unrounded totals from CalEEMod Excel Ouput.
Source: CalEEMod Excel Output.

As shown in the table above, the proposed project's regional daily operational emissions would not exceed any of the BAAQMD thresholds of significance. Therefore, the proposed project would not result in a considerable net increase of any criteria pollutant for which the project region is nonattainment during operation or construction.

Operational Carbon Monoxide Hotspot

The CO emissions from traffic generated by the proposed project are a concern at the local level because congested intersections can result in high, localized concentrations of CO (referred to as a CO hotspot).

The BAAQMD screening criteria[8] were used to determine whether implementing the proposed project could result in local carbon monoxide emissions that exceed the thresholds of significance. If all the following screening criteria are met, operation of the proposed project would result in a less than significant impact related to carbon monoxide:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, the Regional Transportation Plan, and local congestion management agency plans.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

[8] Bay Area Air Quality Management District (BAAQMD). 2022. CEQA Air Quality Guidelines. April. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?la=en. Accessed September 25, 2023.

- Project-generated traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Based on a traffic analysis by Abrams Associates Traffic Engineering, it was determined that the proposed project does not have a significant transportation impact. Bancroft Way is a two-lane collector street and the average daily traffic generated by the proposed project is estimated to be 442 trips per day.[9] According to Caltrans data, traffic volumes at Telegraph Avenue (the nearest main arterial) are 22,500 vehicles daily (on an average annual basis). Existing traffic volumes combined with traffic volumes associated with the proposed project are significantly below threshold levels of 24,000 and 44,000 vehicles per hour cited in the BAAQMD criteria. Therefore, the proposed project would meet all the CO screening criteria and would result in a less than significant impact related to carbon monoxide.

Impact AIR-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. The BAAQMD defines a sensitive receptor as the following: "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential areas." As specified by the BAAQMD, health risk and hazard impacts should be analyzed for sensitive receptors within a 1,000-foot radius of the project site.[10] The closest existing sensitive receptors include the following:

- Student Housing, immediately adjacent to the east of the project boundaries.
- Student Housing, 470 feet southwest of the project site.

The proposed project would result in a potentially significant impact on sensitive receptors if any of the following three following criteria are met:

- **Criterion 1:** Construction of the proposed project would exceed the BAAQMD health risk significance thresholds.
- **Criterion 2:** Operation of the proposed project would exceed the BAAQMD health risk significance thresholds.
- **Criterion 3:** The proposed project would locate new sensitive receptors (residents) that could be subject to existing sources of TACs at the project site which exceed the BAAQMD cumulative health risk significance thresholds.

[9] Abrams Associates Traffic Engineering Inc. 2023. Trip Generation and VMT Analysis for the Proposed Mixed Use Project at 2530 Bancroft Way. August.

[10] Bay Area Air Quality Management District (BAAQMD). 2022. CEQA Air Quality Guidelines. April. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?la=en. Accessed September 25, 2023.

Criterion 1: Project Construction Toxic Air Pollutants

Construction-related activities would result in short-term emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation (e.g., excavation, grading and clearing), building construction and other miscellaneous activities. DPM has been identified by the ARB as a carcinogenic substance. Generation of DPM from construction typically occurs in a single area for a short period. Construction of development facilitated by the proposed project would occur over a limited, 2-year time period. As discussed above under the City of Berkeley's SCA, the proposed project would opt for BAAQMD dust control BMPs and SCA Measure B, which requires all applicable construction equipment to be equipped with Tier 2 or higher engines and the most effective VDECS available for the engine type (Tier 4 engines automatically meet this requirement) as certified by ARB. These controls significantly reduce diesel exhaust particulate matter. According to ARB, the most effective VDECS (level 3) reduce exhaust particulate matter by 85 percent or greater.

The City of Berkeley 2023-2031 Housing Element Update Final Environment Impact Report (Housing Element Update Final EIR) was published in 2022.[11] Development projects in Berkeley are required to comply with SCAs for use permits under the Zoning Ordinance. Implementation of the following SCA which has been applied in recent development projects in the City of Berkeley would ensure the associated air quality impact to be less than significant.[12]

SCA Construction Air Quality

Diesel Particulate Matter Controls During Construction

All off-road construction equipment used for projects with construction lasting more than 2 months shall comply with **one** of the following measures:

Measure A The project applicant shall prepare a Health Risk Assessment that demonstrates the project's on-site emissions of diesel particulate matter during construction will not exceed health risk screening criteria after a screening-level Health Risk Assessment is conducted in accordance with current guidance from BAAQMD and OEHHA [California Office of Environmental Health Hazard Assessment]. The Health Risk Assessment shall be submitted to the Public Works Department for review and approval prior to the issuance of building permits.

Measure B All construction equipment shall be equipped with Tier 2 or higher engines and the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by the California Air Resources Board (ARB). The equipment shall be properly maintained and tuned in accordance with manufacturer specifications.

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[11] City of Berkeley. 2022. 2023-2031 Housing Element Update Responses to Comments on the Draft Environmental Impact Report and Final Environment Impact Report. Website: https://berkeleyca.gov/sites/default/files/documents/ATT%202%20FEIR_RTC.pdf. Accessed November 9, 2023.

[12] Zoning Adjustment Board. 2023. Staff Report for 2127-2159 Dwight Way. Website: https://berkeleyca.gov/sites/default/files/documents/2023-11-30_ZAB_Item%202_2127-2159%20Dwight_Staff%20Report%20and%20Attachments.pdf. Accessed December 4, 2023.

In addition, a Construction Emissions Minimization Plan (Emissions Plan) shall be prepared that includes the following:

- An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date.
- A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract. The Emissions Plan shall be submitted to the Public Works Department for review and approval prior to the issuance of building permits.

The Housing Element Update Final EIR also states that future development would be required to implement the City of Berkeley Standard SCA and General Plan Policy EM-18, as shown above.

Therefore, compliance with the City's SCA, the BAAQMD BMPs, and SCA Measure B would ensure the proposed project construction emissions would be less than significant. Compliance with BAAQMD BMPs and SCA Measure B would ensure all construction equipment would be equipped with Tier 2-4 engines (or VDECS, as applicable and available). As previously stated, implementation of the SCA which has been applied in recent development projects in the City of Berkeley would ensure the associated air quality impact to be less than significant.[13]

Criterion 2: Project-Specific Operational Toxic Air Pollutants

The proposed project would mainly accommodate students living near the university and would not generate significant on-site sources of TACs during operation. Traffic generated by the project would consist of mostly light-duty gasoline-powered vehicles, which are not a significant source of TAC and air pollutant emissions. Additionally, there are no parking spaces on-site, and the project location would encourage alternative transportation use and therefore reduce vehicle trips. The proposed project would include a diesel emergency power generator (300 kW) that requires 50 hours of testing each year. The emergency generator would be subject to BAAQMD stationary source permitting[14], which would ensure that the testing and operation of the emergency generator would not have significant health risks to future residents and existing sensitive receptors near the proposed project. Thus, the proposed project would not generate a significant amount of DPM or other TAC emissions during operation and would not result in significant health impacts to nearby sensitive receptors during operation.

[13] Zoning Adjustment Board. 2023. Staff Report for 2127-2159 Dwight Way. Website: https://berkeleyca.gov/sites/default/files/documents/2023-11-30_ZAB_Item%202_2127-2159%20Dwight_Staff%20Report%20and%20Attachments.pdf. Accessed December 4, 2023.

[14] Bay Area Air Quality Management District (BAAQMD). Permit Instructions. Website: https://www.baaqmd.gov/permits/permit-instructions. Assessed November 9, 2023.

Criterion 3: Cumulative Health Risks

The proposed project would be a sensitive receptor during operation. The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. As a result, an analysis is performed to examine the proposed project's TAC exposure from existing sources within 1,000 feet of the project location. See Attachment A for further information.

Impacts for the cumulative sources were estimated using BAAQMD guidance and tools developed for the purpose of Screening Local Risks and Hazards as described below:

- **Stationary Source Risk and Hazard Screening Tools**. This Geographic Information System (GIS) tool contains an up-to-date database with information on permitted stationary sources in the BAAQMD. It is designed to provide screening-level risk and hazards risks and hazards (cancer risk, chronic hazard index and $PM_{2.5}$ concentrations) for stationary sources to inform environmental review for proposed projects.[15] The risks are calculated at each facility centroid and were estimated by aggregating individual source emissions for that facility. The screening approach relies on numerous conservative default assumptions that are not facility specific, and thus, the estimates are not reflective of actual cancer risks likely to be experienced by nearby receptors. To adjust the screening values based on distance from the source to the receptor, the Air District provides source-specific distance decay factors. If a facility's screening values (adjusted using the decay factors, as appropriate) are below the threshold, it is likely that the facility would pass a more site-specific, detailed modeling analysis. The data in the tool used for this report represents 2021 emissions data. The map used was last updated on April 10, 2023. The stationary source map shows that there are nine stationary sources within 1,000 feet of the project site. All the identified sources are emergency generators within the surrounding university buildings and the cumulative risks are shown in Table 6. The detailed data is provided in Attachment A.
- **Roadway Data Layers.** The roadway screening data layers provide conservative estimates of the cancer risks, hazards, and $PM_{2.5}$ concentrations for all Bay Area highways and surface streets. The roadway map was developed with a bottom-up approach relying on county-specific vehicle splits for surface streets and truck fractions from the California Department of Transportation (Caltrans) performance monitoring data for California freeways. The emissions for the roadways are calculated using the factors from the latest version of EMFAC2021. The road layer data is in a Raster file (.TIF) format that can be used to determine the risk and hazard estimates for each location of interest. The latest available data files (dated December 8, 2022) were used for this analysis.
- **Rail and Railyard Screening Layers.** The rail screening data layers contain estimated cancer risks, hazards, and $PM_{2.5}$ concentrations from diesel locomotives and select railyards within the Bay Area. The BAAQMD calculated results are based on the emissions from Class I freight rail lines as well as commuter/passenger rail lines. The data was developed from a bottom-up emissions inventory of $PM_{2.5}$ and diesel PM was developed based on the arrival/departure schedule for commuter/passenger trains and fuel consumption rates for the two major freight rail lines operating in the Bay Area. The rail data is in a Raster file (.TIF) format that can be used to

[15] Bay Area Air Quality Management District. Health Risk Screening and Modeling. Website: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/health-risk-screening-and-modeling. Accessed November 9, 2023.

determine the risk and hazard estimates for each location of interest. The latest available data file (dated January 30, 2023) was used for this analysis.

The cumulative health risk results including risks from the existing stationary sources, roadway, and rail data from the BAAQMD sources above are summarized in Table 6.

Table 6: Summary of Cumulative Risk at on-site Residential Receptors During operations

Source	Source Name/Type	Distance from project site (feet)	Cancer Risk (per million)	Chronic Hazard Index	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Stationary sources from surrounding buildings	All sources are generators	Various distances within 1,000 feet	19.626	0.021	0.025
Existing roadways[1]		–	20.511	0.047	0.231
Existing railways and rail yards[2]		–	<0.001	<0.001	<0.001
Cumulative Health Risks			40.1	0.1	0.3
BAAQMD Cumulative Thresholds of Significance			**100**	**10**	**0.8**
Threshold Exceedance?			**No**	**No**	**No**

Notes:
$\mu g/m^3$ = micrograms per cubic meter
BAAQMD = Bay Area Air Quality Management District
MEIR = Maximally Exposed Individual Receptor
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
TAC = toxic air contaminant

[1] BAAQMD Roadway layers provide results for the combined contribution of all freeways and surface streets at each receptor and therefore impacts are not from a single surface street or freeway but an aggregate of their impacts. Existing roadways including Bancroft Way, and Shattuck Avenue which is 2,700 feet west of the project site.
[2] BAAQMD rail and rail yard layers provide results that include the contribution of all rail lines and rail yards at each receptor and therefore impacts are not from a particular rail line. The project site is not near any diesel-powered rail line nor rail yard, therefore this impact is near zero.
Source: Attachment A

As noted in Table 6, the cumulative impacts from existing sources of TACs would be less than the BAAQMD cumulative thresholds of significance for cancer risk, non-cancer chronic hazard and annual $PM_{2.5}$ concentrations. Therefore, the proposed project along with cumulative sources of TAC emissions within 1,000 feet would be below the BAAQMD's cumulative thresholds of significance and result in a less than significant impact.

Criterion 4: CO Hotspot

As discussed under Impact AIR-2, the project's operational CO hotspot impact would be less than significant.

In conclusion, with implementation of BAAQMD BMP and City of Berkeley's SCA Measure B, the proposed project's construction and operation impacts to sensitive receptors would be maintained below the threshold of significance.

Impact AIR-4: Would the project result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?

Less than significant impact. The ability to detect odors varies considerably among the populations and is subjective. The BAAQMD does not have a recommended odor threshold for construction activities. However, the BAAQMD recommends operational screening criteria based on the distance between receptors and types of sources known to generate odors.

Project construction would generate diesel exhaust and ROGs; however, these emissions would disperse rapidly from the project site and therefore would not create significant odors affecting a substantial number of people. As such, construction odor impacts would be less than significant.

Land uses typically associated with objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities, as shown in the 2022 BAAQMD CEQA Guidelines.[16] The proposed project would involve the development of residences whose operations could lead to odors from associated laundry cleaning, vehicle exhaust, outdoor cooking, and waste disposal. However, such odors generated by project operation would be small in quantity and duration and would not pose an objectionable odor impact to future and existing receptors.

The proposed project, during operation, would also be an odor receptor. Using Google Maps, two automobile shops were identified within the associated screening distances, as provided in 2022 BAAQMD CEQA Guidelines. Public records retrieved from the BAAQMD show that one confirmed odor complaint was reported at 2747 Haste Street, Berkeley, CA 94704. As based on the odor guidelines by BAAQMD,[17] odor impact would be significant if more than five confirmed odor complaints are received for a facility or location per year averaged over the past 3 years. Therefore, the odor impact for the project operation would be less than significant based on the collective information received.

Compliance Requirements

Bay Area Air Quality Management District Best Management Practices

BAAQMD BMP The following measures shall be implemented during all phases of construction to control dust and exhaust at the project site:

[16] Bay Area Air Quality Management District (BAAQMD). 2022. BAAQMD CEQA Guidelines, Chapter 5 Project-level Air Quality Impacts, Table 5-4, Odor Screening Distances.
[17] Bay Area Air Quality Management District (BAAQMD). 2022. BAAQMD CEQA Guidelines, Chapter 5 Project-level Air Quality Impacts.

- Water active construction areas at least twice daily or as often as needed to control dust emissions.
- Cover trucks hauling soil, sand, and other loose materials and/or ensure that all trucks hauling such materials maintain at least two feet of freeboard.
- Remove visible mud or dirt trackout onto adjacent public roads using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Pave new or improved roadways, driveways, and sidewalks as soon as possible.
- Lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Replant vegetation in disturbed areas as quickly as possible.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Minimize idling times either by shutting off equipment when not in use, or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure [ATCM], Title 13, Section 2485 of the California Code of Regulations [CCR]). Provide clear signage for construction workers at all access points.
- Maintain and properly tune construction equipment in accordance with manufacturer's specifications. Check all equipment by a certified mechanic and record a determination of "running in proper condition" prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints.

City of Berkeley Standard Conditions of Approval

Implementation of the SCA would deem the associated air quality impact to be less than significant.

Construction Air Quality Measure B

Use of Tier IV or Tier IV Equivalent Construction Off-Road Equipment

The construction plan shall detail compliance with the following requirements:

- All construction equipment shall be equipped with Tier 2 or higher engines and the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by the California Air Resources Board (ARB). The equipment shall be properly maintained and tuned in accordance with manufacturer specifications.
- In addition, a Construction Emissions Minimization Plan (Emissions Plan) shall be prepared that includes the following:
- An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine

model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date.

- A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract. The Emissions Plan shall be submitted to the Public Works Department for review and approval prior to the issuance of building permits.

CONCLUSION

Based on the project understanding described above, the proposed project would result in less than significant impacts to air quality with implementation of the BAAQMD BMPs and the City's SCAs.

Thank you for the opportunity to conduct this air quality analysis. Please feel free to contact Phil Ault (559.930.6191 or pault@fcs-intl.com) should you have any questions.

Sincerely,

Philip Ault, Director of Noise and Air Quality
FirstCarbon Solutions
2999 Oak Road, Suite 250
Walnut Creek, CA 94597

Attachment A: Air Quality Supporting Information

FIRSTCARBON
SOLUTIONS
FCS INTERNATIONAL, INC.

Attachment A:
Air Quality Supporting Information

Attachment A: Air Quality Supporting Information

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Berkeley Bancroft Project Demolition Debris Calculations

Parameters[1]			
1	building sq ft	10	cf building volume
1	cf building volume	0.25	cf waste volume
1	cf	0.037	cy
1	cy waste volume	0.5	ton waste weight
1	**sf**	**0.04625**	**ton waste material**

Description	square feet[2]	height/ depth (ft)[3]	density (lbs/cf)[4]	Demolition Weight (pounds)	Demolition Weight (tons)
Buildings	15,682	-	-	-	725.29
Pavement	0	0.5	148	-	-
Totals	**15,682**	-	-	-	**725**

Notes:
cy = cubic yard
gsf = gross square feet
sf = square feet
cf = cubic feet

[1] Source: California Air Pollution Control Officers Association (CAPCOA). 2017. Appendix A Calculation Details for CalEEMod.

[2] Source: Applicant-provided information

[3] Source: DC Construction Services. 2017. How Thick Is Parking Lot Asphalt? Website: https://dccpaving.com/how-thick-is-parking-lot-asphalt/.

[4] Source: SFGate. 2021. How to Calculate Asphalt Weight Per Yard. Website: https://homeguides.sfgate.com/calculate-asphalt-weight-per-yard-81825.html.

Operational Vehicle Trip Generation Rate Adjustments

Trip-Generating CalEEMod Land Use	Size Metric	Size	Total Weekday Trips[1]	Adjusted Trip Generation Rates (Based on proportional change to weekday trips)		
				Weekday	Saturday	Sunday
Apartments Highrise	Dwelling Unit	110	308	2.80	2.80	2.80
Retail/Restaurant	ksf	2.195	134	61.05	61.05	61.05

Notes/Sources:
[1] Abrams Associates. 2023. Trip Generation and VMT Analysis for the Proposed Mixed Use Project at 2530 Bancroft Way. August.

TABLE 1
TRIP GENERATION CALCULATIONS

Land Use	ITE Code	Size	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
ITE Apartment Rates - Trips per Unit	221		1.89	0.10	0.14	0.24	0.10	0.10	0.20
Subtotals – Apartments		*163* units*	*308*	*16*	*23*	*39*	*17*	*16*	*33*
ITE Restaurant Trip Rates - Trips per Unit	932		107.20	5.26	4.31	9.57	5.98	3.82	9.80
Restaurant Trip Generation		2,195 sq ft.	235	12	9	21	14	8	22
Reduction for Non-Auto Trips (43%)			101	5	4	9	5	4	9
Subtotals – Restaurant			*134*	*7*	*5*	*12*	*9*	*4*	*13*
Subtotals for the Proposed Project			**442**	**22**	**29**	**51**	**26**	**20**	**46**

Berkeley Bancroft Mixed-Use Project Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Berkeley Bancroft Mixed-Use Project
Construction Start Date	1/7/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	44.2
Location	2530 Bancroft Way, Berkeley, CA 94704, USA
County	Alameda
City	Berkeley
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1526
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Apartments High Rise	110	Dwelling Unit	0.36	137,638	6,282	—	342	Site plan of floor area and provided open space
Convenience Market (24 hour)	2.19	1000sqft	0.00	2,195	0.00	—	—	Site plan
Other Asphalt Surfaces	1.15	1000sqft	0.03	0.00	0.00	—	—	Frontage construction

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.29	9.25	10.2	38.1	0.06	0.25	2.62	2.86	0.24	1.11	1.34	—	6,644	6,644	0.27	0.15	4.16	6,679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.27	9.25	8.09	37.9	0.06	0.25	2.62	2.86	0.24	1.11	1.34	—	6,622	6,622	0.27	0.10	0.11	6,656
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	4.14	2.10	12.6	0.02	0.06	0.67	0.73	0.06	0.21	0.26	—	2,333	2,333	0.09	0.06	1.00	2,354
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.76	0.38	2.30	< 0.005	0.01	0.12	0.13	0.01	0.04	0.05	—	386	386	0.01	0.01	0.17	390

Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	Yes	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	Yes	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	10.0	10.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—	—	—
Unmit.	Yes	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.29	1.17	10.2	38.1	0.06	0.25	2.62	2.86	0.24	1.11	1.34	—	6,644	6,644	0.27	0.15	3.31	6,679
2025	0.82	5.12	3.14	19.0	0.03	0.10	0.88	0.98	0.09	0.21	0.30	—	3,478	3,478	0.12	0.10	4.16	3,514
2026	0.63	9.25	3.32	8.97	0.01	0.10	0.26	0.36	0.09	0.06	0.15	—	1,456	1,456	0.05	0.02	1.00	1,464
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.27	1.16	8.09	37.9	0.06	0.25	2.62	2.86	0.24	1.11	1.34	—	6,622	6,622	0.27	0.09	0.04	6,656
2025	1.21	5.11	7.97	37.7	0.06	0.23	2.62	2.84	0.22	1.11	1.32	—	6,614	6,614	0.27	0.10	0.11	6,648

2026	0.62	9.25	3.35	8.83	0.01	0.10	0.26	0.36	0.09	0.06	0.15	—	1,436	1,436	0.05	0.02	0.03	1,444
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.27	0.25	2.03	8.19	0.01	0.05	0.53	0.58	0.05	0.21	0.26	—	1,449	1,449	0.06	0.02	0.21	1,458
2025	0.47	1.90	2.10	12.6	0.02	0.06	0.67	0.73	0.06	0.20	0.26	—	2,333	2,333	0.09	0.06	1.00	2,354
2026	0.28	4.14	1.49	3.90	0.01	0.04	0.12	0.16	0.04	0.03	0.07	—	635	635	0.02	0.01	0.19	638
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.05	0.05	0.37	1.50	< 0.005	0.01	0.10	0.11	0.01	0.04	0.05	—	240	240	0.01	< 0.005	0.04	241
2025	0.09	0.35	0.38	2.30	< 0.005	0.01	0.12	0.13	0.01	0.04	0.05	—	386	386	0.01	0.01	0.17	390
2026	0.05	0.76	0.27	0.71	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	—	105	105	< 0.005	< 0.005	0.03	106

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.13	5.53	1.26	14.7	0.02	0.03	1.73	1.77	0.03	0.44	0.47	59.7	2,314	2,374	6.13	0.12	462	3,024
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.48	4.91	1.34	8.41	0.02	0.03	1.73	1.77	0.03	0.44	0.47	59.7	2,190	2,250	6.15	0.13	456	2,897
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.67	5.09	1.09	10.1	0.02	0.03	1.35	1.38	0.02	0.34	0.37	59.7	1,838	1,898	6.13	0.11	458	2,542
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.30	0.93	0.20	1.84	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.07	9.88	304	314	1.02	0.02	75.9	421

Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	Yes	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	54.0	54.0	—	—	82.0	—	—	54.0	—	—	—	—	—	—	—	—	—
Unmit.	Yes	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	10.0	10.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—	—	—
Unmit.	Yes	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.39	1.30	0.83	7.98	0.02	0.01	1.73	1.75	0.01	0.44	0.45	—	1,942	1,942	0.10	0.09	6.11	1,978
Area	0.60	4.09	0.06	6.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	17.1	17.1	< 0.005	< 0.005	—	17.1
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	273	273	0.04	0.01	—	276
Water	—	—	—	—	—	—	—	—	—	—	—	7.80	15.0	22.8	0.80	0.02	—	48.6
Waste	—	—	—	—	—	—	—	—	—	—	—	51.9	0.00	51.9	5.19	0.00	—	182
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	456	456

Stationary	0.14	0.13	0.37	0.33	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	67.2	67.2	< 0.005	< 0.005	0.00	67.4
Total	2.13	5.53	1.26	14.7	0.02	0.03	1.73	1.77	0.03	0.44	0.47	59.7	2,314	2,374	6.13	0.12	462	3,024
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.34	1.25	0.97	8.08	0.02	0.01	1.73	1.75	0.01	0.44	0.45	—	1,835	1,835	0.11	0.10	0.16	1,868
Area	0.00	3.53	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
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	273	273	0.04	0.01	—	276
Water	—	—	—	—	—	—	—	—	—	—	—	7.80	15.0	22.8	0.80	0.02	—	48.6
Waste	—	—	—	—	—	—	—	—	—	—	—	51.9	0.00	51.9	5.19	0.00	—	182
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	456	456
Stationary	0.14	0.13	0.37	0.33	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	67.2	67.2	< 0.005	< 0.005	0.00	67.4
Total	1.48	4.91	1.34	8.41	0.02	0.03	1.73	1.77	0.03	0.44	0.47	59.7	2,190	2,250	6.15	0.13	456	2,897
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.27	1.20	0.81	6.71	0.01	0.01	1.35	1.36	0.01	0.34	0.35	—	1,496	1,496	0.10	0.08	2.12	1,525
Area	0.29	3.81	0.03	3.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	8.42	8.42	< 0.005	< 0.005	—	8.45
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	273	273	0.04	0.01	—	276
Water	—	—	—	—	—	—	—	—	—	—	—	7.80	15.0	22.8	0.80	0.02	—	48.6
Waste	—	—	—	—	—	—	—	—	—	—	—	51.9	0.00	51.9	5.19	0.00	—	182
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	456	456
Stationary	0.10	0.09	0.25	0.23	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	46.0	46.0	< 0.005	< 0.005	0.00	46.2
Total	1.67	5.09	1.09	10.1	0.02	0.03	1.35	1.38	0.02	0.34	0.37	59.7	1,838	1,898	6.13	0.11	458	2,542
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.22	0.15	1.22	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.06	—	248	248	0.02	0.01	0.35	253
Area	0.05	0.69	0.01	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.39	1.39	< 0.005	< 0.005	—	1.40
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	45.2	45.2	0.01	< 0.005	—	45.6

Water	—	—	—	—	—	—	—	—	—	—	—	1.29	2.48	3.77	0.13	< 0.005	—	8.04
Waste	—	—	—	—	—	—	—	—	—	—	—	8.59	0.00	8.59	0.86	0.00	—	30.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.5	75.5
Stationary	0.02	0.02	0.05	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	7.62	7.62	< 0.005	< 0.005	0.00	7.64
Total	0.30	0.93	0.20	1.84	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.07	9.88	304	314	1.02	0.02	75.9	421

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.52	9.31	21.7	0.03	0.10	—	0.10	0.09	—	0.09	—	3,389	3,389	0.14	0.03	—	3,401
Demolition	—	—	—	—	—	—	0.52	0.52	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.51	1.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	186	186	0.01	< 0.005	—	186
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.7	30.7	< 0.005	< 0.005	—	30.9
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.12	2.07	0.00	0.00	0.41	0.41	0.00	0.10	0.10	—	442	442	0.01	0.02	1.88	449
Vendor	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	0.00
Hauling	0.05	0.01	0.79	0.32	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	646	646	0.03	0.10	1.43	679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.6	22.6	< 0.005	< 0.005	0.04	22.9
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.4	35.4	< 0.005	0.01	0.03	37.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.74	3.74	< 0.005	< 0.005	0.01	3.80
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.86	5.86	< 0.005	< 0.005	0.01	6.15

3.3. Earthwork + Foundations (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	1.04	7.74	36.5	0.06	0.24	—	0.24	0.23	—	0.23	—	6,146	6,146	0.25	0.05	—	6,168
Dust From Material Movement	—	—	—	—	—	—	2.28	2.28	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	1.04	7.74	36.5	0.06	0.24	—	0.24	0.23	—	0.23	—	6,146	6,146	0.25	0.05	—	6,168
Dust From Material Movement	—	—	—	—	—	—	2.28	2.28	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.19	1.41	6.65	0.01	0.04	—	0.04	0.04	—	0.04	—	1,119	1,119	0.05	0.01	—	1,122
Dust From Material Movement	—	—	—	—	—	—	0.41	0.41	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.26	1.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	185	185	0.01	< 0.005	—	186
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.09	1.45	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	309	309	0.01	0.01	1.32	314
Vendor	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	0.00
Hauling	0.01	< 0.005	0.23	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	187	187	0.01	0.03	0.41	197
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.12	0.11	1.28	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	287	287	0.01	0.01	0.03	291
Vendor	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	0.00
Hauling	0.01	< 0.005	0.24	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	187	187	0.01	0.03	0.01	196
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.23	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.5	52.5	< 0.005	< 0.005	0.10	53.3
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.0	34.0	< 0.005	0.01	0.03	35.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.70	8.70	< 0.005	< 0.005	0.02	8.83
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.64	5.64	< 0.005	< 0.005	0.01	5.92

3.5. Earthwork + Foundations (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08	0.99	7.63	36.4	0.06	0.22	—	0.22	0.21	—	0.21	—	6,148	6,148	0.25	0.05	—	6,169
Dust From Material Movement	—	—	—	—	—	—	2.28	2.28	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.09	0.67	3.21	0.01	0.02	—	0.02	0.02	—	0.02	—	541	541	0.02	< 0.005	—	543
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.12	0.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	89.6	89.6	< 0.005	< 0.005	—	89.9

Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.19	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	281	281	0.01	0.01	0.03	285
Vendor	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	0.00
Hauling	0.01	< 0.005	0.23	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	184	184	0.01	0.03	0.01	193
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.9	24.9	< 0.005	< 0.005	0.05	25.3
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	0.02	17.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.13	4.13	< 0.005	< 0.005	0.01	4.19
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.68	2.68	< 0.005	< 0.005	< 0.005	2.81

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.17	0.90	11.7	0.02	0.03	—	0.03	0.03	—	0.03	—	1,865	1,865	0.08	0.02	—	1,871
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.17	0.90	11.7	0.02	0.03	—	0.03	0.03	—	0.03	—	1,865	1,865	0.08	0.02	—	1,871
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.09	0.49	6.42	0.01	0.02	—	0.02	0.02	—	0.02	—	1,022	1,022	0.04	0.01	—	1,025
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.09	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	169	169	0.01	< 0.005	—	170
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.27	0.17	3.07	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	692	692	0.01	0.03	2.75	703
Vendor	0.03	0.01	0.40	0.17	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	323	323	0.01	0.05	0.87	338
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.26	0.25	2.72	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	642	642	0.02	0.03	0.07	651
Vendor	0.02	0.01	0.42	0.18	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	323	323	0.01	0.05	0.02	337
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.12	1.44	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	354	354	0.01	0.02	0.65	359
Vendor	0.01	0.01	0.22	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	177	177	0.01	0.03	0.21	185
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	58.6	58.6	< 0.005	< 0.005	0.11	59.5
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.3	29.3	< 0.005	< 0.005	0.03	30.6
Hauling	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	0.00

3.9. Core + Interior Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	1.63	3.41	< 0.005	0.06	—	0.06	0.06	—	0.06	—	459	459	0.02	< 0.005	—	460
Architectural Coatings	—	4.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	1.63	3.41	< 0.005	0.06	—	0.06	0.06	—	0.06	—	459	459	0.02	< 0.005	—	460
Architectural Coatings	—	4.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.55	1.14	< 0.005	0.02	—	0.02	0.02	—	0.02	—	153	153	0.01	< 0.005	—	154
Architectural Coatings	—	1.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.10	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25.4	25.4	< 0.005	< 0.005	—	25.5
Architectural Coatings	—	0.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.03	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	138	138	< 0.005	0.01	0.55	141
Vendor	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	0.00
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	128	128	< 0.005	0.01	0.01	130
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	43.2	43.2	< 0.005	< 0.005	0.08	43.9
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.16	7.16	< 0.005	< 0.005	0.01	7.27
Vendor	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	0.00
Hauling	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	0.00

3.11. Core + Interior Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.23	1.59	3.40	< 0.005	0.05	—	0.05	0.05	—	0.05	—	459	459	0.02	< 0.005	—	460
Architectural Coatings	—	4.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.23	1.59	3.40	< 0.005	0.05	—	0.05	0.05	—	0.05	—	459	459	0.02	< 0.005	—	460
Architectural Coatings	—	4.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.77	1.65	< 0.005	0.03	—	0.03	0.02	—	0.02	—	223	223	0.01	< 0.005	—	223
Architectural Coatings	—	2.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.9	36.9	< 0.005	< 0.005	—	37.0
Architectural Coatings	—	0.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.58	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	136	136	< 0.005	0.01	0.50	138
Vendor	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	0.00
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.51	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	126	126	< 0.005	0.01	0.01	128
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	61.5	61.5	< 0.005	< 0.005	0.10	62.4
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.02	10.3
Vendor	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	0.00
Hauling	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	0.00

3.13. Exterior Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.67	4.41	0.01	0.04	—	0.04	0.04	—	0.04	—	725	725	0.03	0.01	—	728
Architectural Coatings	—	4.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.67	4.41	0.01	0.04	—	0.04	0.04	—	0.04	—	725	725	0.03	0.01	—	728
Architectural Coatings	—	4.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.68	1.81	< 0.005	0.02	—	0.02	0.02	—	0.02	—	298	298	0.01	< 0.005	—	299
Architectural Coatings	—	1.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.12	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	49.3	49.3	< 0.005	< 0.005	—	49.5
Architectural Coatings	—	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.58	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	136	136	< 0.005	0.01	0.50	138
Vendor	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	0.00
Hauling	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.51	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	126	126	< 0.005	0.01	0.01	128
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.2	52.2	< 0.005	< 0.005	0.09	52.9
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.64	8.64	< 0.005	< 0.005	0.01	8.76
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	0.94	0.88	0.51	4.79	0.01	0.01	0.97	0.98	0.01	0.25	0.25	—	1,100	1,100	0.06	0.06	3.43	1,121

Convenie Market (24 hour)	0.45	0.42	0.32	3.19	0.01	0.01	0.76	0.77	< 0.005	0.19	0.20	—	842	842	0.03	0.04	2.68	856
Other Asphalt Surfaces	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	0.00
Total	1.39	1.30	0.83	7.98	0.02	0.01	1.73	1.75	0.01	0.44	0.45	—	1,942	1,942	0.10	0.09	6.11	1,978
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts High Rise	0.90	0.85	0.60	5.00	0.01	0.01	0.97	0.98	0.01	0.25	0.25	—	1,040	1,040	0.07	0.06	0.09	1,061
Convenie nce Market (24 hour)	0.44	0.40	0.37	3.08	0.01	0.01	0.76	0.77	< 0.005	0.19	0.20	—	795	795	0.04	0.04	0.07	808
Other Asphalt Surfaces	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	0.00
Total	1.34	1.25	0.97	8.08	0.02	0.01	1.73	1.75	0.01	0.44	0.45	—	1,835	1,835	0.11	0.10	0.16	1,868
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts High Rise	0.16	0.15	0.10	0.85	< 0.005	< 0.005	0.17	0.17	< 0.005	0.04	0.04	—	173	173	0.01	0.01	0.25	176
Convenie nce Market (24 hour)	0.07	0.07	0.04	0.37	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	74.6	74.6	< 0.005	< 0.005	0.11	76.1
Other Asphalt Surfaces	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	0.00
Total	0.23	0.22	0.15	1.22	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.06	—	248	248	0.02	0.01	0.35	253

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.03	< 0.005	—	212
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	63.2	63.2	0.01	< 0.005	—	63.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	273	273	0.04	0.01	—	276
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.03	< 0.005	—	212
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	63.2	63.2	0.01	< 0.005	—	63.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	273	273	0.04	0.01	—	276

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	34.7	34.7	0.01	< 0.005	—	35.1
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	45.2	45.2	0.01	< 0.005	—	45.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	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
Convenience Market (24 hour)	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
Other Asphalt Surfaces	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment High Rise	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
Convenience Market (24 hour)	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
Other Asphalt Surfaces	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	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
Convenience Market (24 hour)	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
Other Asphalt Surfaces	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
Total	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

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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

Consum Products	—	2.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.60	0.56	0.06	6.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.1	17.1	< 0.005	< 0.005	—	17.1
Total	0.60	4.09	0.06	6.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	17.1	17.1	< 0.005	< 0.005	—	17.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	—	2.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	3.53	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	—	0.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.05	0.01	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.39	1.39	< 0.005	< 0.005	—	1.40
Total	0.05	0.69	0.01	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.39	1.39	< 0.005	< 0.005	—	1.40

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	7.49	14.4	21.9	0.77	0.02	—	46.6
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.31	0.59	0.90	0.03	< 0.005	—	1.93
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.80	15.0	22.8	0.80	0.02	—	48.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	7.49	14.4	21.9	0.77	0.02	—	46.6
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.31	0.59	0.90	0.03	< 0.005	—	1.93
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.80	15.0	22.8	0.80	0.02	—	48.6

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	1.24	2.38	3.62	0.13	< 0.005	—	7.72
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.05	0.10	0.15	0.01	< 0.005	—	0.32
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.29	2.48	3.77	0.13	< 0.005	—	8.04

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	48.3	0.00	48.3	4.83	0.00	—	169
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	3.56	0.00	3.56	0.36	0.00	—	12.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	51.9	0.00	51.9	5.19	0.00	—	182

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	48.3	0.00	48.3	4.83	0.00	—	169
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	3.56	0.00	3.56	0.36	0.00	—	12.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	51.9	0.00	51.9	5.19	0.00	—	182
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	8.00	0.00	8.00	0.80	0.00	—	28.0
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.59	0.00	0.59	0.06	0.00	—	2.06
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.59	0.00	8.59	0.86	0.00	—	30.1

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.99	0.99
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	455	455
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	456	456
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.99	0.99
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	455	455
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	456	456
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.3	75.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.5	75.5

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.14	0.13	0.37	0.33	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	67.2	67.2	< 0.005	< 0.005	0.00	67.4
Total	0.14	0.13	0.37	0.33	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	67.2	67.2	< 0.005	< 0.005	0.00	67.4

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.14	0.13	0.37	0.33	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	67.2	67.2	< 0.005	< 0.005	0.00	67.4
Total	0.14	0.13	0.37	0.33	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	67.2	67.2	< 0.005	< 0.005	0.00	67.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.02	0.02	0.05	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	7.62	7.62	< 0.005	< 0.005	0.00	7.64
Total	0.02	0.02	0.05	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	7.62	7.62	< 0.005	< 0.005	0.00	7.64

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/2/2024	9/27/2024	5.00	20.0	—
Earthwork + Foundations	Grading	9/30/2024	2/14/2025	5.00	100	—
Building Construction	Building Construction	2/17/2025	11/21/2025	5.00	200	—
Core + Interior Coating	Architectural Coating	7/14/2025	9/5/2026	5.00	300	—
Exterior Coating	Architectural Coating	2/9/2026	9/5/2026	5.00	150	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Aerial Lifts	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37

Demolition	Air Compressors	Electric	Average	1.00	1.00	37.0	0.48
Demolition	Skid Steer Loaders	Diesel	Tier 4 Final	6.00	8.00	71.0	0.37
Demolition	Concrete/Industrial Saws	Electric	Average	1.00	7.00	33.0	0.73
Demolition	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Demolition	Forklifts	Diesel	Tier 4 Final	1.00	8.00	82.0	0.20
Demolition	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Demolition	Signal Boards	Electric	Average	1.00	24.0	6.00	0.82
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Demolition	Pressure Washers	Electric	Average	1.00	8.00	14.0	0.30
Demolition	Welders	Electric	Average	4.00	5.00	46.0	0.45
Earthwork + Foundations	Graders	Diesel	Tier 4 Final	1.00	6.00	148	0.41
Earthwork + Foundations	Cranes	Diesel	Tier 4 Final	1.00	6.00	500	0.40
Earthwork + Foundations	Bore/Drill Rigs	Diesel	Tier 4 Final	1.00	7.00	221	0.37
Earthwork + Foundations	Skid Steer Loaders	Diesel	Tier 4 Final	3.00	4.00	71.0	0.37
Earthwork + Foundations	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Earthwork + Foundations	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Earthwork + Foundations	Dumpers/Tenders	Diesel	Average	1.00	8.00	16.0	0.38
Earthwork + Foundations	Excavators	Diesel	Tier 4 Final	1.00	8.00	158	0.38
Earthwork + Foundations	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Earthwork + Foundations	Pumps	Diesel	Tier 4 Final	1.00	8.00	84.0	0.74

Earthwork + Foundations	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40
Earthwork + Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	7.00	84.0	0.37
Building Construction	Forklifts	Diesel	Tier 4 Final	1.00	6.00	82.0	0.29
Building Construction	Air Compressors	Electric	Average	1.00	4.00	37.0	0.48
Building Construction	Cranes	Electric	Average	1.00	8.00	500	0.29
Building Construction	Signal Boards	Electric	Average	1.00	24.0	6.00	0.82
Building Construction	Pressure Washers	Electric	Average	1.00	8.00	14.0	0.30
Building Construction	Pumps	Diesel	Tier 4 Final	1.00	8.00	84.0	0.74
Building Construction	Welders	Electric	Average	4.00	5.00	46.0	0.45
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	4.00	367	0.29
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Core + Interior Coating	Air Compressors	Electric	Average	1.00	6.00	37.0	0.48
Core + Interior Coating	Forklifts	Diesel	Tier 4 Final	1.00	4.00	82.0	0.20
Core + Interior Coating	Trenchers	Diesel	Average	1.00	4.00	40.0	0.50
Core + Interior Coating	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	4.00	84.0	0.37
Core + Interior Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Exterior Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Exterior Coating	Cement and Mortar Mixers	Diesel	Average	1.00	4.00	10.0	0.56
Exterior Coating	Aerial Lifts	Diesel	Average	1.00	4.00	46.0	0.31
Exterior Coating	Cranes	Electric	Average	1.00	4.00	500	0.29
Exterior Coating	Forklifts	Diesel	Tier 4 Final	1.00	8.00	82.0	0.20
Exterior Coating	Signal Boards	Electric	Average	1.00	24.0	6.00	0.82
Exterior Coating	Cranes	Diesel	Tier 4 Final	1.00	2.00	500	0.29
Exterior Coating	Welders	Electric	Average	4.00	5.00	46.0	0.45

Exterior Coating	Pressure Washers	Electric	Average	1.00	2.00	14.0	0.30

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Earthwork + Foundations	—	—	—	—
Earthwork + Foundations	Worker	35.0	11.7	LDA,LDT1,LDT2
Earthwork + Foundations	Vendor	—	8.40	HHDT,MHDT
Earthwork + Foundations	Hauling	2.62	20.0	HHDT
Earthwork + Foundations	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	79.9	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	12.1	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Core + Interior Coating	—	—	—	—
Core + Interior Coating	Worker	16.0	11.7	LDA,LDT1,LDT2
Core + Interior Coating	Vendor	0.00	8.40	HHDT,MHDT
Core + Interior Coating	Hauling	0.00	20.0	HHDT
Core + Interior Coating	Onsite truck	—	—	HHDT
Demolition	—	—	—	—
Demolition	Worker	50.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	9.05	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Exterior Coating	—	—	—	—

Exterior Coating	Worker	16.0	11.7	LDA,LDT1,LDT2
Exterior Coating	Vendor	—	8.40	HHDT,MHDT
Exterior Coating	Hauling	0.00	20.0	HHDT
Exterior Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Core + Interior Coating	186,108	62,036	2,199	733	45.9
Exterior Coating	92,609	30,870	1,094	365	22.8

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	15,682	—
Earthwork + Foundations	—	2,091	9.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments High Rise	2.51	0%
Convenience Market (24 hour)	0.00	0%
Other Asphalt Surfaces	0.03	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	1,419	204	0.03	< 0.005
2026	915	204	0.03	< 0.005
2024	561	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments High Rise	308	308	308	112,420	1,377	1,377	1,377	502,737
Convenience Market (24 hour)	134	134	134	48,872	400	1,078	1,078	216,628
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments High Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	54
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
278716.95	92,906	3,293	1,098	68.8

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments High Rise	375,260	204	0.0330	0.0040	0.00
Convenience Market (24 hour)	113,018	204	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments High Rise	3,906,194	87,232
Convenience Market (24 hour)	162,589	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments High Rise	89.7	—
Convenience Market (24 hour)	6.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments High Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Convenience Market (24 hour)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Convenience Market (24 hour)	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	0.20	50.0	400	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

8. User Changes to Default Data

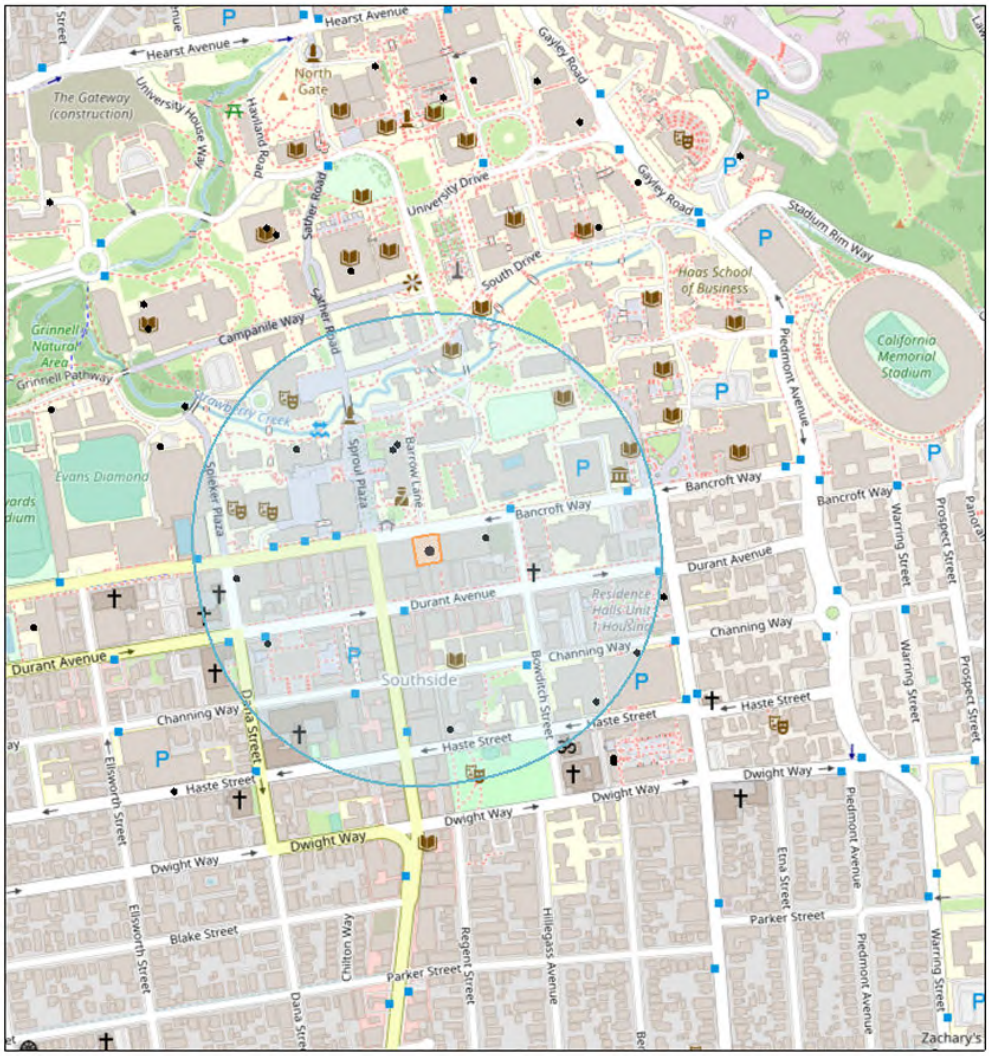
Screen	Justification
Land Use	The land use summary is based on site plan. Population of 342 is based on applicant-provided information.
Construction: Construction Phases	Applicant provided that start date would be September 2024, and construction lasts 24 months.
Construction: Trips and VMT	Assumes Exterior Coating requires the same number of worker trips as interior coating.
Construction: Architectural Coatings	Based on applicant-provided information, no interior painting is needed.
Construction: Paving	The paved area is based on land use summary.
Operations: Architectural Coatings	—
Construction: Off-Road Equipment	The equipment list is based on similar high-rise project and applicant-provided information. Applicable equipment would meet Tier 4 Final emission standard per City's Condition of Approval as stated in the memorandum.
Construction: Dust From Material Movement	The project site is only 0.3 acres so the total graded acres are adjusted to be 9 acres instead of the CalEEMod default.
Operations: Vehicle Data	The trips are based on trip generation analysis from Abraham Associates.
Operations: Hearths	The project would be all-electric design.
Operations: Energy Use	The project would be all-electric design.
Operations: Emergency Generators and Fire Pumps	—

Screening Report

Area of Interest (AOI) Information

Area : 3,639,278.74 ft²

Nov 8 2023 18:30:54 Pacific Standard Time



Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	9	N/A	N/A

Permitted Stationary Sources

#	Facility_I	Facility_N	Address	City	State
1	200806	ACC OP (Bancroft Way) LP	2400 BANCROFT WAY	Berkeley	CA
2	201913	The Mark at Berkeley LLC	2580 BANCROFT WAY	Berkeley	CA
3	0	University of California Berkeley	Berkeley Campus	Berkeley	CA
4	0	University of California Berkeley	Berkeley Campus	Berkeley	CA
5	0	University of California Berkeley	Berkeley Campus	Berkeley	CA
6	0	University of California Berkeley	Berkeley Campus	Berkeley	CA
7	0	University of California Berkeley	Berkeley Campus	Berkeley	CA
8	0	University of California Berkeley	Berkeley Campus	Berkeley	CA
9	0	University of California Berkeley	Berkeley Campus	Berkeley	CA

#	Zip	County	Latitude	Longitude	Details
1	94704	Alameda	37.868210	-122.261288	Generator
2	94704	Alameda	37.868717	-122.257363	Generator
3	94720	Alameda	37.869874	-122.258757	Generator
4	94720	Alameda	37.869818	-122.260338	Generator
5	94720	Alameda	37.867280	-122.254977	Generator
6	94720	Alameda	37.869807	-122.258833	Generator
7	94720	Alameda	37.866324	-122.257927	Generator
8	94720	Alameda	37.866671	-122.255624	Generator
9	94720	Alameda	37.867398	-122.260802	Generator

#	NAICS	NAICS_Sect	NAICS_Subs	NAICS_Indu	Cancer_Ris
1	541110	Professional, Scientific, and Technical Services	Professional, Scientific, and Technical Services	Offices of Lawyers	1.401000
2	722511	Accommodation and Food Services	Food Services and Drinking Places	Full-Service Restaurants	5.649000
3	611310	Educational Services	Educational Services	Colleges, Universities, and Professional Schools	6.618000
4	611310	Educational Services	Educational Services	Colleges, Universities, and Professional Schools	3.707000
5	611310	Educational Services	Educational Services	Colleges, Universities, and Professional Schools	0.179000
6	611310	Educational Services	Educational Services	Colleges, Universities, and Professional Schools	0.803000
7	611310	Educational Services	Educational Services	Colleges, Universities, and Professional Schools	0.091000
8	611310	Educational Services	Educational Services	Colleges, Universities, and Professional Schools	0.288000
9	611310	Educational Services	Educational Services	Colleges, Universities, and Professional Schools	0.890000

#	Chronic_Ha	PM25	Count
1	0.000000	0.002000	1
2	0.002000	0.008000	1
3	0.010000	0.008000	1
4	0.006000	0.005000	1
5	0.000000	0.000000	1
6	0.001000	0.001000	1
7	0.000000	0.000000	1
8	0.001000	0.000000	1
9	0.001000	0.001000	1

NOTE: A larger buffer than 1000 feet may be warranted depending on proximity to significant sources.

Exhibit B

Trip Generation and VMT Analysis for the Proposed Mixed-Use Project at 2530 Bancroft Way, Stephan Abrams, Abrams Associates Traffic Engineering, Inc.

Abrams Associates
TRAFFIC ENGINEERING, INC.

October 31, 2023

John Lim
Landmark Properties, Inc.
3060 Peachtree Road NW, Suite 500
Atlanta, GA 30305

Re: Trip Generation and VMT Analysis for the Proposed Mixed Use Project at 2530 Bancroft Way

This report presents the results of the trip generation analysis and vehicle miles traveled (VMT) analysis for the proposed mixed use project located at 2530 Bancroft Way in the City of Berkeley, across the street from the University of California. The proposed project involves constructing a mixed-use housing project with 110 residential units plus 2,195 square feet of ground floor restaurant/retail space. The site currently has an existing commercial building with 15,665 square feet of space that is occupied by a retail clothing store.

PROJECT TRIP GENERATION

As noted above, the proposed project would have 110 apartments and 2,195 square feet of retail space. The vehicle trip generation rates are based on the ITE rates for apartments, high turnover restaurants, and retail space taken from the 11th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. The ITE trip rates for apartments are generally representative of apartment buildings with a mixture of one and two bedroom apartments, with studios sometimes included, for an average of no more than about 2 bedrooms per unit. For this project there are 53 units that would have three or four bedrooms so for the purposes of the trip generation each of the three and four bedroom units were counted as two units. As shown in the attached **Table 1,** after removal of the existing retail building is accounted for the proposed project is forecast to generate about 25 net new trips during the AM peak hour and about 12 new trips during the PM peak hour.

Berkeley Residential Trip Generation - Since the project is located near a central business district with excellent transit access (and located next to a major university) the vehicle trip rates are less than what would be generated in a typical suburban environment. The availability of transit, the use of bicycles, and the attractiveness of walking in a mixed-use university environment results in reduced vehicle trip generation, warranting the use of ITE's dense multi-use urban area trip rates. For this project, the ITE rates for high-rise apartments (i.e. greater than 10 floors) in a dense multi-use urban area (not close to rail transit) were used to account for conditions in this part of Berkeley, adjacent to the UC Berkeley Campus. The ITE trip generation rates are based on surveys of primarily suburban locations and the dense multi-use

TABLE 1
TRIP GENERATION CALCULATIONS

Land Use	ITE Code	Size	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
ITE Apartment Rates - Trips per Unit	221		1.89	0.10	0.14	0.24	0.10	0.10	0.20
Subtotals – Apartments		*163* units*	*308*	*16*	*23*	*39*	*17*	*16*	*33*
ITE Restaurant Trip Rates - Trips per Unit	932		107.20	5.26	4.31	9.57	5.98	3.82	9.80
Restaurant Trip Generation		2,195 sq ft.	235	12	9	21	14	8	22
Reduction for Non-Auto Trips (43%)			101	5	4	9	5	4	9
Subtotals – Restaurant			*134*	*7*	*5*	*12*	*9*	*4*	*13*
Subtotals for the Proposed Project			**442**	**22**	**29**	**51**	**26**	**20**	**46**
ITE Retail Rates - Trips per Unit	821		56.86	1.48	0.99	2.47	1.62	1.61	3.23
Existing Retail Trip Generation		15,665 sq ft.	891	23	16	39	26	25	51
Reduction for Non-Auto Trips (34%)			303	8	5	13	9	8	17
Subtotals from the Currently Occupied Retail Uses			**588**	**15**	**11**	**26**	**17**	**17**	**34**
Net New Trip Generation from the Proposed Project			**-146**	**8**	**17**	**25**	**9**	**3**	**12**

SOURCE: Institute of Transportation Engineers Trip Generation Manual (11th Edition) and the Trip Generation Handbook (3rd Edition)

NOTE: * The proposed number of residential units is 110 but the 53 three and four bedroom units were counted as two units each.

urban rates are intended to account for walk, bicycle, and transit trips as well as shared trips with the other uses in the area.

Pedestrian and Bicycle Conditions

The proposed project would generate an increase in pedestrian and bicycle traffic compared to the existing clothing store on the site. As noted above, the project would have a relatively low increase in vehicle trip generation and would not be forecast to significantly impact or change the design of any existing pedestrian facilities and should not create any new safety problems in the area. The project will add new pedestrians and bicyclists who will utilize sidewalks and bicycle facilities in the area. There are existing sidewalks and crosswalks along the route from the project to the BART station. In relation to the existing pedestrian volumes, the proposed project would not be forecast to cause significant changes to the existing pedestrian or bicycle traffic in the area and would not substantially impact any existing bicycle or pedestrian facilities.

With respect to planned pedestrian and bicycle facilities in the project area, the City's Bicycle Plan includes a recommendation to implement protected intersections on Telegraph Avenue at Bancroft Way and Durant Street. Protected intersections typically require the use of bicycle signals. Bicycle signal phases can be added to the traffic signals to isolate bicycle movements from other conflicting vehicle movements. The Bicycle Plan also specifies that Bancroft Way and Telegraph Avenue be studied for potential cycletracks (separated bikeways). The proposed project would also not conflict with or significantly impact any of the planned bicycle facilities in the City's Bicycle Plan[1].

Vehicle Miles Traveled

The vehicle miles traveled (VMT) in an area is one performance measure that can be used to quantify potential changes in travel from a project. This letter presents the extent of the VMT-related transportation impacts forecast to be caused by the Project. VMT is a particularly useful metric for evaluating the impacts of growth on greenhouse gas (GHG) emissions because it can be used to estimate fuel consumption by motor vehicles. Increases in VMT cause proportional increases in greenhouse gas emissions and air pollution. The Office of Planning and Research (OPR) released their final guidelines in a Technical Advisory on Evaluating Transportation Impacts in CEQA, dated December 2018. This analysis is based on the City of Berkeley's adopted guidelines as set forth in a staff report to the planning commission on September 2, 2020.[2]

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[1] *Berkeley Final Bicycle Plan*, City of Berkeley, Berkeley, CA, May 2, 2017.

[2] *General Plan Amendment: Vehicle Miles Traveled (VMT) for Transportation Impact Analysis under the California Environmental Quality Act (CEQA)*, Planning Commission Staff Report, Planning and Development Department, City of Berkeley, September 2, 2020.

VMT is typically estimated using an area-wide travel demand model from a regional transportation agency that calculates VMT based on the number of vehicles multiplied by the typical distance traveled by each vehicle originating from or driving to a certain area. This analysis uses the Alameda County Transportation Commission (ACTC) Travel Demand Model data on VMT per capita for various areas within the City of Berkeley. The Travel Demand Model divides areas within ACTC's jurisdiction into transportation analysis zones, or TAZs. TAZs are used in transportation planning models for transportation analysis and other planning purposes. The apartments and commercial space proposed to be built by the Project would be expected to have similar VMT as other developments in the same TAZ. The VMT per resident and per employee estimated by the ACTC Travel Model for the Project's TAZ would therefore be assumed represent the approximate VMT that would be generated by the Project as well.

As per Attachment 1 of the September 2, 2020 Planning Commission staff report, the proposed project at 2530 Bancroft Way is located in a an area with an average VMT per resident and per resident and worker that is at least 15% below the respective Bay Area averages. OPR's 2018 Technical Advisory also states the following: "*Presumption of Less Than Significant Impact Near Transit Stations - Proposed CEQA Guideline Section 15064.3, subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor will have a less-than-significant impact on VMT*." However, the City of Berkeley VMT analysis guidelines specify that the presumption of a less-than-significant VMT impact might not be appropriate if the project:

- Has a floor area ratio (FAR) of less than 0.75.
- Includes more than 200,000 square feet of office or commercial space.
- Includes more parking supply than the project's estimated demand
- Is inconsistent with the City's General Plan, an applicable Specific Plan, or an applicable Sustainable Communities Strategy (as determined by the City, with input from the MTC).
- Replaces affordable residential units with market-rate residential units.
- Has project-specific or location-specific information that indicates that the project will generate significant levels of VMT.

In this case none of the above factors would apply to the proposed project. The project is located less than 1/2 mile from high quality transit corridors and is located near bus stops for numerous bus lines at the intersection of Telegraph Avenue and Bancroft Avenue. The project also meets the other screening criteria described above and therefore, subject to City approval, this project would be assumed to have a less than significant impact on VMT in the area.

Please don't hesitate to contact me if you have any questions or need addional information.

Sincerely,

Stephen C. Abrams
President, Abrams Associates
T.E. License No. 1852

Exhibit C

Memorandum re Landmark Bancroft Way Project Proposed Project Analysis, 2530 Bancroft Way, Berkeley, Page & Turnbull

PAGE&TURNBULL

LANDMARK BANCROFT WAY PROJECT
PROPOSED PROJECT ANALYSIS

BERKELEY, CALIFORNIA
[21352]

PREPARED FOR
LANDMARK PROPERTIES

August 2023

TABLE OF CONTENTS

I. INTRODUCTION

This Proposed Project Analysis has been prepared for Landmark Properties for a project at 2530 Bancroft Way, Berkeley, California (APN 55-1877-16-1), located on the south side of Bancroft Way between Telegraph Avenue and Bowditch street, immediately south of the University of California, Berkeley campus **(Figure 1)**. The project proposes to demolish an existing one-story commercial building and to construct a new 12-story mixed-use commercial and residential development with 110 dwelling units over a ground-floor commercial level.

The existing building at the location of the proposed project, a one-story commercial building used as a retail clothing store, does not appear to be eligible as a historic resource for the purposes of review under the California Environmental Quality Act (CEQA). However, the project site is located to the immediate west of the Fred Turner Building, 2546 Bancroft Way, a one-story commercial building designed by Julia Morgan and completed ca. 1940. The Fred Turner Building is a City of Berkeley Landmark (#49), designated in 1981.

METHODOLOGY

This Proposed Project Analysis provides a summary of the current historic status and character-defining features of the Fred Turner Building. This analysis considers the potential impact of the proposed project in relation to the historic building's character-defining features, based on the Secretary of the Interior's (SOI) *Standards for the Treatment of Historic Properties*, specifically the *Standards for Rehabilitation*.

Page & Turnbull prepared State of California Department of Parks and Recreation (DPR) 523 forms to evaluate the potential historic significance of the existing one-story commercial building at 2530 Bancroft Way in May 2022 **(Appendix A)**. Previous documentation of the Fred Turner Building reviewed for this analysis included the *Project Impacts Analysis of the Standard Project* prepared by LSA in 2017 and the *Draft Infill Environmental Impact Report for the 2580 Bancroft Way Mixed-Use Project* prepared by Urban Planning Partners, Inc. in 2018. For the proposed new development at 2530 Bancroft Way, Page & Turnbull reviewed a set of drawings prepared by Trachtenberg Architects, dated August 11, 2023 **(Appendix B)**.

Page & Turnbull staff conducted a site visit to the project location on April 21, 2022 to document the exterior and interior of 2530 Bancroft Way and existing conditions of the primary façade of the Fred Turner Building.

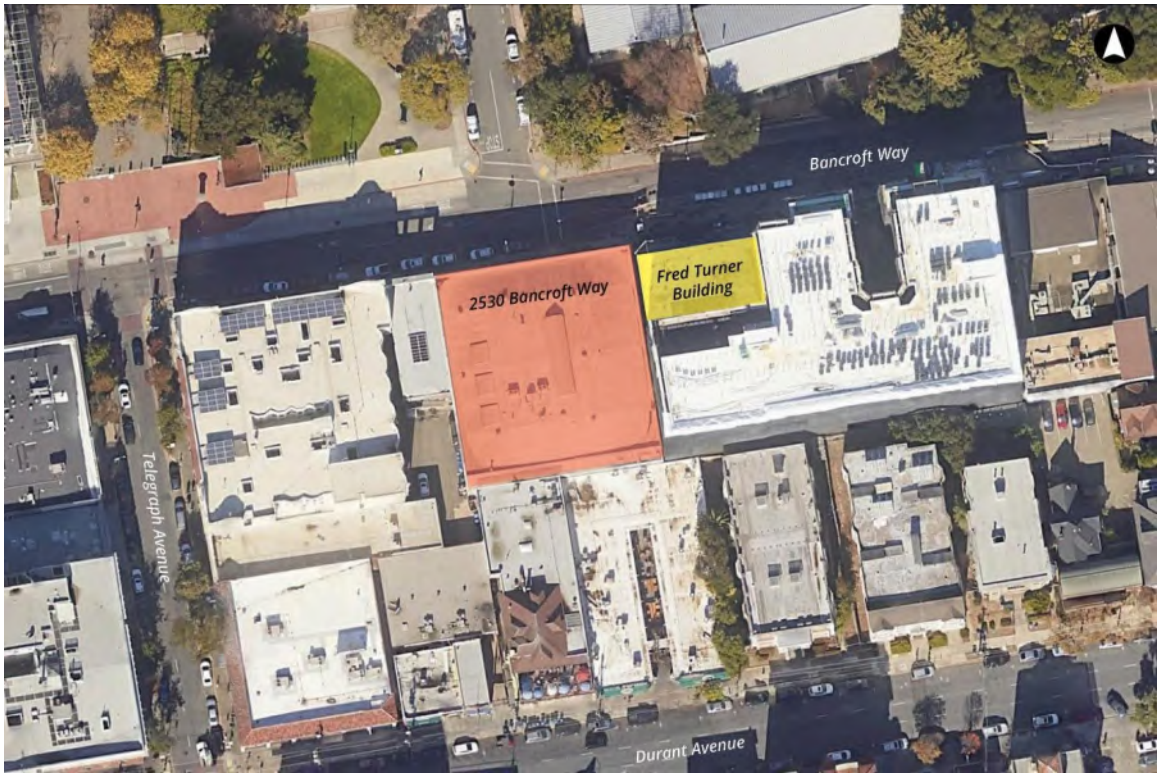

Figure 1. Location of the proposed project site at 2530 Bancroft Way (shaded red) and the Fred Turner Building (shaded yellow). Source: Google Earth 2021, edited by Page & Turnbull.

II. EXISTING HISTORIC DESIGNATIONS & HISTORIC SIGNIFICANCE

EXISTING HISTORIC DESIGNATIONS

The following section examines the national, state, and local historic status currently assigned to the project site at 2530 Bancroft Way and the neighboring Fred Turner Building at 2546 Bancroft Way.

National Register of Historic Places

The National Register of Historic Places (National Register) is the nation's most comprehensive inventory of historic resources. The National Register is administered by the National Park Service and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

Neither 2530 Bancroft Way nor the Fred Turner Building at 2546 Bancroft Way is listed on the National Register.

California Register of Historical Resources

The California Register is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.

Neither 2530 Bancroft Way nor the Fred Turner Building at 2546 Bancroft Way is listed on the California Register.

California Historical Resource Status Codes

Properties listed or under review by the State of California Office of Historic Preservation (OHP) are listed within the Built Environment Resource Directory (BERD) and are assigned a California Historical Resource Status Code (Status Code) of "1" to "7" to establish their historical significance in relation to the National Register or California Register.[1] Properties with a Status Code of "1" or "2"

[1] California State Office of Historic Preservation, Built Environment Resource Directory (BERD), Alameda County, updated March 2020.

are either eligible for listing in the California Register or the National Register, or are already listed in one or both of the registers. Properties assigned Status Codes of "3" or "4" appear to be eligible for listing in either register, but normally require more research to support this rating. Properties assigned a Status Code of "5" have typically been determined to be locally significant or to have contextual importance. Properties with a Status Code of "6" are not eligible for listing in either register. Finally, a Status Code of "7" means that the resource has not been evaluated for the National Register or the California Register, or needs reevaluation.

Neither 2530 Bancroft Way nor the Fred Turner Building at 2546 Bancroft Way is listed in the most recent available version of the BERD, dated March 3, 2020.

City of Berkeley Landmarks and Structures of Merit

The City of Berkeley maintains a list of properties designated as local Landmarks and Structures of Merit under Chapter 3.24 of the Berkeley Municipal Code. Much like the National and California Registers, the Municipal Code provides a number of criteria that must be met in order for a property to gain Landmark or Structure of Merit designation. Properties may be landmarked if they meet standards of architectural, cultural, educational, or historical significance, or if they are already listed in the National Register. A property may be designated as a Structure of Merit if it does not rise to the level of Landmark status, but has contextual importance and is worthy of preservation as part of a neighborhood, block or street frontage, or group of buildings that includes Landmark properties. The City of Berkeley's list of designated Landmarks and Structures of Merit meets the requirements of a local register of historical resources under CEQA.

2530 Bancroft Way is not currently designated as a City of Berkeley Landmark or Structure of Merit. The Fred Turner Building at 2546 Bancroft Way is listed as a City of Berkeley Landmark.

HISTORIC SIGNIFICANCE

2530 Bancroft Way

Page & Turnbull evaluated eligibility of the building at 2530 Bancroft Way for listing in the California Register and as a City of Berkeley Landmark or Structure of Merit (DPR 523 forms are provided in **Appendix A**). The one-story, concrete commercial building was designed by architects Miller & Warnecke and completed in 1948 **(Figure 2)**. It is subdivided into two storefront units, a larger unit at the west and a smaller unit at the east side, both of which have been used by retail stores for most of the building's history. The original tenant was the Roos Bros. (later Roos-Atkins) clothing chain, which occupied the western portion of the building through the 1970s. A local chain, McCaulou's, operated in this unit in the 1980s, and the Bancroft Clothing Co. has been located at the building since 1989. Smaller specialty shops have occupied the eastern unit, including clothing

stores, an audio equipment store, and a card and gift store. Originally designed in a modest Moderne style with a glazed tile- and metal-clad primary façade, the building was altered in 1969 and much of the original tile appears to have been removed. Some original tile, metal trim, and glazing may remain under the large awning which spans the larger, western storefront; however, the building overall does not retain a Moderne character. 2530 Bancroft Way does not appear to be eligible for individual listing in the California Register under any criteria, or eligible for designation as a City of Berkeley Landmark or Structure of Merit. The property does not therefore appear to qualify as a historical resource for the purposes of review under the California Environmental Quality Act (CEQA).

Figure 2. North façade of existing one-story commercial building at 2530 Bancroft Way, view southeast.

Fred Turner Building

The Fred Turner Building at 2546 Bancroft Way was designed by architect Julia Morgan in an Arts and Crafts style, and was completed ca. 1940 **(Figure 3 and Figure 4)**. The one-story, stucco-clad commercial building originally included four small commercial spaces at its north side, facing Bancroft Way, an open interior courtyard, and a restaurant at the rear of the building.

The project analysis prepared in 2017 for the Standard Project, an eight-story mixed-use building on the same parcel as the Fred Turner Building, recommended a period of significance of ca. 1940 through 1967 and provided a list of interior and exterior character-defining features related to its status as a City of Berkeley Landmark and California Register-eligible resource.[2] The Draft Environmental Impact Report for the 2580 Bancroft Way Mixed-Use Project, prepared in 2018, found that the Standard Project would cause significant and unavoidable impacts to the Fred Turner Building through removal of the rear portion of the building and construction of an adjoining new building which is incompatible with the historic building in "massing, scale, size, and materials."[3] Construction of the Standard Project has been substantially completed, and the rear portion of the Fred Turner Building was removed to facilitate construction of a new eight-story residential building. The front portion of the Fred Turner building, comprising the primary, north façade and four commercial spaces, has been retained and connected to the new residential building to its immediate south **(Figure 4)**. Although it has been altered and has lost some historic integrity as a result of construction of the Standard Project, the Fred Turner Building is still listed as a City of Berkeley Landmark. Therefore, for the purposes of the current project analysis, the Fred Turner Building retains its status as a historical resource for the purposes of CEQA.

A revised list of exterior character-defining features for the Fred Turner Building, which reflects alterations made during construction of the Standard Project, is provided in the following section.

[2] LSA and Interactive Resources, *Project Impact Analysis of the Standard Project* (Point Richmond: Prepared for Landmark Properties, Inc., April 2017).
[3] Urban Planning Partners, Inc., Draft Environmental Impact Report for the 2580 Bancroft Way Mixed-Use Project (Oakland: Prepared for the City of Berkeley Planning & Development Department, 2018), IV-25.

Figure 3. North facade of the Fred Turner Building, 2548 Bancroft Way, April 2017. View south.

Figure 4. North facade of the Fred Turner Building, 2548 Bancroft Way, April 2022. View south.

V. CHARACTER-DEFINING FEATURES

For a property to be eligible for national, state, or local designation under one of the significance criteria, the essential physical features (also known as character-defining features) that enable the property to convey its historic identity must be evident. To be eligible, a property must clearly contain enough of those characteristics, and these features must also retain a sufficient degree of integrity. Characteristics can be expressed in terms such as form, proportion, structure, plan, style, or materials. Significance for architecture is supported by the retention of features that relate to design, materials, workmanship, location, setting, feeling, and association.

The following list includes those exterior character-defining features which were retained following the alterations caused by construction of the Standard Project. Features were defined by LSA and Interactive Resources as being Very Significant, Significant, Contributing, or Non-contributing based on their level of craftsmanship and role in conveying the building's significant character.[4] Non-contributing and interior features are not included in the list.

Very Significant Character-Defining Features:

- Northern, Bancroft Way-facing façade
- Twin projecting window bays
- Copper standing-seam window bay hoods
- Pressed copper storefront friezes
- Steel sash multi-lite glazing in window bays
- Three-lite storefront doors
- Central archway at primary façade
- Clay tile at parapet
- Cement plaster cladding

Significant Character-Defining Features:

- Projecting cornice
- Continuous concrete sill
- Copper downspouts

Contributing Character-Defining Features

- East facing façade (retained northern portion)
- West facing façade (retained northern portion)

[4] LSA and Interactive Resources, *Project Impact Analysis of the Standard Project* (Point Richmond: Prepared for Landmark Properties, Inc., April 2017), 14.

V. PROPOSED PROJECT ANALYSIS

PROPOSED PROJECT DESCRIPTION

The following description of the proposed project is based on architectural drawings and renderings prepared by Trachtenberg Architects, dated August 11, 2023. These are included in **Appendix B**. Landmark Properties proposes to construct a 12-story mixed-use housing development with 110 dwelling units over ground-level commercial and lobby spaces (**Figure 5 through Figure 8**). Construction of the project would require demolition of the existing, one-story commercial building at 2530 Bancroft Way. At the primary (north) façade and northern portions of the east and west façades, the lowest two stories would be clad with brick, with a simple intermediate cornice separating the second and third stories **(Figure 9)**. At the ground floor of the north façade, the lobby and commercial spaces would feature broad, full-height glazing with accent panels. The third through 11th stories would be finished with a pattern of smooth and rough stucco. Regularly spaced vertical bands of rectangular anodized aluminum windows in groups of two and three would feature accent panels between windows, matching accent materials utilized at the ground floor lobby and commercial space storefronts. Two slightly recessed vertical channels at the primary façade from the third through 11th stories would include balconies with metal railings. The upper, 12th story would be set back from the north side, with glazed doors from each residential unit opening to a rooftop amenity space, shaded by a wood trellis. Cladding at the 12th story would be metal siding, terminating in a three-and-a-half-foot rectangular parapet. The east, south, and west façades would feature similar finishes, materials, and glazing patterns, with the exception of the ground floor storefront and lobby glazing, which would be only at the north façade.

The proposed building would be set at the northern property boundary and set back five feet, six inches from the property line at the east and south sides, and at the south portion of the west side. At the north portion of the west side, the proposed building would be set back eight feet from the property boundary. The east façade would be located nine feet from the west façade of the neighboring Fred Turner Building.

Figure 5. Proposed north façade, Landmark Bancroft Way project, Trachtenberg Architects, August 11, 2023.

Figure 6. Proposed east façade, Landmark Bancroft Way project, Trachtenberg Architects, August 11, 2023.

Figure 7. Proposed south façade, Landmark Bancroft Way project, Trachtenberg Architects, August 11, 2023.

Figure 8. Proposed west façade, Landmark Bancroft Way project, Trachtenberg Architects, August 11, 2023.

Figure 9 Detail of proposed first and second stories of the north façade, Landmark Bancroft Way project, Trachtenberg Architects, August 11, 2023.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The California Environmental Quality Act (CEQA) is state legislation (Pub. Res. Code §21000 et seq.) that provides for the development and maintenance of a high-quality environment for the present-day and future through the identification of significant environmental effects.[5] CEQA applies to "projects" proposed to be undertaken or requiring approval from state or local government agencies. "Projects" are defined as "activities which have the potential to have a physical impact on the environment and may include the enactment of zoning ordinances, the issuance of conditional use permits and the approval of tentative subdivision maps."[6] Historic and cultural resources are considered to be part of the environment. In general, the lead agency must complete the environmental review process as required by CEQA.

According to CEQA, a "project with an effect that may cause a substantial adverse change in the significance of an historic resource is a project that may have a significant effect on the environment."[7] Substantial adverse change is defined as: "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historic resource would be materially impaired."[8] The significance of an historical resource is materially impaired when a project "demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance" and that justify or account for its inclusion in, or eligibility for inclusion in, the California Register.[9] Thus, a project may cause a change in a historic resource but still not have a significant adverse effect on the environment as defined by CEQA as long as the impact of the change on the historic resource is determined to be less-than-significant, negligible, neutral or even beneficial.

Status of Property as a Historic Resource

In completing an analysis of a project under CEQA, it must first be determined if the project site possesses a historical resource. A site may qualify as a historical resource if it falls within at least one of four categories listed in CEQA Guidelines Section 15064.5(a). The four categories are:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4850 et seq.).

[5] California Environmental Quality Act (CEQA), California legislative Information, accessed February 22, 2020, https://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=PRC&division=13.&title=&part=&chapter=&article=&nodetreepath=30.
[6] Ibid.
[7] CEQA Guidelines subsection 15064.5(b).
[8] CEQA Guidelines subsection 15064.5(b)(1).
[9] CEQA Guidelines subsection 15064.5(b)(2).

2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1 (g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852).

4. The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Pub. Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Pub. Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Pub. Resources Code sections 5020.1(j) or 5024.1.

In general, a resource that meets any of the four criteria listed in CEQA Guidelines Section 15064.5(a) is considered to be a historical resource unless "the preponderance of evidence demonstrates" that the resource "is not historically or culturally significant."[10]

Based on Page & Turnbull's analysis, the existing building on the project site at 2530 Bancroft Way is not eligible for listing in the California Register as an individual resource, and is neither eligible nor currently listed as a City of Berkeley Landmark or Structure of Merit. It is therefore not a historical resource for the purposes of CEQA review. Project-related impacts will therefore not be analyzed for this building.

The Fred Turner Building at 2548 Bancroft Way, on an adjacent parcel to the immediate east of the project site, is listed as a City of Berkeley Landmark, and is therefore a historical resource for the

[10] CEQA Guidelines subsection 15064.5(a)(2).

purposes of CEQA. The following section will focus on potential project-related impacts to the Fred Turner Building.

PROJECT IMPACTS ON INDIVIDUAL HISTORIC RESOURCES

Secretary of the Interior's Standards

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* are used by federal agencies in evaluating work on historic properties, and have also been adopted by local government bodies across the country for reviewing proposed rehabilitation work on historic properties under local preservation ordinances. These standards are a useful analytic tool for understanding and describing the potential impacts of substantial changes to historic resources. Under CEQA, projects that comply with the standards benefit from a regulatory presumption that they would have a less-than-significant adverse impact on a historic resource.[11] Projects that do not comply with the standards may cause either a substantial or less-than-substantial adverse change in the significance of a historic resource.

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* offers four sets of standards to guide the treatment of historic properties: Preservation, Rehabilitation, Restoration, and Reconstruction. The four distinct treatments are defined as follows:

> **Preservation:** The Standards for Preservation "require retention of the greatest amount of historic fabric, along with the building's historic form, features, and detailing as they have evolved over time."
>
> **Rehabilitation:** The Standards for Rehabilitation "acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character."
>
> **Restoration:** The Standards for Restoration "allow for the depiction of a building at a particular time in its history by preserving materials from the period of significance and removing materials from other periods."
>
> **Reconstruction:** The Standards for Reconstruction "establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes."[12]

[11] CEQA Guidelines, subsection 15064.5(b)(3).
[12] Anne E. Grimmer, The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Washington, D.C.: National Park Service, 2017).

Typically, one treatment (and the appropriate set of standards) is chosen for a project based on the project scope. The proposed project scope is seeking to construct a new building adjacent to a historic building. While no physical alterations are proposed at the historic building, neighboring new construction may have the potential to impact the setting, and thus the character, of historic resources. The *Secretary of the Interior's Standards for Rehabilitation & Guidelines for Rehabilitating Historic Buildings* provide guidance for reviewing proposed work on historic properties, with the stated goal of making possible "a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values."[13] Therefore, the *Standards for Rehabilitation* will be applied.

STANDARDS FOR REHABILITATION ANALYSIS

The Secretary of the Interior's Standards for Rehabilitation include ten standards which aim to preserve a historic building's character while accommodating alterations, and new or related construction. The ten standards are:

Rehabilitation Standard 1: A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

Rehabilitation Standard 2: The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.

Rehabilitation Standard 3: Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.

Rehabilitation Standard 4: Changes to a property that have acquired significance in their own right will be retained and preserved.

Rehabilitation Standard 5: Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Rehabilitation Standard 6: Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the

[13] National Park Service, "Rehabilitation as a Treatment," accessed July 2, 2019, https://www.nps.gov/tps/standards/four-treatments/treatment-rehabilitation.htm.

Rehabilitation Standard 7: Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Rehabilitation Standard 8: Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken

Rehabilitation Standard 9: New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.

Rehabilitation Standard 10: New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Rehabilitation Standards 1 through 7 relate exclusively to projects which propose to directly alter a historic building or structure. As the proposed project would not physically alter or treat historic materials or features at the historic Fred Turner Building, these standards will not be analyzed.

Discussion of Rehabilitation Standard 8: Identification or evaluation of archaeological resources were not undertaken as part of this scope. Though sediment at the project site has been previously disturbed by excavation for the existing basement, the proposed project may include excavation work below this level in advance of new construction. It is assumed that conditions of permit approval for the project will include required procedures for inadvertent discovery of archaeological resources during project activities.[14] These would include temporary work stoppage within 50 feet of the resource, evaluation by a qualified professional archaeologist, and development and implementation of measures for avoidance or treatment of significant resources. If such permit conditions are required and implemented, the proposed project would be in compliance with Rehabilitation Standard 8.

Discussion of Rehabilitation Standard 9: This standard, which addresses related new construction, is the most relevant to consideration of the proposed project relative to the neighboring Fred Turner Building. Featuring brick, stucco, metal, and glass, the proposed project would be compatible in materials with the neighboring historic building, as well as those of nearby

[14] An example of standard conditions for discovery of archaeological resources is included in the City of Berkeley Zoning Adjustments Board conditions for a CEQA-exempt project at 1695 Ward Street, dated February 24, 2022: https://berkeleyca.gov/sites/default/files/2022-04/2022-02-24_ZAB_Item%204_1695%20Ward.pdf.

historic buildings in the neighborhood south of the University of California, Berkeley, campus. Similarly, the proposed project would include glazed storefronts with transoms and bulkheads, set at the property boundary adjacent to the pedestrian right of way; a pattern which references early 20th-century commercial buildings along Bancroft Way and Telegraph Avenue in the vicinity of the project site. With a separation of nine feet between the proposed building and the existing, neighboring historic building, the proposed project would be visually distinct as a separate property from the Fred Turner Building. At 12 stories in height, the proposed project would be substantially taller than the Fred Turner Building, and taller by four stories than the mixed-use Standard Project buildings which abut the Fred Turner Building on its south and east sides. In their analysis of the eight-story Standard Project relative to Rehabilitation Standard 9, LSA and Interactive Resources stated:

> The project site contains a single-story, modestly styled Arts and Crafts boutique. The single-story massing is an important attribute of the building's historical character. Changes to this relationship through the construction of an eight story addition in place of the rear portion of the existing single-story building would significantly alter this collective historic character, essentially subordinating this prominent façade feature. Even with a 60-foot façade setback, the eight-story addition proposed by the project would impose a significant and unavoidable size and massing change that would be out of scale and proportion to the single-story host building's historical character and appearance as a modest, one-story commercial boutique.[15]

However, while the height and massing of the Standard Project were found to be incompatible with the one-story historic Fred Turner Building, the draft EIR for the project did not identify a significant impact associated with this scale. The impact of the project was found to be significant and unavoidable based on its proposed demolition of the rear portion of the Fred Turner Building, rather than on the scale of the attached development.[16] At present, with the retained character-defining features at its primary façade, the Fred Turner Building retains its status as a City of Berkeley Landmark.

Consistent with this finding, while the proposed 12-story project at 2530 Bancroft Way would not be compatible in scale and massing with the neighboring one-story Fred Turner Building, the impact of this difference in scale would not be sufficient to reduce the ability of the

[15] LSA and Interactive Resources, *Project Impact Analysis of the Standard Project* (Point Richmond: Prepared for Landmark Properties, Inc., April 2017), 24.
[16] Urban Planning Partners, Inc., Draft Environmental Impact Report for the 2580 Bancroft Way Mixed-Use Project (Oakland: Prepared for the City of Berkeley Planning & Development Department, 2018), IV-24.

historic building to convey its historic character and significance. The presence of the proposed building would not obscure views of the Fred Turner Building from public rights-of-way, or impair its eligibility for historic designation at the local or State level.

Discussion of Rehabilitation Standard 10: The proposed project requires no physical alterations or connection to the historic Fred Turner Building. Removal of the proposed project would reduce the impact of the change in the setting of the historic building which would be caused by the proposed neighboring building of incompatible scale. This would not adversely impact the historic integrity of the historic Fred Turner Building.

ANALYSIS OF IMPACTS UNDER CEQA

As designed, the proposed project would be in compliance with the relevant Rehabilitation Standards with respect to the historic Fred Turner Building. According to Section 15126.4(b)(1) of the Public Resources Code (CEQA), if a project complies with the Standards, the project's impact "shall be considered as mitigated to a level of less than a significant impact on the historical resource."[17] Therefore, the proposed project as designed would not cause a significant impact on a historic resource under CEQA.

Southside Design Guidelines

Adopted by the City of Berkeley Planning Commission in April 2011, the Southside Design Guidelines provide guidance for the design of new construction and alterations within the Southside Plan Area.[18] The project site is located within the Telegraph Commercial Subarea of the Southside Plan Area. The following design guidelines relevant to historic resources, which have been adopted for Commercial Subareas, are discussed relative to the proposed project.

Design Guideline B.2. New construction in the Telegraph Commercial Subarea should reflect the scale and massing established by the older three to five story buildings in the subarea. (Building Massing and Height)

Discussion: Proposed to be 12 stories in height, the Landmark Bancroft Way project would be considerably taller than nearby historic commercial buildings in the Telegraph Commercial Subarea.

[17] CEQA Guidelines, subsection 15064.5(b)(3).
[18] City of Berkeley, Southside Design Guidelines (Berkeley: Adopted by the Planning Commission, April 2011).

Design Guideline C.1. The proportions, rhythm, and attention to detailing established by the façades of older historic buildings should be reflected and reinforced in new construction. (Building Design and Façades)

Discussion: While contemporary in nature, the proposed façade would feature detailing such as brick cladding, accent materials, and a rectangular cornice at the lowest two stories. Storefront glazing at the ground floor would be compatible in proportion with that of older commercial buildings nearby, and would feature divided transoms and low bulkheads to add visual interest and refer to the features of the older buildings (three examples of nearby commercial buildings are provided in **Figure 10 through Figure 12**). The rhythm of windows at the upper stories would reflect the rectilinear fenestration typical of the upper stories of taller historic buildings within the subarea, which generally face Telegraph Avenue. The accent panels within groupings of upper-story windows would provide architectural detail without replicating the brick or plaster ornamentation often found at the headers of upper story windows in nearby historic buildings.

Design Guideline D.1. Reflect the traditional storefront rhythm and proportion found throughout the Commercial Subareas. Emulate traditional elements such as large display windows of clear glass, bulkheads below the storefront windows and clerestory windows above, recessed front entries, and appropriate locations for signs and awnings. (Storefronts)

Discussion: As discussed with respect to Design Guideline C.1, the ground floor storefront rhythm, including the subdivision of units and glazing, are consistent with older commercial buildings in the Telegraph Commercial Subarea. Awnings would be set above storefront windows and transoms, providing some variability in height across the façade. Storefront entries would be recessed slightly from the pedestrian right-of-way.

Design Guideline D. 3. Provide a level of detailing that complements the character of the historic buildings in these subareas. (Storefronts)

Discussion: See discussion of Design Guideline C.1.

Design Guideline D. 5. Windows in the upper façade of new buildings should reflect the pattern and rhythm of older historic buildings in these subareas. (Storefronts)

Discussion: As discussed with respect to Design Guideline C.1, the rhythm and scale of upper-story windows would reflect the rectilinear fenestration typical of the upper stories of taller historic buildings within the subarea.

Figure 10. Older commercial building within the Telegraph Commercial Subarea, the Cambridge Apartments at 2500 Durant Avenue, Berkeley Landmark #301. Source: Google Earth.

Figure 11. Older commercial building within the Telegraph Commercial Subarea, northwest corner of Telegraph and Durant avenues. Source: Google Earth.

Figure 12. Older commercial building within the Telegraph Commercial Subarea, southeast corner of Telegraph Avenue and Bancroft Way. Source: Google Earth.

Design Guideline F.1. Utilize materials that provide a sense of continuity with the existing area structures, such as brick, smooth-faced cement plaster, finished concrete, tile, and stone. (Materials)[19]

Discussion: The proposed project would feature brick cladding at the lowest two stories, with smooth and textured stucco cladding at the upper stories. Use of these materials would visually tie the proposed project to nearby historic buildings, while accent materials such as metal and wood would help to visually distinguish the contemporary style of the new building.

The proposed project would be substantially taller than existing buildings in the surrounding blocks. However, its storefront composition, materials, architectural details, and upper-story fenestration would be consistent with the Southside Design Guidelines relevant to the historic character of the Telegraph Commercial Subarea. The two lowest stories, visually differentiated from the upper stories with brick cladding and a simple cornice, would provide a base level scaled appropriately relative to nearby commercial buildings and the pedestrian-focused nature of the subarea. Taken together with the base and middle stories, the metal-clad 12th story, softened by a pergola and planned rooftop outdoor space, provides a contemporary approach to the three-part composition typical of early 20th-century commercial buildings in the vicinity.

Cumulative Impacts Analysis

The California Environmental Quality Act defines cumulative impacts as follows:

> "Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> a) The individual effects may be changes resulting from a single project or a number of separate projects.
>
> b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.[20]

[19] City of Berkeley, Southside Design Guidelines, 7-10.
[20] CEQA Statutes & Guidelines, Article 20, Subsection 15355.

As discussed above, the Standard Project, located to the immediate south and west of the Fred Turner Building, is the most relevant recent project for consideration of cumulative effects relative to the proposed Landmark Bancroft Way project. Combined, the projects would result in construction of multi-story mixed-use buildings on the west, east, and south sides of the retained front portion of the Fred Turner Building. The combined effect would be a change in setting of the Fred Turner Building, which originally consisted of one of one- to three-story commercial buildings bordering the south side of Bancroft Way, facing the University of California, Berkeley to the north. The significant characteristics of the Fred Turner Building include the features of its primary façade, and its association with architect Julia Morgan. Construction of the two projects, both of which are designed in contemporary styles, would not obscure or visually detract from the appearance of the remaining portion of the Fred Turner Building, which retains its distinctive window bays with copper hoods, central arched opening, tile parapet, and one-story massing. Construction of these taller neighboring buildings would not impair the Fred Turner Building's overall ability to convey its architectural significance. It does not appear, therefore, that the proposed new building and the neighboring Standard Project would represent a cumulative impact on historical resources pursuant to CEQA.

VI. CONCLUSION

Page & Turnbull evaluated the potential impacts on historic resources of a proposed 12-story mixed-use building, located to the immediate west of the California Register-eligible, City of Berkeley Landmark Fred Turner Building at 2548 Bancroft Way. The project was evaluated for its direct and indirect impacts on individual resources, based on the *Secretary of the Interior's Standards for Rehabilitation.* Based on this analysis, the proposed project does not represent a project-specific impact, nor does it contribute to a broader cumulative impact. While contemporary in style and substantially taller than other buildings in the vicinity, the proposed project would be compatible in materials, storefront style, and fenestration with the character of the City of Berkeley's Telegraph Commercial subarea.

In sum, the proposed project would not be anticipated to have a significant effect on historical resources, and would not require a further analysis of cultural resource impacts under CEQA.

VII. REFERENCES

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Grimmer, Anne E. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*. Washington, D.C.: National Park Service, 2017.

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_____. 14 CCR § 15064.5, Guidelines for Implementation of the California Environmental Quality Act, electronic resource at https://govt.westlaw.com/calregs/Document/IA0E0C760D48811DEBC02831C6D6C108E?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default), accessed June 22, 2022.

Urban Planning Partners, Inc. *Draft Environmental Impact Report for the 2580 Bancroft Way Mixed-Use Project*. Oakland: Prepared for the City of Berkeley Planning & Development Department, 2018.

APPENDIX A

State of California Department of Parks and Recreation (DPR) 523 Forms for 2530 Bancroft Way

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

Page 1 of 24 **Resource name(s) or number** (assigned by recorder) 2530 Bancroft Way

P1. Other Identifier: 2530-2538 Bancroft Way
***P2. Location:** ☐Not for Publication ☒Unrestricted ***a. County** Alameda
***b. USGS 7.5' Quad** Oakland West **Date** 2018
***c. Address** 2530 Bancroft Way **City** Berkeley **Zip** 94704
***e. Other Locational Data:** Assessor's Parcel Number 55-1877-16-1

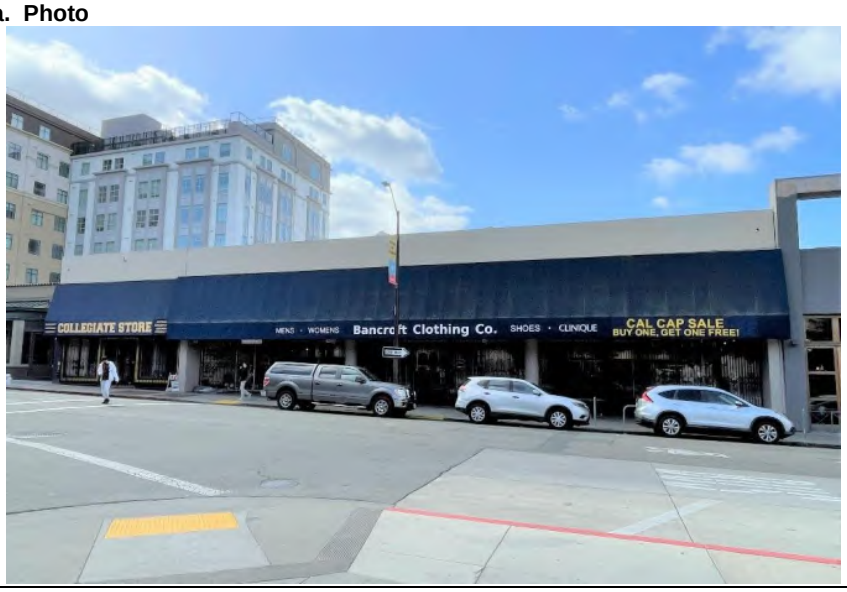
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.) 2530 Bancroft Way (APN 55-1877-16-1) is a one-story, reinforced concrete commercial building with a rectangular footprint which extends to the parcel boundaries of its rectangular, 120-foot by 130-foot parcel. The building has historically been associated with two street addresses, 2530 and 2538 Bancroft Way; the address 2530 Bancroft Way will be used to refer to the current building hereafter. It is located to the east of downtown Berkeley and immediately south of the University of California, Berkeley campus on the south side of Bancroft Way between Telegraph Avenue and Bowditch Street **(Figure 1)**. Originally completed in 1949 for use as a Roos Bros. department store, the building was designed by architects Miller & Warnecke for property owners, the University Y.M.C.A.

The building features a slightly arched composition-clad roof with one large, peaked skylight near its center and three rectangular skylights at its west-facing slope. The north, primary façade, which faces Bancroft Way, is divided into two commercial units. The larger, west unit has three structural bays separated by cylindrical concrete columns supporting the ceiling of a deep entry loggia **(Figure 2 and Figure 3)**. At the ground level, the façade is fully glazed with a plate-glass and aluminum storefront window system. At the west side, a U-shaped display window opens to the east, at the interior of the entry loggia **(Figure 4)**. Two recessed entrances with fully glazed double doors and rectangular transoms are located at the west and east sides of the storefront **(Figure 5 and Figure 6)**. A narrow, ceramic tile bulkhead extends across the façade below the storefront windows. The entry loggia floor consists of scored, painted concrete. The smaller, east commercial unit features a recessed central entry with fully glazed double doors flanked by plate glass storefront windows **(Figure 7)**. The entrances of both commercial units are shaded by fabric awnings

The east and west façades overlook the neighboring properties, and consist of painted, board-formed concrete with no openings **(Figure 8 and Figure 9)**. The rear, south façade directly abuts the adjacent properties. (Refer to Continuation Sheet, page 3).

***P3b. Resource Attributes:** (list attributes and codes) HP6. 1-3 story commercial building
***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other

P5a. Photo



P5b. Photo: (view and date)
View of the primary façade, looking southeast, April 20, 2022

***P6. Date Constructed/Age and Sources:** ☒historic
Completed 1949 (original building permit, newspaper articles)

***P7. Owner and Address:**
Miottel Corporation
PO Box 3450, Berkeley, CA 94703

***P8. Recorded by:**
Page & Turnbull, Inc.
170 Maiden Lane, 5th Fl
San Francisco, CA 94010

***P9. Date Recorded:**
November 6, 2023

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none") None
***Attachments:** ☐None ☐Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐ Other (list)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____

Page 2 **of** 24 **Resource Name or #** (Assigned by recorder) 2530 Bancroft Way
***Recorded by** Page & Turnbull, Inc. ***Date** November 6, 2023 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Figure 1. Location of 2530 Bancroft Way, subject building outlined red.
Source: Google Earth, 2020, edited by Page & Turnbull.

Figure 2. Primary façade, western storefront, view southwest.

.

Figure 3. Primary façade, western storefront, view southwest.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____

Page 3 **of** 24 **Resource Name or #** (Assigned by recorder) 2530 Bancroft Way
***Recorded by** Page & Turnbull, Inc. ***Date** November 6, 2023 ☒ Continuation ☐ Update

Figure 4. U-shaped display window at west side of west storefront, view southwest.

Figure 5. West storefront display windows, view southeast.

Figure 6. East entry to west storefront, view south.

Figure 7. East storefront, view south.

Figure 8. Portion of east façade visible from Bancroft Way, view southwest.

Figure 9. Rear portion of west façade, view southeast.

Interior

The interior of the larger, western commercial space consists of a large sales room with a mezzanine on all sides. A staircase accesses the mezzanine near the rear, south side of the sales floor, slightly to the right of center. A partial wall at center visually divides the sales floor into two roughly equal rectangular halves. A large stock room is located at the rear of the west commercial space. The western portion of the ceiling consists of a metal frame holding acoustical tile at the level of the mezzanine floor. The mezzanine has a wood plank railing accented by metal-studded rails, and is supported by deep, plaster-clad brackets with a rounded-step profile. Most of the mezzanine is utilized for stock storage and office space. At the north side of the mezzanine, a storage area has large, plate glass windows which are obscured by the exterior awning.

The smaller, eastern commercial space consists of a deep, narrow sales area with a partially dropped ceiling featuring large, circular frames for light fixtures. The floor is carpeted.

The basement is accessed by a staircase near the center at the rear of the building. Some basement walls are clad with mortared, unglazed ceramic blocks, others are unfinished board-formed concrete. The ceiling and joists are concrete.

Figure 10. East portion of western commercial space, view southeast.

Figure 11. West portion of western commercial space, view south.

Figure 12. Mezzanine staircase (at left) and partial wall at center of western commercial space, view southeast.

Figure 13. Stock room at rear of western commercial space, view south.

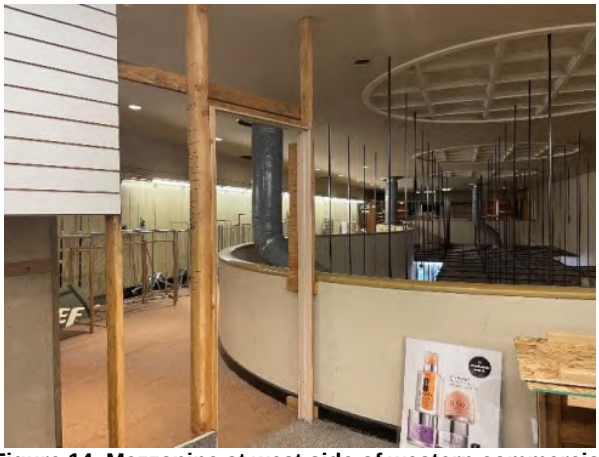


Figure 14. Mezzanine at west side of western commercial space, view north. Note dropped ceiling supports at right.

Figure 15. Mezzanine windows at east side of western commercial space, view northwest.

Figure 16. Eastern commercial space, view north.

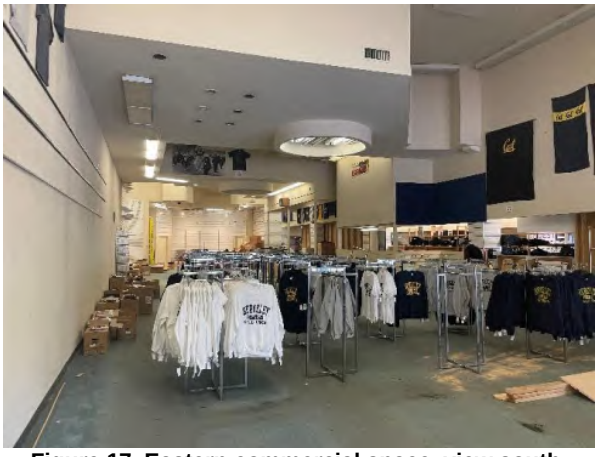


Figure 17. Eastern commercial space, view south.

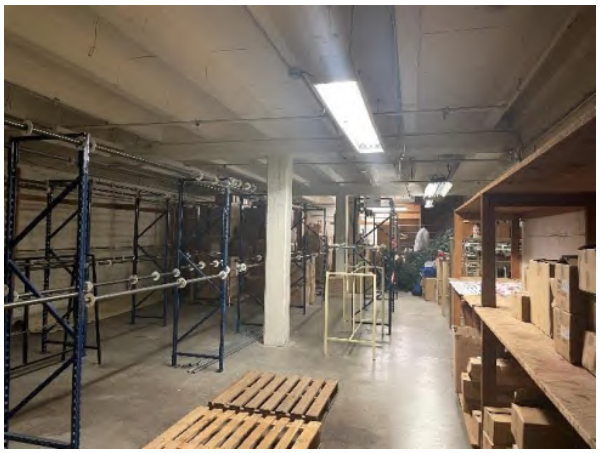


Figure 18. Basement.

Surrounding Neighborhood

The neighborhood surrounding the subject property consists of the University of California, Berkeley campus across Bancroft Way to the north, and predominantly commercial properties along the south side of Bancroft Way. To the immediate east of the subject building, the primary façade and northern commercial spaces of the Fred Turner Building, a City of Berkeley Landmark designed by Julia Morgan and built in 1940, have been incorporated into an eight-story mixed-use building. To the west of the subject building, 2522 Bancroft Way is a one-story commercial building built between 1911 and 1929, with contemporary façade alterations. The block to the immediate northeast of 2530 Bancroft Way includes four City of Berkeley Landmark properties both in its on- and off-campus frontages. On campus to the northeast of the subject building, the Hearst Gymnasium for Women is a Beaux-Arts facility designed by architects Julia Morgan and Bernard Maybeck, completed in 1927. Three landmarks to the northeast of the subject building on the south side of Bancroft Way include the University Art Museum, a recently rehabilitated Brutalist building designed by architect Mario J. Ciampi and completed in 1970, the College Women's Club, now the Bancroft Hotel, designed by architect Walter Steilberg and built in 1928 in a Mediterranean revival style, and the shingled 1897 Cornelius Beach Bradley House facing Durant Avenue.

Figure 19. The retained portion of the Fred Turner Building at 2548 Bancroft Way, and new eight-story mixed-use building to the rear and east, view south.

Figure 20. 2522 Bancroft Way, view south. Source: Google Earth, 2020.

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 7 **of** 24 ***NRHP Status Code** 6Z
***Resource Name or #** 2530 Bancroft Way

B1. Historic name: 2530 Bancroft Way
B2. Common name: 2530 Bancroft Way
B3. Original Use: Commercial
B4. Present use: Commercial
***B5. Architectural Style**: Mid-20th Century Commercial / No Style
***B6. Construction History:** (Construction date, alterations, and date of alterations)

The one-story commercial building was completed in 1949 for the University Y.M.C.A. for use as a Roos Bros. department store. The 120-foot by 130-foot building, designed by architects Miller & Warnecke and engineer I. Thompson, was built by contractor John M. Bartlett. Initial plans for the building were prepared in 1946, but construction of the project was postponed to comply with post-World War II building restrictions.[1] The store was constructed with concrete footings, foundations, and basement joists and girders, and reinforced concrete walls with steel framing at the ground floor. The Bancroft Way façade was finished with plate glass, tile, and ceramic veneer **(Figure 21 through Figure 24)**. An electric "plunger" type freight elevator was located in the sidewalk adjacent to the store. According to the Commercial Building Record on file with the City of Berkeley Permit Service Center, the building was constructed with two interior commercial spaces: a 90-foot-wide space with a mezzanine around all interior walls was located at the west side of the building, and a 30-foot wide space with a mezzanine along its west interior wall was located at the east side of the building. The main tenant, the Roos Bros. department store, occupied the western commercial space with interiors designed by company's architect, Albert P. Williams **(Figure 25 and Figure 26)**.[2] Photos taken during a 1964 strike at UC Berkeley capture the Roos/Atkins store in the background, showing its original façade with projecting canopies at the entrance and mezzanine, ridged column details between mezzanine windows, and glossy tile cladding **(Figure 27 and Figure 28)**.
(Refer to Continuation Sheet, page 9)

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** **Original Location:**
***B8. Related Features:** No B9a. Architect: Miller & Warnecke b. Builder: John M. Bartlett
***B10. Significance: Theme** N/A **Area** N/A
Period of Significance N/A **Property Type** N/A **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

Historic Context – City of Berkeley

Precursor to the University of California, Berkeley, the College of California was chartered in Oakland in 1855 as a college preparatory school under the direction of Congregational minister Henry Durant. The institution had originally been established in 1852 as the Contra Costa Academy. In 1860, the College purchased a 160-acre tract of land on Strawberry Creek to establish a new, expanded campus. The College collaborated with the State of California's Agricultural, Mining, and Mechanical Arts College (which to this time had only existed in name after it was established by an 1865 act) to establish a public university.[3] Under the provisions of the Morrill Act, Governor Henry H. Haight signed a law granting a charter to the University of California. The University of California came into existence in March 1868. In 1869, the former College of California transferred its property and interests to the University of California. The University of California moved to the newly constructed Berkeley campus in 1873. In 1866, the name "Berkeley" was officially adopted by the Trustees of the College for the residential academic community that they hoped would grow up around the school.
(Refer to Continuation Sheet, page 10)

Source: Alameda County Assessor's Office, 2022. Subject property shaded red. Modified by Page & Turnbull.

B11. Additional Resource Attributes: (List attributes and codes)
***B12. References:** Refer to Page 15
B13. Remarks: None
***B14. Evaluator:** Page & Turnbull, Inc.
***Date of Evaluation:** November 6, 2023

(This space reserved for official comments.)

[1] Betty Marvin, "A Piece of the Forties: The old Roos/Atkins store isn't a great building, but it's good work," *The Berkeley Gazette*, October 9, 1981.
[2] *The Berkeley Gazette,* "New Roos Bros. Store Will Hold Open House Monday," March 5, 1949.
[3] The Regents of the University of California, "The Agricultural, Mining, and Mechanical Arts College," *Report of the Regents of the University of California, Relative to the Operations and Progress of the Institution*, 1872, electronic resource at https://oac.cdlib.org/view?docId=hb887008m3&brand=oac4&chunk.id=meta.

***B6. Construction History (continued):**

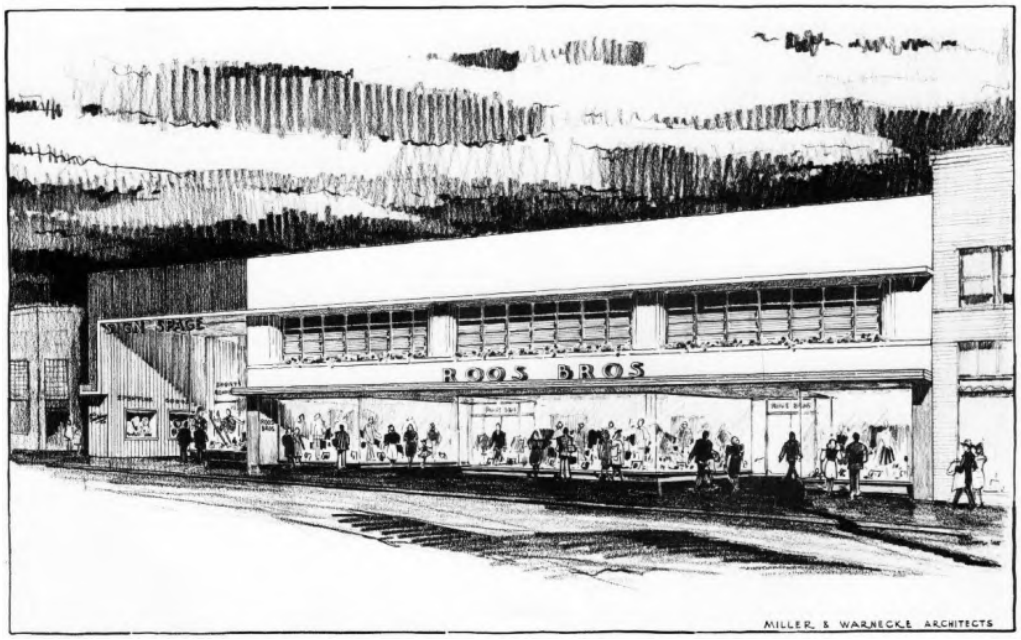


Figure 21. Undated sketch of Roos Bros. building, collection of the Warnecke Architectural Archive.

Figure 22. Photograph of the Roos Bros. store building at 2530 Bancroft Way, looking southwest, ca. 1949. Collection of the Warnecke Architectural Archive

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CONTINUATION SHEET

Primary # _____
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***Recorded by** Page & Turnbull, Inc.

Resource Name or # 2530 Bancroft Way
***Date** November 6, 2023 ☒ Continuation ☐ Update

Figure 23. Photograph of the Roos Bros. store building at 2530 Bancroft Way, looking southeast, ca. 1949. Collection of the Warnecke Architectural Archive.

Figure 24. Photograph of the Roos Bros. store building at 2530 Bancroft Way, looking southwest, ca. 1949. Collection of the Warnecke Architectural Archive.

Figure 25. Interior of the Roos Bros. men's department, looking toward the rear of the store from the mezzanine, ca. 1949. Collection of the Warnecke Architectural Archive.

Figure 26. Interior of the Roos Bros. women's department, looking toward the front of the store from the mezzanine, ca. 1949. Collection of the Warnecke Architectural Archive.

Figure 27. Detail of 1964 photograph showing Roos/Atkins store at right. Source: Michael Rossman Free Speech Movement Photographs, UC Berkeley, Bancroft Library, BANC PIC 2000.067:6.

Figure 28. Detail of 1964 photograph showing Roos/Atkins store in background. Source: Michael Rossman Free Speech Movement Photographs, UC Berkeley, Bancroft Library, BANC PIC 2000.067:8.

The eastern portion of the original façade was altered in 1969, when a renovation removed and replaced the storefront, mezzanine, and floor covering, of the smaller eastern unit, and installed new interior ceilings and partitions.[4] Other documented alterations to the subject building, including replacement of signs and roofing, are listed in **Table 1** below.

Alterations which do not appear to be documented in permit records include replacement of the storefront glazing, which originally consisted of larger panes than are currently present, and removal of a small, tiled planter at the center of the western unit storefront. Scars in the tiled bulkhead and flooring at the center of the west unit's storefront, visible in **Figure 5** correspond to the location of this planter, visible in **Figure 22 and Figure 23**. The tile cladding at the upper portion of the western unit's façade, on the columns at the entrance, and at the base of the storefront glazing appears to be original, but has been painted. The interiors of the commercial spaces have been substantially altered, though portions of the original mezzanine remain intact **(Figure 10, Figure 14, Figure 25, and Figure 26)**. One section of what appear to be original mezzanine windows are visible behind shelving units at the interior of the east side of the main commercial space **(Figure 15)**, however, the original locations of all other mezzanine windows are obscured at the exterior by the awning and at the interior by wood paneling and shelving.

The subject building was recorded in 1979 by architectural historian Betty Marvin for the Berkeley Urban Conservation Survey conducted by BAHA. The form reports the building to have been in good condition, with "large blue tiles, with aluminum trim; Pant House occupying east ¼ faced in black & white." Though noted as a "fine example" and associated with architects Miller & Warnecke, alterations at the building are noted as "moderate" at the main store to "considerable" at the east side, with the note "east end constantly changing – had a fine light show in the early 70s." The latter comment refers to neon signs installed by commercial tenants.

Marvin expanded on the building in a 1981 *Berkeley Gazette* article, titled "A Piece of the Forties: The old Roos/Atkins store isn't a great building, but it's good work," in which she wrote:

> the Roos building may not be one of the primary works for which the Warnecke firm will be remembered – not when their local achievements also include the Oakland Public Library (1949), UC residence halls and the Oakland Airport. A decade after the Roos building, critic Allen Temko wrote of Warnecke and Warnecke – particularly of John Carl Warnecke, the son, who continues the firm today – in words that apply to the building on Bancroft as well,

[4] City of Berkeley Permit Service Center records, permit 114927, September 12, 1969.

commending their "quiet acceptance of jobs which most offices of national stature would disdain. These Warnecke concedes are far from masterpieces, but are 'better than if they were done by those who only half try.'[5]

Photographs taken in 2007 which are in the collection of the Berkeley Architectural Heritage Association (BAHA) indicate that some original tile, engaged columns, planter, and metal-trimmed canopies were retained beneath the existing awning at that time **(Figure 29 through Figure 34)**. The current appearance of the portion of the storefront beneath the awning was not visible at the time of site visits on April 20, 2022.

Figure 29. Photograph of primary façade of 2530 Bancroft taken July 2007 showing extant façade details beneath awning. Collection of BAHA.

Figure 30. Photograph of primary façade of 2530 Bancroft taken July 2007 showing extant façade details beneath awning. Collection of BAHA.

Figure 31. Photograph of primary façade of 2530 Bancroft taken July 2007 showing extant façade details beneath awning. Collection of BAHA.

Figure 32. Photograph of primary façade of 2530 Bancroft taken July 2007 showing extant façade details beneath awning. Collection of BAHA.

[5] Betty Marvin, "A Piece of the Forties."

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Figure 33. Photograph of primary façade of 2530 Bancroft taken July 2007 showing extant façade details beneath awning. Collection of BAHA.

Figure 34. Photograph of primary façade of 2530 Bancroft taken July 2007 showing extant façade details beneath awning. Collection of BAHA.

Table 1: Permitted Alterations to 2530 Bancroft Way

Permit #	Date	Applicant	Builder/Contractor	Description
62620	01/23/1948	University Y.M.C.A. for Roos Bros (lessee)	Miller & Warnecke (architect); I. Thompson (Engineer); John M. Bartlett (builder)	Store building – 2526-2540 Bancroft, $110,000.00. Building 120'x130', 27' high.
78718	01/24/1956	Not specified	Not specified	Roofing
82118	05/28/1957	Not specified	Not specified	Roofing
97981	06/15/1963	Roos/Atkins	G. Anderson (designer), Mullen Mfg. Co (builder)	"In area off rear mezz install partition to enclose stock room area, cover joists w. 5/8 plyscore on existing joists. Install 5/8" gypboard on existing studs."
99447	12/23/1963	R.G. Vickery	Elliott & Elliott Co.	Roof replacement
18850	10/25/1965	Smith's Clothing Store	Lera Electric Co.	Electrical Work
18577	08/07/1969	Roos/Atkins	Scott Butner Electric Co.	Electrical work – replace window lighting
114927	09/12/1969	Smith's Clothing Store	Plant Bros.	"Remove storefront & Mezzanine. Install new storefront & floor covering. Install new clg. & partitions."
114977	09/18/1969	Smith's Clothing Store	Nelson Neon	Install 1 illuminated projecting sign and one wall sign.
020276844	01/20/1976	John Miottel, Miottel, Chamberlain & Company	Bill Moore & Assoc.	"To make corrections as requested by City of Berkeley: stop flashing action of lamps + neon tubing on store front." Follow up letter from City of Berkeley says "We are pleased to advise that the flashing "psychedelic" light display at the above store has been corrected."

Permit #	Date	Applicant	Builder/Contractor	Description
052378096	05/22/1978	Mrs. Elsie Vickery	Fidelity Roof Co.	"Reroofing – Tar and Gravel"
E-1128793235	11/27/1979	W. John Miottel Jr.	Clifford Electric	"Temporary installation of fluorescent light fixtures on temporary basis for duration of 1979-80 census taking."
0714800456	07/14/1980	W.J. Miottel	Fidelity Roof Co.	Partial roof tearoff and replacement
B0109814489	01/08/1981	McCaulou's	Electrical Products	"Install one wall sign on building face 4'8" x 30" and one under canopy sign 1' x 4'."
0528817257	05/28/1981	McCaulou's Berkeley	Not specified	Painted wall sign
0224847078	02/24/1984	John Miottel	Fidelity Roof Co.	Reroofing

***B10. Significance (continued):**
Historic Context – City of Berkeley (continued)

The young College hoped to support its development with the sale of residential real estate, and the plan for the College Homestead Association Tract, bounded by today's College and Shattuck avenues, and Bancroft and Dwight ways, was recorded on May 15, 1866. At the time, the area consisted primarily of undeveloped grassland and farms. The tract was intended to create a campus community of mixed uses and generate income from the sale of lots for the College of California.

The College Homestead Association Tract lots sold poorly within the institution's community, and the College of California could not survive without capital from their sales. The unsold College Homestead and Berkeley Property tracts in Berkeley were sold to the public.[6]

During the early twentieth century, particularly in the years between the 1906 Earthquake and the Great Depression, both the University of California and the town of Berkeley grew rapidly. After 1906, Berkeley became one of the largest cities in California, mostly as the result of an influx of as many as 20,000 San Francisco earthquake refugees. The construction of the Key System of ferryboats and streetcars made transportation between Oakland, Berkeley, and San Francisco quick and affordable and spurred the development of numerous residential tracts in Berkeley and Oakland. In turn, this growth brought in more customers and thereby spurred intensive commercial development.[7]

The growth of the University of California under the patronage of influential people like University President Benjamin Ide Wheeler and donor Phoebe Apperson Hearst encouraged the physical development of the city, as well as the growth of its identity and local culture. This period saw Berkeley begin to develop its reputation for progressiveness, unconventionality, and bohemianism – traits that were reflected in its architecture, especially the new First Bay Region-style houses built throughout the area that were designed by the likes of Bernard Maybeck, Julia Morgan, and John Galen Howard.[8]

Commercial and civic development of Berkeley continued through the 1920s, centered in the downtown area with construction of several new downtown buildings including the city's first "skyscraper" – the twelve-story Chamber of Commerce (now Wells Fargo) building at the northwest corner of Shattuck Avenue and Center Street, designed by Walter H. Ratcliff, Jr. in 1925.

Located to the east of the downtown core and directly south of the University campus, the vicinity of the subject property was served by public transit from the first decade of the twentieth century, with a rail service on Bancroft Way connecting College and Telegraph avenues to the south with the rail stations and routes on Shattuck Avenue.[9] Though sparsely developed with single-family homes in 1903, by 1911 the block on which the subject property is located was partially developed with single-family and multi-unit residences, as well as mixed-use residential and commercial buildings oriented toward Telegraph Avenue.[10] Density of development on the block surrounding the subject parcel was much denser by 1929, with multi-unit residential buildings bookended by commercial buildings oriented toward both Bancroft Way and Telegraph Avenue at the west side of the block and the Masonic

[6] Jerry A. Sulliger, "Yes, the Blood house is a rare survivor in its neighborhood: letter to the ZAB," (15 October 2003), electronic resource at http://www.berkeleyheritage.com/berkeley_landmarks/blood_house-sulliger.html.
[7] Susan Dinkelspiel Cerny, *Berkeley Landmarks*: *An Illustrated Guide to Berkeley California's Architectural Heritage* (Berkeley: Berkeley Architectural Heritage Association, 1994), 64.
[8] Charles Wollenberg, *Berkeley, A City in History*, (Berkeley, University of California Press, 2002), 78.
[9] C. L. Huggins, Berkeley, California (map) (Berkeley, 1904) David Rumsey Map Collection, electronic resource at https://www.davidrumsey.com/luna/servlet/s/7s77tm/.
[10] Sanborn Map Company, Insurance Maps of Oakland, California, Volume 3, Sheet 375, 1903; Insurance Maps of Berkeley, California, Volume 1, Sheet 89, 1911.

Club of University of California building at its northeast corner.[11] The subject property was, in 1929, occupied by a one-story commercial building with four stores facing Bancroft Way, and a bake house with a brick oven at its southwest corner **(Figure 35)**.

The Great Depression and World War II
During the Great Depression, Berkeley's suffering was somewhat minimized by the presence of the University, which continued to provide employment for many citizens, although working-class neighborhoods in West Berkeley experienced more economic strain.

World War II brought a tremendous population boom to the entire Bay Area, and Berkeley was no exception. Wartime housing projects to accommodate military personnel were constructed in Berkeley, and facilities at the University itself were commandeered for military use. Civilian numbers also grew as people relocated to Berkeley for employment at local shipyards like the Moore Drydock on the Oakland Estuary and the Kaiser shipyards in Richmond. Transportation lines and other infrastructure in Berkeley expanded to make these workers' commutes easier.

Post-World War II
After the war, Berkeley experienced the same out-migration as many other large cities in the country, as families moved to the suburbs to take advantage of G.I. home loans and the increased ease of commuting by automobile. This led to a shift in the demographics of Berkeley, where larger working-class populations developed. G.I. benefits also resulted in soaring enrollment at the University of California, which meant that students flooded available housing around the campus. The large houses that had previously been subdivided to accommodate war workers were well-suited to housing students. In response to the increased enrollment, the University of California, Berkeley expanded its campus facilities into the blocks between Barrows Lane and Dana Street north of Bancroft Way, which had been developed with commercial and residential properties including the Roos Bros. department store at 2270 Telegraph Avenue, and Hotel Bancroft at the northwest corner of the intersection of Bancroft Way and Telegraph Avenue.[12] In 1950, the block surrounding the subject building, which had been completed in 1949, was densely developed with retail stores, a restaurant, medical offices, and multi-unit residential buildings **(Figure 36).**[13]

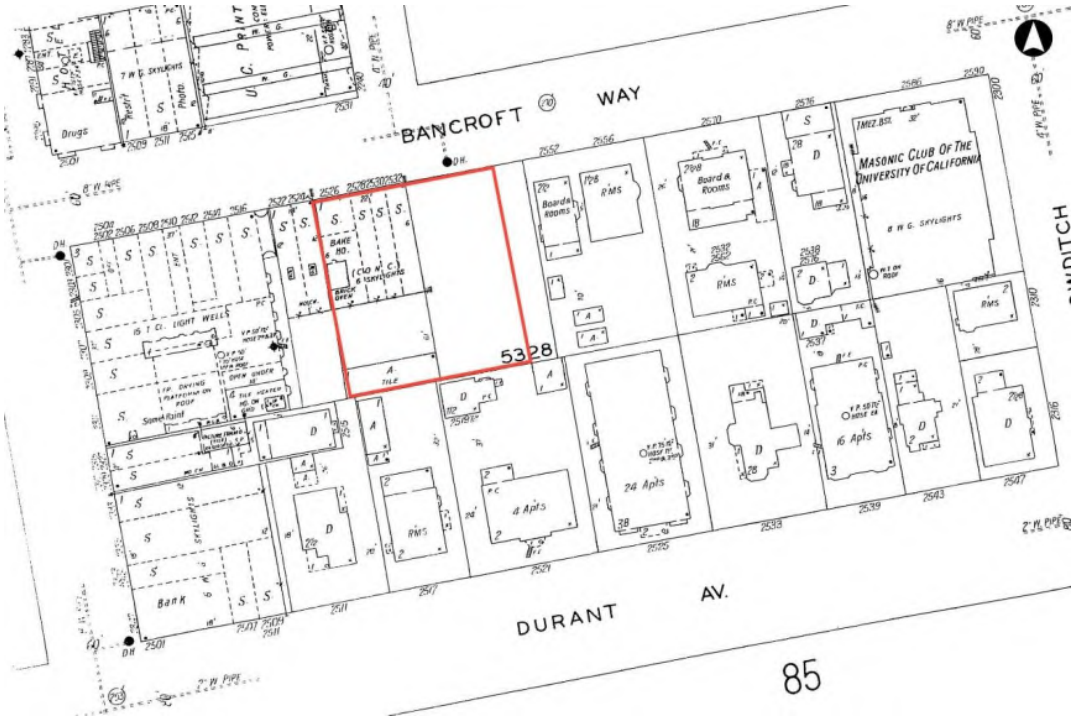

Figure 35. Detail from 1929 Sanborn Map Company insurance map, prior to construction of 2530 Bancroft Way. Location of subject property outlined red. Source: San Francisco Public Library, edited by Page & Turnbull.

[11] Sanborn Map Company, Insurance Maps of Berkeley, California, Volume 1, Sheet 78, 1929.
[12] *Oakland Tribune*, "Store Building Project in One Block of Lakeshore Avenue Total $200,000," January 25, 1946.
[13] Sanborn Map Company, Insurance Maps of Berkeley, California, Volume 1, Sheet 78, 1950.

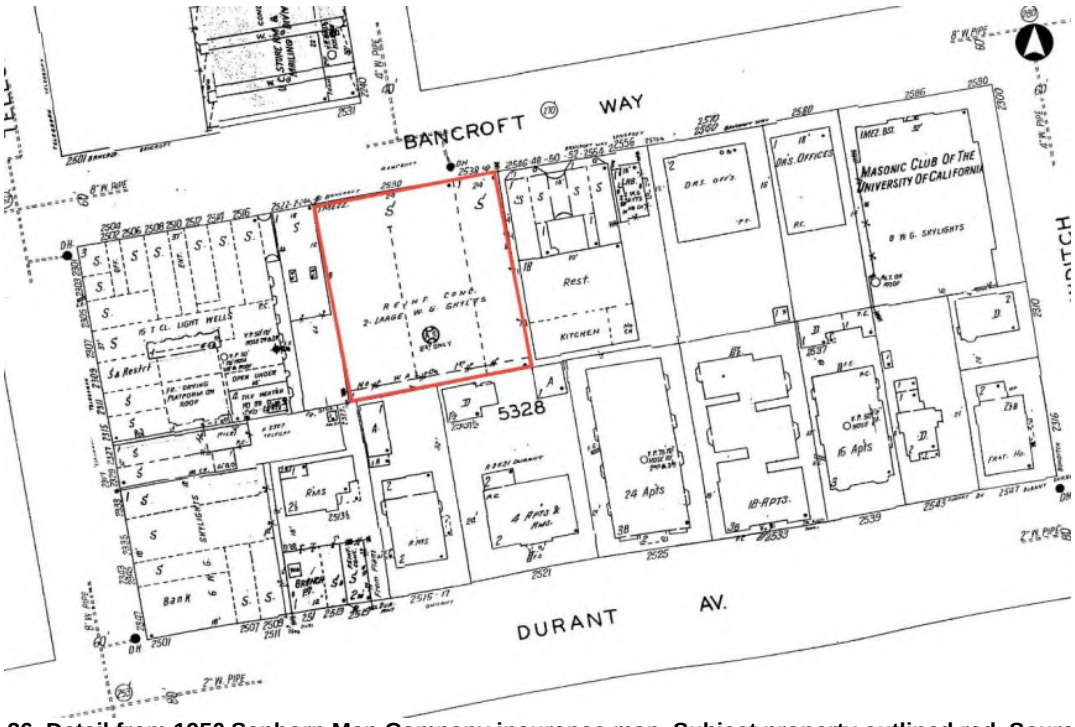

Figure 36. Detail from 1950 Sanborn Map Company insurance map. Subject property outlined red. Source: San Francisco Public Library, edited by Page & Turnbull.

In the decades following World War II, Berkeley's reputation as a liberal stronghold grew, particularly expressed by its Democratic-leaning academic community and African American and working-class populations. Civil Rights became an important topic, leading to struggles over fair housing and segregation of schools. The Vietnam War affected the city tremendously, as it was heavily populated by young, working-class people and students who were eligible for the draft, spurring protests and demonstrations. Berkeley has remained a politically and culturally outspoken community that largely accepts and promotes progressive thinking. The University of California remains the centerpiece of the city, which is otherwise inhabited by people who represent a wide range of social, economic, and ethnic demographics.[14]

Owner History of 2530 Bancroft Way

Based on title information obtained at the office of the Alameda County Clerk-Recorder, the University Y.M.C.A. purchased the subject property as two parcels in the early 1940s. In January 1941, the organization purchased a parcel constituting the west half of the subject parcel, 61.5 feet wide, from Charles H., Arthur W, Ralph C., and Charles H. Gorrill and John Jewett Earle. In October 1943, the University Y.M.C.A. purchased the parcel constituting the eastern half, 59 feet wide, from the Trustees of Stiles Hall. In September 1975, the property was purchased as one 130-foot by 120.5 foot parcel by W. John Miottel, Jr. and Katrina Van Dyke Miottel. The Miottel family still owns the property.

Occupancy History

For most of its history, the large, western commercial unit at the subject building, addressed 2530 Bancroft Way, has been occupied by a retail clothing store; first Roos Bros., which became Roos/Atkins in 1957, followed by McCaulou's, and most recently the Bancroft Clothing Co. The unit was used briefly in 1980, between retail tenants, as an office for 1980 United States Census enumerators. Until the late 1980s, the smaller, eastern unit was occupied by a series of retail stores, including those specializing in sporting goods, music equipment, clothing, and gifts. Under the tenancy of the Bancroft Clothing Co., the eastern commercial unit was connected internally with the western commercial unit and used for the display of University of California merchandise.

Table 2, below, lists documented commercial businesses at 2530 Bancroft Way since the building's construction, which began in 1948 and was completed in 1949. Records were assembled through research in city directories, building permit records, and historic newspaper archives.

[14] City of Berkeley, *City of Berkeley Landmark Application for the Preservation of All Souls Church, Parish Hall and Courtyard, 2220 Cedar Street, Berkeley, CA*, on file at Berkeley Architectural Heritage.

Table 2. Commercial Occupant History		
Year(s)	**Occupant – 2530 Bancroft**	**Occupant – 2538 Bancroft**
1949-1979	Roos Bros. / Roos/Atkins (clothing store)	Cliff Thebaut's Sporting Goods (1949-1954)
		Berkeley Music House (1957-1965)
		Smiths Clothing, "The Pant House," (1977-1979)
1979-1981	U.S. Census Office (1980)	Vaughn at Sather Gate
1981-1988	McCaulou's (Clothing)	Sandpiper Hallmark (1987-1988)
1989 - present	Bancroft Clothing Co.	Address no longer listed.

Roos Bros.
The Roos Bros. department store was founded in the mid-1860s as a men's clothier in San Francisco by brothers Adolphe and Hyppolite Roos. The firm met with commercial success, and expanded to multiple locations across California in the following decades. The first Roos Bros. store in Berkeley, located downtown at 64 Shattuck Square, was designed by architects Miller & Pflueger and built in 1926; the building is extant and is a City of Berkeley Landmark. The subject property appears to have been built, in part, to offer a replacement location to a second Roos Bros. store at 2270 Telegraph Avenue which was demolished in the last half of the 1940s when the University of California, Berkeley developed the block north of Bancroft Way between Telegraph Avenue and Barrows Lane for administrative use. In the late 1940s and early 1950s, the company advertised stores in San Francisco, Oakland, Berkeley, Palo Alto, San Jose, Sacramento, and Fresno. Roos Bros. merged with the Robert Atkins clothing company in 1957, and operated under the name Roos/Atkins until the 1990s.

Miller and Warnecke, Architects
The architecture firm of Miller and Warnecke, active from 1917 to 1951, consisted of partners Carl Ingomar Warnecke (1891-1971) and Chester Herbert Miller (1890-1953). Warnecke, born in Montreal, moved with his family to California in 1901. He began his career in architecture as a draftsman working for Bakewell and Brown, Chester H. Miller, and John J. Donovan before establishing his partnership with Miller in 1917.[15] Though he pursued courses at l'Ecole des Beaux Arts in 1914, this formal education was curtailed by the wartime evacuation of many Americans from France. Chester H. Miller was a native of Oakland whose training in architecture was acquired vocationally rather than through formal education.[16]

As a partnership, Miller and Warnecke designed numerous private residences as well as prominent civic and institutional buildings such as three branches of the Oakland Public Library: the Piedmont branch (1931-32), the Lakeview branch (1949), and the Main Library (1948-1951).[17] A 1937 feature in the *Architect and Engineer* highlighted the firm's East Bay residential commissions, which included early Ranch, Mission Revival, Colonial Revival, and Tudor Revival styles, many of which are located in Oakland and Piedmont.[18] Also noted were mortuary and commercial buildings in Oakland, the East Oakland High School (1929, now known as Castlemont High School), and the individually National Register-eligible Hill Castle Apartments, extant at 1431 Jackson Street, Oakland (1930). The bulk of the firm's documented work in Berkeley consisted of residential buildings in popular period revival architectural styles, as well as construction and renovation of some commercial and institutional buildings, with later examples exhibiting the growing embrace of Modernist styles in the post-World War II years (**Table 1**). A large addition to the Burbank Junior High School building at 2020 Bonar Street, built in 1950, featured long bands of glass block fenestration, removed in about 2011**(Figure 37)**. Also built in 1950, the starkly rectilinear Stiles Hall at 2400 Bancroft Way was demolished in 2016 **(Figure 38)**.

After Chester Herbert Miller's 1951 retirement, Carl I. Warnecke partnered with his son, architect John Carl Warnecke Sr., in the firm of Warnecke and Warnecke.

Though prolific and responsible for some individually noteworthy buildings, Miller and Warnecke are not generally recognized as architects of merit for the purposes of evaluation under the California Register.[19] Their work tended to reflect broader movements in style, such as the period revivalism of the 1920s and 1930s, rather than initiating or influencing new developments in architecture.

[15] Pacific Coast Architectural Database, "Carl Ingomar Warnecke," electronic resource at http://pcad.lib.washington.edu/person/3366/.
[16] Pacific Coast Architectural Database, "Chester Herbert Miller (Architect)," electronic resource at http://pcad.lib.washington.edu/person/1656/.
[17] Pacific Coast Architectural Database, "Miller and Warnecke," electronic resource at http://pcad.lib.washington.edu/firm/2530/.
[18] Harris C. Allen, "Toward a Contemporary Type – A Modern Development of the California Tradition," *Architect and Engineer*, September 1937, 19-30.
[19] While the National Register and California Register have previously used the terminology "master" architect or builder, the terminology used here to reflect current best practices is "architect/builder of merit," which similarly refers to an architect/builder with "recognized greatness" in their field, whether at a local, national, or state level.

Table 1. Other Documented Projects in Berkeley Designed by Architects Miller & Warnecke[20]

Address	Year	Extant?	Building Type
25 Menlo Place	1924	Yes	Single-Family Residence
860 San Luis Road	1924	Unknown	Single-Family Residence
2451 San Pablo Avenue	1925	Yes	Commercial Building
912 Oxford Street	1927	Yes	Single-Family Residence
458 Michigan Avenue	1934	Yes	Single-Family Residence
2630 Cedar Street	1935	Yes	Single-Family Residence
2570 Cedar Street	1937	Yes	Single-Family Residence
1284 Queens Road	1938	No	EBMUD Facility
40 Senior Avenue	1939	Yes	Single-Family Residence
2380 Ellsworth Street	1939	Yes	Commercial (Physician's Office)
2865 Webster Street	1943	Yes	EBMUD Facility
Mulford Hall, UC Berkeley	1948	Yes	Educational Building
2400 Bancroft Way (Stiles Hall)	1950	No	Institutional Building
Addition to LeConte Hall, UC Berkeley	1950	Yes	Educational Building
2020 Bonar Street (Burbank Junior High School)	1951	Yes (glass block removed 2010)	Educational Building

Figure 37. 2020 Bonar Street (built 1950) as it appeared in 2008, prior to removal of the glass block bands. Source: Google.

Figure 38. 2400 Bancroft Way (built 1950) shortly before demolition in 2016. Source: Google.

Art Moderne and Late Moderne Style

Art Moderne, also known as Streamline Moderne, is a late Art Deco architecture style that grew in popularity in the 1930s. The style first emerged in Germany from the work of the New Objectivity artists and architects of the German Werkbund, led by Hermann Muthesius. Taking cues from the Werkbund, American industrial designers and architects began stripping Art Deco of its excessive ornamentation, focusing instead on a streamlined aesthetic and amplifying the effects of geometry and volume.

This style was developed in the midst of the Great Depression, and the ability to remove excess, expensive decoration, and focus on the role of efficiency in design, materials, and form was particularly appealing. In addition, the Art Moderne was associated with the concepts of efficiency, speed, and aerodynamic forms; it expressed a fascination with technological achievement and espoused faith in the future. The style became pervasive in both architecture and the design of everyday objects, and included the first buildings that incorporated electric lighting in architectural structure.

In the years during and after World War II, the exuberance of the Streamline Moderne gave way to the more restrained Late Moderne style, at the same time that the International Style and Modern Movement was gaining traction. Derived from Streamline Moderne but with an emphasis on sharp angularity rather than curves, Late Moderne was prominent from the mid-1940s until the late 1950s. The style was often used for hospitals, fire stations, and other civic and institutional buildings.[21] Characteristics of the

[20] Projects identified in the records of the Berkeley Architectural Heritage Association, Warnecke Architectural Archive, Pacific Coast Architecture Database (PCAD), and historic newspapers and directories. Renovations of existing buildings and projects for which addresses could not be confirmed have been excluded.
[21] Paul Gleye, *The Architecture of Los Angeles*, (Los Angeles: Rosebud Books, 1981), 149-52.

style are strong horizontal elements, use of spare surfaces, and intersecting volumes that reinforced the style's angularity. A signature feature is the bezeled window or horizontal window groupings surrounded with a projecting flange or frame.

Berkeley's downtown built environment includes some strong examples of the slightly earlier, more decorative Art Deco and Zigzag Moderne styles, such as the Main Library (architect James W. Plachek, 1930) and United Artists Theater (architect Clifford W. Balch with Walker & Eisen, 1932) buildings on Shattuck Avenue between Kittredge Street and Bancroft Way, and Kress Building (architect Edward F. Sibbert, 1934) at the corner of Shattuck Avenue and Addison Street. Examples of the later, Streamline Moderne and Art Moderne styles in the city are typically more modest and less central. Perhaps the best known examples of the Streamline Moderne style are the Joseph W. Harris House at the corner of Hearst and LeConte avenues, designed by architect John B. Anthony, and the Berkeley Iceland building at 2727 Milvia Street, designed by architect William Clement Ambrose **(Figure 39 and Figure 40)**.[22] Whittier School, now the Berkeley Arts Magnet School at 2015 Virgina Street, is a strong example of the Late Moderne style as applied to an educational building.[23] All three were built in 1939, and have been designated as City of Berkeley Landmarks. Only a small number of commercial buildings in Berkeley exhibit a thorough application of the Late Moderne style. The heavily modified commercial building at 2440 Shattuck Avenue was built in 1946 and designed by architect Ben V. Harry as a simple example of a Moderne retail store, with horizontal emphases provided by a metal-trimmed canopy and sections of glass block **(Figure 41)**. It was found in 2021 to lack sufficient architectural merit for listing at the state or local level.[24] Nearby, the diminutive optometrist's office building at 2414 Shattuck Avenue, also built ca. 1946, exhibits Late Moderne features such as smooth tile cladding, use of glass block, and metal-trimmed canopies **(Figure 42)**. The building does not appear to have been formally evaluated for eligibility as an individual historic resource.

Figure 39. Joseph W. Harris House. Source: Google.

Figure 40. Berkeley Iceland. Source: Google.

Figure 41. 2440 Shattuck Avenue. Source: Google.

Figure 42. 2414 Shattuck Avenue. Source: Google.

[22] *The Berkeley Independent and Gazette*, "In Architecture: City's Heritage," July 22, 1977.
[23] *The Berkeley Independent and Gazette*, "Berkeley's Architectural Heritage. Whittier: Dated, but still functional." June 6, 1979.
[24] Caitlin Hibma, State of California Department of Parks and Recreation (DPR) 523 Forms for 2440 Shattuck Avenue (Richmond: September 2021).

In its original design the subject building expressed elements of Art Moderne style through its rectilinear volume, its planar glossy tile-clad façade, and metal-trimmed canopies bordering a band of metal mezzanine windows punctuated by ridged, tile-clad columns. With distinctive stylistic features limited to the primary façade area above the storefront glazing, the building was initially a good, though modest example of the style. Various alterations have removed or obscured the building's remaining elements of Art Moderne design. The original eastern storefront, which was deeply recessed within a box-like tiled entryway, was replaced in 1969. Tiles at the upper portion of the façade have been painted, and do not express their original smooth, reflective character. The location of the strong horizontal elements of the original metal-trimmed canopies and mezzanine windows, which most clearly conveyed the building's Moderne style, is currently entirely enclosed within an awning and is not visible from any exterior angle.

Evaluation

The property at 2530 Bancroft Way is not currently listed in the National Register of Historic Places (National Register) or the California Register of Historical Resources (California Register). The building does not appear in the most recent version available of the State of California Office of Historic Preservation (OHP) Built Environment Resources Directory (BERD), issued September 2022, indicating that no record of a previous survey or evaluation is on file at an information center of the California Historical Resources Information System (CHRIS).[25] The subject building is not listed as a City of Berkeley Landmark or Structure of Merit.

California Register Evaluation

Criterion 1 (Events)

2530 Bancroft Way does not appear to be individually eligible for listing in the California Register under Criterion 1 (Events) for its association with any events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States. The subject building was completed in 1949 as a commercial building for use by retail tenants, beginning with the Roos Bros. clothing store. It was not an early Roos Bros. store, or one of the company's flagship stores. It was not an early or unique commercial or economic development in Berkeley. Though likely constructed in response to UC Berkeley's expansion of facilities into areas at the south side of campus as post-World War II enrollments grew, the building was not unique or influential in this broad period of the institution and city's history of development. No significant events are known to have taken place at the subject building that would allow the building to rise to the level of significance necessary to be individually eligible for the California Register.

Criterion 2 (Persons)

2530 Bancroft Way does not appear to be individually eligible for listing in the California Register under Criterion 2 (Persons). The subject building was constructed for the University Y.M.C.A., the original property owner, as a simple commercial retail building to be leased to commercial tenants. Neither this organization nor subsequent owners and tenants, such as Roos Bros. department store, appear to have made significant contributions to the social and economic history of Berkeley in a way directly associated with the subject property. None of the known businesses at 2530 and 2538 Bancroft Way were found to have made a significant impact on local, state, or national history such that the building could be found significant under Criterion 2.

Criterion 3 (Architecture)

2530 Bancroft Way does not appear to be individually eligible for listing in the California Register under Criterion 3 (Architecture) as a building that embodies the distinctive characteristics of a type, period, or method of construction. Completed in 1949, designed by architects Miller and Warnecke and erected by builder John M. Bartlett, the reinforced concrete building was originally a good example of a Late Moderne retail store. The wide, horizontal emphasis conveyed through its massing and fenestration, glazed tile cladding, metal-edged canopies, band of mezzanine windows at the western storefront, and recessed eastern storefront together conveyed the simplified Moderne aesthetic which became popular during and shortly after World War II. In its current condition, however, 2530 Bancroft Way is visibly dissimilar to the building shown in historic photographs of the property and does not convey an identifiable style. Stylistic details originally present on the eastern storefront were removed in 1969. The western portion of the primary façade, corresponding to the original Roos Bros. storefront, may retain some distinctive elements of its original Late Moderne style, such as canopies, columns, windows, and tile, beneath the existing awning. However, according to guidance provided by the National Park Service, "Properties eligible under Criteria A, B, and C must not only retain their essential physical features, but the features must be visible enough to convey their significance. This means that even if a property is physically intact, its integrity is questionable if its significant features are concealed under modern construction."[26] Integrity will be discussed further in a following section. The building does not appear significant for its association with architects Miller and Warnecke. Builder John M. Bartlett, active between about 1911 and the early 1950s in West Contra Costa and Alameda Counties, constructed numerous residential and commercial projects but his body of work does not rise to the level of significance to be considered that of a builder of merit. The subject property does not appear to be eligible as a contributor to an existing historic district, and the evaluation of a potential district is outside the scope of this report.

[25] California State Office of Historic Preservation, Built Environment Resource Directory (BERD), Alameda County, updated September 2022.
[26] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (Washington, D.C.: U.S. Department of the Interior, 1995), 46.

Criterion 4 (Information Potential)
2530 Bancroft Way does not appear to be individually eligible for listing in the California Register under Criterion 4 (Information Potential). The "potential to yield information important to the prehistory or history of California" typically relates to archeological resources, rather than built resources. When California Register Criterion 4 (Information Potential) does relate to built resources, it is relevant for cases when the buildings themselves are the principal source of important construction-related information. The subject property does not appear to be individually significant under Criterion 4 as a building that has the potential to provide information important to the prehistory or history of the City of Berkeley, the state, or the nation. It does not appear to feature construction or material types, or embody engineering practices that would, with additional study, provide important information. Identification or evaluation of archaeological resources is beyond the scope of this study.

Integrity
In order to qualify for listing in any local, state, or national historic register, a property or landscape must possess significance under at least one evaluative criterion and retain integrity. Integrity is defined by the California Office of Historic Preservation as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance," or more simply defined by the National Park Service as "the ability of a property to convey its significance."[27] To evaluate whether a property retains sufficient integrity to convey its historic significance, Page & Turnbull typically uses established integrity standards outlined by the *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. Seven variables, or aspects, that define integrity are used to evaluate a resource's integrity—location, setting, design, materials, workmanship, feeling, and association. A property must possess most, or all, of these aspects in order to retain overall integrity. If a property does not retain integrity, it can no longer convey its significance and is therefore not eligible for listing in local, state, or national registers.

While the property at 2530 Bancroft Way has not been found to be significant, in its current condition, under any criterion for the California Register, a brief discussion of its historic integrity is provided to support the finding under Criterion 3. The building appears to retain integrity of *location* and *setting*. It has not been moved from its original location, and the building's surroundings consist, as they did in 1949, of a row of commercial buildings on the south side of Bancroft Way opposite the University of California, Berkeley campus. The building does not retain integrity of *design*, *materials*, or *workmanship* in its current condition. These aspects of integrity, which relate to a building's ability to convey its architectural style relative to its period of significance, are important to buildings which are found significant under Criterion 3. Elements of the 2530 Bancroft Way which, if visible and intact would convey its significance as a Late Moderne commercial building, primarily include the metal-trimmed canopies, mezzanine glazing, tiled columns, and recessed, tiled eastern storefront. The eastern storefront has been replaced, and other elements which originally conveyed the building's style are not visible as part of the current façade. Some original materials and design features of 2530 Bancroft Way do remain visible and intact, such as the tile cladding above the awning and at the storefront bulkheads, and broad, pedestrian-level storefront glazing. However, as the tile cladding has been painted its original color and surface texture are obscured. The storefront glazing system, which largely retains its original configuration with some replacement of materials, does not strongly convey the Late Moderne architectural style. Finally, 2530 Bancroft Way does not retain integrity of *feeling* or *association* relative to its original design and date of construction. Appearing to be a simple, somewhat generic storefront on an otherwise box-like concrete building, very little about the current appearance of 2530 Bancroft Way conveys its 1949 construction and original, restrained Late Moderne style. Without reference to historic photographs, it would not be possible for passersby to identify the original appearance of the building.

City of Berkeley Landmark and Structure of Merit Evaluation
The City of Berkeley maintains a list of properties designated as local Landmarks and Structures of Merit under Section 3.24.110 of the Berkeley Municipal Code. Much like the National and California Registers, the Municipal Code provides a number of criteria that must be met in order for a property to gain Landmark or Structure of Merit designation. Properties may be landmarked if they meet standards of architectural, cultural, educational, or historical significance, or if they are already listed in the National Register. A property may be designated as a Structure of Merit if it does not rise to the level of Landmark status, but has contextual importance and is worthy of preservation as part of a neighborhood, block or street frontage, or group of buildings that includes Landmark properties.

The designation criteria for Landmarks and Structures of Merit, and the applicability of these criteria to the property at 2350 Bancroft Way, are as follows:

[27] California Office of Historic Preservation, *Technical Assistance Series No. 7: How to Nominate a Resource to the California Register of Historical Resources* (Sacramento: California Office of State Publishing, 4 September 2001) 11; National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, 44.

Landmarks and Historic Districts.

1. *Architectural merit:*
   a. Property that is the first, last, only or most significant architectural property of its type in the region;
   b. Properties that are prototypes of or outstanding examples of periods, styles, architectural movements or construction, or examples of the more notable works of the best surviving work in a region of an architect, designer or master builder; or
   c. Architectural examples worth preserving for the exceptional values they add as part of the neighborhood fabric.

   The subject property at 2530 Bancroft Way does not appear to be eligible as a City of Berkeley Landmark for architectural merit. The subject building was designed and built as a restrained, but good example of a Late Moderne commercial building that was completed for use by retail tenants. It has been altered from its original appearance and is not, in its current condition, a recognizable example of this style. Built in 1949, the building was not an early example its style within the City of Berkeley, and it no longer sufficiently conveys its original design to adequately represent a "last" or "significant" example of the style. In its current condition the building does not demonstrate architectural merit such that it would qualify as a landmark. It does not provide architectural value to the surrounding neighborhood, which is characterized by a mixture of commercial and institutional buildings of varied construction dates and architectural styles, along with a growing number of new mixed-use buildings.

2. *Cultural value:* Structures, sites and areas associated with the movement or evolution of religious, cultural, governmental, social and economic developments of the City;

   The subject property at 2530 Bancroft Way does not appear to be eligible as a City of Berkeley Landmark for cultural value. The building's two commercial spaces have served primarily as retail stores, and are not documented to have been strongly associated with significant events or patterns in the development of Berkeley's history.

3. *Educational value*: Structures worth preserving for their usefulness as an educational force;

   2530 Bancroft Way does not appear to be eligible as a City of Berkeley Landmark for educational value. The building does not bear significant historic associations which would contribute meaningfully to educational curricula or public interpretation.

4. *Historic value*: Preservation and enhancement of structures, sites and areas that embody and express the history of Berkeley/Alameda County/California/United States. History may be social, cultural, economic, political, religious or military;

   2530 Bancroft Way does not appear to be eligible as a City of Berkeley Landmark for historic value. Completed in 1949 for use as a department store, the building is not strongly associated with events or patterns which were significant to the development of Berkeley, the county, or California. Though it was built at time when the enrollment and land holdings of the University of California, Berkeley grew to accommodate rising post-War enrollment and nearby commercial areas expanded to serve the increase in student population, the building was not an early or influential part of this broader pattern.

5. Any property which is listed on the National Register described in Section 470A of Title 16 of the United States Code.

   2530 Bancroft Way is not listed on the National Register.

Structures of Merit.
Criteria which the commission shall use when considering a structure for structure of merit designation are as follows:

1. General criteria shall be architectural merit and/or cultural, educational, or historic interest or value. If upon assessment of a structure, the commission finds that the structure does not currently meet the criteria as set out for a landmark, but it is worthy of preservation as part of a neighborhood, a block or a street frontage, or as part of a group of buildings which includes landmarks, that structure may be designated a structure of merit.

   2530 Bancroft Way does not appear to be eligible as a Structure of Merit under the general criteria. The building was completed in 1949 as a department store within a neighborhood that was already well-established as a commercial node on the south side of the University of California, Berkeley campus. The building does not contribute to a cohesive street frontage along Bancroft Way. Though also a commercial building facing Bancroft Way, the nearest City of Berkeley Landmark, the Fred Turner Building completed in 1940 at 2546 Bancroft Way is not part of a continuous historic street frontage to which the subject building contributes. Other nearby landmarks, the Hearst Gymnasium for Women, College Women's Club, and Berkeley Art Museum are directly related to the development of the larger University of California, Berkeley campus and community in a way which the subject property is not. The south side of Bancroft Way between College and Telegraph avenues features a variety of building uses, types, and dates of construction. While they are individually significant for their

architectural style the Landmark buildings do not possess architectural or historic continuity or connectedness with one another or the subject property.

2. Specific criteria include, but are not limited to one or more of the following:
   a. The age of the structure is contemporary with (1) a designated landmark within its neighborhood, block, street frontage, or group of buildings, or (2) an historic period or event of significance to the City, or to the structure's neighborhood, block, street frontage, or group of buildings.
   b. The structure is compatible in size, scale, style, materials or design with a designated landmark structure within its neighborhood, block, street frontage, or group of buildings.
   c. The structure is a good example of architectural design.
   d. The structure has historical significance to the City and/or to the structure's neighborhood, block, street frontage, or group of buildings.

2530 Bancroft Way does not appear to be eligible as a Structure of Merit under the specific criteria The subject building is neither contemporary with nor compatible in scale, style, materials, or design with the nearby landmark buildings, which include the Hearst Gymnasium for Women (1927), College Women's Club (1928), Fred Turner Building (1940), and Berkeley Art Museum (1970). As discussed above relative to California Register Criterion 3, the building was originally a good example of Late Moderne architectural design, however it has been altered such that it is not currently able to convey this style or its original date of construction. It does not appear to have historical significance to the Southside neighborhood or City of Berkeley.

Conclusion

The commercial building at 2530 Bancroft Way, Berkeley, California, was designed by architects Miller & Warnecke and completed in 1949. The building has been used by retail stores for most of its history, beginning with the Roos Bros. clothing chain through the 1970s, local chain McCaulou's in the 1980s, and the Bancroft Clothing Co. since 1989, in addition to smaller specialty shops in the eastern commercial space. This evaluation is based on a site visit and analysis of available documentation pertaining to the subject building's ownership and occupant history, chronology of construction and alterations, and architectural characteristics. While originally a good example of a Late Moderne commercial building, its current appearance does not convey this original architectural style. The subject property does not appear to be eligible for individual listing in the California Register under any criteria, nor does the subject property appear to be eligible for designation as a City of Berkeley Landmark or Structure of Merit. The property does not therefore appear to qualify as a historic resource for the purposes of review under the California Environmental Quality Act (CEQA). As such, the California Historical Resource Status Code (CHRSC) of "6Z" is recommended for the building, indicating that it has been found through survey evaluation to be ineligible for listing in the National Register, California Register, or local register.[28]

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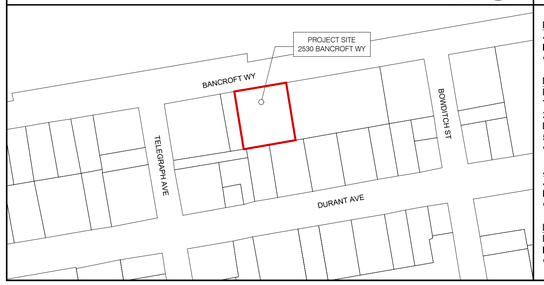
APPENDIX B

Architectural drawings by Trachtenberg Architects, dated August 11, 2023.

VICINITY MAP



PROJECT DIRECTORY

PROJECT SPONSOR:
Jared Munneke
LANDMARK PROPERTIES
www.Landmark-Properties.com

DESIGN ARCHITECT:
Isaiah Stackhouse, Principal
TRACHTENBERG ARCHITECTS
2421 Fourth Street
Berkeley, CA 94710
510.649.1414
www.TrachtenbergArch.com

ARCHITECT OF RECORD:
John Myefski, President and Principal
MYEFSKI ARCHITECTS, INC.
www.myefski.com

LANDSCAPE ARCHITECT:
Daniel Erlandson, Landscape Architect / Partner
HUMPHREYS & PARTNERS LANDSCAPE ARCHITECTS
www.hplastudio.com

PROJECT DESCRIPTION

PROJECT ADDRESS: 2530 Bancroft Way Berkeley, CA 94704
(APN: 055 187701601)

SCOPE OF WORK:
REMOVAL OF EXISTING COMMERCIAL STRUCTURE & NEW CONSTRUCTION OF A 12-STORY MIXED-USE HOUSING DEVELOPMENT WITH 110 DWELLING UNITS OVER GROUND-LEVEL COMMERCIAL AND LOBBIES WITH STATE OF CALIFORNIA DENSITY BONUS.

DRAWING LIST

TRACHTENBERG ARCHITECTS

2421 Fourth Street
Berkeley, California 94710
510.649.1414
www.TrachtenbergArch.com

MYEFSKI ARCHITECTS

LANDMARK PROPERTIES

LANDMARK BANCROFT WAY

2530 Bancroft Way
Berkeley, CA

08.11.2023 SB-330 SUBMITTAL

JOB: 2130

SHEET:

GENERAL INFORMATION

A0.0

CITY OF BERKELEY ZONING TABULATIONS

	ALLOWABLE BASE PROJECT		PROPOSED W/ DENSITY BONUS	COMPLIANCE
	BASE ZONING	ALLOWABLE W/UP'S		
ZONING	C-T	C-T	C-T	COMPLIES
LOT AREA	15,665	15665	15665	COMPLIES
LOT AREA (ACRES)	0.36	0.36	0.36	COMPLIES
NUMBER OF DWELLING UNITS	N/A	N/A	110	COMPLIES
COMMERCIAL AREA	N/A	N/A	2,195	COMPLIES
PARKING (SEE TABLE)	N/A	N/A	0	COMPLIES
BIKE PARKING (SEE TABLE)	27	106	109	COMPLIES
FRONT YARD SETBACK (BANCROFT)	0'	0'	1'-0"	COMPLIES
SIDE YARD SETBACK	0'	0'	VARIES; 5'-6" to 8'-0"	COMPLIES
REAR YARD SETBACK	0'	0'	5'-6"	COMPLIES
BUILDING HEIGHT	65'	75'	134'-6"	COMPLIES W/ WAIVER
BUILDING STORIES	N/A	N/A	12	COMPLIES W/ WAIVER
PROJECT FAR	5.00	6.0	8.93	COMPLIES W/ WAIVER
GROUND LEVEL UNITS	N/A	N/A	WAIVER	COMPLIES W/ WAIVER
GROSS FLOOR AREA (SEE TABLE)	N/A	N/A	139,833	COMPLIES
BUILDING FOOTPRINT	15,665	;5,665	11,001	COMPLIES
LOT COVERAGE	100%	100%	70%	COMPLIES
USABLE OPEN SPACE (SEE TABLE)	SEE TABLE	SEE TABLE	SEE TABLE	COMPLIES

FAR CALCULATIONS

	BASE PROJECT ALLOWABLE	ALLOWABLE W/UP'S	ALLOWABLE W/DENSITY BONUS	PROPOSED W/ DENSITY BONUS
SITE AREA	15,665	15,665	15,665	15,665
FAR	5.00	6.00	9.00	8.93
FLOOR AREA	78,325	93,990	140,985	139,833

PROPOSED FLOOR AREA WITH DENSITY BONUS

	COMMERCIAL	RESIDENTIAL	TOTAL
LEVEL 12		8,475	8,475
LEVEL 11		11,895	11,895
LEVEL 10		11,895	11,895
LEVEL 9		11,895	11,895
LEVEL 8		11,895	11,895
LEVEL 7		11,895	11,895
LEVEL 6		11,895	11,895
LEVEL 5		11,895	11,895
LEVEL 4		11,895	11,895
LEVEL 3		11,895	11,895
LEVEL 2		11,895	11,895
GROUND LEVEL	2,195	10,213	12,408
TOTAL FLOOR AREA W/ DENSITY BONUS	2,195	137,638	139,833
FAR (FLOOR AREA RATIO)			8.93

UNIT COUNTS

UNIT TYPE	STUDIO	1-BR	2-BR	3-BR	4-BR	TOTAL
LEVEL 12	1	1	3	1	1	7
LEVEL 11	1	1	3	1	4	10
LEVEL 10	1	1	3	1	4	10
LEVEL 9	1	1	3	1	4	10
LEVEL 8	1	1	3	1	4	10
LEVEL 7	1	1	3	1	4	10
LEVEL 6	1	1	3	1	4	10
LEVEL 5	1	1	3	1	4	10
LEVEL 4	1	1	3	1	4	10
LEVEL 3	1	1	3	1	4	10
LEVEL 2	1	1	3	1	4	10
GROUND LEVEL			2	1		3
TOTAL	11	11	35	12	41	110
PERCENT OF TOTAL	10%	10%	32%	11%	37%	
BEDROOMS PER UNIT	1	1	2	3	4	
TOTAL BEDROOM COUNT	11	11	70	36	164	292

OPEN SPACE TABLE

AVERAGE BEDROOMS PER UNIT 2.65

	UNITS	RATIO	TOTAL	40% LANDSCAPE AREA
TOTAL UNITS	110	40	4,400	
TOTAL REQUIRED			4,400	
TOTAL AREA PROVIDED			6,282	
PRIVATE PATIOS	63	40	2,520	
COURTYARD			602	241
ROOF DECK			3,160	1,264

BICYCLE PARKING CALCULATIONS

	BEDROOMS/SF	RATIO	PER	TOTAL REQ	PROVIDED
NEW COMMERCIAL (SHORT TERM)	2,195	N/A	N/A	0	2
RESIDENTIAL (SHORT TERM)	292	1	40	8	8
RESIDENTIAL (LONG TERM)	292	1	3	98	99
TOTAL PARKING				**106**	**109**

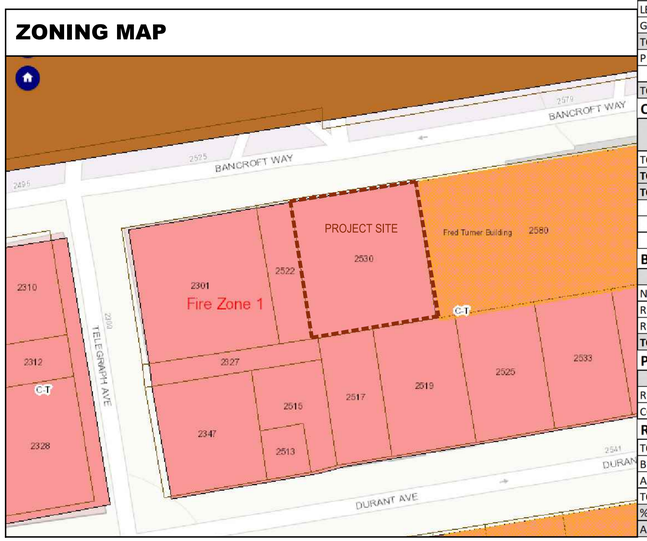
PARKING TABLE

	UNITS/SF	MIN.	REQUIRED	PROPOSED
RESIDENTIAL	110	0	N/A	0
COMMERCIAL	2,195	0	N/A	0

ROOFTOP ARCHITECTURAL ELEMENTS CALCS

TOTAL FLOOR AREA	139,833
BUILDING STORIES	12
AVERAGE AREA PER FLOOR	11,653
TOTAL AREA OF ROOFTOP ELEMENTS	1748
% AREA OF ROOFTOP ARCH. FEATURES	15.0%
ALLOWABLE % (PER 23.304.050A)	15.0%

ZONING MAP



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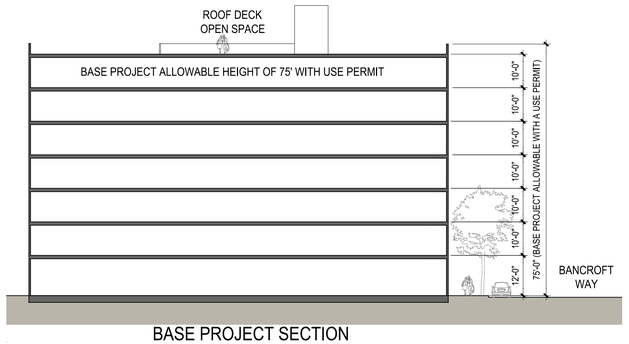
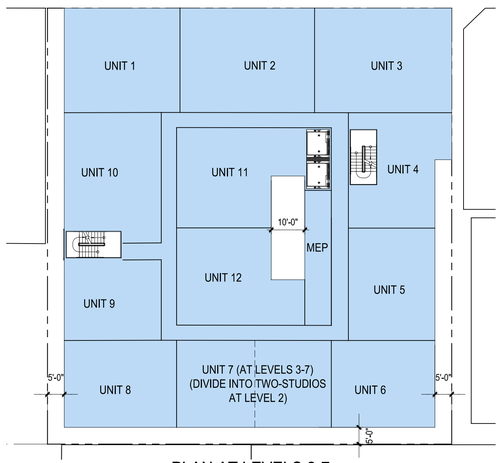
SHEET:

ZONING INFORMATION

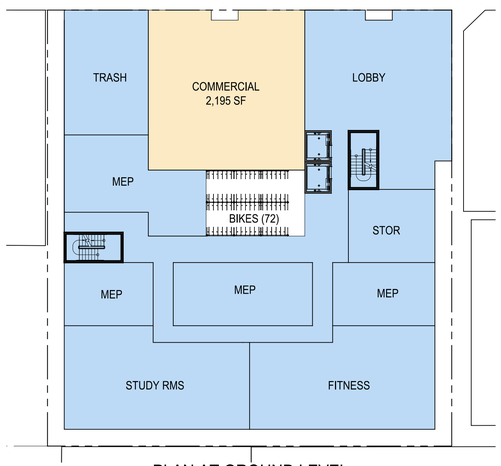
A0.1



BASE PROJECT SECTION



PLAN AT LEVELS 2-7



PLAN AT GROUND LEVEL

3 - "BASE PROJECT" PLANS

ZONING SUMMARY

	BASE ZONING	BASE PROJECT MODIFICATIONS	ALLOWABLE MODIFICATION	ALLOWABLE W/ 50% DENSITY BONUS
FAR	5.0		6.0	9.0
HEIGHT	65'		75'	SEE DIAGRAMS
SETBACK - FRONT	0'			0'
SETBACK - REAR	0'			0'
SETBACK - SIDE	0'			0'
PARKING	NOT REQ'D			NOT REQ'D
OPEN SPACE	40 SF / UNIT			0 SF W CONCESSION

4 - ZONING SUMMARY

DENSITY BONUS TABLE

	Base Project	Base	Base # Units	% VLI units	# VLI Units	#VLI Units	Bonus %	# DB Units	# DB Units	Maximum DB Project
	sq. ft. - see calculation below	base project area / avg. unit size	Base Units/Max. Residential Density (rounds up)	VLI = Very Low Income <50 AMI	% VLI x Base # Units			%Bonus x Base # Units	%Bonus x Base # Units (rounded up)	%Bonus x Base # Units (rounded up)
	91,299	72.97	73	15%	10.95	11.00	50.0%	36.5000	37	110

Base Project Res. Area	Floor	Proposed Project Res. Area
	Twelth	8,475
	Eleventh	11,895
	Tenth	11,895
	Ninth	11,895
	Eighth	11,895
13,343	Seventh	11,895
13,343	Sixth	11,895
13,343	Fifth	11,895
13,343	Fourth	11,895
13,343	Third	11,895
13,343	Second	11,895
11,241	Ground	10,213
Total Floor Area: **91,299**		**137,638**

Base Project # of Units	Floor	Proposed Project # of Units
	Twelth	7
	Eleventh	10
	Tenth	10
	Ninth	10
	Eighth	10
12	Seventh	10
12	Sixth	10
12	Fifth	10
12	Fourth	10
12	Third	10
13	Second	10
	Ground	3
Total Units: **73**		**110**

Proposed Area:	**137,638**
Proposed Units:	**110**
Average Unit Size:	**1,251**

#VLI	%VLI	%DB	#DB	#Concessions
4	5%	20.00%	88	1
5	6%	22.50%	90	1
6	7%	25.00%	92	1
6	8%	27.50%	94	1
7	9%	30.00%	95	1
8	10%	32.50%	97	2
9	11%	35.00%	99	2
9	12%	38.75%	102	2
10	13%	42.50%	105	2
11	14%	46.25%	107	2
11	15%	50.00%	110	3

#Concessions
1
2
3

BASE PROJECT ZONING COMPLIANCE CHECKS

Base Project - Open Space

	Units	Ratio	Total Area
Base Units	73	40	2920
Provided Open Space (Roof Deck)			2920

Base Project - FAR

	Res. Area	Commercial	Total GFA
GFA	91,299	2195	93,494
Site Area			15,665
FAR			5.968

Base Project - Parking

	Units/SF	Bedrooms	Ratio	Total Req.	Provided
Residential				0	
Commercial (1,000 exempt)	1,195	N/A	2/1000 SF	0	2

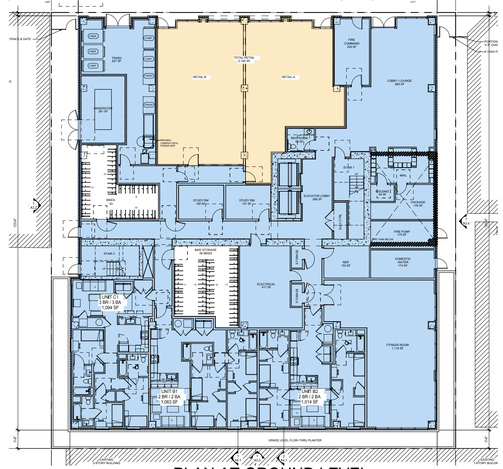
Base Project -Bicycle Parking

	Units/SF	Bedrooms	Ratio	Total Req.	Provided
New Comm.	2,195		1/2000	2	2
Res. (Long)		193	0.33	64	64
Res (Short)		193	0.025	2	2

2 - DENSITY BONUS CALCULATIONS

PLAN AT LEVEL 12

PLAN AT LEVELS 2-11 (SIM)



PLAN AT GROUND LEVEL

1 - PROPOSED PLANS

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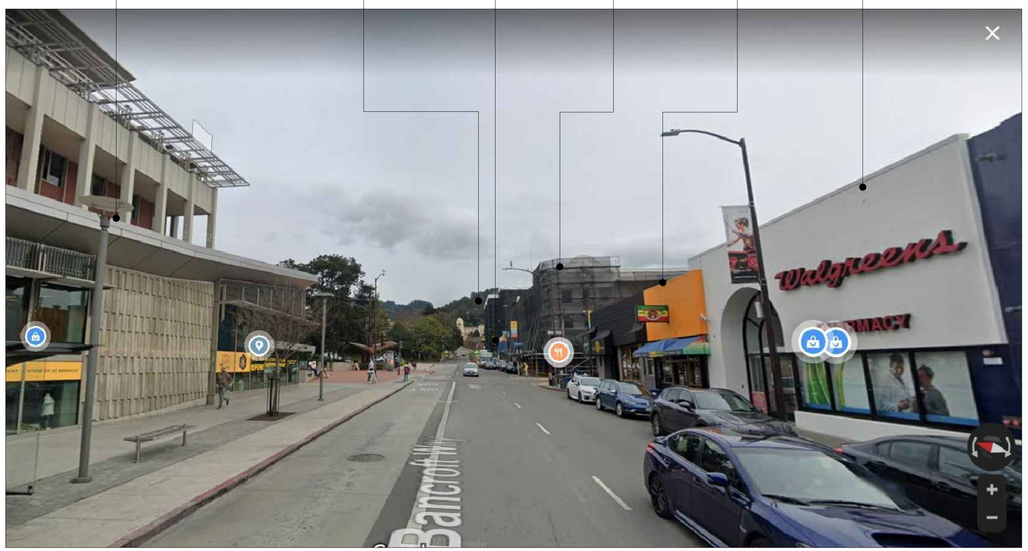
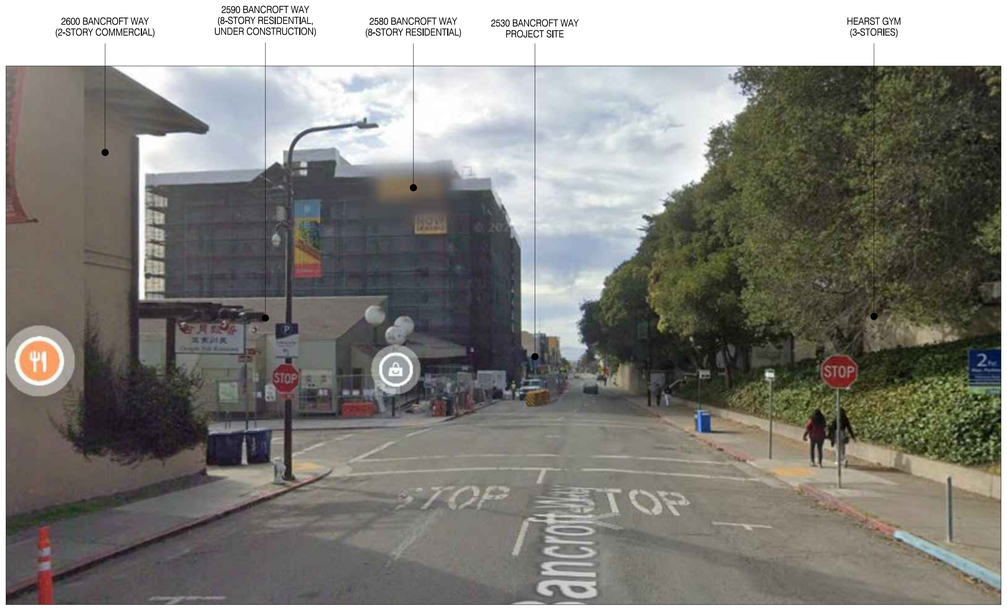
DENSITY BONUS CALCULATION

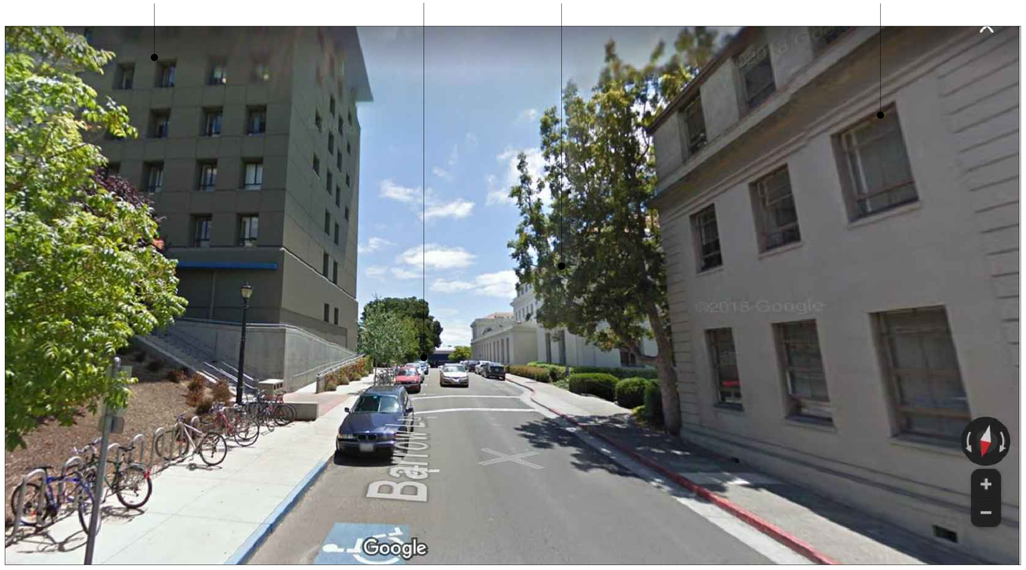
A0.2



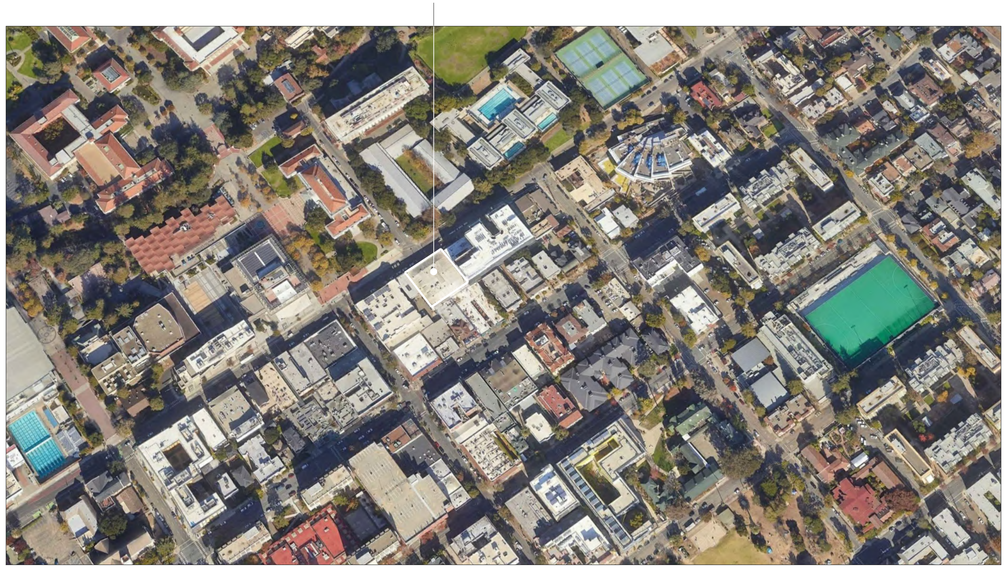
4 A0.5 VIEW FROM BANCROFT LOOKING EAST



2 A0.5 VIEW FROM BANCROFT LOOKING WEST



3 A0.5 VIEW FROM BARROW LOOKING SOUTH



1 A0.5 GOOGLE EARTH BIRD'S EYE CONTEXT VIEW

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SITE CONTEXT
PHOTOS

A0.5

1 - VICINITY MAP
NTS

N

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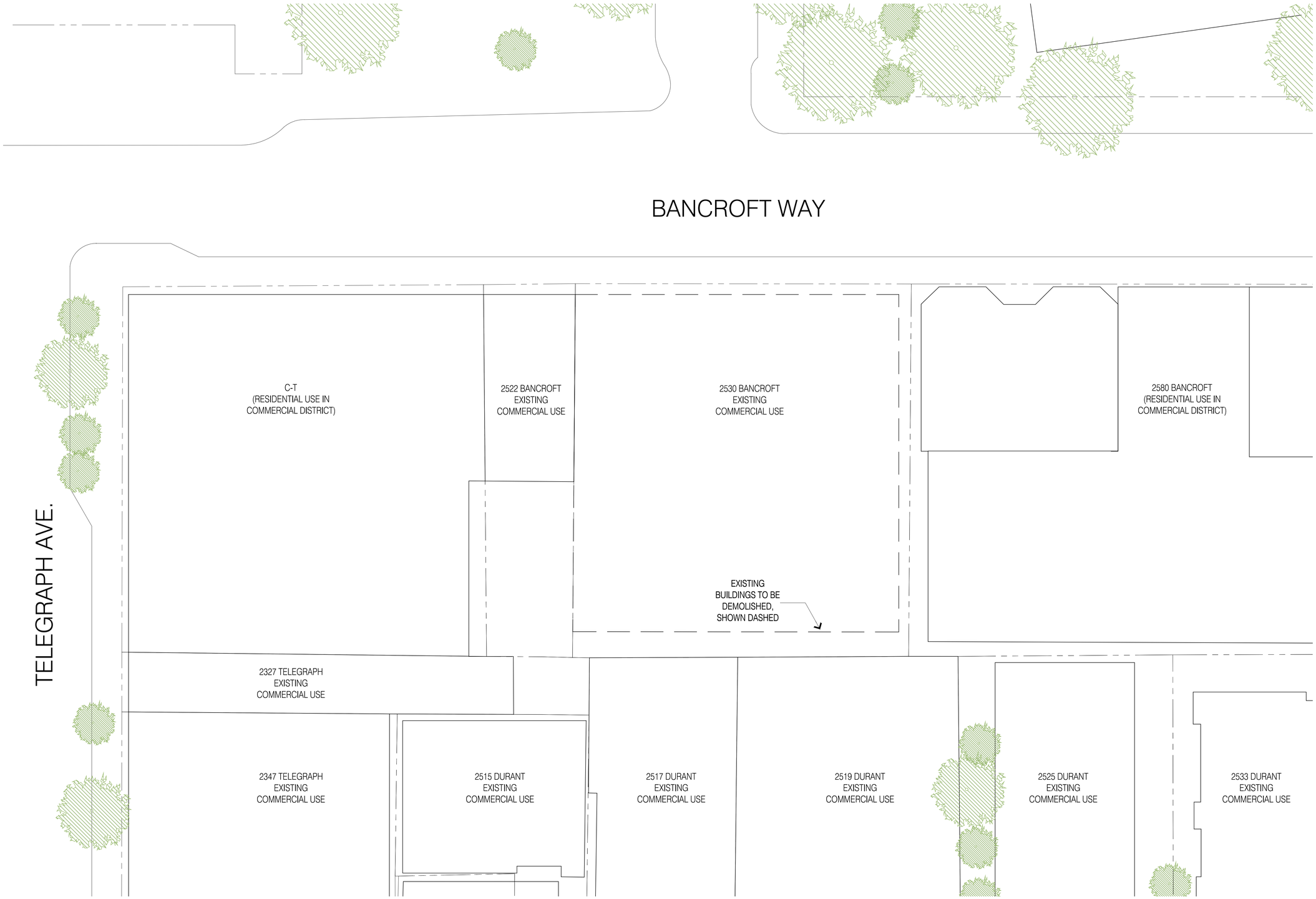
SHEET:

VICINITY MAP

A0.6



1 A2.0 EXISTING SITE PLAN
1/32"=1'-0" @ 11x17 1/16"=1'-0" @ 24x36

0 4 8 16 32

N

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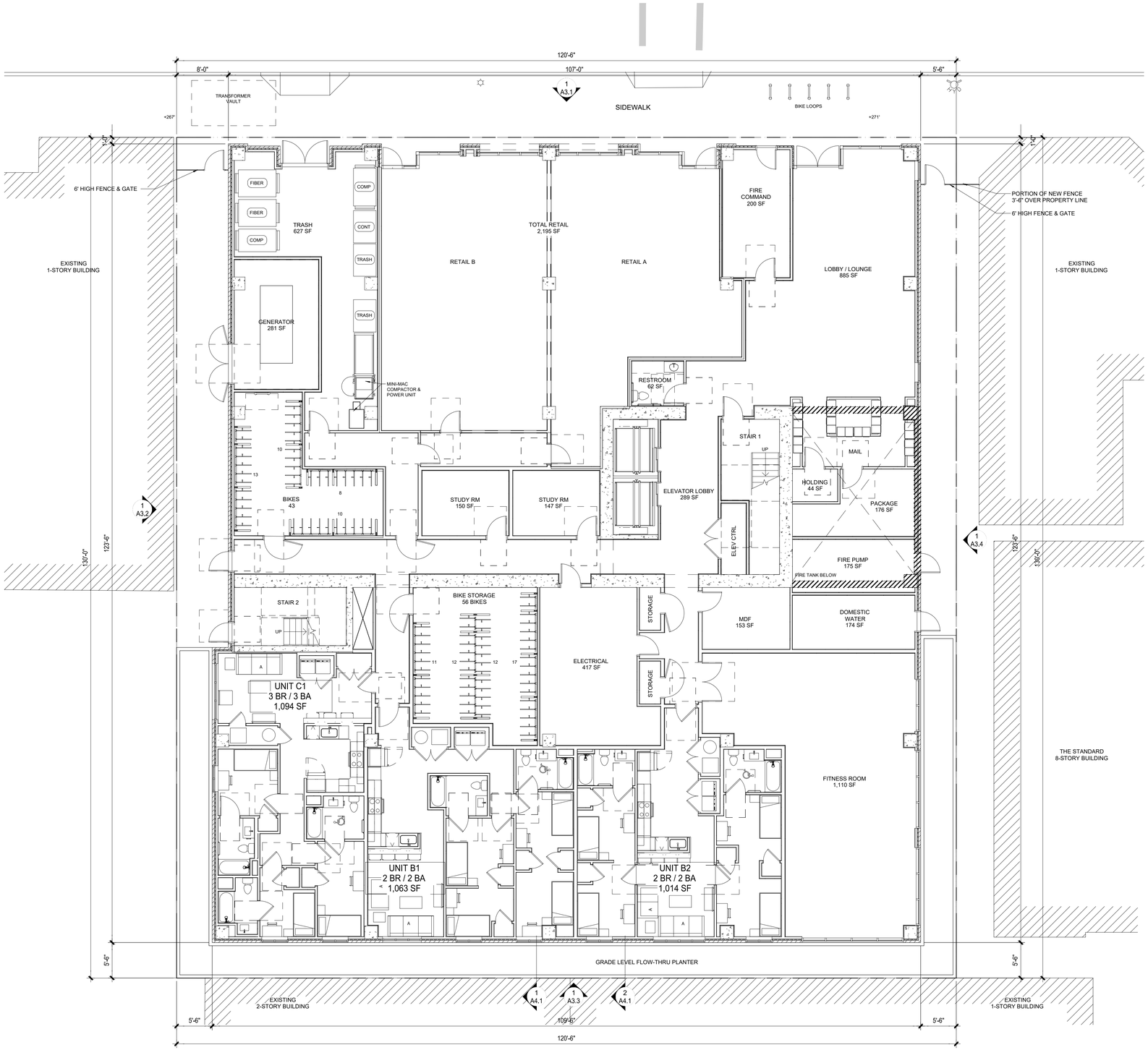
SHEET:

EXISTING
SITE PLAN

A2.0



1 / - SITE PLAN / PLAN AT GROUND LEVEL

1/16"=1'-0" @ 11X17 1/8"=1'-0" @ 24X36

0 4 8 16

N

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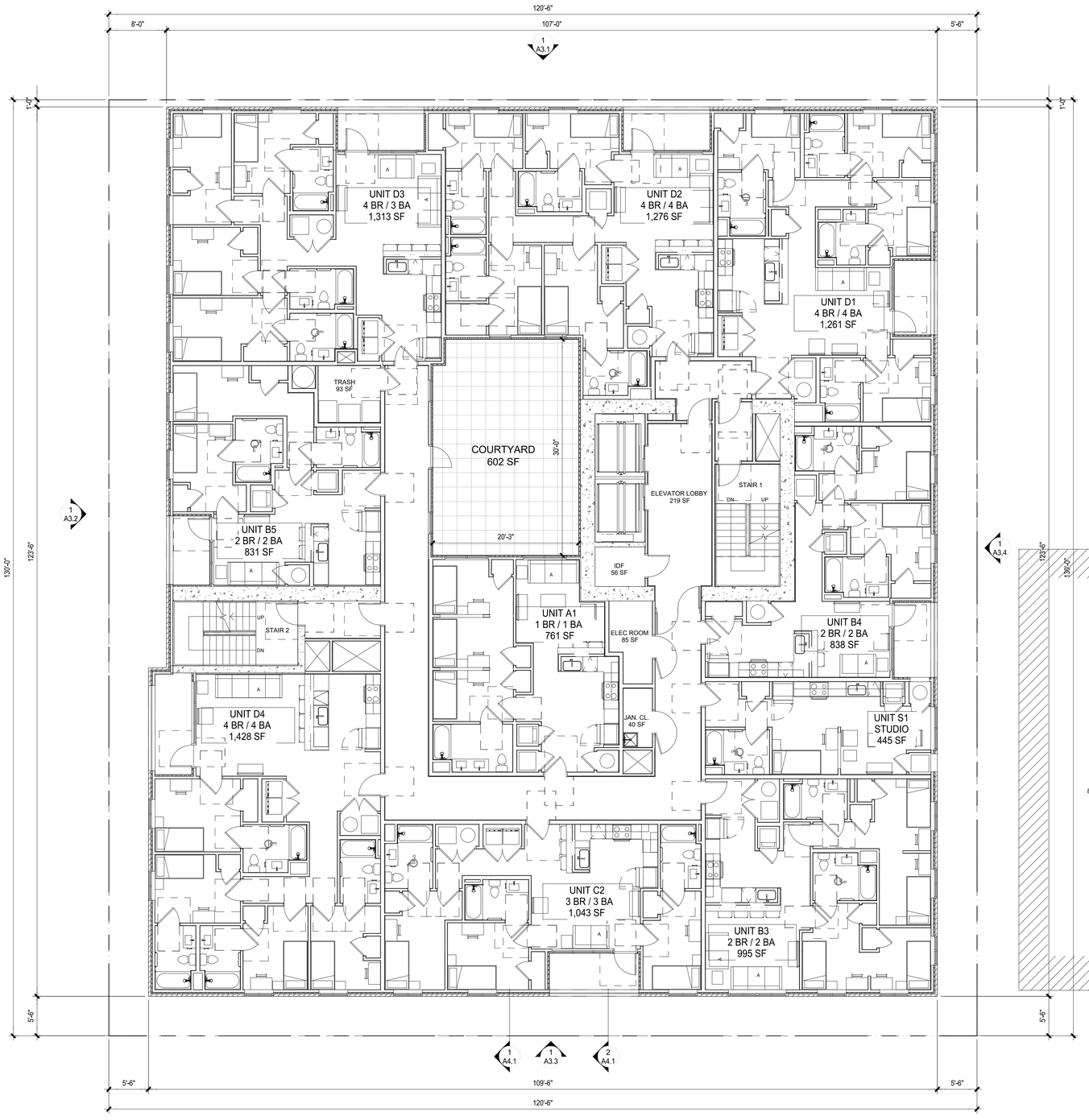
SHEET:

SITE PLAN / PLAN AT GROUND LEVEL

A2.1



1 - PLAN AT LEVEL 2

1/16"=1'-0" @ 11X17 1/8"=1'-0" @ 24X36

0 4 8 16

N

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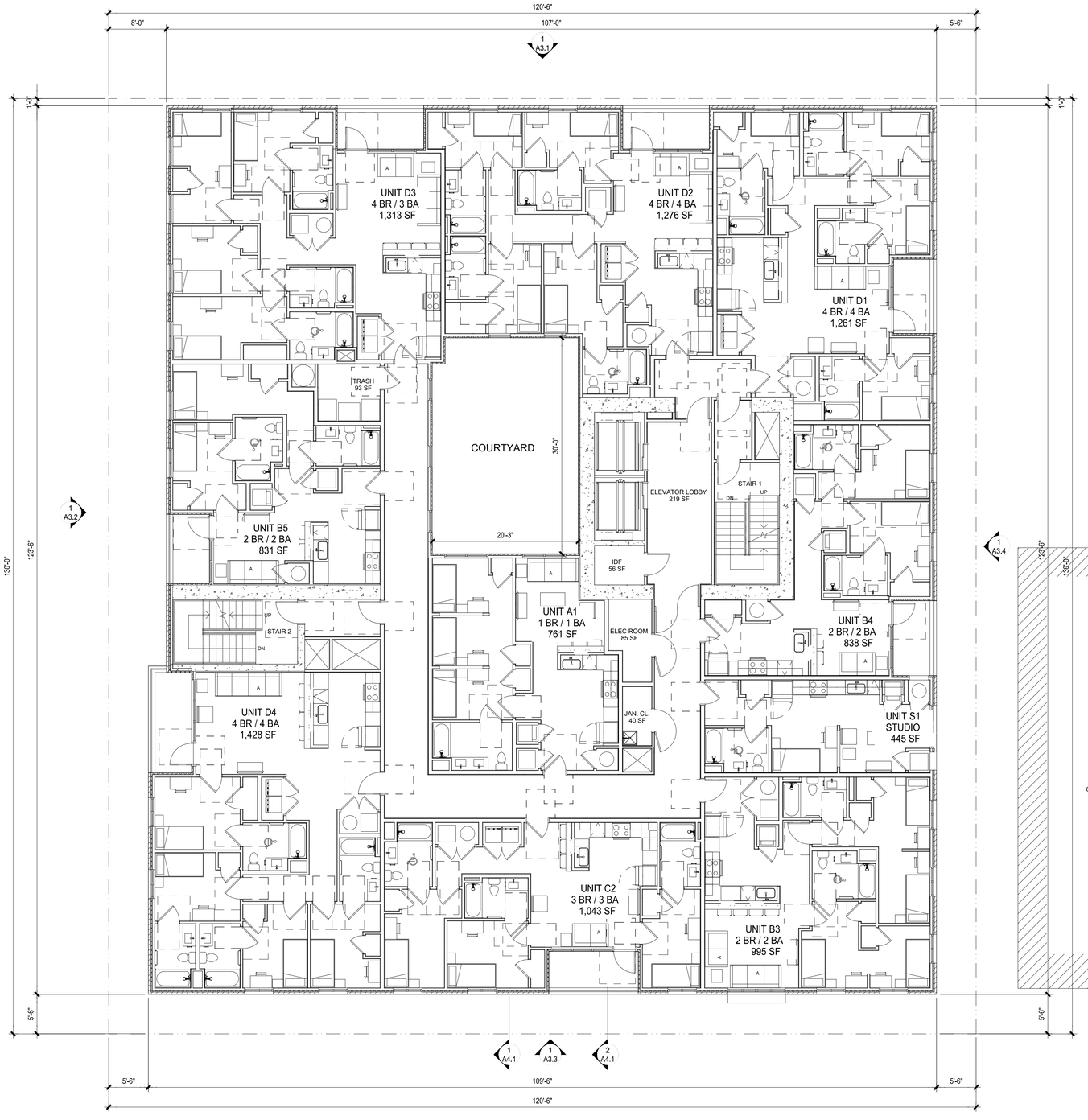
SHEET:

PLAN AT
LEVEL 2

A2.2



1 / - PLAN AT LEVEL 3

1/16"=1'-0" @ 11X17 1/8"=1'-0" @ 24X36

0 4 8 16

N

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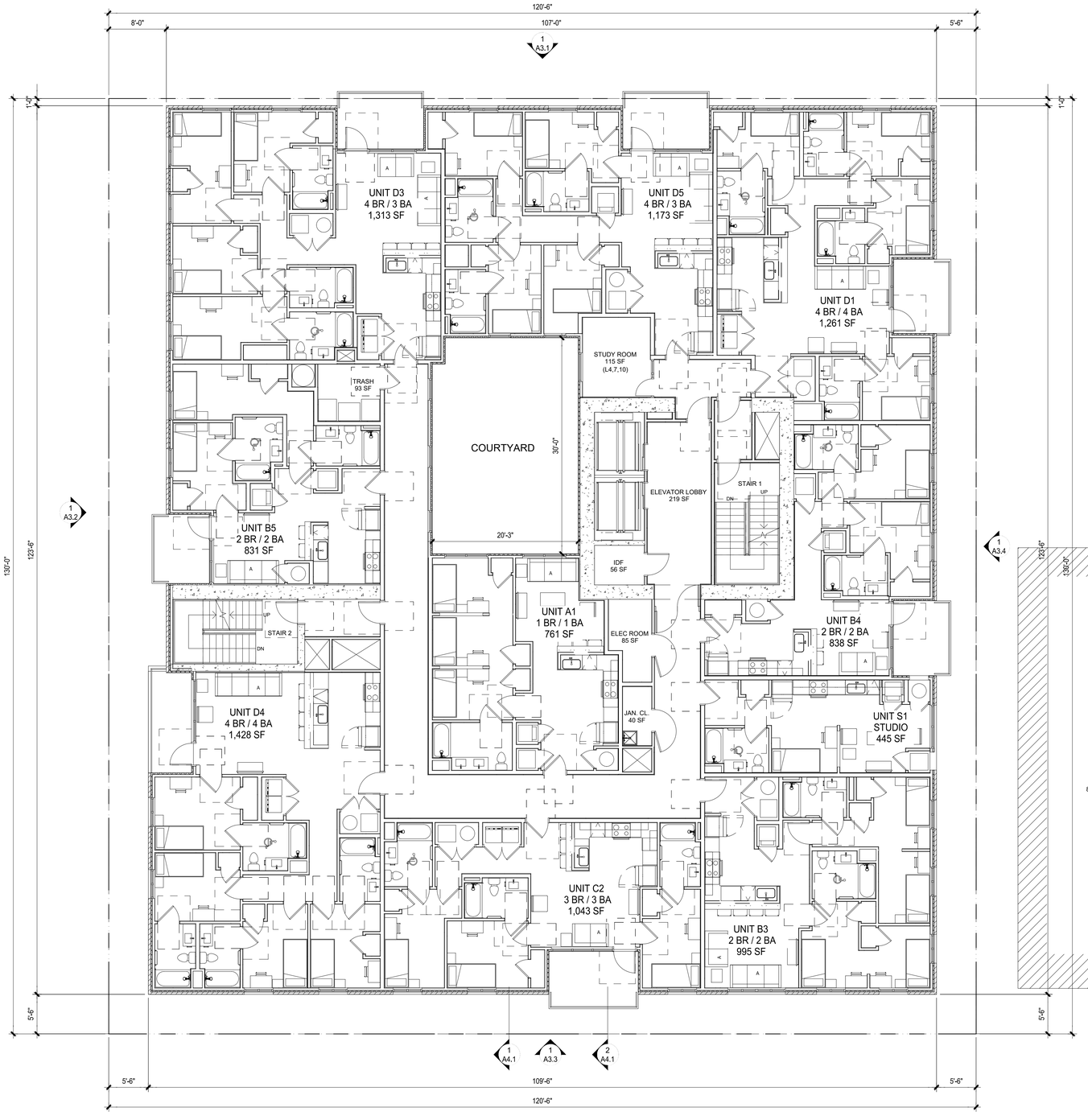
SHEET:

PLAN AT LEVEL 3

A2.3



1 / - PLAN AT LEVELS 4, 7, 10

1/16"=1'-0" @ 11X17 1/8"=1'-0" @ 24X36

0 4 8 16

N

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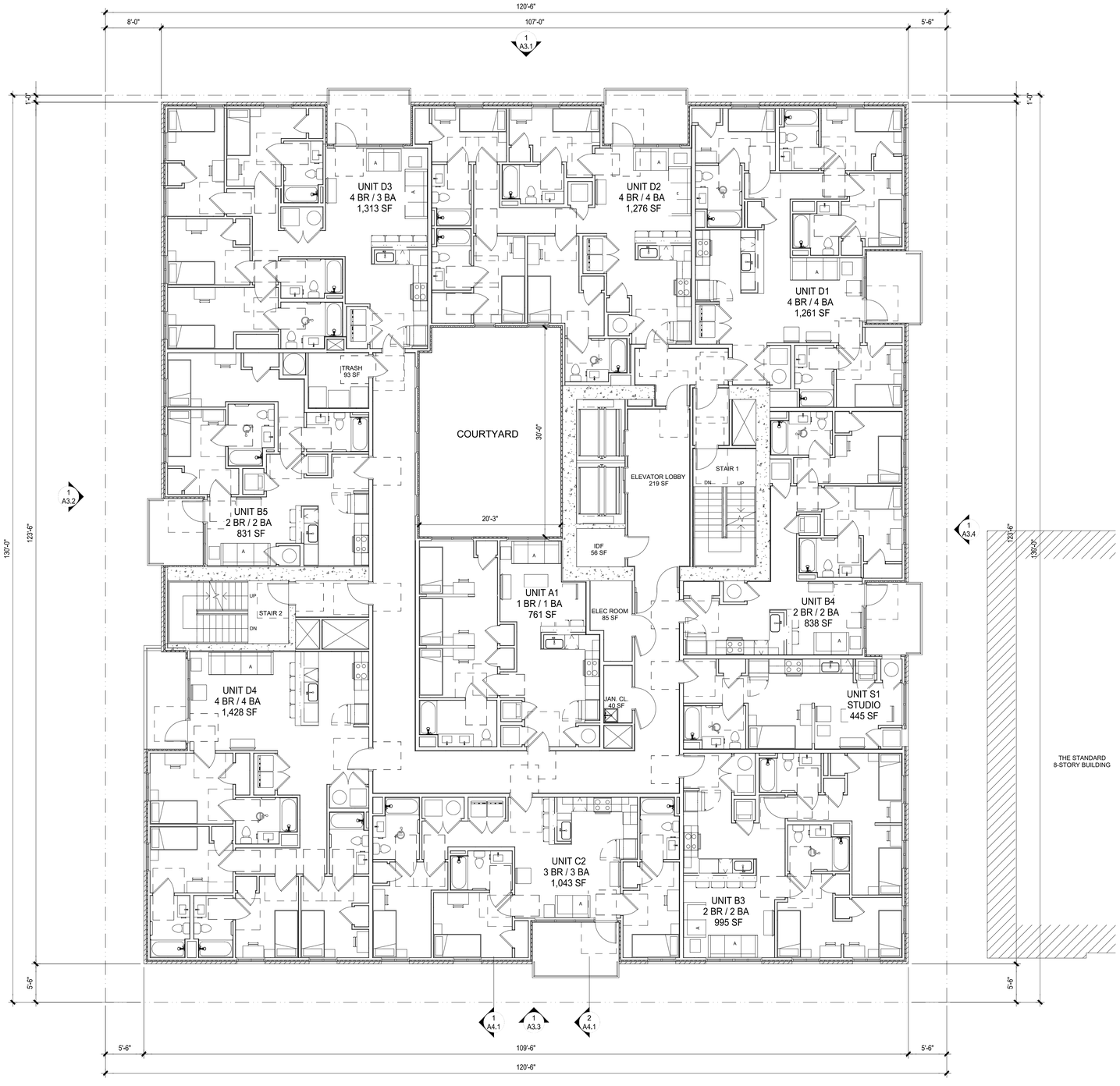
SHEET:

PLAN AT
LEVELS 4, 7, 10

A2.4



1
-

PLAN AT LEVELS 5, 6, 8, 9, 11

1/16"=1'-0" @ 11X17 1/8"=1'-0" @ 24X36

0 4 8 16

N

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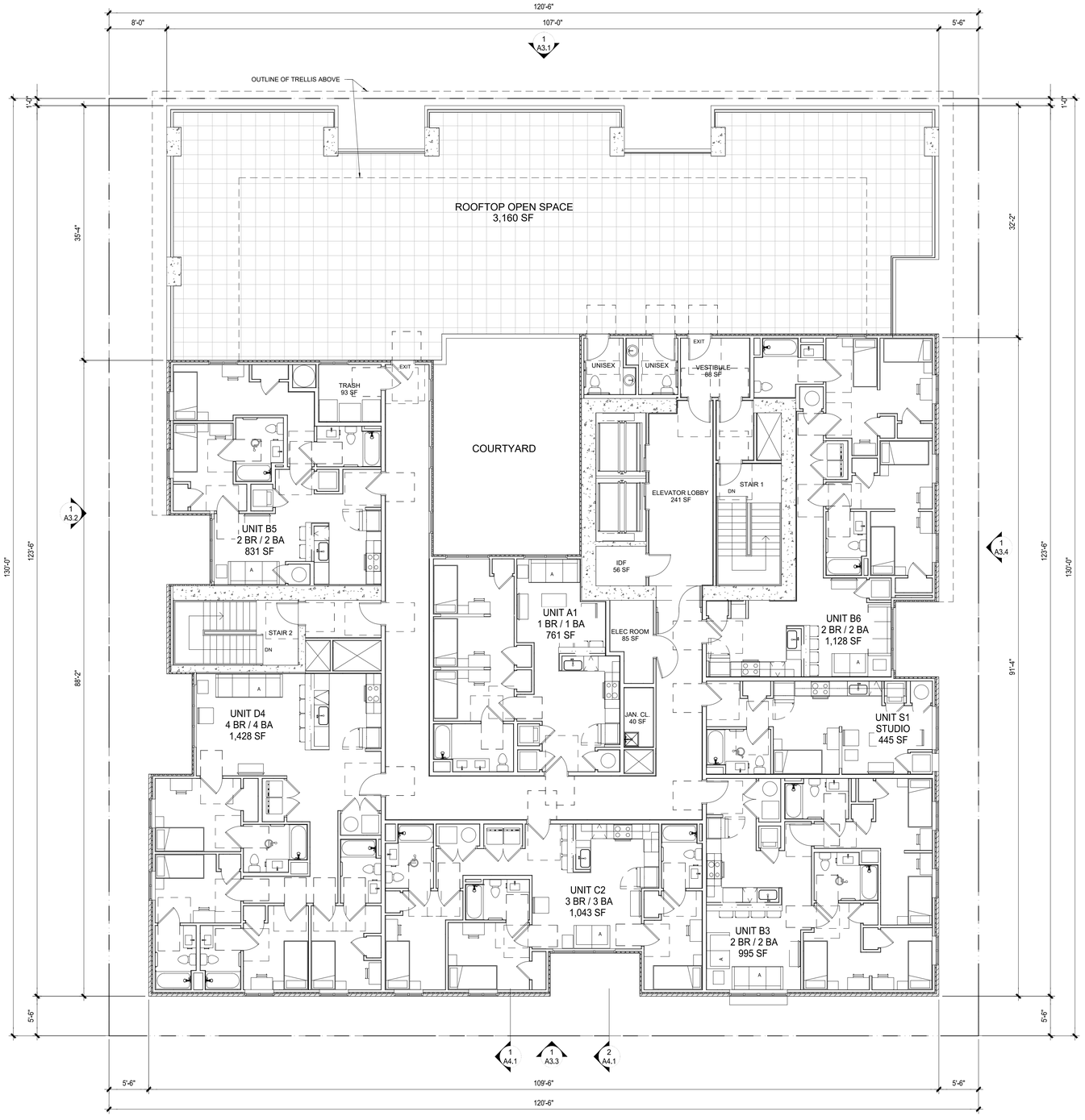
SHEET:

PLAN AT LEVELS
5, 6, 8, 9, 11

A2.5



1 / - PLAN AT LEVEL 12

1/16"=1'-0" @ 11X17 1/8"=1'-0" @ 24X36

0 4 8 16

N

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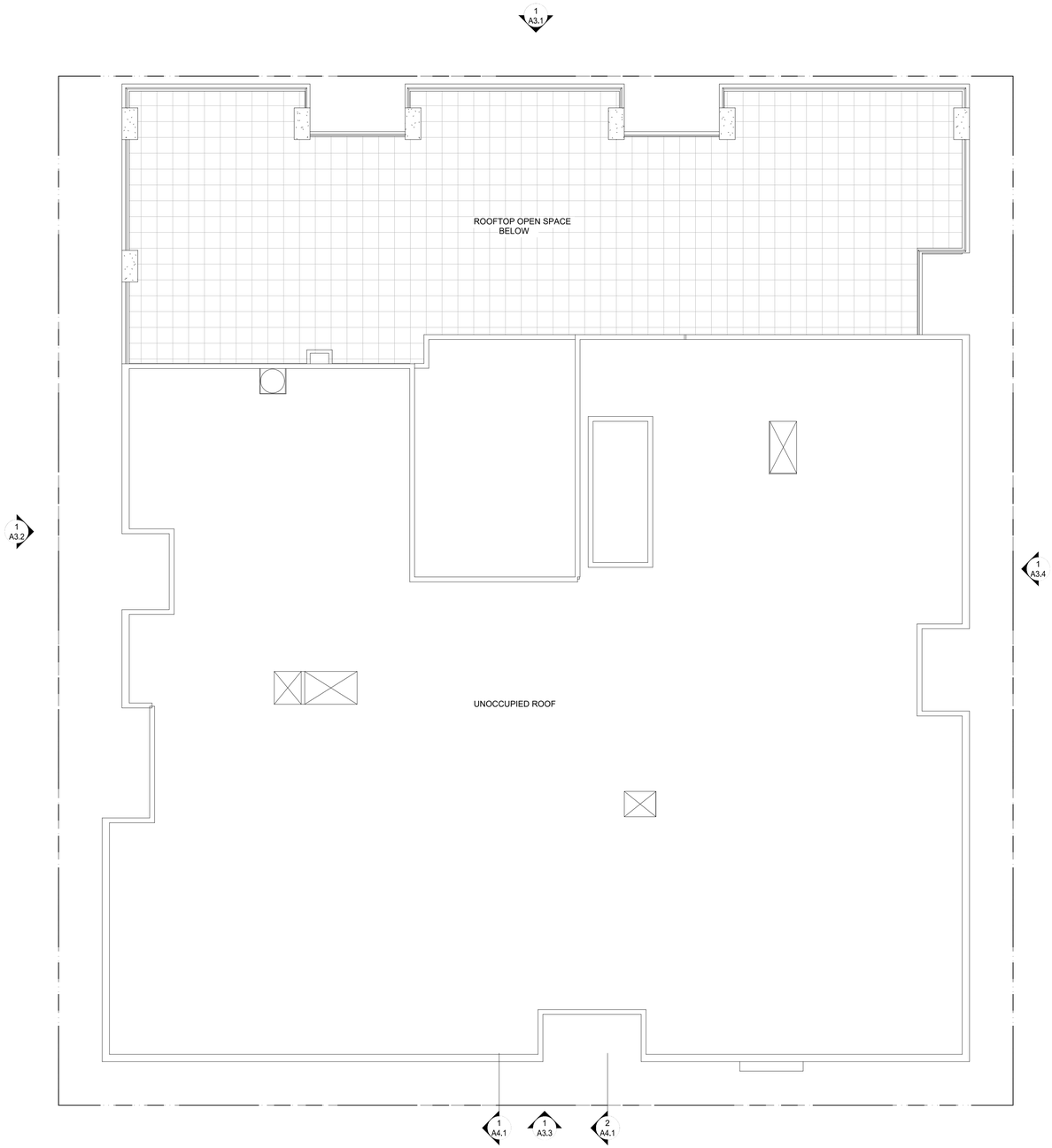
SHEET:

LEVEL 12
FLOOR PLAN

A2.6



1 / - ROOF PLAN

1/16"=1'-0" @ 11X17 1/8"=1'-0" @ 24X36

0 4 8 16

N

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SHEET:

ROOF PLAN

A2.7

1 A3.1 NORTH ELEVATION

3/64"=1'-0" @ 11X17 3/32" = 1'-0" @ 24X36

0 4 8 16

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BUILDING ELEVATIONS

A3.1

1 A3.2 WEST ELEVATION

3/64"=1'-0" @ 11X17 3/32" = 1'-0" @ 24X36

0 4 8 16

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SHEET:

BUILDING ELEVATIONS

A3.2

1 / A3.3 WEST ELEVATION

3/64"=1'-0" @ 11X17 3/32" = 1'-0" @ 24X36

0 4 8 16

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SHEET:

BUILDING ELEVATIONS

A3.3

1 A3.4 EAST ELEVATION

3/64"=1'-0" @ 11X17 3/32" = 1'-0" @ 24X36

0 4 8 16

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SHEET:

BUILDING ELEVATIONS

A3.4

1 - PERSPECTIVE LOOKING SOUTH AT BANCROFT ELEVATION
-

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SHEET:

PERSPECTIVE VIEWS

A3.5

1 - CONTEXT VIEW
-

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SHEET:

PERSPECTIVE VIEWS

A3.6

1
-

VIEW LOOKING WEST ALONG BANCROFT
-

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SHEET:

PERSPECTIVE
VIEWS

A3.7

1
-

VIEW LOOKING EAST ALONG BANCROFT
-

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PERSPECTIVE
VIEWS

A3.8

1 - VIEW OF STREET LEVEL ALONG BANCROFT
-

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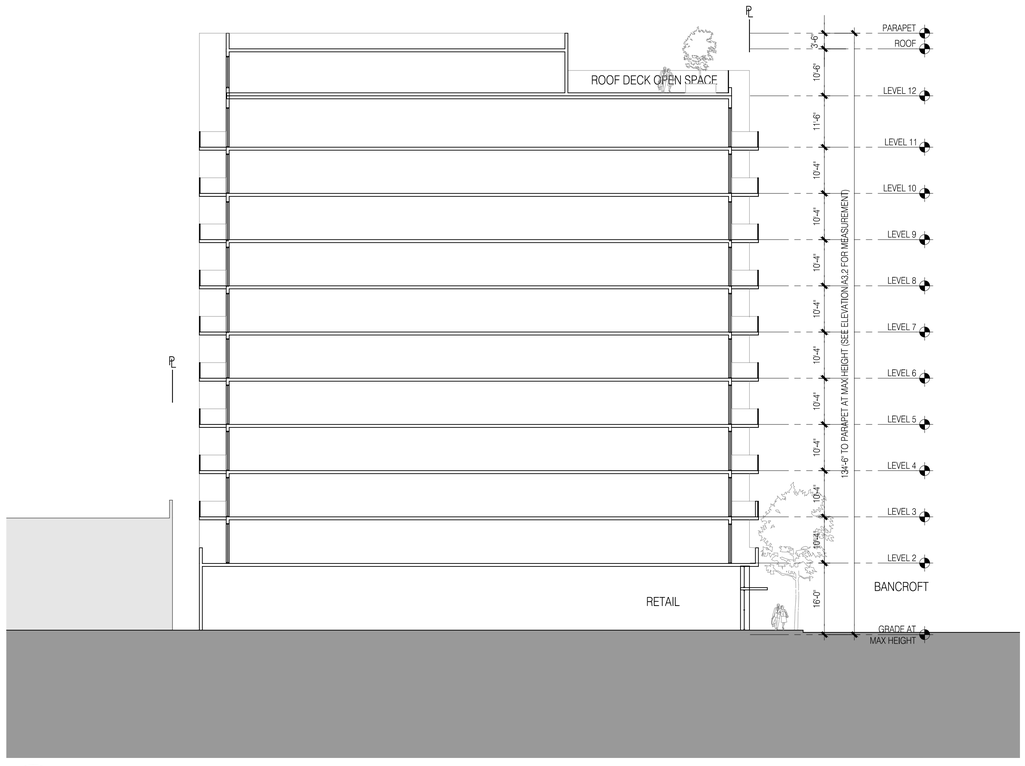
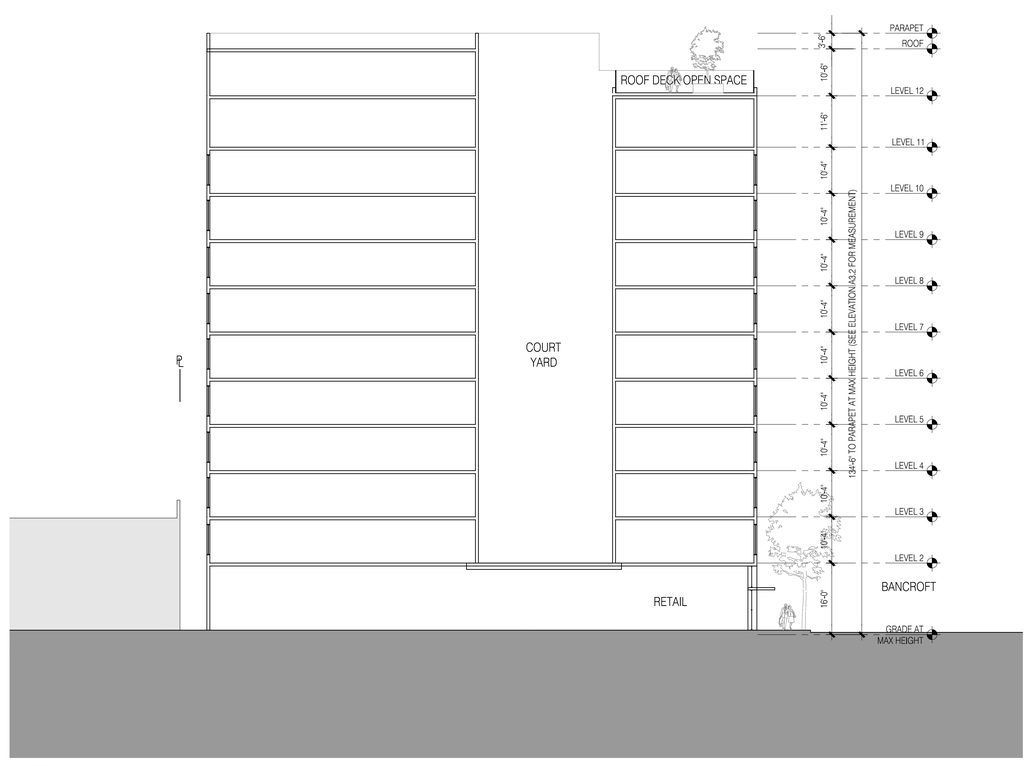
PERSPECTIVE VIEWS

A3.9



2 - BUILDING SECTION AT BALCONIES

1/8"=1'-0" @ 11X17 1/16" = 1'-0" @ 24X36



1 - BUILDING SECTION AT COURTYARD

1/8"=1'-0" @ 11X17 1/16" = 1'-0" @ 24X36

0 4 8 16

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BUILDING SECTIONS

A4.1


SMOOTH STUCCO


ROUGH STUCCO


INFILL MATERIAL


METAL GRATE RAILING


METAL SIDING


THIN-BRICK

1 MAT NORTH ELEVATION
3/64"=1'-0" @ 11X17 3/32" = 1'-0" @ 24X36
0 4 8 16

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BUILDING MATERIALS

MAT

PAGE&TURNBULL

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design, research, and technology

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34-38 WEST SANTA CLARA STREET SAN JOSE, CALIFORNIA 95113 TEL 415.320.7911

Exhibit D

Noise Impact Analysis for the Proposed 2530 Bancroft Way Mixed-Use Project in Berkeley, California

FIRSTCARBON SOLUTIONS
FCS INTERNATIONAL, INC.

Memorandum

Date: April 15, 2024

To: Jared Munneke, Development Manager
Legacy Bancroft Property Owner, LLC

From: Philip Ault, Director of Noise and Air Quality, FirstCarbon Solutions

Subject: Noise Impact Analysis for the Proposed 2530 Bancroft Way Mixed-Use Project in Berkeley, California

On behalf of Legacy Bancroft Property Owner, LLC (project applicant), FirstCarbon Solutions (FCS), prepared this memorandum to evaluate noise impacts that could result from construction and operations of the proposed 2530 Bancroft Way Mixed-Use Project (proposed project). Supporting documents such as calculation worksheets and other modeling outputs are attached to this memorandum.

PROJECT DESCRIPTION

The project site is located at 2530 Bancroft Way in the City of Berkeley, in Alameda County, California. It is bounded by Bancroft Way to the north, residential and retail mixed-uses to the east and west, and retail uses to the south.

The project applicant proposes to demolish the existing commercial building on the project site and construct a 12-story mixed-use building with 110 multi-family residential units. The proposed project would also include 2,195 square feet of retail space on the ground floor. No on-site parking spaces are proposed.

The project site is designated as “Avenue” and is zoned Telegraph Avenue Commercial District (C-T) by the City of Berkeley Zoning Ordinance.

NOISE AND VIBRATION FUNDAMENTALS

A summary of the fundamentals of noise and vibration is provided as Attachment A to this document.

REGULATORY SETTING

Federal Regulations

Currently, no federal noise standards regulate environmental noise associated with temporary construction activities or the long-term operations of development projects. As such, both temporary and long-term noise impacts resulting from the proposed project would be largely regulated or otherwise evaluated by State and City of Berkeley standards designed to protect public well-being and health.

Federal Transit Administration

Though not regulatory in nature, vibration impact criteria for buildings and other structures have been established by the Federal Transit Authority (FTA), as building and structural damages are generally the foremost concern when evaluating the impacts of construction-related vibrations. For the evaluation of the proposed project's construction-related vibration impacts, the following FTA vibration impact criteria, shown in Table 1, are used given the absence of applicable federal, State, and City standards specific to temporary construction activities and their potential to result in building and structural damages.[1]

Table 1: Federal Transit Administration Construction Vibration Impact Criteria

Building Category	PPV (in/sec)
I. Reinforced—Concrete, Steel or Timber (no plaster)	0.5
II. Engineered Concrete and Masonry (no plaster)	0.3
III. Non-engineered Timber and Masonry Buildings	0.2
IV. Buildings Extremely Susceptible to Vibration Damage	0.12

Notes:
PPV = peak particle velocity
VdB = vibration measured as root mean square (rms) velocity in decibels of 1 microinch per second
Source: Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual.

State Regulations

2017 General Plan Guidelines

The State of California's 2017 General Plan Guidelines propose county and city standards for acceptable exterior noise levels based on land use. These standards are incorporated into land use planning processes to prevent or reduce noise and land use incompatibilities. The State's suggested compatibility considerations between various land uses and exterior noise levels are not regulatory in nature but are recommendations intended to aid communities in determining their own noise-acceptability standards.

Assembly Bill 1307

Assembly Bill (AB) 1307 went into effect January 1, 2024. This bill clarifies that "for residential projects, the effects of noise generated by project occupants and their guests on human beings is not a significant effect on the environment." Therefore, this analysis does not address potential noise impacts from future occupants and their guests on sensitive receptors in the project vicinity.

[1] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual.

Local Regulations

The project site is located within the City of Berkeley. The Berkeley General Plan and Berkeley Municipal Code (Municipal Code) contain guidelines, standards, and regulations for the control of noise.

Berkeley General Plan

The Environmental Management (EM) Element of the Berkeley General Plan serves as the City's noise element and contains several noise policies, which require that standard noise conditions be imposed on all planning decisions.[2] The Berkeley General Plan does not establish any quantitative noise standards or thresholds of significance, though Policy EM-47 includes residences, child care centers, hospitals, nursing homes, schools, and parks as noise-sensitive uses. The Berkeley General Plan includes the following noise-related policies:

Policy EM-43 **Noise Reduction:** Reduce significant noise levels and minimize new sources of noise.

Policy EM-44 **Noise Prevention and Elimination:** Protect public health and welfare by eliminating existing noise problems where feasible and by preventing significant future degradation of the acoustic environment.

Actions

A. Incorporate noise considerations into land use planning decisions.
B. Ensure the effective enforcement of City, State, and federal noise levels by appropriate City departments.
C. Coordinate with the California Occupational Safety and Health Administration (Cal-OSHA) to provide information on and enforcement of occupational noise requirements within the City of Berkeley.
D. Support federal and State legislation to lower allowable noise levels on all motor vehicles.

Policy EM-45 **Traffic Noise:** Work with local and regional agencies to reduce local and regional traffic, which is the single largest source of unacceptable noise in the City.

Policy EM-46 **Noise Mitigation:** Require operational limitations and all feasible noise buffering for new uses that generate significant noise impacts near residential, institutional, or recreational uses.

Policy EM-47 **Land Use Compatibility:** Ensure that noise-sensitive uses, including, but not limited to, residences, child care centers, hospitals, and nursing homes, are protected from detrimental noise levels.

[2] City of Berkeley. 2002. Berkeley General Plan.

Berkeley Municipal Code

The Municipal Code establishes a number of regulations that would apply to the proposed project's temporary construction activities and long-term operations. Section 13.40.050 contains the Municipal Code's exterior noise standards.

Section 13.40.050–Exterior Noise Standards

A. Maximum permissible sound levels shall be determined by the zoning district of the property subject to the noise, not the property from which the noise originates.
   1. The noise standards for the various categories of land use in Table 13.40-1 [see Table 2] or 13.40-2 [see Table 3] shall, unless otherwise specifically indicated in other codes, apply to all such property within a designated zone.
   2. No person shall operate or cause to be operated any source of sound at any location within the incorporated City or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the sound level when measured on any other property to exceed:
      (a) The noise standard for that land use as specified in Table 13.40-1 [see Table 2] for a cumulative period of more than 30 minutes in any hour; or
      (b) The noise standard for that land use as specified in Table 13.40-1 [see Table 2] plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or
      (c) The noise standard for that land use as specified in Table 13.40-1 [see Table 2] plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
      (d) The noise standard for that land use as specified in Table 13.40-1 [see Table 2] plus 15 dBA for a cumulative period of more than 1 minute in any hour; or
      (e) The noise standard for that land use as specified in Table 13.40-1 [see Table 2] plus 20 dBA for any period of time.

Table 2: Exterior Noise Limits–Levels not to be exceeded more than 30 minutes any hour

Zoning District	Time Period	Noise Level (dBA)
R-1, R-2, R-1A, R-2A, and ESR	7:00 a.m.–10:00 p.m.	55
	10:00 p.m.–7:00 a.m.	45
R-3 and above	7:00 a.m.–10:00 p.m.	60
	10:00 p.m.–7:00 a.m.	55
Commercial	7:00 a.m.–10:00 p.m.	65
	10:00 p.m.–7:00 a.m.	60
Industry	Anytime	70
Source: Municipal Code Table 13.40-1: Exterior Noise Limits.		

3. If the measured ambient noise level is greater than the level permissible within any of the noise limit categories above, the sound level when measured on any other property shall not exceed:
   (a) The ambient noise level for a cumulative period of more than 30 minutes in any hour; or
   (b) The ambient noise level plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or
   (c) The ambient noise level plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
   (d) The ambient noise level plus 15 dBA for a cumulative period of more than 1 minute in any hour; or
   (e) The ambient noise level plus 20 dBA for any period of time.
4. If the measurement location is on a boundary between two different zones, the sound level limit applicable to the quieter noise zone shall apply.
5. If possible, the ambient noise level may be measured at the same location along the property line utilized in subsection A.2 of this section with the alleged offending noise source inoperative. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the ambient noise level may be determined by traveling away from the noise source to a point where a steady state decibel reading is achieved. If this test is not possible, the noise level measured while the source is in operation shall be compared directly to the noise level standards.

B. The classification of additional areas of the community not listed in Table 13.40-1 [see Table 2] in terms of environmental noise zones shall be determined by the [Environmental Health Division] EHD. Industrial noise limits are intended primarily for use at the boundary of industrial zones rather than for noise reduction within the zone.

Section 13.40.060 contains the Municipal Code's interior noise standards.

Section 13.40.060–Interior Noise Standards

A. Maximum Permissible Dwelling Interior Sound Levels
   1. The interior noise standards for multi-family residential dwellings as presented in Table 13.40-2 [see Table 3] shall apply, unless otherwise specifically indicated in other codes, within all such dwellings with windows in their normal seasonal configuration.

Table 3: Interior Noise Limits

Zoning District	Time Interval	Allowable Interior Noise Level (dBA)
All	10:00 p.m.–7:00 a.m.	40
	7:00 a.m.–10:00 p.m.	45
Source: Municipal Code Table 13.40-2: Interior Noise Limits.		

2. No person shall operate or cause to be operated within a multi-family dwelling unit any source of sound or allow the creation of any noise which causes the sound level when measured inside a neighboring dwelling unit to exceed:
   (a) The noise standard as specified in Table 13.40-2 [see Table 3] for a cumulative period of more than 5 minutes in any hour; or
   (b) The noise standard as specified in Table 13.40-2 [see Table 3] plus 5 dBA for a cumulative period of more than one minute in any hour; or
   (c) The noise standard as specified in Table 13.40-2 [see Table 3] plus 10 dBA for any period of time.
3. If the measured ambient noise level is greater than the level permissible within any of the noise limit categories above, the sound level when measured on the other property shall not exceed:
   (a) The ambient noise level for a cumulative period of more than 5 minutes in any hour; or
   (b) The ambient noise level plus 5 dBA for a cumulative period of more than 1 minute in any hour; or
   (c) The ambient noise level plus 10 dBA for any period of time.

Section 13.40.070(B)(7) contains regulations specific to construction and demolition activities.

Section 13.40.070(B)(7) – Construction/Demolition

(a) Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work before 7:00 a.m. on a weekday (or before 9:00 a.m. on a weekend or holiday) or after 7:00 p.m. on a weekday (or after 8:00 p.m. on a weekend or holiday) such that the sound therefrom across a residential or commercial real property line violates Section 13.40.050 or 13.40.060, except for emergency work of public service utilities or by variance issued by the EHD. (This section shall not apply to the use of domestic power tools as specified in subsection B.11 of this section.)

(b) *Noise Restrictions at Affected Properties.* Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum sound levels at affected properties will not exceed those listed in the following schedule:

AT RESIDENTIAL PROPERTIES: Mobile Equipment. Maximum sound levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment [see Table 4]:

Table 4: Mobile Equipment Noise Limits

Time Period	R-1, R-2 Residential	R-3 and above Multi-Family Residential	Commercial/ Industrial
Weekdays 7:00 a.m. to 7:00 p.m.	75 dBA	80 dBA	85 dBA
Weekends 9:00 a.m. to 8:00 p.m. and legal holidays	60 dBA	65 dBA	70 dBA
Source: Municipal Code Table 13.40-3.			

Stationary Equipment. Maximum sound levels for repetitively scheduled and relatively long-term operation (period of 10 days or more) of stationary equipment [see Table 5]:

Table 5: Stationary Equipment Noise Limits

Time Period	R-1, R-2 Residential	R-3 and above Multi-Family Residential	Commercial/ Industrial
Weekdays 7:00 a.m. to 7:00 p.m.	60 dBA	65 dBA	70 dBA
Weekends 9:00 a.m. to 8:00 p.m. and legal holidays	50 dBA	55 dBA	60 dBA
Source: Municipal Code Table 13.40-4.			

Section 13.40.070(B)(8) concerns vibrations.

Section 13.40.070(B)(8)–Vibration

Operating or permitting the operation of any device that creates a vibration, which annoys or disturbs at least two or more reasonable persons of normal sensitiveness who reside in separate residences (including apartments and condominiums) at or beyond the property boundary of the source, if on private property, or at least 150 feet (46 meters) from the source, if on a public space or public right-of-way.

(a) Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work before 7:00 a.m. on a weekday (or before 9:00 a.m. on a weekend or holiday) or after 7:00 p.m. on a weekday (or after 8:00 p.m. on a weekend or holiday) such that the sound therefrom across a residential or commercial real property line violates Section 13.40.050 or 13.40.060, except for emergency work of public service utilities or by variance issued by the EHD. (This section shall not apply to the use of domestic power tools as specified in subsection B.11 of this section.)

Berkeley Standard Conditions of Approval

The City has established the following Standard Conditions of Approval that it imposes on projects, and which would apply to construction of the proposed project:

> Construction Hours (Residential Zoning Districts): Construction activity shall be limited to between the hours of 8:00 AM and 6:00 PM on Monday through Friday, and between 9:00 AM and Noon on Saturday. No construction-related activity shall occur on Sunday or any Federal Holiday.
>
> Construction Hours (Non-Residential Districts): Construction activity shall be limited to between the hours of 7:00 AM and 6:00 PM on Monday through Friday, and between 9:00 AM and 4:00 PM on Saturday. No construction-related activity shall occur on Sunday or any Federal Holiday.
>
> Construction Noise Reduction Program: The applicant shall develop a site specific noise reduction program prepared by a qualified acoustical consultant to reduce construction noise impacts to the maximum extent feasible, subject to review and approval of the Zoning Officer. The noise reduction program shall include the time limits for construction listed above, as measures needed to ensure that construction complies with BMC [Berkeley Municipal Code] Section 13.40.070. The noise reduction program should include, but shall not be limited to, the following available controls to reduce construction noise levels as low as practical:
>
> A. Construction equipment should be well maintained and used judiciously to be as quiet as practical.
>
> B. Equip all internal combustion engine-drive equipment with mufflers, which are in good condition and appropriate for the equipment.
>
> C. Utilize “quiet” models of air compressors and other stationary noise sources where technology exists. Select hydraulically or electrically powered equipment and avoid pneumatically powered equipment where feasible.
>
> D. Locate stationary noise-generating equipment as far as possible from sensitive receptors when adjoining construction sites. Construct temporary noise barriers or partial enclosures to acoustically shield such equipment where feasible.
>
> E. Prohibit unnecessary idling of internal combustion engines.
>
> F. If impact pile driving is required, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
>
> G. Construct solid plywood fences around construction sites adjacent to operational business, residences, or other noise-sensitive land uses where the noise control plan analysis determines that a barrier would be effective at reducing noise.

H. Erect temporary noise control blanket barriers, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.

I. Route construction related traffic along major roadways and away from sensitive receptors where feasible.

Construction Noise Management – Public Notice Required. At least two weeks prior to initiating any construction activities at the site, the applicant shall provide notice to businesses and residents within **500 feet** of the project site. This notice shall at a minimum provide the following: (1) project description, (2) description of construction activities, (3) daily construction schedule (i.e., time of day) and expected duration (number of months), (4) the name and phone number of the Project Liaison for the project that is responsible for responding to any local complaints, (5) commitment to notify neighbors at least four days in advance of authorized extended work hours and the reason for extended hours, and (6) that construction work is about to commence. The liaison would determine the cause of all construction-related complaints (e.g., starting too early, bad muffler, worker parking, etc.) and institute reasonable measures to correct the problem. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval.

Noise Reduction Plan. Applicants are required to develop a site-specific noise reduction program prepared by a qualified acoustical consultant to reduce construction noise impacts to the maximum extent feasible. The noise reduction program would include several elements that would reduce the exposure of sensitive receptors to construction noise, such as the following:

- Equipping all internal combustion engine-driven equipment with mufflers in good condition
- Pre-drilling foundation pile holes to minimize the use of pile drivers
- Installing solid plywood fences around construction sites adjacent to sensitive receptors
- Erecting temporary noise control blanket barriers along building facades facing construction sites.

EXISTING NOISE CONDITIONS

Ambient Noise

Figure 21 of the Berkeley General Plan Environmental Management Element indicates that ambient noise levels at and in the vicinity of the project site are approximately 65 A-weighted decibel (dBA)

day/night average sound level (L_{dn}) based on transportation sources such as vehicle traffic along Bancroft Way.[3]

On March 13, 2024, noise measurements were obtained at multiple locations near the project site along Bancroft Way to further aid in the characterization of daytime ambient noise conditions surrounding the proposed project and nearby sensitive receptors. The measurements ranged between 65.7 and 67.3 dBA L_{eq}. Noise sources were primarily vehicle traffic along Bancroft Way, as well as some distant construction activities. These ambient noise measurements are consistent with the General Plan's 65 dBA L_{dn} estimate for the project site.

THRESHOLDS OF SIGNIFICANCE AND IMPACT ANALYSIS

Thresholds of Significance

According to the California Environmental Quality Act (CEQA) Guidelines, Appendix G, to determine whether impacts related to noise and vibration are significant environmental effects, the following questions are analyzed and evaluated.

Would the proposed 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?

b) Generate excessive groundborne vibration or groundborne noise levels?

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 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Substantial Noise Increase in Excess of Standards

Construction Noise Impacts

For purposes of this analysis, a significant impact would occur if construction activities would generate a substantial temporary increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or the applicable standards of other agencies. The Berkeley General Plan does not contain quantitative noise standards for construction activities, and the City has not adopted CEQA-specific thresholds for construction. However, as explained above, the Municipal Code includes quantitative noise limits that would apply to the proposed project's construction activities. Municipal Code Section 13.40.070(B)(7) establishes that construction activities occurring before 7:00 a.m. on a weekday (or before 9:00 a.m. on a weekend or holiday) or after 7:00

[3] City of Berkeley. 2002. Berkeley General Plan, Figure 21: Noise Contours.

p.m. on a weekday (or after 8:00 p.m. on a weekend or holiday) shall not exceed the exterior and interior noise limits outlined in Section 13.40.050 and Section 13.40.060, respectively. Municipal Code Section 13.40.070(B)(7) further establishes that, as "technically and economically feasible," construction activities shall adhere to the mobile and stationary equipment noise limits shown above in Table 4 and Table 5, respectively. However, because construction for the proposed project would last longer than 10 days, the Table 5 limits would apply. The following criteria to determine significance are informed by this available regulatory framework. The proposed project's construction noise impact would be considered significant if any of the following were to occur:

- Construction activities occurring before 7:00 a.m. on a weekday (or before 9:00 a.m. on a weekend or holiday) or after 7:00 p.m. on a weekday (or after 8:00 p.m. on a weekend or holiday) would exceed the noise limits shown in Table 2 and Table 3, above.
- Construction activities during other daytime periods would exceed the noise limits shown in Table 5, above, at noise-sensitive receptors.

On-site Construction Noise Impact

Construction of the proposed project would generate noise during the approximately 26-month schedule of demolition, grading, building construction, finishing, and other construction activities. The proposed project is anticipated to utilize a standard 5-day work week, and construction would occur during allowable daytime hours set forth by the City's Municipal Code and Standard Conditions of Approval. Therefore, noise-generating construction activities would not occur during the hours in which the noise limits established by Municipal Code Section 13.40.050 and Section 13.40.060 (shown in Table 2 and Table 3) are applicable to construction activities. As such, the construction of the proposed project would not result in exceedances of the Table 2 and Table 3 noise limits. The proposed project's significance with regard to the Municipal Code's Section 13.40.070(B)(7) noise limits contained in Table 5—which are applicable to daytime construction activities between the hours of 7:00 a.m. and 7:00 p.m. on weekdays—are addressed below.

The proposed project is surrounded by multiple noise-sensitive receptors along Bancroft Way and Durant Avenue. The University of California, Berkeley (UC Berkeley), is located approximately 55 feet north of the project site across Bancroft Way. The UC Berkeley campus is zoned R-5 (High Density Residential), meaning that a 65 dBA threshold would apply according to Municipal Code Section 13.40.070(B)(7). The Standard at Berkeley is a large mixed-use student housing center located directly east of the project site at 2580 Bancroft Way. It is zoned within the City's Commercial-Downtown Mixed-Use District (C-DMU), meaning that a 70 dBA threshold would apply. The Granada is a mixed-use multi-family residential building located approximately 30 feet west of the project site at 2510 Bancroft Way. It is also zoned C-DMU and a 70 dBA threshold would apply. Another multi-family apartment building is located at 2525 Durant Avenue. It is approximately 40 feet southeast of the project site. It is also zoned C-DMU and a 70 dBA threshold would apply.[4] Other noise-sensitive receptors, such as apartment buildings located at 2533 Durant Avenue and 2539 Durant Avenue and St. Joseph of Arimathea Church are located farther

[4] City of Berkeley. 2022. Official Zoning Map. Website: https://berkeley.municipal.codes/BMC/OfficialZoningMap. Accessed February 29, 2024.

from the project site and would experience reduced impacts. Therefore, the following analysis focuses on UC Berkeley, The Standard at Berkeley, The Granada, and 2525 Durant Avenue to assess the proposed project's construction noise impact.

Noise from demolition and grading activities are typically the foremost concern when evaluating a project's construction noise impact, as demolition and grading activities often require extensive use of heavy-duty, diesel-powered earthmoving equipment that generate substantial noise levels over long usage periods. Other construction activities, such as vertical construction and interior finishing, do not utilize heavy-duty off-road construction equipment to the same extent as demolition and grading activities and therefore typically result in reduced noise impacts. Given this consideration, the following analysis evaluates noise impacts to UC Berkeley, The Standard at Berkeley, The Granada, and 2525 Durant Avenue that may result from the proposed project's demolition and grading activities. The proposed project would not require impact pile driving or other construction activities that result in extreme noise levels.

Demolition for the proposed project is anticipated to last approximately four weeks and would involve demolition of the project site's existing structures. Grading is anticipated to last approximately four months (20 weeks) and would involve excavation of approximately 2,091 cubic yards of soil. The majority of the proposed project's demolition and grading activities would be characterized by an excavator demolishing the site's existing structures and excavating for the proposed project's foundations. A loader would also assist in transferring demolition debris and excavated soil to dumpsters or haul trucks for off-site removal. As these vehicles work across the approximately 0.36-acre project site, their construction noise levels at UC Berkeley, The Standard at Berkeley, The Granada, and 2525 Durant Avenue would fluctuate depending on their distances from these noise-sensitive receptors. Noise levels would be greater when these vehicles are in closer proximity and lower when positioned farther away. Given these considerations, noise impacts associated with the proposed project's demolition and grading activities have been evaluated by modeling noise levels that would be associated with an excavator and a loader operating across a 0.36-acre parcel (similar to the footprint of the proposed project's construction area) in proximity to UC Berkeley, The Standard at Berkeley, The Granada, and 2525 Durant Avenue. The noise modeling also accounts for the City's Standard Conditions of Approval, which, for the proposed project, would require the installation of temporary construction noise barriers (solid barriers or blanket barriers) to reduce noise levels at the identified surrounding receptors and achieve the Municipal Code's construction noise limits.

Table 6 shows the proposed project's calculated demolition and grading-related noise levels at UC Berkeley, The Standard at Berkeley, The Granada, and 2525 Durant Avenue. As shown, demolition and grading-related noise levels would be below their respective standards, as established by Municipal Code 13.40.070(B)(7). As a result, the Project's demolition and grading-related noise impacts would be less than significant. Noise impacts from other construction phases and activities would not exceed those due to the demolition and grading scenario evaluated by this analysis, and noise impacts at more-distant noise-sensitive receptors would not exceed the impacts that have been estimated for the selected receptors (e.g., UC Berkeley, etc.). Therefore, the analysis demonstrates that the proposed project's construction noise impact from on-site activities would be less than significant.

Table 6: Construction Noise Levels–Demolition and Grading

Receptor	Construction Noise Level (dBA L_{eq})	Significance Criteria (dBA L_{eq})	Significant?
UC Berkeley	56.9	65	No
The Standard at Berkeley	63.6	70	No
The Granada	59.9	70	No
2525 Durant Avenue	67.2	70	No

Notes:
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level

Off-site Construction Noise Impact (Construction Traffic)

Haul truck trips, construction worker vehicle trips, and other construction-related trips would occur over the course of the proposed project's construction. Haul truck trips typically have the greatest potential to result in substantial off-site noise increases along nearby roadways. The previously discussed Municipal Code noise limits have no applicability to road-legal trucks operating on public roads, but the following analysis nevertheless demonstrates that the proposed project's haul trucks would have a nominal and less than significant impact on roadside noise levels in the vicinity of the project site.

Given the proposed project's modest demolition and excavation, the proposed project is not estimated to generate more than several haul truck trips per hour on any workday. Construction also would not generate more than several vendor truck trips per hour. The project site is located in an area with existing high levels of transportation noise, around 65 dBA L_{eq}. Typically, an approximate doubling of traffic volumes is required to cause 3 dBA noise increases, which are considered barely noticeable. The proposed project's construction trucks would represent a small fraction of daily traffic, far below the numbers necessary to generate barely noticeable noise increases. As such, the proposed project's haul trucks would not result in noticeable (much less substantial) noise increases along surrounding roadways, and this impact would be less than significant.

Operational Noise Impacts

On-site Operational Noise Impact

For the purposes of this analysis, a significant impact would occur if the proposed project's on-site noise sources (mechanical equipment, parking lot operations, etc.) would generate a substantial permanent increase in ambient noise levels surrounding the proposed project. The Municipal Code includes quantitative noise limits that would apply to the proposed project's operational noise sources. Municipal Code Section 13.40.050 and Section 13.40.060 contain exterior and interior noise limits, respectively, that would apply to noise generated by the proposed project on-site. Therefore, the proposed project's noise impact from on-site operational sources would be considered significant if any of the following were to occur:

- Noise levels would exceed the exterior noise limits established by Municipal Code Section 13.40.050.
- Noise levels would exceed the interior noise limits established by Municipal Code Section 13.40.060.

The proposed project's on-site noise sources and their potential to result in significant noise impacts are discussed below. As demonstrated, the proposed project would not result in substantial sources of on-site noise, and this impact would be less than significant.

Parking

The proposed project would not include parking spaces and related facilities. As such, there would be no potential for parking-related noise sources to result in exceedances of the Municipal Code's exterior and interior noise limits.

Mechanical Equipment

Noise levels from typical residential heating, ventilation, and air conditioning (HVAC) systems typically do not exceed approximately 60 dBA at a distance of 10 feet. This is below ambient noise levels for the location and surrounding receptors, which, as noted earlier, are approximately 65 dBA L_{dn}. The exterior noise limits established by Municipal Code Section 13.40.050 are adjusted to reflect, at a minimum, the ambient noise level. Thus, the proposed project's HVAC-related noise levels would not exceed ambient noise levels and therefore would not exceed Municipal Code Section 13.40.050 exterior noise limits. Regarding Municipal Code Section 13.40.060, the proposed project's exterior HVAC noise levels up to 60 dBA would not result in interior noise levels in excess of the minimum 40 dBA standard at surrounding residential receptors, as windows typically provide a minimum 20 dBA of exterior-to-interior noise reduction (and with modern construction, exterior-to-interior noise reduction is closer to 30 dBA or greater). Impacts to more distant noise-sensitive receptors would be reduced and similarly below Municipal Code noise limits.

Off-site Operational Noise Impact (Traffic)

For the purposes of this analysis, a significant impact would occur if the proposed project's off-site operational sources (i.e., traffic) would generate a substantial permanent increase in ambient noise levels surrounding the proposed project and any nearby roadways. The City has not adopted traffic-related noise thresholds for CEQA consideration, and neither the Berkeley General Plan nor the Municipal Code contain noise limits, standards, or other thresholds that would apply to traffic generated by the proposed project. However, it is evident that the proposed project would not generate substantial increases in ambient noise levels due to traffic generation. The proposed project is an infill development in a walkable neighborhood that is well-served by high-quality regional and local transit options. The proposed project would not include any parking, as it is anticipated that most residents will not own personal automobiles. Given these considerations, the proposed project reasonably would not result in substantial traffic generation capable of noticeably increasing noise levels on surrounding roadways, which already experience high levels of traffic and resultant noise levels (as noted, approximately 65 dBA L_{dn}). The proposed project would not come close to generating the approximate doubling of traffic

necessary to increase existing ambient noise levels by 3 dBA, which represents a barely perceptible noise increase. Overall, the proposed project is the type of project that is encouraged by local, regional, and State planning agencies to reduce traffic levels and the environmental impacts (i.e., noise) associated therewith. Given these considerations, the proposed project would not result in substantial permanent increases in roadways noise levels, and this impact would be less than significant.

EXCESSIVE GROUNDBORNE VIBRATION LEVELS

Construction Vibration Impacts

There are no federal, State, or City standards that would regulate the proposed project's vibration impacts from temporary construction activities, nor are there quantitative thresholds. Therefore, the criteria identified by the FTA in its 2018 Transit Noise and Vibration Impact Assessment manual are used where applicable and relevant to assist in evaluating the proposed project's vibration impacts to surrounding buildings. The proposed project's vibration impacts would be considered significant if any of the following were to occur:

- The proposed project would generate groundborne vibration levels in excess of the FTA criteria shown in Table 1.

Construction of the proposed project would require a variety of large, steel-tracked earthmoving vehicles. According to the FTA, large bulldozers and similar heavy equipment can generate groundborne vibration levels up to 0.089 in/sec peak particle velocity (PPV) at a reference distance of 25 feet. While there are numerous buildings that directly abut the project site, the types of vehicles capable of generating these vibration levels (e.g., large steel-tracked bulldozers and excavators) generally maintain a positional setback distance of at least 10 feet from nearby buildings when operating. At 10 feet, groundborne vibration levels from these vehicles are approximately 0.244 in/sec PPV or lower. This is below the FTA's 0.3 in/sec PPV criteria for engineered concrete and masonry buildings that is applicable to most buildings abutting and surrounding the project site. There are no "non-engineered timber or masonry buildings" or buildings that would be considered "extremely susceptible to vibration damage" in the vicinity of the project site. Therefore, construction of the proposed project would not expose nearby buildings to groundborne vibration levels in excess of their applicable FTA damage criteria, and this impact would be less than significant.

Operational Vibration Impacts

The proposed project would not contain any significant stationary sources of groundborne vibration, such as heavy equipment or industrial operations. Related vehicle travel (passenger vehicle trips, delivery trucks, etc.) also would not be considered a significant source of vibration, as vehicle travel rarely generates perceptible, much less substantial, groundborne vibration. Therefore, this impact would be less than significant.

EXCESSIVE NOISE LEVELS FROM AIRPORT ACTIVITY

A significant impact would occur if the proposed project would expose people residing or working in the project area to excessive noise levels from aircraft or airport operations.

The project site is not located within 2 miles of a public or public use airport, nor is it located within any airport influence area. Therefore, the proposed project would not expose people residing or working in the vicinity to noise levels from airport activity that would be in excess of normally acceptable standards for land use development. No impact would occur.

CONCLUSION

Based on the project understanding described above, the proposed project would result in less than significant impacts related to noise. Thank you for the opportunity to conduct this noise impact analysis. Please feel free to contact Phil Ault (559.930.6191 or pault@fcs-intl.com) should you have any questions.

Sincerely,

Philip Ault, Director of Noise and Air Quality
FirstCarbon Solutions
2999 Oak Road, Suite 250
Walnut Creek, CA 94597

Attachment A: Fundamentals of Noise
Attachment B: Noise Monitoring and Modeling Data

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Attachment A:
Fundamentals of Noise

NOISE AND VIBRATION FUNDAMENTALS

Characteristics of Noise and Descriptors

Sound can be described in terms of its loudness (amplitude) and frequency (pitch). The standard unit of measurement for sound is the decibel, abbreviated dB. Because the human ear is not equally sensitive to sound at all frequencies, the A-weighted scale (dBA) is used to reflect the normal hearing sensitivity range of the human ear. Table 1 provides examples of A-weighted noise levels from common sources. Although the terms "sound" and "noise" are often used synonymously, noise is commonly defined as sound that is either loud, unpleasant, unexpected, or undesired.[1] Because decibels are logarithmic units, they cannot be simply added or subtracted. For example, two cars each producing 60 dBA of noise would not produce a combined 120 dBA.

Table 1: A-Weighted Decibel Scale

Common Noise Sources	Sound Level, dBA
Near Jet Engine	130
Rock and Roll Band	110
Jet Flyover at 1,000 feet	100
Power Motor	90
Food Blender	80
Living Room Music	70
Human Voice at 3 feet	60
Residential Air Conditioner at 50 feet	50
Bird Calls	40
Quiet Living Room	30
Average Whisper	20
Rustling Leaves	10
Notes: These noise levels are approximations intended for general reference and information use. They do not meet the standard required for detailed noise analysis but are provided for the reader to gain a rudimentary concept of various noise levels. Source: Cowan, James P. 1993. Handbook of Environmental Acoustics.	

Table 2 briefly defines common noise measurement descriptors and other sound terminology used in this memorandum.

[1] California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.

Table 2: Sound Terminology

Term	Definition
Sound	A vibratory disturbance created by a vibrating object which, when transmitted by pressure waves through a medium such as air, can be detected by a receiving mechanism such as the human ear or a microphone.
Noise	Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
Ambient Noise	The composite of noise from all sources near and far in a given environment.
Decibel (dB)	A unitless measure of sound on a logarithmic scale which represents the squared ratio of sound pressure amplitude to a reference sound pressure. The reference pressure is 20 micropascals, representing the threshold of human hearing (0 dB).
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level that approximates the frequency response of the human ear.
Equivalent Noise Level (L_{eq})	The average sound energy occurring over a specified time period. In effect, L_{eq} is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that actually occurs during the same period.
Maximum and Minimum Noise Levels (L_{max} and L_{min})	The maximum or minimum instantaneous sound level measured during a measurement period.
Day-Night Level (DNL or L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring between 10:00 p.m. and 7:00 a.m. (nighttime).
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring between 10:00 p.m. and 7:00 a.m.
Statistical Descriptor (L_X)	L_X is used to represent the noise level exceeded X% of a specified time period. For example, L_{90} represents the noise level that is exceeded 90% of a specified time period. L_{90} is commonly used to represent ambient or background steady-state noise levels.
Source: Data compiled by FirstCarbon Solutions (FCS) 2024.	

Effects of Environmental Noise

The degree to which noise can impact an environment ranges from levels that interfere with speech and sleep to levels that can cause adverse health effects. Most human response to noise is subjective. Factors that influence individual responses may include the intensity, frequency, and pattern of noise;

the amount of background or existing noise present; and the nature of work or human activity that is exposed to intruding noise.

According to the National Institute of Health (NIH), extended or repeated exposure to sounds at or above 85 dB can cause hearing loss. Sounds of 75 dBA or less, even after continuous and repeated exposure, are unlikely to cause hearing loss.[2] The World Health Organization (WHO) reports that adults should not be exposed to sudden "impulse" noise events of 140 dB or greater. For children, this limit is 120 dB.[3]

Exposure to elevated nighttime noise levels can disrupt sleep, leading to increased levels of fatigue and decreased work or school performance. For the preservation of healthy sleeping environments, the WHO recommends that continuous interior noise levels should not exceed 30 dBA L_{eq} and that individual noise events of 45 dBA or higher be limited.[4]

Some epidemiological studies have shown a weak association between long-term exposure to noise levels of 65 to 70 dBA L_{eq} or greater and cardiovascular effects, including ischemic heart disease and hypertension. However, at this time, the relationship is largely inconclusive.

It is generally accepted that people with normal hearing sensitivity can barely perceive a 3 dBA change in noise levels, though if changes occur to the character of a sound (i.e., changes to the frequency content), then changes less than 3 dBA may be more noticeable.[5] Changes of 5 dBA may be readily perceptible, and changes of 10 dBA are perceived as a doubling in loudness.[6] However, few people are highly annoyed by daytime noise levels below 55 dBA.[7]

Loud noises, such as those from construction activities, can interfere with peoples' abilities to effectively communicate via speech, as well as other activities, resulting in annoyance or inconvenience. The EPA has found that a home interior noise level of 45 dBA L_{eq} generally protects speech and communication by providing 100 percent intelligibility of speech sounds.[8] Other common daily activities that may be disrupted by elevated interior noise levels include watching television, listening to music, or activities requiring concentration (such as reading). The EPA has determined that, given the preservation of an indoor noise level associated with 100 percent speech intelligibility (i.e., 45 dBA L_{eq}), the average community reaction is not evident and "7 dBA below levels associated with significant complaints and threats of legal action." Any complaints and annoyance are dependent on "attitude and other non-level related factors."

Noise Attenuation

Generally speaking, noise levels decrease, or "attenuate," as distances from noise sources to receivers increases. For each doubling of distance, noise from stationary or small, localized sources, commonly

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2 National Institute of Health (NIH), National Institute on Deafness and Other Communication. www.nidcd.nih.gov/health/noise-induced-hearing-loss.
3 World Health Organization (WHO). 1999. Guidelines for Community Noise.
4 Ibid.
5 California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.
6 Ibid.
7 World Health Organization (WHO). 1999. Guidelines for Community Noise.
8 United States Environmental Protection Agency (EPA). 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.

referred to as “point sources,” may attenuate at a rate of 6 dBA for each doubling of distance. This attenuation is referred to as the inverse square law. For example, if a point source emits a noise level of 80 dBA at a reference distance of 50 feet, its noise level would be approximately 74 dBA at a distance of 100 feet, 68 dBA at a distance of 200 feet, etc. Noise emitted by “line” sources, such as highways, attenuates at the rate of 3 dBA for each doubling of distance.[9]

Factors such as ground absorption and atmospheric effects may also affect the propagation of noise. In particular, ground attenuation by non-reflective surfaces, such as soft dirt or grass, may contribute to increased attenuation rates of up to an additional 8-10 dBA per doubling of distance.[10]

Noise is most audible when traveling by direct line of sight, an unobstructed visual path between a noise source and a receiver. Barriers that break the line of sight between noise sources and receivers, such as walls and buildings, can greatly reduce source noise levels by allowing noise to reach receivers by diffraction only. Barriers can reduce source noise levels by up to 20 dBA, though it is generally infeasible for temporary barriers to reduce source noise levels by more than 15 dBA.[11] In cases where the noise path from source to receiver is direct but grazes the top of a barrier, noise attenuation of up to 5 dBA may still occur.[12]

Characteristics of Vibration and Descriptors

Vibration is an oscillatory motion that can be described in terms of displacement, velocity, and acceleration.[13] Unlike noise, vibration is not a common environmental issue, as it is unusual for vibration from vehicle sources to be perceptible. Common sources of vibration may include trains, construction activities, and certain industrial operations.

Table 3 briefly defines common vibration measurement descriptors and other terminology used in this analysis.

Table 3: Vibration Terminology

Term	Definition
Peak Particle Velocity (PPV)	PPV is commonly used to describe and quantify vibration impacts to buildings and other structures. PPV levels represent the maximum instantaneous peak of a vibration signal and are generally measured in inches per second (in/sec).
Vibration Decibels (VdB)	The vibration velocity level in decibel scale.
Source: Data compiled by FirstCarbon Solutions (FCS) 2024.	

[9] California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.
[10] Ibid.
[11] Ibid.
[12] Ibid.
[13] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment.

Effects of Vibration

High levels of vibration may cause damage to buildings or even physical personal injury. However, vibration levels rarely affect human health outside the personal operation of certain construction equipment or industrial tools. Instead, most people consider environmental vibration to be an annoyance that may affect concentration or disturb sleep. Background vibration in residential areas is usually not perceptible, and perceptible indoor vibrations are generally caused by sources within buildings themselves, such as slamming doors or heavy footsteps. Vibration from traffic on smooth roadways is rarely perceptible, even from larger vehicles such as buses or trucks.[14] The threshold of human perception of vibration is approximately 0.01-0.02 in/sec peak particle velocity (PPV).[15]

[14] California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual.
[15] Ibid.

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Attachment B:
Noise Monitoring and Modeling Data

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Project Number: 5944.0001 Sheet ___of ___
Project Name: 2530 Bancroft Way
Test Personnel: Henrique Zhu

NOISE MEASUREMENT SURVEY

Site Number: ST1 Date: 03/13/24 Time: From 12:53 To 13:07

Site Location: 10 feet south of Bancroft Way, 30 feet East of Oxford Street and Bacroft Way Intersection

Primary Noise Sources: Bancroft Way traffic, Pedestrian Traffic, Oxford Street traffic, Distant Construction Noise.

Measurement Results

	dBA
L_{eq}	64.1
L_{max}	81.3
L_{min}	54.5
L_{peak}	102.8
L_5	68.5
L_{10}	67.2
L_{50}	61.5
L_{90}	57.3
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA
	Noise peaks due to heavy-duty trucks and pusses.	

Comments: Heavy construction throughout Bancroft Way. Measurement location chosen as distant as possible from active construction activities.
Traffic on Bancroft Way congested due to construction.

Equipment: LxT 2 Measured Difference: -0.03 dBA
Settings: A-Weighted ☐ Other☐_____ Slow☐ Fast☐ Windscreen■

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
Comments:	Little-no wind, 63 F			

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Photos Taken:

Photo Number	Location/Description
1	Facing North
2	Facing East
3	Facing South
4	Facing West

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
Bancroft Way	2	25	10		

Diagram/Further Comments:

Lanes reduced from 3 to 2 due to construction.

FIRSTCARBON SOLUTIONS
FCS INTERNATIONAL, INC.

Project Number: 5944.0001 Sheet ___of ___
Project Name: 2530 Bancroft Way
Test Personnel: Henrique Zhu

NOISE MEASUREMENT SURVEY

Site Number: ST2 Date: 03/13/24 Time: From 13:18 To 13:33

Site Location: 10 feet north of Bancroft Way, opposite 2440 Bancroft Way building.

Primary Noise Sources: Bancroft Way traffic, Pedestrian Traffic, Distant Construction Noise.

Measurement Results

	dBA
L_{eq}	65.7
L_{max}	80.8
L_{min}	55.4
L_{peak}	105.7
L_5	71.1
L_{10}	68.1
L_{50}	63.2
L_{90}	58.0
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: Heavy construction throughout Bancroft Way. Measurement location chosen as distant as possible from active construction activities. Construction 50ft East and 100 feet west of measurement location. Traffic on Bancroft Way congested due to construction.

Equipment: LxT 2 Measured Difference: -0.03 dBA
Settings: A-Weighted ☐ Other☐ Slow☐ Fast☐ Windscreen☒

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
Comments:	Little-no wind, 63 F			

FIRSTCARBON SOLUTIONS
FCS INTERNATIONAL, INC.

Photos Taken:

Photo Number	Location/Description
1	Facing North
2	Facing East
3	Facing South
4	Facing West

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
Bancroft Way	3	25	10		

Diagram/Further Comments:

FIRSTCARBON SOLUTIONS
FCS INTERNATIONAL, INC.

Project Number: 5944.0001 Sheet ___of ___
Project Name: 2530 Bancroft Way
Test Personnel: Henrique Zhu

NOISE MEASUREMENT SURVEY

Site Number: ST3 Date: 03/13/24 Time: From 13:37 To 13:52

Site Location: On NE corner of project site, 10 feet south of Bancroft Way.

Primary Noise Sources: Bancroft Way traffic, Pedestrian Traffic, bus idling on bus stop adjacent to project site.

Measurement Results

	dBA
L_{eq}	67.3
L_{max}	81.6
L_{min}	56.8
L_{peak}	99.9
L_5	71.8
L_{10}	70.4
L_{50}	64.8
L_{90}	60.5
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: Construction activity paused during the taking of this measurement.
Traffic on Bancroft Way congested due to construction.

Equipment: LxT 2 Measured Difference: -0.03 dBA
Settings: A-Weighted ☐ Other☐_____ Slow☐ Fast☐ Windscreen■

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
Comments:	Little-no wind, 63 F			

FIRSTCARBON SOLUTIONS
FCS INTERNATIONAL, INC.

Photos Taken:

Photo Number	Location/Description
1	Facing North
2	Facing East
3	Facing South
4	Facing West

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
Bancroft Way	2	25	10		

Diagram/Further Comments:

Lanes reduced from 3 to 2 due to construction.

Construction Noise Impact Worksheet: 2530 Bancroft Mixed-Use Project

Noise Source: Excavator and Loader - 0.36 acre parcel [1]

No.	Receptor	Excavator Noise Level (dBA Leq)	Loader Noise Level (dBA Leq)	Combined Noise Level (dBA Leq)	Noise Barrier Attenuation (dBA) [2]	Construction Noise Level (dBA Leq)
1	UC Berkeley	65.3	61.8	66.9	10	56.9
2	The Standard at Berkeley	72.0	68.5	73.6	10	63.6
3	The Granada	68.3	64.8	69.9	10	59.9
4	2525 Durant Avenue	65.6	62.1	67.2	0	67.2
5						
6						
7						
8						
9						
10						

Notes:
[1] Noise level calculated based on one excavator and one loader operating over an approximately 0.36-acre parcel of land. Reference noise levels and usage factors based on FHWA RCNM 2.0 data.
[2] Attenuation based on noise barriers required by City's Standard Conditions of Approval. Applied to receptors with direct line-of-sight to project site.

Sources:
Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual.
Federal Highway Administration. Roadway Construction Noise Model (RCNM) Version 2.0.

Exhibit E

Water Quality Memorandum for the Proposed 2530 Bancroft Way Mixed Use Project in Berkeley, California

FIRSTCARBON
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Memorandum

Date: April 1, 2024

To: Jared Munneke, Development Manager–Legacy Bancroft Property Owner, LLC

From: Mary Bean, Vice President, FirstCarbon Solutions

Subject: Water Quality Memorandum for the Proposed 2530 Bancroft Way Mixed Use Project in Berkeley, California

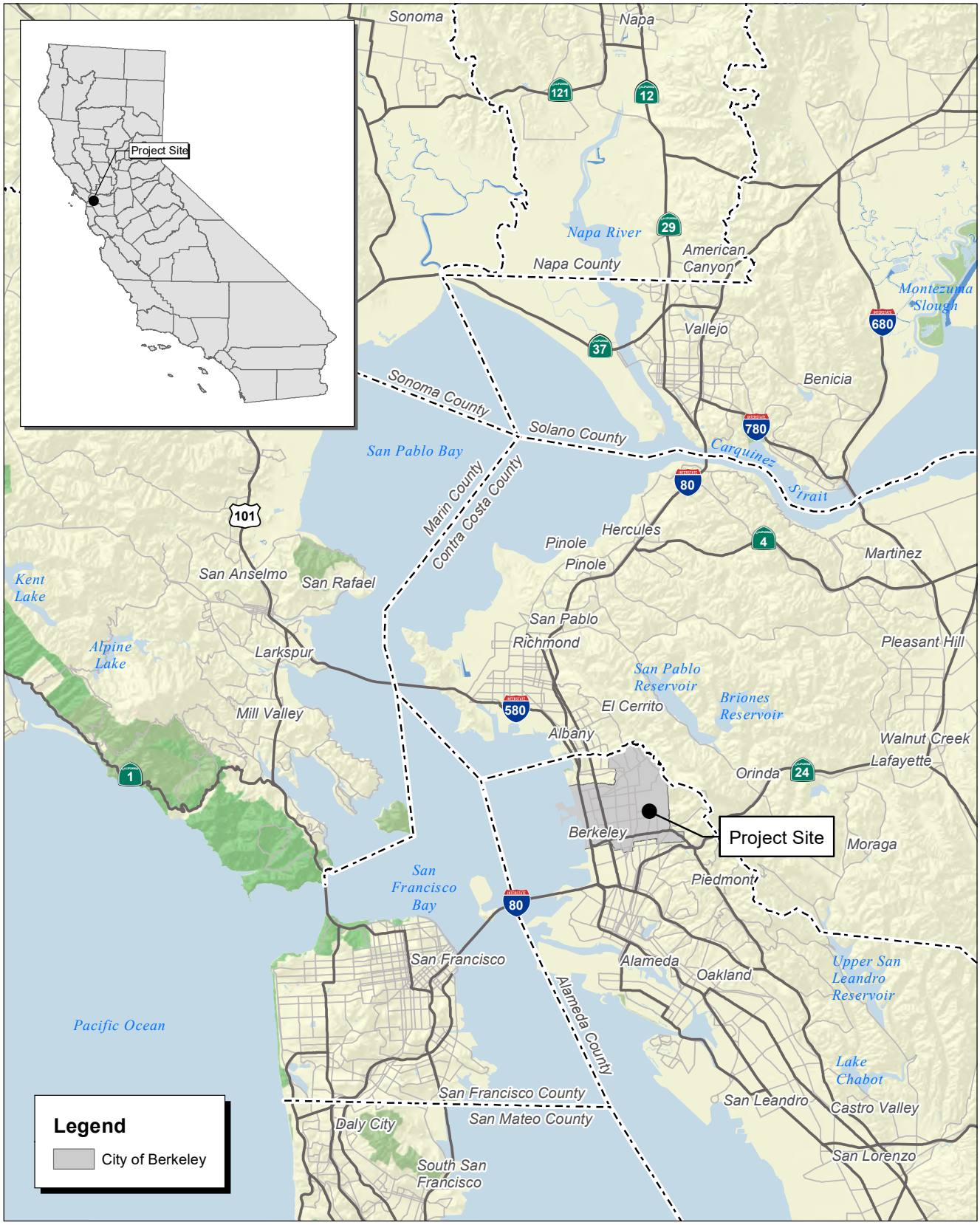
At the request of the project applicant, FirstCarbon Solutions (FCS) prepared this water quality memorandum to describe and summarize findings relating to water quality for the proposed 2530 Bancroft Way Mixed Use Project (proposed project). The project site is located in the City of Berkeley (City), in Alameda County, California (Exhibit 1). The site consists of Assessor's Parcel Number (APN) 055-1877-016-01 at 2530 Bancroft Way (Exhibit 2).

PROJECT UNDERSTANDING

The project applicant proposes to demolish a portion of the existing commercial structures to construct a 12-story mixed-use housing development with 110 dwelling units over ground level commercial space and lobbies, with 2,195 square feet of retail space, on an approximately 0.36-acre site. Open space would consist of 602 square feet of courtyard space, 2,520 square feet of private patios, and a 3,160-square-foot roof deck. The site would be accessed from Bancroft Way (Exhibit 2).

The project site is bounded by commercial uses to the south on Durant Avenue and multi-family residential and mixed-use buildings to the east, west, and south. Additional commercial uses exist to the east of the building on Bancroft and on Telegraph. The University of California, Berkeley campus is located north of the project site across Bancroft Way.

The project site is designated as "Southside" by the City of Berkeley General Plan (General Plan) and "Telegraph Commercial Subarea" by the Southside Area Plan. Additionally, it is zoned as Telegraph Commercial "C-T" by the City of Berkeley Zoning Ordinance. The C-T zoning district permits mixed-use buildings with housing above retail uses.



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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5 2.5 0 5
Miles

Exhibit 1
Regional Location Map

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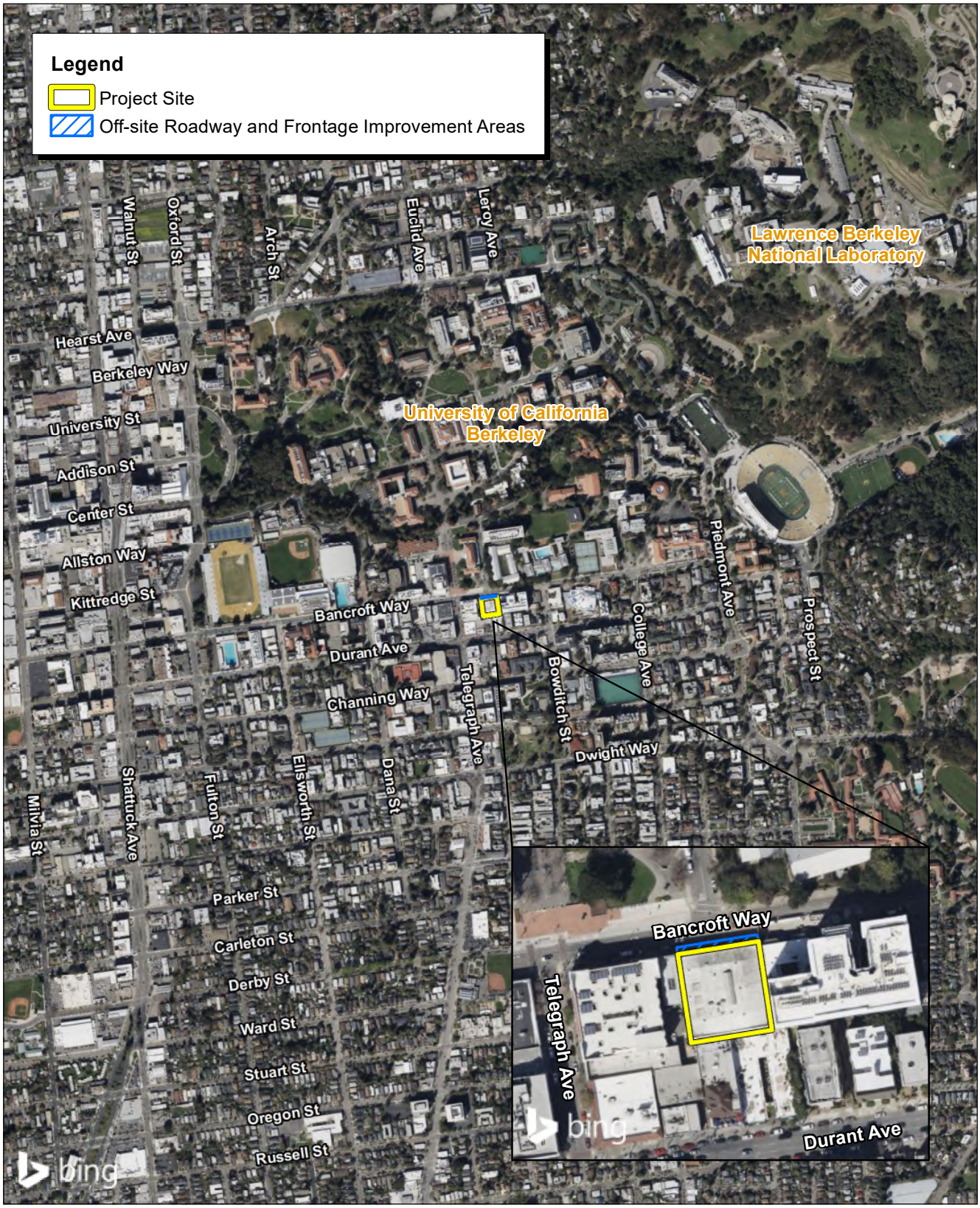
LANDMARK PROPERTIES, INC.
BANCROFT WAY MIXED-USE PROJECT
WATER QUALITY MEMORANDUM



Source: Bing Aerial Imagery. City of Berkeley.

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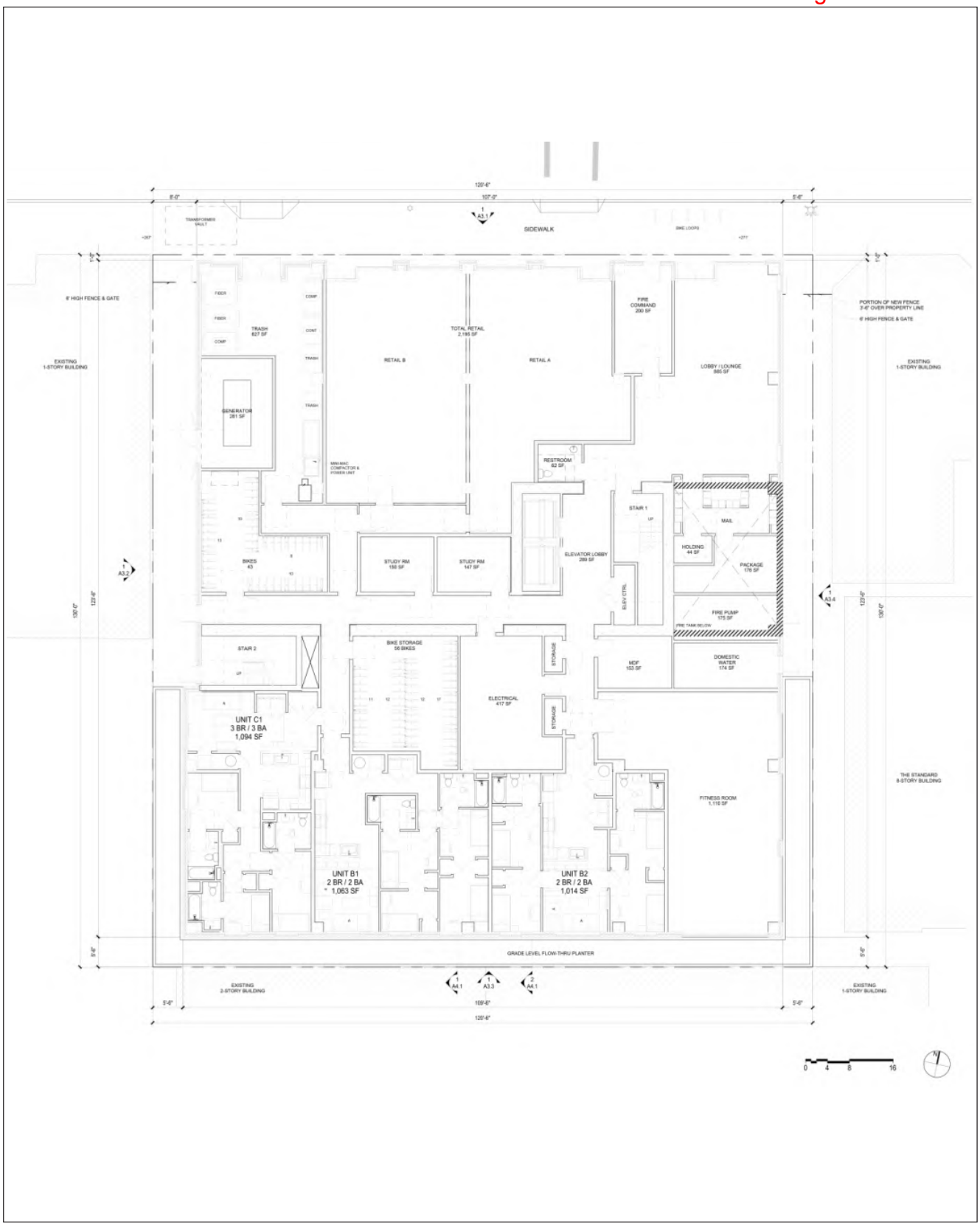
1,000 500 0 1,000
Feet

Exhibit 2
Local Vicinity Map

59440001 • 03/2024 | 2_local_vicinity.mxd



Source: Trachtenberg Architects, MYEFSKI Architects, Landmark Properties. 08/02/2023.

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Exhibit 3
Site Plan

The proposed project would require a Use Permit, Zoning Certificate, and Design Review (this is not an exhaustive list).

The project site has a maximum allowed density of 73 dwelling units, but the proposed project would be eligible for a maximum of 110 dwelling units through a State Density Bonus by providing 11 very low-income affordable units (equivalent to 15 percent of the base allowed density). As part of the requested State Density Bonus, the proposed project would request concessions to zoning standards relating to floor area ratio (FAR), building height requirements, and building stories requirements.

WATER QUALITY ANALYSIS

The proposed project is in the City of Berkeley and within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB), which implements the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan).[1] The Basin Plan designates beneficial uses for surface water bodies and groundwater that the California State Water Resources Control Board (State Water Board) will protect, as well as water quality objectives, and strategies for achieving these objectives, such as discharge prohibitions to attain water quality goals. The Basin Plan identifies key pollutants of concern to monitor and reduce in the San Francisco Bay, including pesticides, diazinon, mercury, polychlorinated biphenyls (PCBs), selenium, bacteria, pathogens, and sediment.[2] The San Francisco Bay RWQCB enforces the National Pollutant Discharge Elimination System (NPDES) permit system, Water Discharge Requirements (WDRs), Clean Water Act (CWA) Section 401 water quality certifications, and other water quality-related approvals in the San Francisco Bay Area, including the project site.

The proposed project would be served with water and wastewater services provided by the East Bay Municipal Utility District (EBMUD). As part of their Annual Water Quality Report, EBMUD conducts water quality sampling for several contaminants at their Water Treatment Plants (WTPs), including those for Walnut Creek, Lafayette, Orinda, Sobrante, and Upper San Leandro.[3] The 2022 Annual Water Quality Report measured the EBMUD's water at WTPs for levels of microbiological pollutants, inorganic pollutants, disinfection byproducts, chloride, odor, dissolved solids, ionic compounds, sulfates, and other parameters of interest.[4] The EBMUD determined that water quality standards surpassed every public health requirement set by the State Water Board and the United States Environmental Protection Agency (EPA).[5]

The project site is currently occupied by retail commercial uses and is consequently completely covered with impervious surfaces. In addition, the area surrounding the project site is also completely covered with impervious surfaces, including stormwater drains and flow-thru planters connecting to the City's

[1] California State Water Resources Control Board (State Water Board). 2023. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Website: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html. Accessed March 18, 2024.
[2] Ibid.
[3] East Bay Municipal Utility District (EBMUD). 2023. 2022 Annual Water Quality Report. March.
[4] Ibid.
[5] Ibid.

stormwater drainage system. The proposed project would construct 1,631 square feet of green roof landscaping and an additional 954 square feet of ground-floor landscaping dedicated as a stormwater treatment area. As such, the proposed project decreases impervious surfaces on-site by approximately 17 percent from existing conditions, decreasing the amount of stormwater runoff from the project site compared to existing conditions.[6] In addition, the proposed project's 954 square feet of rooftop stormwater treatment would reduce the pollutant load from stormwater runoff into the City's stormwater drainage system, preventing water quality standard violations.

Construction and operation of the proposed project would be subject to federal and State water quality regulations, which are enforced by the San Francisco Bay RWQCB. The City of Berkeley is a permittee under the Municipal Regional Stormwater NPDES Permit (MRP) Order R2-2009-0074, NPDES Permit No. CAS612008. In accordance with the MRP, the City establishes quality and monitoring requirements for discharging urban runoff. These requirements include the use of best management practices for new and significant redevelopment projects, public education and outreach, industrial inspections, and guidance to the City's own Public Works staff to reduce or remove pollutant loads from urban runoff to the maximum extent practicable.

To comply with the MRP, the City requires that all development plans that replace or construct over 2,500 square feet, including the proposed project, comply with standards contained in the C.3 and C.6 Stormwater Requirements Checklist.[7] In addition, the proposed project would also be required to obtain a State General Construction Permit, which requires the proposed project to submit a Storm Water Pollution Prevention Plan (SWPPP) to the City prior to the issuance of a building permit. As the proposed project would also construct over 500 square feet of landscaping, the proposed project would further be required to comply with the State's Model Water Efficient Landscape Ordinance (MWELO), as well as the EBMUD's Section 31 Water Efficiency Requirements and MWELO Compliance document.

Furthermore, the proposed project would also be required to comply with applicable regulations, policies, and actions relating to water quality contained in the City's General Plan, Downtown Area Plan, and Municipal Code. The proposed project would additionally be required to comply with the City's Standard Conditions of Approval (COAs) prior to the acquisition of a building permit. Conformance with existing permits and the application of existing local and State regulations would prevent water quality standard violations and increases in surface runoff. Local policies, actions, and regulations applicable to the proposed project and relevant to water quality include, but are not limited to, the following.

General Plan Policies and Actions

Policy EM-5 "**Green" Buildings.** Promote and encourage compliance with "green" building standards.

[6] The project site is approximately 0.36 acre, or approximately 15,665 square feet. The proposed project would construct approximately 954 square feet of stormwater treatment area on the ground floor and 1,631 square feet of pervious surfaces on the roof, for a total of 2,585 square feet of the project site, resulting in a proposed approximately 17 percent increase of pervious surfaces on-site.

[7] City of Berkeley. 2016. Stormwater Requirements Checklist. January 14.

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.
B. Encourage landscaping for water and energy efficiency.
C. Encourage buildings to incorporate renewable energy and energy- and water-efficient technologies.
D. Encourage use of recycled-content construction materials.
E. Encourage efforts to improve indoor air quality and to provide a comfortable and healthy environment.
F. Encourage reduction of construction and demolition waste.
G. Encourage construction of durable buildings.
H. Establish a green design assistance and green building certification program.

Policy EM-24 **Sewers and Storm Sewers.** Protect and improve water quality by improving the citywide sewer system.

Actions

E. Ensure that new development pays its fair share of improvements to the storm sewerage system necessary to accommodate increased flows from the development.

Policy EM-25 **Groundwater.** Protect local groundwater by promoting enforcement of State water quality laws that ensure nondegradation and beneficial use of groundwater.

Policy EM-26 **Water Conservation.** Promote water conservation through City programs and requirements.

Actions

A. Encourage drought-tolerant landscaping and low-flow irrigation systems.
B. Consider participation in the East Bay Municipal Utility District's East Bay-shore Recycled Water Project to make recycled water available for irrigation and other nonpotable uses.

Policy EM-31 **Landscaping.** Encourage drought-resistant, rodent-resistant, and fire-resistant plants to reduce water use, prevent erosion of soils, improve habitat, lessen fire danger, and minimize degradation of resources.

Southside Area Plan Policies and Actions

Policy CC-F2 Encourage tree and other landscape plantings on private properties, particularly in front yards, with an emphasis on native tree species. However, plantings should not be located or allowed to grow so as to interfere with sidewalk lighting.

Policy PS-A10 Ensure adequate maintenance of public spaces, streets, and infrastructure.

A. Continue to coordinate City maintenance efforts with the Telegraph Property and Business Improvement District (TPBID), property owners, and merchants to ensure that the streets, sidewalks, and public infrastructure in the Telegraph Commercial area are regularly cleaned to an established high standard.

Municipal Code Ordinances

Chapter 7.76–Clean Stormwater Fund

Municipal Code Chapter 7.76 requires that all property owners within the City connecting to the City's stormwater drainage system pay a fee for clean stormwater activities, which allow the City to raise the income and revenue necessary to improve the quality of stormwater discharged from the City's stormwater drainage system.

Chapter 17.76–Construction Requirements for Sanitary Sewers and Storm Drains

Municipal Code Chapter 17.16 establishes requirements for the connection and operation of new private development in the City to the City's sanitary sewer lines and storm drains.

City Standard Conditions of Approval

As discussed above, approval and development of the proposed project would be subject to the City of Berkeley's Standard COAs, pursuant to the City's Municipal Code Section 23.406.040 and, as applicable here, the City's MRP. The City of Berkeley has the following standard COAs relevant to water quality, which would apply to the proposed project. Unless otherwise discussed, the proposed project is assumed to incorporate these COAs.

Stormwater Requirements

The applicant shall demonstrate compliance with the requirements of the City's NPDES permit as described in Municipal Code Section 17.20. The following conditions apply:

A. The project plans shall identify and show site-specific Best Management Practices (BMPs) appropriate to activities conducted on-site to limit to the maximum extent practicable the discharge of pollutants to the City's storm drainage system, regardless of season or weather conditions.

B. Trash enclosures and/or recycling area(s) shall be covered; no other area shall drain onto this area. Drains in any wash or process area shall not discharge to the storm drain system; these drains should connect to the sanitary sewer. Applicant shall contact the City of Berkeley and the East Bay Municipal Utility District (EBMUD) for specific connection and discharge requirements. Discharges to the sanitary sewer are subject to the review, approval and conditions of the City of Berkeley and EBMUD.

C. Landscaping shall be designed with efficient irrigation to reduce runoff, promote surface infiltration and minimize the use of fertilizers and pesticides that contribute to stormwater pollution. Where feasible, landscaping should be designed and operated to treat runoff. When and where possible, xeriscape and drought-tolerant plants shall be incorporated into new development plans.

D. Design, location and maintenance requirements and schedules for any stormwater quality treatment structural controls shall be submitted to the Department of Public Works for review with respect to reasonable adequacy of the controls. The review does not relieve the property owner of the responsibility for complying with Municipal Code Chapter 17.20 and future revisions to the City's overall stormwater quality ordinances. This review shall be conducted prior to the issuance of a building permit.

E. All paved outdoor storage areas must be designed to reduce/limit the potential for runoff to contact pollutants.

F. All on-site storm drain inlets/catch basins must be cleaned at least once a year immediately prior to the rainy season. The property owner shall be responsible for all costs associated with proper operation and maintenance of all storm drainage facilities (pipelines, inlets, catch basins, outlets, etc.) associated with the project, unless the City accepts such facilities by Council action. Additional cleaning may be required by City of Berkeley Public Works Engineering Dept.

G. All private or public projects that create and/or replace 10,000 square feet or more of impervious surface must comply with Provision C.3 of the Alameda County NPDES permit and must incorporate stormwater controls to enhance water quality. Permit submittals shall include a Stormwater Requirement Checklist and detailed information showing how the proposed project will meet Provision C.3 stormwater requirements, including a) Site design measures to reduce impervious surfaces, promote infiltration, and reduce water quality impacts; b) Source Control Measures to keep pollutants out of stormwater runoff; c) Stormwater treatment measures that are hydraulically sized to remove pollutants from stormwater; d) an O and M (Operations and Maintenance) agreement for all stormwater treatment devices and installations; and e) Engineering calculations for all stormwater devices (both mechanical and biological).

H. All on-site storm drain inlets must be labeled “No Dumping – Drains to Bay” or equivalent using methods approved by the City.

I. Most washing and/or steam cleaning must be done at an appropriately equipped facility that drains to the sanitary sewer. Any outdoor washing or pressure washing must be managed in such a way that there is no discharge or soaps or other pollutants to the storm drain. Sanitary connections are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge.

J. Sidewalks and parking lots shall be swept regularly to prevent the accumulation of litter and debris. If pressure washed, debris must be trapped and collected to prevent entry to the storm drain system. If any cleaning agent or degreaser is used, wash water shall not discharge to the storm drains; wash waters should be collected and discharged to the sanitary sewer. Discharges to the sanitary sewer are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge.

K. The applicant is responsible for ensuring that all contractors and sub-contractors are aware of and implement all stormwater quality control measures. Failure to comply with the approved construction BMPs shall result in the issuance of correction notices, citations, or a project stop work order.

Public Works

- All piles of debris, soil, sand, or other loose materials shall be covered at night and during rainy weather with plastic at least one-eighth millimeter thick and secured to the ground.
- The applicant shall ensure that all excavation takes into account surface and subsurface waters and underground streams so as not to adversely affect adjacent properties and right-of-way.
- The project sponsor shall maintain sandbags or other devices around the site perimeter during the rainy season to prevent on-site soils from being washed off-site and into the storm drain system. The project sponsor shall comply with all City ordinances regarding construction and grading.
- Prior to any excavation, grading, clearing, or other activities involving soil disturbance during the rainy season, the applicant shall obtain approval of an erosion prevention plan by the Building and Safety Division and the Public Works Department. The applicant shall be responsible for following these and any other measures required by the Building and Safety Division and the Public Works Department.

Summary of Impacts

The proposed project would reduce impervious surfaces on the project site and would introduce stormwater treatment facilities to the project site. In addition, construction of the proposed project would be required to adhere to the MRP through the mandatory submission of a SWPPP, which would ensure that stormwater runoff during construction contains a less than significant level of pollutant load. Furthermore, the proposed project would be required to comply with all applicable federal, State, and local regulations, policies, and actions pertaining to water quality. As such, approval of the proposed

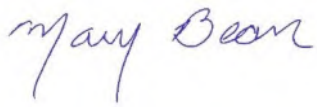
project would not result in any significant effects relating to water quality, and impacts relating to water quality would be less than significant.

CONCLUSION

Based on the project understanding described above, the proposed project would result in less than significant impacts to water quality after incorporation of the City's Standard COAs, compliance with the federal and State regulations, and compliance with City's above-listed plans, policies, and regulations.

Thank you for the opportunity to conduct water quality impacts analysis. Please feel free to contact Mary Bean (415.713.5223 or mbean@fcs-intl.com) should you have any questions.

Sincerely,



Mary Bean, Vice President
FirstCarbon Solutions
2999 Oak Road, Suite 250
Walnut Creek, CA 94597

Exhibit F

The City of Berkeley, including the Project site therein, is well outside the Coastal Zone boundary. The Coastal Zone boundary is shown on the map below.

Exhibit G

The Project site is not located on Prime Farmland or Farmland of Statewide Importance on the maps prepared by the Farmland Mapping and Monitoring Program of the Department of Conservation.

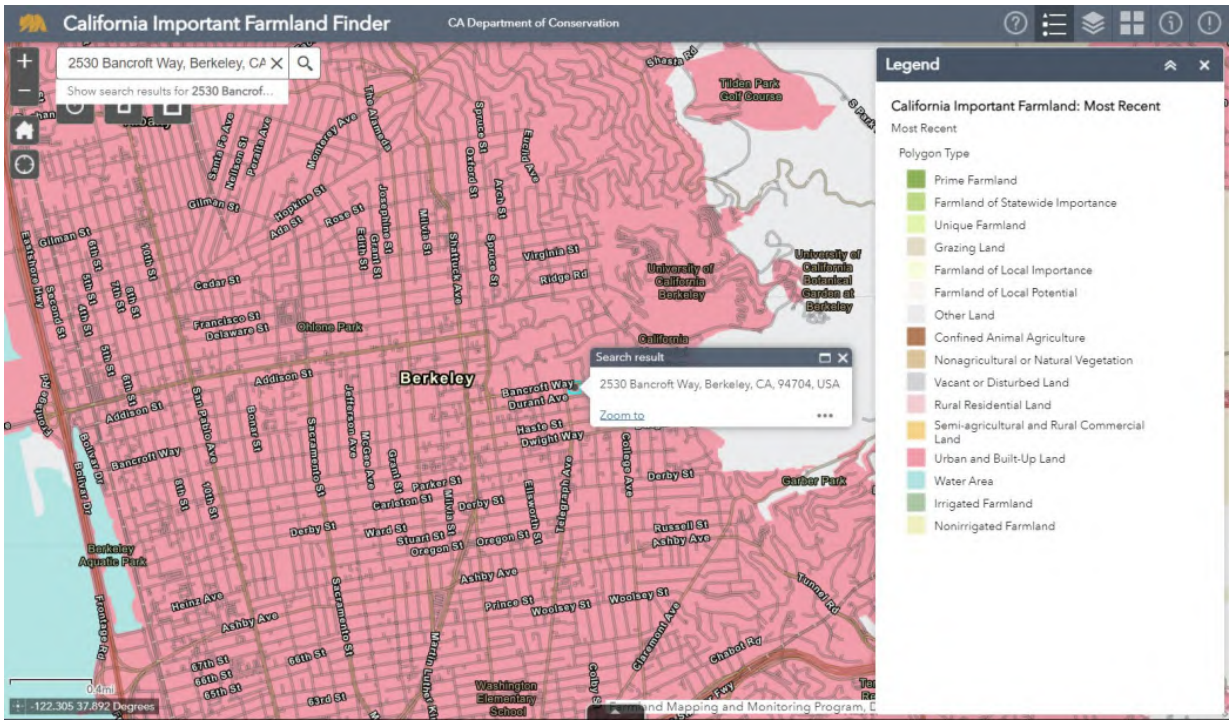


Exhibit H

This U.S. Fish & Wildlife Service Map, accessible here, https://www.fws.gov/wetlands/, depicts the nearest jurisdictional waters (light blue lines) being located on the U.C. Berkeley Campus well to the north of the site of the Project site, which is marked with a red star.

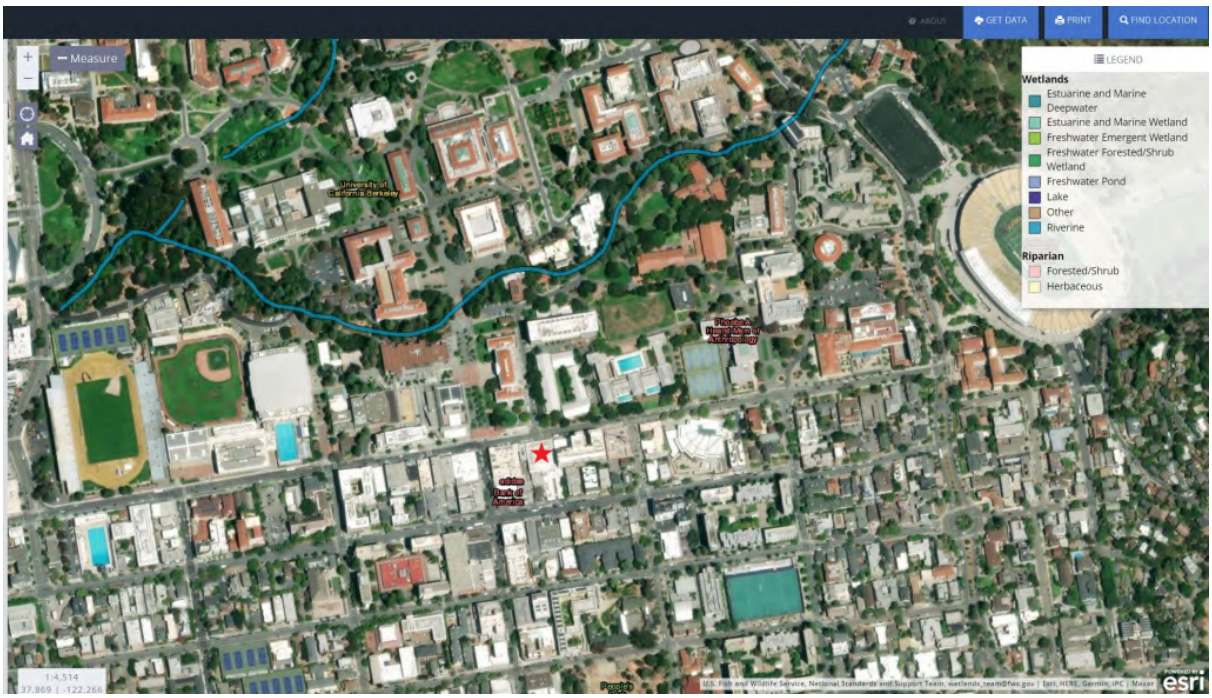


Exhibit I

The Project site is identified with a black dot on the following USGS map of U.S. Quaternary Faults.

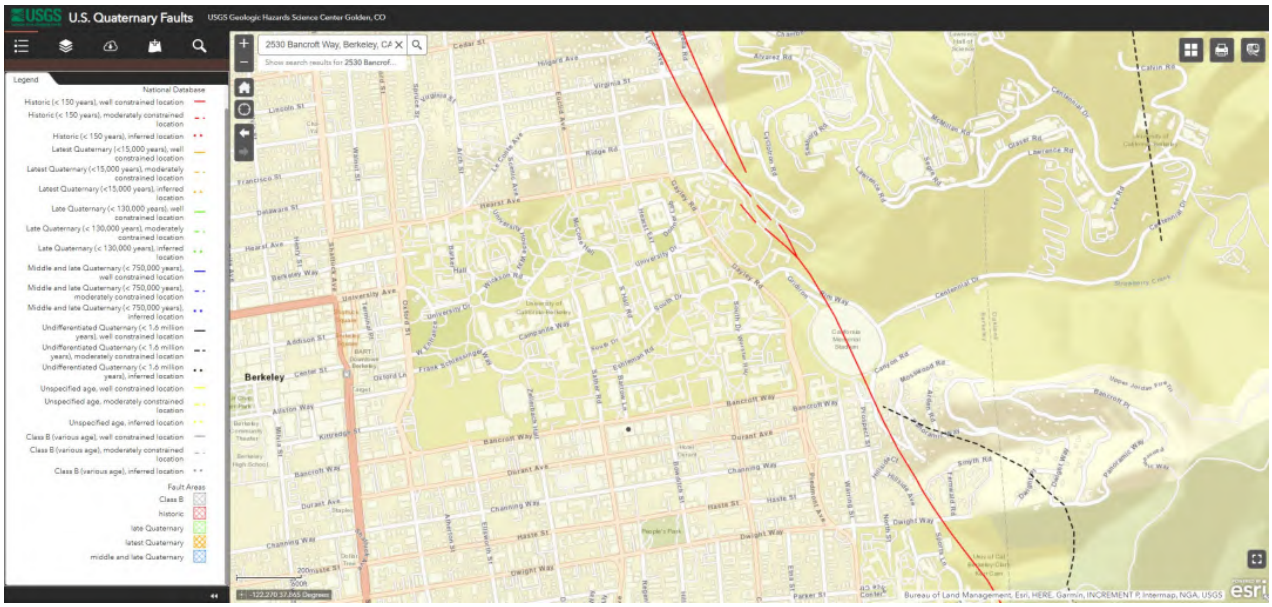


Exhibit J

The Project site is identified with a blue square on the FEMA National Flood Hazard Map below.

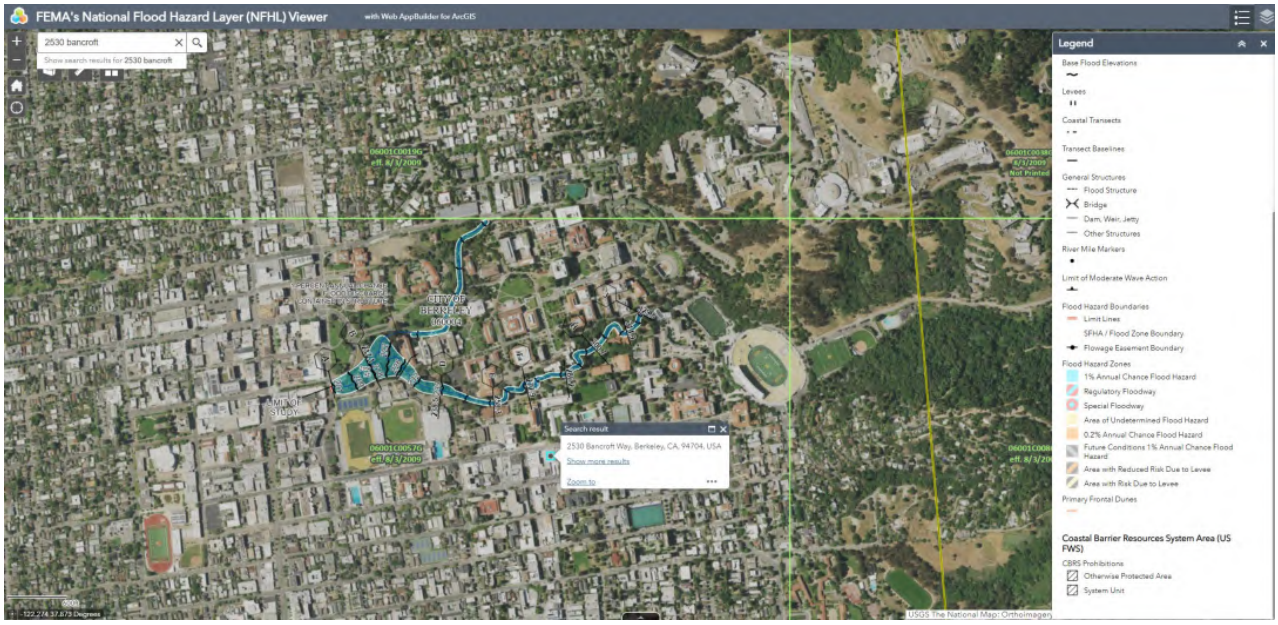
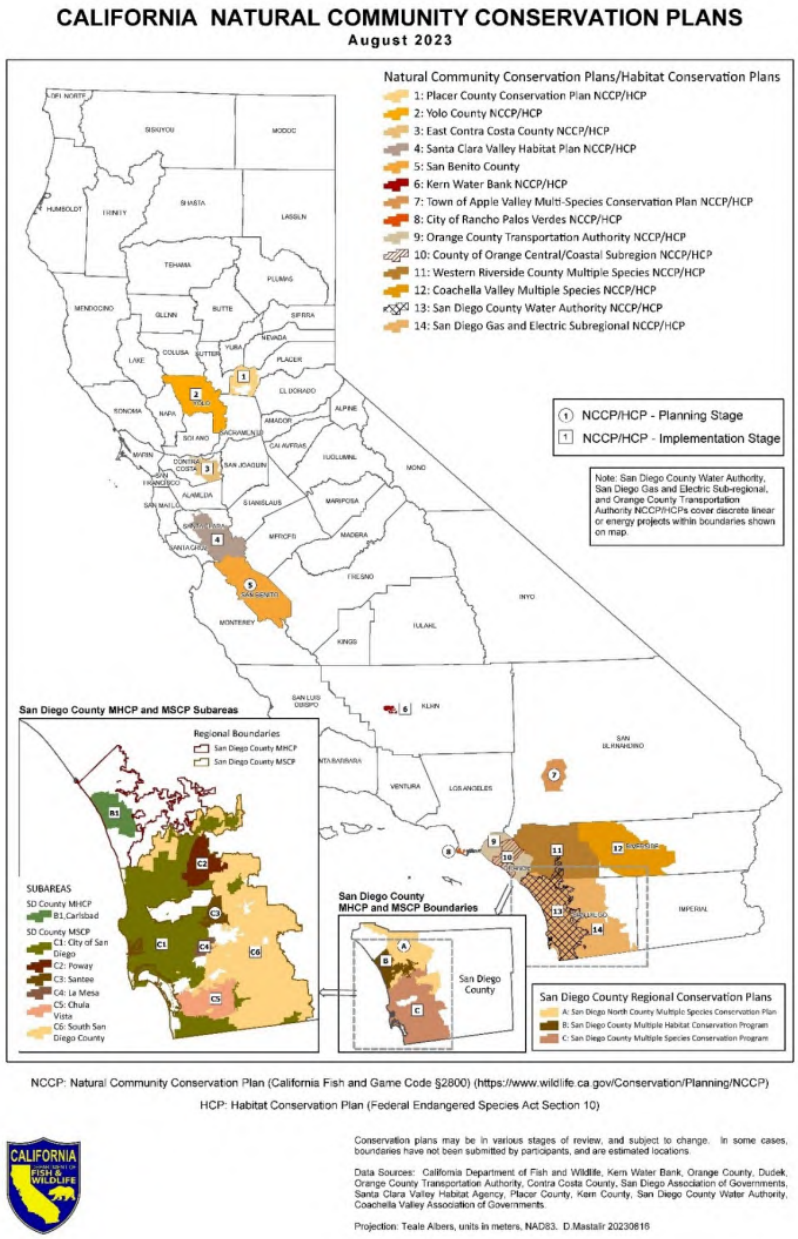


Exhibit K

As shown below, the Project site, located in west Alameda County, is not in an area subject to a natural community conservation plan, habitat conservation plan or any other adopted natural resource protection plan.



NCCP: Natural Community Conservation Plan (California Fish and Game Code §2800) (https://www.wildlife.ca.gov/Conservation/Planning/NCCP)

HCP: Habitat Conservation Plan (Federal Endangered Species Act Section 10)

Conservation plans may be in various stages of review, and subject to change. In some cases, boundaries have not been submitted by participants, and are estimated locations.

Data Sources: California Department of Fish and Wildlife, Kern Water Bank, Orange County, Dudek, Orange County Transportation Authority, Contra Costa County, San Diego Association of Governments, Santa Clara Valley Habitat Agency, Placer County, Kern County, San Diego County Water Authority, Coachella Valley Association of Governments.

Projection: Teale Albers, units in meters, NAD83. D.Mastalir 20230816

Exhibit L

The below map of conservation easements in the California Conservation Easement Database demonstrates that the Project site is not subject to any conservation easement.

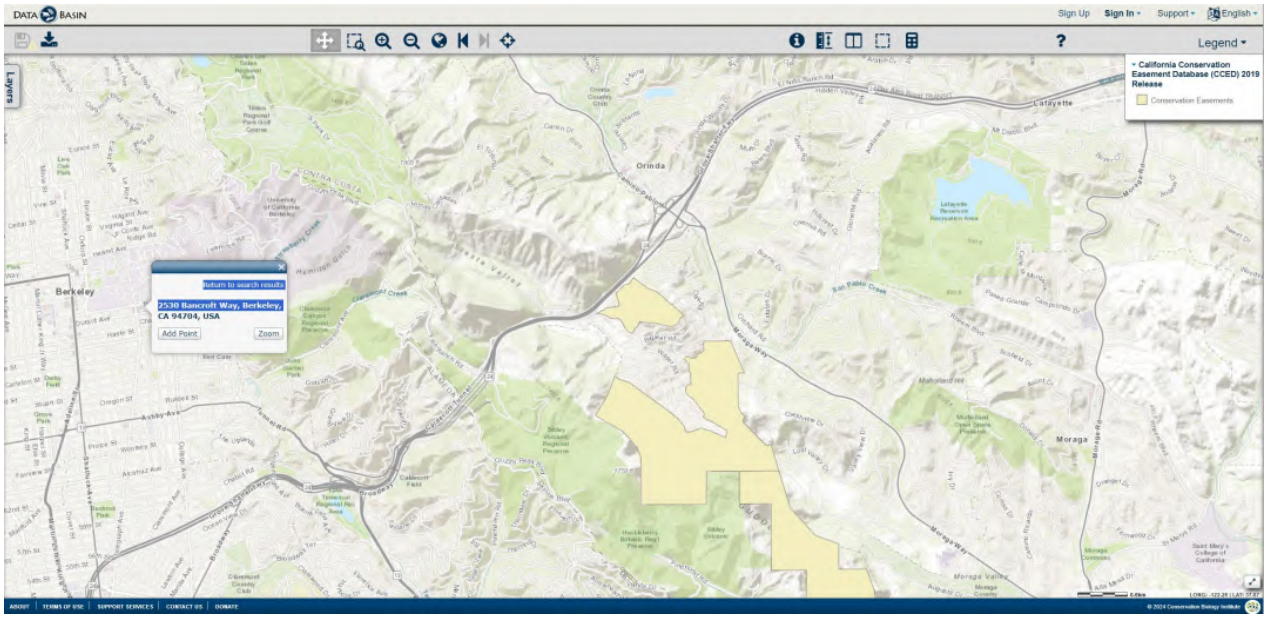


Exhibit M

As shown below, the Project site, depicted by a red dot, is not locate within a Very High Fire Hazard Severity Zone.

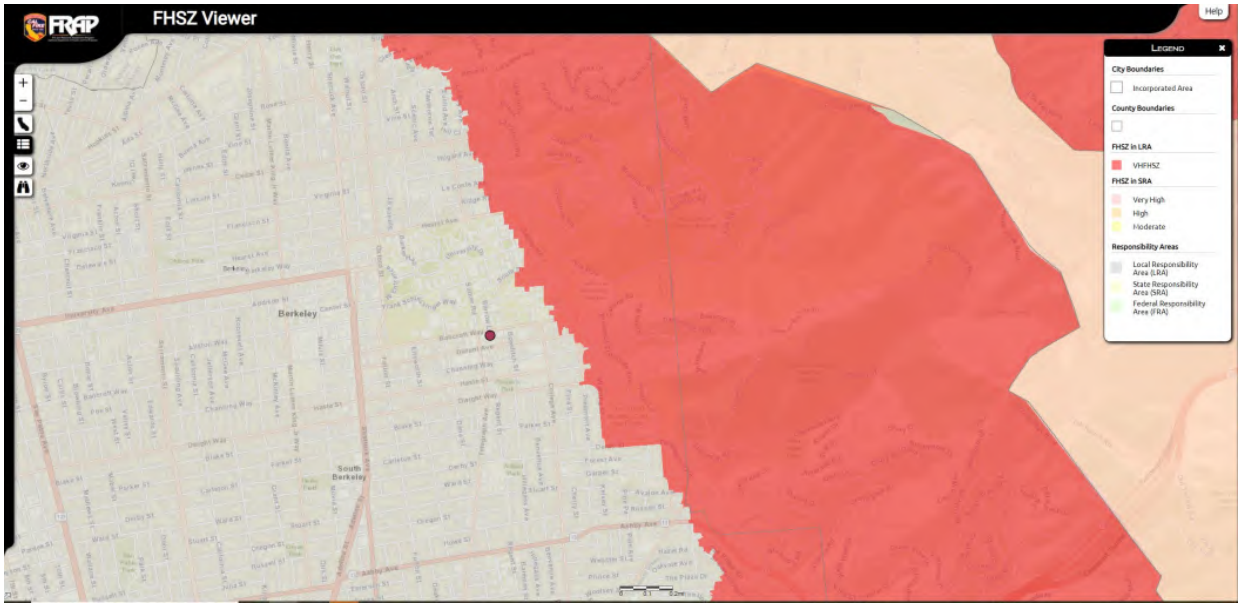


Exhibit N

The approximate location of the Project site is depicted with a red dot, located within a Transit Priority Area and an area where VMT per Resident is at least 15% below the Bay Area average. Map taken from the City of Berkeley VMT Criteria and Thresholds.