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Office of the City Manager

PUBLIC HEARING
March 25, 2025

To: Honorable Mayor and Members of the City Council

From: Paul Buddenhagen, City Manager

Submitted by: Jordan Klein, Director, Planning & Development Department

Subject: ZAB Appeal: 3000 Shattuck Avenue, Use Permit #ZP2022-0046

RECOMMENDATION

Conduct a public hearing and, upon conclusion, adopt a Resolution affirming the Zoning Adjustments Board (ZAB) decision to approve a Use Permit to demolish a gas station, and construct a 10-story (114 feet) mixed-use building utilizing a State Density Bonus request, with 166 dwellings, including 17 Very Low-Income units, and 1,000 square-feet of commercial space, and dismiss the appeals.

SUMMARY

On May 11, 2023 ZAB approved the Use Permit for 3000 Shattuck Avenue authorizing construction of the mixed-use multifamily building. The ZAB approval was appealed to the City Council by three parties: a law firm representing Laborers International Union of North America, Local Union 304; 34 people who own or lease property within 300 feet of the project site; and a law firm representing East Bay Residents for Responsible Development. The appellants have identified alleged issues with the environmental review of the project. The City's responses to appellants' contentions are set forth below.

FISCAL IMPACTS OF RECOMMENDATION

None.

CURRENT SITUATION AND ITS EFFECTS

A Use Permit application was submitted for this site in 2015 (ZP2015-0229). An Initial Study-Negative Declaration (IS-ND) was prepared for a five-story project with 44 dwelling units, 17 off-street parking spaces, and 6,000 square feet of commercial space. The project was revised by ZAB to 23 units, 6 parking spaces, and 3,522 square feet of commercial space. The revised project was approved by Council, and the IS-ND was adopted by Council on November 27, 2018. The project was not pursued.

On December 14, 2021, Isaiah Stackhouse submitted a complete Preliminary Application to vest development rights for the proposed project at 3000 Shattuck Avenue pursuant to Senate Bill (SB) 330, the Housing Crisis Act of 2019 (Government Code Sections 65941.1 and 66300), for a housing development project.

On March 29, 2022, Isaiah Stackhouse submitted an application for a Use Permit (ZP2022-0046) to construct a ten-story, mixed-use building with 166 dwelling units, 1,043 square feet of ground floor commercial space, and no off-street car parking spaces, using a State Density Bonus.

On July 8, 2022, the applicant submitted a letter from their attorney requesting an Addendum to the previous IS-ND for the five-story project, per *CEQA Guidelines* Sections 15162 and 15164. On July 29, 2022 staff agreed to move forward with an Addendum because the new project is not substantially different from the previous project.

On August 3, 2022, the use permit application was deemed complete.

On January 27, 2023, an Addendum to the 2018 IS-ND was published.

On April 27, 2023, staff posted the public hearing notice of the ZAB hearing at the site and six nearby locations, and mailed notices to property owners and occupants within 300 feet of the project site, and to all registered neighborhood groups that cover this area.

On May 5, 2023, the applicant submitted a second Preliminary Application to vest development rights for the proposed project at 3000 Shattuck Avenue pursuant to Senate Bill (SB) 330, the Housing Crisis Act of 2019 (Government Code Sections 65941.1 and 66300), for a housing development project, superseding the previous preliminary application.

On May 11, 2023, ZAB conducted a public hearing for the Use Permit. After receiving public comment, ZAB approved the Use Permit by a vote of 8-0-0-1 (Yes: Duffy, Gaffney, Lunaparra, O'Keefe, Sanderson, Thompson, Tregub, Yung; No: None; Abstain: None; Absent: Kahn).

On May 18, 2023, staff issued the ZAB Notice of Decision. The City Clerk received three separate appeals on May 25, May 31, and June 1, 2023. The City Clerk scheduled the appeal hearing for September 26, 2023. Appellants were informed of the hearing date by letter on June 15, 2023.

In August 2023, the appeal hearing was delayed so that the City's CEQA consultant could revise the Addendum. On January 10, 2025, the City Clerk notified the appellants of the new Council hearing, March 25, 2025.

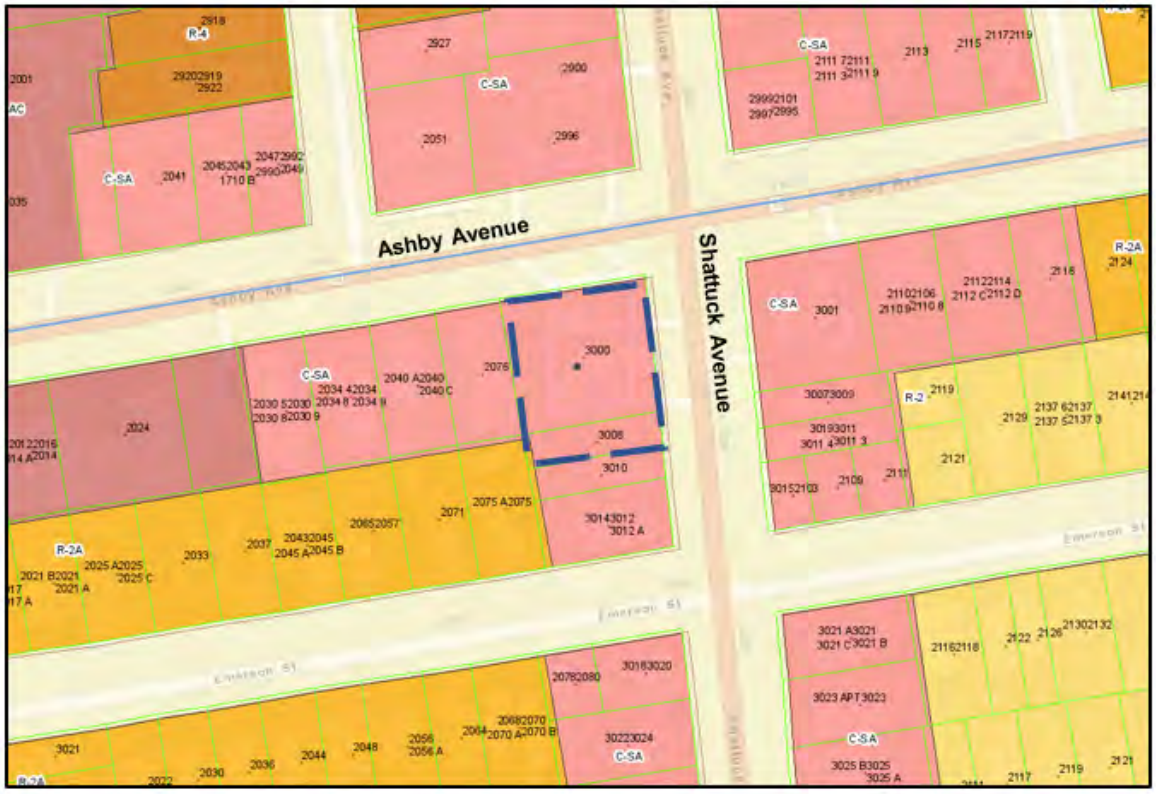
On or before March 11, 2025, staff posted the public hearing notice of the Council hearing at the site and six nearby locations, and mailed notices to property owners and occupants within 300 feet of the project site, to all registered neighborhood groups that cover this area, interested parties who requested notice, and the appellants. The Council must conduct a public hearing to resolve the appeals.

BACKGROUND

The project site is located on the southwest corner of Ashby Avenue and Shattuck Avenue. The surrounding area consists of a mix of commercial and residential development ranging from one to three stories in height. The Ashby BART station is 0.3 miles to the west. In addition, bus service is available via AC Transit routes 18 and 800.

The 14,000-square-foot project site comprises two parcels (Figure 1), and is currently developed with a gas station that includes a mini-market with an office, car repair services, smog test center, two gas station canopies with pump islands, and surface parking for 11 automobiles (Figure 2). Site access to is provided from both Ashby and Shattuck Avenues.

Figure 1: Zoning Map



Legend

Site Boundary

Zoning

C-SA:	South Area Commercial
R-2:	Restricted Two-Family Residential
R-2A:	Restricted Multiple-Family Residential
R-4:	Multi-Family Residential

Figure 2: Current conditions, facing southwest (Google Street View, 2024)

The proposed project would demolish the existing commercial buildings, remove the existing paving and the curb cuts, and construct a new 10-story mixed-use building with:

- 166 dwelling units (all studio units) for a total of 166 bedrooms;
- Commercial space: 1,043 square feet in area, for one tenant on the ground floor at the northwest corner of the property;
- Two bicycle storage rooms on the ground floor with storage for 62 bicycles, and five short-term bicycle parking spaces along Shattuck Avenue and Ashby Avenue;
- Residential access from Shattuck Avenue;
- New street trees along Shattuck Avenue and Ashby Avenue;
- Useable open space totaling 8,516 square feet consisting of ground level space and a roof deck.

The project is eligible for a Density Bonus under Government Code Section 65915, by providing 17 Very Low-Income units (15 percent of the base project) on site, and qualifies for a 50 percent density bonus, or 56 bonus units, of which 55 are utilized, resulting in a 166-unit density bonus project, with waivers to:

1) **FAR.** Exceed the Floor Area Ratio (FAR) limit from 4.0 to 6.0
2) **Height.** Exceed the building height limit from 36 feet and 3 stories to 113 feet 10 inches and 10 stories
3) **Front Setback.** Reduce the required front setback from 15 feet to 2 feet 6 inches
4) **Rear Setback.** Reduce the required rear setback from 15 feet to 11 feet 3 inches
5) **Side Setback (street).** Reduce the required street side (left side) setback from 6 feet to 15 feet (varies by story) to zero feet
6) **Side Setback (interior)** Reduce the required interior side (right side) setback from 4 feet to 12 feet (varies by story) to 5 feet 7 inches
7) **Lot Coverage.** Exceed the lot coverage limit from 40 percent to 62 percent

On May 5, 2023, the applicant submitted a new SB 330 preliminary development project application, superseding the preliminary housing development project application submitted in December 2021. Submittal of all the information listed in the pre-application form and payment of the permit processing fee froze development standards and fee rates as of May 5, 2023, unless exceptions per Government Code § 65889.5(o) are triggered. The May 5, 2023 vesting date affects the Affordable Housing Mitigation Fee and inclusionary housing requirements. The affordable housing conditions were revised to require compliance with all applicable provisions of Berkeley Municipal Code (BMC) Chapter 23.328, Inclusionary Housing, and Council Resolution 70,698-N.S., rather than BMC Section 22.20.065, Affordable Housing Mitigation Fee, in effect in December 2021. The new vesting date did not change the Use Permit project.

In 2015, a different Use Permit was submitted for the site, ZP2015-0229. An IS-ND was prepared for that project in 2017, and adopted by Council in 2018. The IS-ND was prepared for a five-story project with 44 dwelling units, 17 off-street parking spaces, and 6,000 square feet of commercial space.

In May 2022, staff informed the applicant that a new IS was required for the current project since the site is on a list pursuant to Section 15300.2(e) of the *CEQA Guidelines*. The applicant submitted a letter from their attorney requesting an Addendum to the previous IS-ND for the five-story project, per *CEQA Guidelines* Sections 15162 and 15164. The conditions in *CEQA Guidelines* Section 15162(3)(A) and (D) requiring preparation of a subsequent Environmental Impact Report (EIR) were not met.

Staff agreed to move forward with an Addendum because the new project is not substantially different from the previous project. The new project is taller and denser, and contains no off-street car parking, and less commercial space, but the proposed land uses would remain the same, and the project would continue to comply with the BMC and General Plan. See Table 1 for a comparison of the current project and the project analyzed in the 2018 IS-ND.

Table 1: Comparison of the Current Project and the Project in the 2018 IS-ND

Project Characteristic	Previously Approved Project	Updated Project
Total Floor Area	**38,828 sf**	**89,846 sf**
Lot Coverage	83%	68%
Residential[1]	32,603 sf	80,235 sf
Retail	6,225 sf	1,095 sf
Building Height	56 feet and 11 inches; 5 stories	113 feet and 10 inches; 10 stories
Total Residential Units	**44 units[1]**	**166 units[2]**
Affordable Units	4 units	17 units
Open Space		
Roof Deck	N/A	4,473 sf
Ground Level Open Space	N/A	4,043 sf
Usable Open Space	2,092 sf	8,516 sf
Parking		
Automobile	17 spaces	0 spaces
Bicycle	62 spaces	62 spaces[3]
Construction		
Length	18 months	18 months

[1]Includes 4 studios (430 sf on average), 31 1-bedrooms (616 sf on average), and 8 2-bedrooms (902 sf on average).

[2]All units would be studios.

[3]Includes 55 long-term residential spaces, 5 short-term residential spaces, and 2 short-term commercial spaces

sf = square feet

In January 2023 an Addendum to the 2018 IS-ND was published. The Addendum found that potential impacts associated with the modified project are consistent with potential impacts characterized and mitigated for in the 2018 IS-ND. Substantive revisions to the 2018 Final IS-ND were not necessary because no new significant impacts or significant impacts of substantially greater severity were identified.

After the Addendum was published, the applicant modified the plans to reduce the size of the commercial area by 52 square feet, increased upper floor residential floors by 33 square feet each, and reduced setbacks slightly to accommodate the floor area change.

On May 5, 2023 the City's CEQA consultant provided a memorandum to analyze whether the modifications affect the analysis or conclusions of the Addendum. The consultant found that the changes would not result in new or substantially increased impacts compared to the project studied in the original IS-ND, and the changes did not warrant changes to the Addendum.

On May 11, 2023 the CEQA consultant submitted a second memorandum in response to a letter submitted to ZAB by the law firm of Adams Broadwell Joseph and Cardozo,

on behalf of East Bay Residents for Responsible Development ("East Bay RRD"). The memorandum addressed potential errors in the California Emissions Estimator Model (CalEEMod) emissions modeling used as a basis for the air quality analysis. The consultant revised the modeling, including revising the construction duration to be consistent with the applicant-provided 18-month construction schedule, and adding a demolition phase with estimated air pollutant emissions from truck trips to remove on-site structures and asphalt. The modified project's impacts would be below the Bay Area Air Quality Management District (BAAQMD) thresholds of significance. Therefore, the modified project's air quality impacts would be less than significant, consistent with the conclusions of the Addendum.

The Addendum's conclusions were not affected by the additional analysis provided in the corrections. ZAB found the project to be compliant with all applicable, objective general plan and zoning standards, and without specific adverse impacts to public health or safety, and approved it on May 11, 2023 without reductions to the project's density, pursuant to the State Housing Accountability Act (HAA), Government Code Section 65589.5(j).[1] ZAB also adopted an Addendum to the Initial Study-Negative Declaration, with revisions to the air quality modeling (memorandum dated May 11, 2023), revised the affordable housing conditions to comply with the new ordinance, and added conditions to require the applicant to meet with concerned neighbors, to update the floor plans to conform with the renderings, and to provide native plantings as part of the project landscape plans. For additional project background, please see Attachment 6, the May 11, 2023 ZAB staff report for this project.

In response to the appeal letters received after ZAB approval, the City's consultant revised the Addendum (Attachment 1, Exhibit C), and provided a Response to Appeal Comments (Attachment 5) where they highlight revisions to the Addendum. The conclusion of the revised Addendum is the same as the 2023 Addendum: no further evaluation of environmental impacts is required for the modified project, no subsequent EIR is necessary pursuant to *CEQA Guidelines* Section 15162, and the Addendum is the appropriate level of environmental analysis and documentation for the modified project pursuant to *CEQA Guidelines* Section 15164.

RATIONALE FOR RECOMMENDATION

The issues raised in the appellants' letters and staff's responses follow. There are three appeal letters to consider for this hearing and the appeal points are presented in the order that the letters were received. For the sake of brevity, the appeal issues are not

[1] The Housing Accountability Act (HAA), Government Code Section 65589.5(j), requires that when a proposed housing development complies with the applicable, objective general plan and zoning standards, but a local agency proposes to deny the project or approve it only if the density is reduced, the agency must base its decision on written findings supported by substantial evidence that the development would have a specific adverse impact on public health or safety unless disapproved, or approved at a lower density; and there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact, other than the disapproval, or approval at a lower density.

re-stated in their entirety. Please refer to the attached appeal letters for the full text; Attachments 2 through 4 of this report.

Appeal Letter 1 was submitted by the law firm of Lozeau Drury LLP on behalf of Laborers International Union of North America, Local Union 304 ("LiUNA")

LiUNA Appeal - Issue 1: California Environmental Quality Act (CEQA) compliance. The Appellant asserts that the Addendum to the 2018 Initial Study-Negative Declaration (IS-ND) was not appropriate for this review because new evidence has been submitted and the IS-ND failed to consider it. (Appeal Letter 1, Attachment 2, pages 1-2).

Response: CEQA Guidelines Section 15162 "Subsequent EIRs and Negative Declarations" identifies three criteria that would require an updated document to be prepared.

1. *Substantial changes are proposed which will require major revisions of the previous negative declaration due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Project components such as the height and density for the project have changed, but existing conditions at the site are the same (differences between the previous project and the current project are discussed in Table 1 above, in the Addendum, and in the ZAB staff report). Increasing the height and number of units does not change the environmental impacts of this mixed-use residential project. For example, in terms of air quality, operational emissions would remain below BAAQMD thresholds, and the project does not include new facilities that would emit substantial quantities of toxic air contaminants. As discussed in the Addendum, the modified project would not introduce new, significant environmental impacts beyond those that have already been identified and characterized in the 2018 Final IS-ND.

2. *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous negative declaration due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

The modified project, like the original project described in the 2018 Final IS-ND, is a proposed mixed-use development in Berkeley, and is on the same project site as the original project. The circumstances under which the project is undertaken have not changed. The project is still a mixed-use residential development by a private entity. Most of the environmental conditions described in the 2018 Final IS-ND are substantially unchanged. Several new buildings in the vicinity of the project site have either been constructed, are approved, or are pending approval, and those changes are expected in an urban area. As discussed in the Addendum, there are no substantial changes in the project or circumstances.

3. *New information of substantial importance, which was not known or could not have been known when the ND was adopted, shows any of the following:*
    A. *The project will have one or more significant effects not discussed in the ND.*
    B. *Significant effects will be substantially more severe.*
    C. *Mitigation measures previously found not feasible would be feasible, but the project proponents decline to adopt the mitigation measures.*
    D. *Mitigation measures which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measures.*

An EIR was not required for the previous project, so many of the conditions identified in the appeal point above do not apply. The Addendum discussed the impacts of the proposed project in terms of the twenty environmental issue areas suggested by the *CEQA Guidelines* and found that potential impacts associated with the modified project are consistent with potential impacts characterized in the IS-ND. As discussed in the Addendum, impacts of the modified project would be less than significant, and thus A. and B. above do not apply. C. and D. do not apply because there were no mitigation measures attached to the previous project.

Staff prepared an Addendum, with the help of an environmental consultant, because the project site has not changed since the IS-ND was prepared. The Addendum evaluated the changes under the modified project in comparison to the original project, against *CEQA Guidelines* Section 15162, and found the potential impacts associated with the modified project to be consistent with the potential impacts discussed and mitigated for in the 2018 IS-ND. Conditions requiring preparation of an EIR or subsequent ND were not met.

LiUNA Appeal - Issue 2: Air quality and CEQA. The appellant states that composite wood materials in the interior of the new building will off-gas carcinogens, the project may result in significant Reactive Organic Gas (ROG) emissions which exceed BAAQMD thresholds, the Addendum underestimates the Project's emissions by altering the estimated construction length and not including demolition, and the Addendum and IS-ND do not analyze air quality impacts that will result from trucking modular units to the project site. These are all significant impacts under CEQA (Appeal Letter 1, Attachment 2, page 2).

Response 2: The issue of Air Quality is stated several times in the appeal related to indoor air quality, Reactive Organic Gas emissions, and vehicle emissions.

Indoor Air Quality. Natural and mechanical ventilation is required for new buildings under the California Buildings Standard Code, and during plan check review City staff

will verify that the project meets all requirements of the code. Volatile Organic Compounds may affect people living in new buildings, but they will not affect people who live and work in the area surrounding the project site. Section 4.3, *Air Quality*, of the Addendum has been revised to include a discussion of indoor air emissions of formaldehyde, to address this appeal point. The analysis concludes that the modified project would have less than significant impacts on formaldehyde.

Reactive Organic Gas (ROG) Emissions. The appellant states that the modified project may result in potentially significant ROG emissions which would exceed Bay Area Air Quality Management District (BAAQMD) thresholds. In response to this comment, Section 4.3, *Air Quality*, of the Addendum has been revised to include a discussion of air quality emissions modeling (CalEEMod) methodology and ROG emissions (Attachment 1 Exhibit C and Attachment 5). Per the data provided in the 2023 Addendum, and the 2025 Addendum, the project would not exceed BAAQMD thresholds for ROG emissions.

Construction and Demolition Emissions. The City's consultant, Rincon Consultants, revised the emission modeling in May 2023 to change the construction duration to be consistent with the applicant-provided 18-month construction schedule and added a demolition phase. The revised modeling found the project's impacts to still be below BAAQMD thresholds of significance. Rincon prepared a memo which discussed the revised modeling results, which was provided to ZAB as a supplemental item before the May 11, 2023 ZAB meeting.

Emissions from Trucking Modular Units. As stated in the Addendum, the building may be built using modular construction. In modular construction, standardized components are built off-site, and then assembled into a building on-site. The Addendum has been revised to include a discussion of air quality impacts resulting from the trucking of modular units to the project site, to address this appeal point. The analysis concludes that site preparation and air quality would still be substantially the same as for traditional construction.

LiUNA Appeal - Issue 3: Hazardous materials and CEQA. Appellants assert that since the site is in the State Water Resources Control Board's Geotracker database, the site will need to be studied to determine if it is safe for residential development, and "this is a previously undisclosed significant impact which must be addressed" by a Mitigated Negative Declaration or an EIR (Appeal Letter 1, Attachment 2, page 2).

Response 3: The project site is in the State Water Resources Control Board's Geotracker database, is listed as a LUST (Leaking Underground Storage Tank) Cleanup Site, and was marked as "case closed" in 2013 and 2014. Phase I and Phase II Environmental Site Assessments were conducted in 2022, and soil and groundwater conditions related to hazardous materials have remained unchanged since the IS-ND

was prepared, and the Addendum did not identify any increased or new significant impact as a result. The proposed project is required to comply with standard Conditions of Approval (COAs) for remediation or removal of toxic materials in preparation for residential development, which include a requirement for a soil and groundwater management plan (Attachment 1, Exhibit A, COA 26) in accordance with Berkeley Municipal Code Section 15.12.100, the stormwater pollution prevention requirements of the San Francisco Bay Regional Water Quality Control Board's Order No. R2-2009-0074, California hazardous waste generator regulations (Title 22 California Code of Regulations (CCR) 66260 et seq.), and the East Bay Municipal Utility District's Ordinance 311.

LiUNA Appeal - Issue 4: Air quality and detriment. Appellants assert that the project may be detrimental because the Addendum does not mitigate the project's detrimental impacts to air quality (Appeal Letter 1, Attachment 2, page 3).

Response 4: As outlined in Section 4.3, *Air Quality*, of the Addendum, the modified project's estimated air pollutant emissions would not exceed BAAQMD's thresholds and impacts related to criteria air pollutants or contribution to a cumulative air quality impact would be less than significant. In addition, compliance with the City's standard condition of approval, *Air Quality – Diesel Particulate Matter Controls During Construction*, as well as proximity to alternative transportation would ensure that impacts related to construction and operational toxic air contaminants (TACs) are less than significant. Therefore, no significant new or substantially increased air quality impacts would result from the modified project.

BMC Section 23.406.040(E) discusses the *Findings for Approval* required for all Use Permits, and addresses *detriment*. These findings are colloquially referred to as "non-detriment findings." The BMC requires findings of non-detriment for approval of discretionary permits. However, non-detriment findings are not objective standards, and cannot provide a basis for denial of (or reduction in density for) a housing project, due to the HAA. The City cannot deny or reduce the density of a housing development that is compliant with objective standards, unless it can meet the strict finding of specific adverse impact[2] on public health or safety – a level of impact which the State Department of Housing and Community Development considers to be rare.[3] ZAB approved the project in accordance with SB 330 and HAA.

[2] Per Government Code Section 65589.5(d)(2), a "specific, adverse impact" means "a significant, quantifiable, direct, and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete."
[3] Housing Accountability Act Technical Assistance Advisory (Government Code Section 65589.5), page 20; State Department of Housing and Community Development.

Appeal Letter 2 was submitted by Larisa Cummings, Paul Dillingham, Dave Auerbach, Lynn Cooper, and Les Shipnuck, and signed by 29 others who own or lease property within 300 feet of the project site, for a total of 34 signatories.

Appeal by 34 Signatories - Issue 1: The City failed to perform cumulative impact analysis, and an Initial Study rather than an Addendum is required for the modified project (Appeal Letter 2, Attachment 3, pages 1-3).

Response 1: Section 4.15, *Changes in the Environmental Setting and Cumulative Impacts*, has been added to the revised Addendum to address this appeal point, and includes an analysis of cumulative impacts that may result from the project. Eight cumulative development projects within two miles of the modified project were analyzed. The revised Addendum concludes that the modified project would not result in cumulatively considerable impacts for any issue area and impacts would be less than significant.

An Initial Study was prepared for the original project in 2018. As discussed in Section 3 of the Addendum, *Decision Not to Prepare Subsequent Negative Declaration or EIR*, pursuant to Section 15164 of the *CEQA Guidelines* a lead agency shall prepare an Addendum to a previously certified negative declaration if some changes or additions are necessary. However, none of the conditions described in *CEQA Guidelines* Section 15162 that call for preparation of a subsequent EIR or negative declaration have occurred. See the response to the LiUNA Appeal - Issue 1.

Appeal by 34 Signatories - Issue 2: The City did not consider input from the public when it determined whether to prepare an EIR, which is inconsistent with *CEQA Guidelines* Section 15064(c) (Appeal Letter 2, Attachment 3, page 2).

Response 2: *CEQA Guidelines* Section 15064(c) reads:

> In determining whether an effect will be adverse or beneficial, the lead agency shall consider the views held by members of the public in all areas affected as expressed in the whole record before the lead agency. Before requiring the preparation of an EIR, the lead agency must still determine whether environmental change itself might be substantial.

An Initial Study was prepared for the original project in 2018. Opportunities for public review and input for the IS-ND occurred during the public circulation period (30 days) for the IS-ND in 2017, and at the ZAB hearing in 2018. The Addendum for the modified project was released publicly for review three months prior to the ZAB hearing on May 11, 2023. As discussed in Section 3 of the Addendum, *Decision Not to Prepare Subsequent Negative Declaration or EIR*, pursuant to Section 15164 of the *CEQA Guidelines* a lead agency shall prepare an Addendum to a previously certified negative declaration if some changes or additions are necessary. However, none of the

conditions described in *CEQA Guidelines* Section 15162 that call for preparation of a subsequent EIR or negative declaration have occurred.

Appeal by 34 Signatories - Issue 3: Appellants are concerned about traffic in the Russell-Shattuck-Ashby area because five projects are proposed, and one project is under construction. None of these projects will provide on-site loading zones, or right-of-way improvements to facilitate loading. Cumulative traffic impacts of the proposed project, other recently entitled projects, and future entitled projects must be considered (Appeal Letter 2, Attachment 3, pages 3-5, 8-9).

Response 3: Section 4.15, *Changes in the Environmental Setting and Cumulative Impacts*, added to the revised Addendum in response to the appeal point, analyzes the cumulative construction-related and operational transportation impact from eight development projects that are within two miles of the modified project. As discussed therein, the modified project would not result in considerable contributions to significant cumulative impacts and impacts would be less than significant. Section 4.13 of the revised Addendum, *Transportation*, includes a discussion of construction traffic impacts in response to the appeal point. The modified project would be required to comply with the City's Standard Condition of Approval, *Transportation Construction Plan*, which would require preparation of a Transportation Construction Plan for all phases of construction in order to minimize impacts related to construction traffic.

Traffic impact analysis is not required for projects located within a quarter mile of a "high-quality transit corridor[4]" or a half mile from a "major transit stop[5]." Because this site is within a third of a mile from a major transit stop (Ashby BART station), no traffic impact analysis is required for the City's review and consideration. Off-street parking for the residential and commercial uses is not required for this site per BMC Section 23.322.030(B)(1) and Assembly Bill 2097. On-site loading spaces are not required because the commercial use is less than 10,000 square-feet.

Land Use Planning does not regulate on-street loading spaces. The applicant has been informed that CalTrans would not support a loading zone along the Ashby Avenue portion of the project. A loading zone on the Shattuck Avenue side of the project would not be feasible because AC Transit plans to move the bus stop at the northwest corner of Shattuck and Ashby to the southwest corner of the intersection along the project frontage. The City's Transportation staff has indicated that they would not support adding an on-street loading space if it would require removing on-street parking.

[4] Defined in Public Resources Code 21155 as corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.
[5] Defined in CEQA Section 21064.3 as a site containing a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

This project, like other projects adding ten or more dwelling units, is required to comply with the City's Transportation Demand Management (TDM) requirements. COA 61 in Attachment 1 Exhibit A describes the TDM requirements for this project.

Appeal by 34 Signatories - Issue 4: Changes to the previously approved project. Appellants assert that the current project is different from the previously proposed project, and thus the construction duration and foundation work should not be the same or similar, and lead the appellants to doubt data in the Addendum (Appeal Letter 2, Attachment 3, pages 3, 10).

Response 4: As discussed under Issue 1 of the LiUNA Appeal, although project components have changed, the modified project would not introduce new, significant environmental impacts beyond those that have already been identified and characterized in the 2018 Final IS-ND. Information on the construction duration and foundation work is from the applicant, and they have consulted their general contractor.

Appeal by 34 Signatories - Issue 5: ZAB rushed approval of the project (Appeal Letter 2, Attachment 3, page 5).

Response 5: The appellants state that a vote on the project was not required at the May 11, 2023 ZAB meeting because it was only the second meeting on the project after it was deemed complete. Per Government Code Section 65905.5(a) if a proposed housing development project complies with the applicable, objective general plan and zoning standards in affect at the time an application is deemed complete, then the city shall not conduct more than five hearings in connection with the approval of that housing development project. This includes all public hearings in connection with the approval of the housing development project and any continuances of such public hearings. The city must consider and either approve or disapprove the project at any of the five hearings consistent with applicable timelines under the Permit Streamlining Act. An appeal to City Council is included in the five-meeting count.

After hearing all public comments, and considering all of the evidence on the record at the May 11, 2023 hearing, ZAB determined that the project meets all applicable objective planning standards pursuant to SB 330, the HAA, and the *CEQA Guidelines*, and approved the project. ZAB did not move to continue the hearing to another meeting for additional discussion.

Appeal Letter 3 was submitted by the law firm of Adams Broadwell Joseph and Cardozo, on behalf of East Bay Residents for Responsible Development ("East Bay RRD"). The appeal points that follow are largely based on summaries of points within the appeal letter, and not on specific numbers used in the appeal letter.

East Bay RRD Appeal - Issue 1: CEQA compliance. The Addendum did not accurately disclose the project's potentially significant impacts to air quality,

public health, hazardous contamination, land use, and cumulative impacts (Appeal Letter 3, Attachment 4, page 3).

Response 1: See previous responses to LiUNA Appeal Issue 1 for why an Addendum is appropriate for the modified project; LiUNA Appeal Issues 2 and 4 for Air Quality and public health; LiUNA Appeal Issue 3 for Hazardous Materials; and 34 Signatories, Issue 1 for Cumulative Impacts.

As discussed in Section 4.8 of the Addendum, *Land Use and Planning*, the modified project would not alter the land uses proposed in the original project and would be consistent with the Avenue Commercial designation, which is characterized by "pedestrian-oriented commercial development and multifamily residential structures" and General Plan policies. The modified project would comply with State Density Bonus requirements and therefore qualifies for waivers for height, setbacks, and FAR. It also complies with all other development standards, and would comply with the City's Inclusionary Housing Ordinance. Therefore, the modified project would be consistent with land use regulations such as General Plan policies and the BMC.

East Bay RRD Appeal - Issue 2: The site is contaminated with benzene and the Addendum does not contain a new analysis of existing contamination levels and does not include mitigation requiring the site to be cleaned so that it is safe for residential use (Appeal Letter 3, Attachment 4, page 3).

Response 2: See response to Issue 3 of the LiUNA Appeal regarding impacts related to Hazardous Materials.

East Bay RRD Appeal - Issue 3: Air quality. The proposed project will exceed ROG emission thresholds (Appeal Letter 3, Attachment 4, page 3).

Response 3: See response to Issue 2 of the LiUNA Appeal for Air Quality.

East Bay RRD Appeal - Issue 4: Impacts associated with the construction and operation of the project and recent development in the vicinity constitute cumulative impacts, and the Addendum did not analyze these cumulative impacts (Appeal Letter 3, Attachment 4, page 3).

Response 4: See response to Issue 1 of the Appeal by 34 Signatories for Cumulative Impacts.

East Bay RRD Appeal - Issue 5: The appellant asserts that an EIR is required because the project has substantially changed from the 2018 project, with more dwellings and square footage, which will lead more severe construction and operational impacts, and there is new evidence that emissions may be significant (Appeal Letter 3, Attachment 4, pages 4, 9).

Response 5: See responses to Issue 1 and Issue 2 of the LiUNA Appeal, why an Addendum is appropriate for the modified project, and Air Quality.

East Bay RRD Appeal - Issue 6: Environmental impacts and detriment. The appellant states that the public health and safety impacts of the current project may be detrimental (Appeal Letter 3, Attachment 4, pages 20-21).

Response 6: The ZAB determined that the project is compliant with all vested and applicable objective General Plan and C-SA Zoning District standards. See the responses to Issue 1, why an Addendum is appropriate for the modified project, and Issue 4 of the LiUNA Appeal, Air Quality, and Issue 1 of the Appeal by 34 Signatories, Cumulative Impacts.

East Bay RRD Appeal - Issue 7: Labor and detriment. The appellants assert that the project may be detrimental because the applicant has not committed to building with a local, "skilled and trained workforce," and will not provide apprenticeship training opportunities, healthcare, or other workforce benefits for City of Berkeley or East Bay residents (Appeal Letter 3, Attachment 4, pages 20-21). The applicant should comply with the HARD HATS ordinance (Appeal Letter 3, Attachment 4, page 25).

Response 7: See the response to Issue 4 of the LiUNA Appeal for a discussion of *detriment*.

This appeal point appears to request application of the City's HARD HATS ordinance, BMC Chapter 13.107. However, this Use Permit application is not subject to the ordinance because the SB 330 vesting date was May 5, 2023, and thus the zoning, design, subdivision, and fee requirements in effect as of May 5, 2023 will remain in effect for the remainder of the entitlement and permitting process, unless exceptions per Government Code § 65889.5(o) are triggered. The HARD HATS Ordinance became effective on January 1, 2024, after the vesting date of the project. Since the HARD HATS Ordinance does not apply to the Project, compliance with provisions contained in the ordinance would be voluntary.

East Bay RRD Appeal - Issue 8: The project is inconsistent with General Plan economic development and employment policies because there is no commitment to provide construction jobs to Berkeley or East Bay residents, and no commitment to contribute to an apprenticeship or construction job training program (Appeal Letter 3, Attachment 4, pages 20, 25-27).

Response 8: General Plan goals and policies are not objective standards, and cannot provide a basis for denial of (or reduction in density for) a housing project, due to the HAA (see the response to Issue 4 of the LiUNA Appeal, *detriment*).

East Bay RRD Appeal - Issue 9: The project is inconsistent with the Housing Element because less than 20 percent of units will be affordable (Appeal Letter 3, Attachment 4, page 27-29).

Response 9: Since the applicant submitted a preliminary housing development project in May 2023, superseding the previous preliminary application submitted in December 2021, the project is required to comply with BMC Chapter 23.328, Inclusionary Housing. Chapter 23.328 allows developers to pay an in-lieu fee, or a partial in-lieu fee, for providing less than 20 percent of units for rent or sale at affordable rents or prices. The building permit for the project cannot be issued until the final Affordable Housing Compliance Plan is approved, and a Regulator Agreement and Declaration of Restrictive Covenants is executed (BMC Section 32.328.050). The project will provide 17 units on-site which are affordable to Very-Low Income households.

East Bay RRD Appeal - Issue 10: ZAB rushed approval of the project (Appeal Letter 3, Attachment 4, page 5).

Response 10: See the response to Issue 5 of the Appeal by 34 Signatories, ZAB approval.

ENVIRONMENTAL SUSTAINABILITY
The project approved by the ZAB is found to be in compliance with all applicable State and local environmental requirements, would be located in a transit-rich area, and would be built and operated according to current codes for energy conservation, waste reduction, low toxicity, and other factors.

ALTERNATIVE ACTIONS CONSIDERED
Pursuant to BMC Section 23.410.040(G), the Council may (1) continue the public hearing, (2) reverse, affirm, or modify the ZAB's decision, or (3) remand the matter to the ZAB.

Action Deadline:
Pursuant to BMC Section 23.410.040(I), if the disposition of the appeal has not been determined within 30 days from the date the public hearing was closed by the Council (not including Council recess), then the decision of the Board shall be deemed affirmed and the appeal shall be deemed denied.

CONTACT PERSONS
Jordan Klein, Director, Planning & Development Department, (510) 981-7534
Anne Hersch, Land Use Planning Manager, (510) 981-7411
Allison Riemer, Associate Planner, (510) 981-7433

Attachments:

1. Draft Resolution
    - Exhibit A: Findings and Conditions
    - Exhibit B: Project Plans, received May 2, 2023
    - Exhibit C: Revised Addendum to the Initial Study-Negative Declaration, February 2025
2. Appeal Letter 1, received May 25, 2023
3. Appeal Letter 2, received May 31, 2023
4. Appeal Letter 3, received June 1, 2023
5. Response to Appeal Comments, February 2025
6. May 11, 2023 ZAB Hearing Staff Report
7. 2018 Initial Study-Negative Declaration
8. Index to Administrative Record
9. Administrative Record
10. Public Hearing Notice

RESOLUTION NO. ##,###-N.S.

AFFIRMING THE ZONING ADJUSTMENTS BOARD APPROVAL OF USE PERMIT #ZP2022-0046 TO DEMOLISH A GAS STATION, AND CONSTRUCT A 10-STORY (114 FEET) MIXED-USE BUILDING UTILIZING A DENSITY BONUS, WITH 166 DWELLINGS, INCLUDING 17 VERY LOW-INCOME UNITS, AND 1,043 SQUARE-FEET OF COMMERCIAL SPACE, AND DISMISS THE APPEALS

WHEREAS, a Use Permit application was submitted for this site in 2015 (ZP2015-0229). An Initial Study-Negative Declaration (IS-ND) was prepared for a five-story project with 44 dwelling units, 17 off-street parking spaces, and 6,000 square feet of commercial space. The project was revised by ZAB to 23 units, 6 parking spaces, and 3,522 square feet of commercial space. The revised project was approved by Council, and the IS-ND was adopted by Council on November 27, 2018. The project was not pursued; and

WHEREAS, on December 14, 2021, Isaiah Stackhouse submitted a complete Preliminary Application to vest rights pursuant to Senate Bill (SB) 330, the Housing Crisis Act of 2019 (Government Code Sections 65941.1 and 66300), for a housing development project; and

WHEREAS, on March 29, 2022 Isaiah Stackhouse submitted an application for a Use Permit (ZP2022-0046) to construct a ten-story, mixed-use building with 166 dwelling units, 1,043 square feet of commercial space, and no off-street car parking spaces, using a State Density Bonus; and

WHEREAS, on July 8, 2022, the applicant submitted a letter from their attorney requesting an Addendum to the previous IS-ND for the five-story project, per *CEQA Guidelines* Sections 15162 and 15164. On July 29, 2022 staff agreed to move forward with an Addendum because the new project is not substantially different from the previous project; and

WHEREAS, on August 3, 2022, the use permit application was deemed complete; and

WHEREAS, on January 27, 2023 an Addendum to the 2018 IS-ND was published; and

WHEREAS, on April 27, 2023, staff posted the public hearing notice of the ZAB hearing at the site and six nearby locations, and mailed notices to property owners and occupants within 300 feet of the project site, and to all registered neighborhood groups that cover this area; and

WHEREAS, on May 5, 2023, the applicant submitted a second Preliminary Application to vest development rights for the proposed project at 3000 Shattuck Avenue pursuant to Senate Bill (SB) 330, the Housing Crisis Act of 2019 (Government Code Sections 65941.1 and 66300), for a housing development project, superseding the previous preliminary application; and

WHEREAS, on May 11, 2023, the ZAB conducted a public hearing for the Use Permit. After receiving public comment, ZAB approved the Use Permit by a vote of 8-0-0-1 (Yes: Duffy, Gaffney, Lunaparra, O'Keefe, Sanderson, Thompson, Tregub, Yung; No: None; Abstain: None; Absent: Kahn); and

WHEREAS, on May 18, 2023, staff issued the ZAB Notice of Decision. The City Clerk received three separate appeals on May 25, May 31, and June 1, 2023. The City Clerk scheduled the appeal hearing for September 26, 2023. Appellants were informed of the hearing date by letter on June 15, 2023; and

WHEREAS, in August of 2023, the appeal hearing was delayed so that the City's CEQA consultant could revise the Addendum. On January 10, 2025, the City Clerk notified the appellants of the new Council hearing, March 25, 2025; and

WHEREAS, on or before March 11, 2025, staff posted the public hearing notice of the Council hearing at the site and six nearby locations, and mailed notices to property owners and occupants within 300 feet of the project site, to all registered neighborhood groups that cover this area, interested parties who requested notice, and the appellants; and

WHEREAS, on March 25, 2025, the Council held a public hearing to consider the ZAB's decision, and in the opinion of this Council, the facts stated in, or ascertainable from the public record, including the staff report and comments made at the public hearing, warrant approving the project.

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Berkeley that the City Council hereby adopts the findings made by the ZAB in Exhibit A to affirm the decision of the ZAB to approve Use Permit #ZP2022-0046, adopts the conditions of approval in Exhibit A, adopts the project plans in Exhibit B, adopts the IS-ND Addendum in Exhibit C, and dismisses the appeals.

Exhibits
A: Findings and Conditions
B: Project Plans, received May 2, 2023
C: Addendum to the Initial Study-Negative Declaration

EXHIBIT A

FINDINGS AND CONDITIONS

MAY 11, 2023

3000 Shattuck Avenue

Use Permit #ZP2022-0046 to demolish the existing gas station, and construct a 10-story (114 feet) mixed-use building utilizing a Density Bonus, with 166 dwellings, including 17 Very Low-Income units, and 1,043 square-feet of commercial space.

PERMITS REQUIRED

- Use Permit pursuant to Berkeley Municipal Code (BMC) Section 23.326.070(A) to demolish a non-residential main building
- Use Permit pursuant to BMC Section 23.204.100(B)(4)(b) to construct a mixed-use development of more than 5,000 square-feet
- Use Permit pursuant to BMC Section 23.204.020 to add multi-family dwellings.
- Use Permit pursuant to BMC Section 23.204.100(D)(2) to modify the height and stories, setbacks, and lot coverage.
- Administrative Use Permit pursuant to BMC Section 23.304.050(A) to allow architectural features over the maximum height limit.

CONCESSIONS/WAIVERS UNDER GOVERNMENT CODE SECTION 65915-65918

- Waiver of BMC Section 23.204.100(D)(1) to exceed the Floor Area Ratio (FAR) limit – to be 6, where 4 is the maximum
- Waiver of BMC Section 23.204.100(D)(1) to exceed building height limits – to be 113 feet 10 inches and 10 stories, where 36 feet and 3 stories is the limit
- Waiver of BMC Section 23.204.100(D)(1) to reduce the required front setback from 15 feet to 2 feet 6 inches
- Waiver of BMC Section 23.204.100(D)(1) to reduce the required rear setback from 15 feet to 11 feet 3 inches
- Waiver of BMC Section 23.204.100(D)(1) to reduce the required street side (left side) setback from 6 feet to 15 feet (varies by story) to 0 to 6 feet 9 inches
- Waiver of BMC Section 23.204.100(D)(1) to reduce the required interior side (right side) setback from 4 feet to 12 feet (varies by story) to 5 feet 7 inches
- Waiver of BMC Section 23.204.100(D)(1) to exceed the lot coverage limit – to be 62 percent, where 40 percent is the maximum.

I. CEQA FINDINGS

1. Pursuant to the California Environmental Quality Act (CEQA), the City prepared an Addendum to the 3000 Shattuck Initial Study-Negative Declaration for this project.

A. Initial Study-Negative Declaration Addendum: An Addendum to the 3000 Shattuck Initial Study-Negative Declaration, which was adopted in November 2018, was prepared to evaluate the potentially significant environmental impacts of the proposed project, pursuant to CEQA. The Addendum considered the initial study and negative declaration, and

evaluated the modified project. Although the addendum includes an analysis of energy and wildfire, which were not included in the negative declaration, no significant impacts were found to occur regarding these resource areas. Substantive revisions to the negative declaration are not necessary because no new significant impacts will occur.

B. The Zoning Adjustment Board has considered the Addendum, and finds, on the basis of the whole record before it, that: (1) no potentially significant effects were identified that could not be reduced to less than significant levels by implementation of the City's standard conditions of approval, (2) there is no substantial evidence the project will have a significant effect on the environment, and (3) the Addendum reflects the lead agency's independent judgment and analysis. The record of proceedings upon which this decision is based is located at the Land Use Division of the Planning Department, 1947 Center Street, 2nd Floor, Berkeley, California 94704.

II. DENSITY BONUS FINDINGS

1. Pursuant to Government Code Section 65915, the Zoning Adjustments Board finds that:
   A. Under the City's methodology for implementing density bonuses, the "base project" consists of 111 units;
   B. The project will provide at least 17 Very Low Income qualifying units in the 111-unit "base project", as more fully set forth in Conditions of Approval 24 to 32;
   C. The project is entitled to a density increase of 50 percent over the otherwise maximum allowable residential density under the Zoning Ordinance and General Plan Land Use Element, under the requirements of Government Code Section 65915(b) and (f), plus three concessions or incentives, and an unlimited number of waivers. This equates to a density bonus of 56 units (55 taken) above the Base Project, for a total of 166-units.

2. In accordance with Government Code Section 65915(e) the Zoning Adjustments Board hereby grants the following waivers:
   A. Exceed the Floor Area Ratio (FAR) limit from 4.0 to 6.0
   B. Exceed the building height limit from 36 feet and 3 stories to 113 feet 10 inches and 10 stories
   C. Reduce the required front setback from 15 feet to 2 feet 6 inches
   D. Reduce the required rear setback from 15 feet to 11 feet 3 inches
   E. Reduce the required street side (left side) setback from 6 feet to 15 feet (varies by story) to 0 feet
   F. Reduce the required interior side (right side) setback from 4 feet to 12 feet (varies by story) to 5 feet 7 inches
   G. Exceed the lot coverage limit from 40 percent to 62 percent

   These waivers are required because state law requires the City to modify development standards as necessary to accommodate these density bonus units, and because the Zoning Adjustments Board hereby finds that the density bonus units can best be accommodated by granting these waivers.

3. In accordance with Government Code Section 65915(e), in order to allow construction of the proposed project with the density permitted under State law, the Zoning Adjustments Board finds approval of waivers is required 1) to construct the proposed project at the density permitted under State law; 2) approval of requested waivers would not have a specific

adverse impact upon public health and safety, or the physical environment, or on any real property listed in the California Register of Historical Resources; and 3) approval of the requested waivers would not be contrary to State or Federal law.

III. HOUSING ACCOUNTABILITY ACT FINDINGS

A. The Housing Accountability Act, Government Code Section 65589.5(j) requires that when a proposed housing development complies with applicable, objective general plan and zoning standards, a local agency may not deny the project or approve it with reduced density unless the agency makes written findings supported by substantial evidence that: (A) the development would have a specific adverse impact on public health or safety unless disapproved or approved at a lower density; and (B) there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact, other than the disapproval or approval at a lower density.

B. Because the project complies with applicable, objective general plan and zoning standards, §65589.5(j) does apply to this project. No significant, quantifiable, direct and unavoidable impacts, based on objective, identified written public health or safety standards, polices, or conditions, have been identified. The project includes construction of a mixed-use building with 166 dwelling units.

IV. FINDINGS FOR APPROVAL

4. As required by Section 23.406.040(E)(1) of the BMC, the project, under the circumstances of this particular case existing at the time at which the application is granted, would not be detrimental to the health, safety, peace, morals, comfort, and general welfare of the persons residing or working in the neighborhood of such proposed use or be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City because:

A. The project is subject to the City's standard conditions of approval regarding construction noise and air quality, waste diversion, toxics, and stormwater requirements as well as any other project specific conditions. These standard conditions will ensure the project will not be detrimental to adjacent properties, the surrounding area or neighborhood or to the general welfare of the City.

B. Shadow studies submitted by the applicant document the addition's projected shadow angles and lengths at three times throughout the day during the summer and winter solstice. New shadows would affect dwellings at the following locations:

- Newbury Street, northwest of the site, casting new shadows on the winter solstice two hours after sunrise.
- The northeast intersection of Ashby Avenue and Shattuck Avenue, casting new shadows on the winter solstice two hours before sunset.
- Ashby Avenue, west of the project site, casting new shadows on the summer solstice two hours after sunrise.
- Shattuck Avenue, southeast of the project site, casting new shadows on the summer solstice two hours before sunset.
- Because the impacts to neighboring properties will occur on limited areas, and will only partially shade neighboring buildings for a limited time during the year, and only for a few hours of the day, the project will not result in a significant loss of direct sunlight on abutting dwellings, and these shading impacts are not deemed detrimental.

C. The project is consistent with all applicable C-SA District standards and qualifies for waivers and concessions for the listed district standards granted pursuant to State Density Bonuses, Government Code, Section 65915.

V. OTHER FINDINGS FOR APPROVAL

5. As required by Section 23.326.070 of the BMC, the Zoning Adjustments Board finds that the proposed demolition of the non-residential buildings is permissible because:

A. At a duly noticed hearing on May 5, 2016, the Landmarks Preservation Commission (LPC) reviewed a demolition referral for the existing structures and took no action to initiate a local historic designation.

B. The demolition of the gas station is not materially detrimental to the commercial and public interest of any affected neighborhood in the City. The new mixed-use building will replace the existing gas station with a new 81,522 square-foot building, with 166 dwelling units (studios), and 1,043 square-feet of commercial space.

C. Overall, demolition of the building will allow redevelopment of the project site which will complement and be compatible with surrounding uses.

D. Demolition is necessary to allow construction of the proposed building given the inclusion of a condition of approval that allows demolition of the existing buildings only after complete construction plans are submitted to the City for the replacement building (COA #21).

6. As required by Section 23.204.100(E) of the BMC, the Zoning Adjustments Board finds that the proposed use or structure:

A. Is compatible with the purposes of the district: The project is a higher-density development in proximity to regional transit, shops, and amenities, that is compatible with the purposes of the zoning district and the surrounding uses and buildings. The project site is located within the South Area Commercial District (C-SA) and is designated Avenue Commercial in the City's General Plan. It will create 166 new studio dwelling units. Seventeen of the units will be deed restricted as affordable housing units for very-low-income residents.

The proposal also includes 1,043 square feet of commercial space and a total of 62 secure bicycle parking spaces (short-term and long-term) on the ground floor. The project site is well served by public transportation, including a BART station less than half-mile to the southwest. The surrounding commercial area includes retail sales, restaurants, personal services, and multi-family residential uses; the project will add to these commercial and residential uses and add population to support these uses.

B. Is compatible in design and character with the district and the adjacent residential neighborhoods: The project site currently includes automotive uses. The proposed project will change uses on the site to ground-floor commercial, with residential uses on all floors. The project will not introduce new land uses that do not already exist in the area. The design will be residential mixed-use, and will be consistent with the character of the commercial corridors of Shattuck Avenue and Ashby Avenue.

C. Will not result in the domination of one type of commercial/retail use in any one area of the district: The project includes 1,043 square feet of ground floor commercial space, and will

not result in the domination of one type of commercial use in this portion of the C-SA District.

7. As required by Section 23.204.100(D)(2) of the BMC, the Zoning Adjustments Board finds that the request to modify development standards in the C-SA District for mixed-use projects, including height and stories, setbacks, and lot coverage is permissible because the following findings can be made:

A. The proposed project is served by multiple bus lines (local and Transbay), is 0.3 miles from the Ashby BART Station, and the Bike Boulevard on Milvia Street is within 0.3 miles. Car parking is not required and will not be provided, but secure bike parking will be provided.

B. The reduction in the setbacks is greatest along the Shattuck and Ashby frontages, where it will have less of an impact on nearby dwelling units, and minimal street side and front setbacks are typical for commercial corridors.

C. The modification of height and stories, setbacks, and lot coverage supports the location of on-site affordable housing.

8. As required by Section 23.304.050(A) of the BMC, the Zoning Adjustments Board finds that the request to permit building features such as mechanical penthouses that project about the height limit is permissible because:

A. With a gross floor area of 81,522 square feet, the average floor area for ten floors is 8,152 square feet, and 15 percent of the average floor area is 1,223 square feet. The proposed features occupy 1,020 square feet, which complies with the 15 percent limit.

VI. STANDARD CONDITIONS OF APPROVAL FOR ALL PROJECTS

The following conditions, as well as all other applicable provisions of the Zoning Ordinance, apply to this Permit:

1. Conditions Shall be Printed on Plans

The conditions of this Permit shall be printed on the *second* sheet of each plan set submitted for a building permit pursuant to this Use Permit, under the title 'Use Permit Conditions.' *Additional sheets* may also be used if the *second* sheet is not of sufficient size to list all of the conditions. The sheet(s) containing the conditions shall be of the same size as those sheets containing the construction drawings; 8-1/2" by 11" sheets are not acceptable.

2. Compliance Required (BMC Section 23.102.050)

All land uses and structures in Berkeley must comply with the Zoning Ordinance and all applicable City ordinances and regulations. Compliance with the Zoning Ordinance does not relieve an applicant from requirements to comply with other federal, state, and City regulations that also apply to the property.

3. Approval Limited to Proposed Project and Replacement of Existing Uses (BMC Sections 23.404.060.B.1 and 2)

A. This Permit authorizes only the proposed project described in the application. In no way does an approval authorize other uses, structures or activities not included in the project description.
B. When the City approves a new use that replaces an existing use, any prior approval of the existing use becomes null and void when permits for the new use are exercised (e.g., building permit or business license issued). To reestablish the previously existing use, an applicant must obtain all permits required by the Zoning Ordinance for the use.

4. Conformance to Approved Plans (BMC Section 23.404.060.B.4)

All work performed under an approved permit shall be in compliance with the approved plans and any conditions of approval.

5. Exercise and Expiration of Permits (BMC Section 23.404.060.C)

A. A permit authorizing a land use is exercised when both a valid City business license is issued (if required) and the land use is established on the property.
B. A permit authorizing construction is exercised when both a valid City building permit (if required) is issued and construction has lawfully begun.
C. The Zoning Officer may declare a permit lapsed if it is not exercised within one year of its issuance, except if the applicant has applied for a building permit or has made a substantial good faith effort to obtain a building permit and begin construction. The Zoning Officer may declare a permit lapsed only after 14 days written notice to the applicant. A determination that a permit has lapsed may be appealed to the ZAB in accordance with Chapter 23.410 (Appeals and Certification).
D. A permit declared lapsed shall be void and of no further force and effect. To establish the use or structure authorized by the lapsed permit, an applicant must apply for and receive City approval of a new permit.

6. Permit Remains Effective for Vacant Property (BMC Section 23.404.060.D)
Once a Permit for a use is exercised and the use is established, the permit authorizing the use remains effective even if the property becomes vacant. The same use as allowed by the original permit may be re-established without obtaining a new permit, except as set forth in Standard Condition #5 above.

7. Permit Modifications (BMC Section 23.404.070)
No change in the use or structure for which this Permit is issued is permitted unless the Permit is modified by the Board. The Zoning Officer may approve changes to plans approved by the Board, consistent with the Board's policy adopted on May 24, 1978, which reduce the size of the project.

8. Permit Revocation (BMC Section 23.404.080)
The City may revoke or modify a discretionary permit for completed projects due to: 1) violations of permit requirements; 2) Changes to the approved project; and/or 3) Vacancy for one year or more. However, no lawful residential use can lapse, regardless of the length of time of the vacancy. Proceedings to revoke or modify a permit may be initiated by the Zoning Officer, Zoning Adjustments Board (ZAB), or City Council referral.

9. Pay Transparency Acknowledgement (BMC Section 13.104.030)
Prior to the issuance of a building permit for any Project subject to this Chapter:

A. A Responsible Representative of the Permittee shall certify under penalty of perjury that: (1) the Permittee has reviewed Chapter 13.104 of the Berkeley Municipal Code; and (2) the Permittee will be responsible for demonstrating compliance with this Chapter.
B. The Permittee shall provide to the City a Contractor Pay Transparency Acknowledgment on a form approved by the City for this purpose. A Responsible Representative of the Permittee shall certify under penalty of perjury that the Contractor and all Qualifying Subcontractors performing work on the Project will comply with Chapter 13.104 of the Berkeley Municipal Code and with Labor Code sections 226(a) and 2810.5 for each employee who works on the Project.

10. Pay Transparency Attestations Following Project Completion (BMC Section 13.104.040)
Within 10 days of the approved final inspection of any Project subject to this Chapter, each Permittee shall provide to the City for each Contractor and Qualifying Subcontractor a Pay Transparency Attestation on a form approved by the City. On each Pay Transparency Attestation, a Responsible Representative of the Contractor or Qualifying Subcontractor shall attest under penalty of perjury that the Contractor or Qualifying Subcontractor complied with Chapter 13.104 of the Berkeley Municipal Code and Labor Code sections 226(a) and 2810.5 for each employee who performed work on the Project. The City will maintain Pay Transparency Attestation forms for period of at least three years after their date of receipt by the City.

11. Posting of Ordinance (BMC Section 13.104.050)
Each day work is performed on the Project, each Permittee shall post, and keep posted in a conspicuous location where it may be easily read by employees during the hours of the workday, a notice that: (A) contains the text of Chapter 13.104 of the Berkeley Municipal Code; (B) explains that workers can report violations of Labor Code sections 226 and 2810.5 to the

Labor Commissioner of the State of California; and (C) provides current contact information, including office address, telephone number, and email address of the Labor Commissioner of the State of California.

12. Conditions of Approval (BMC Section 13.104.060)
The requirements of Sections 13.104.030 through 13.104.050 shall be included as conditions of approval of any Use Permit or Zoning Certificate for any Project that is subject to this Chapter. Failure to comply with the requirements of any provision of this Chapter shall be grounds for issuance of an administrative citation under Chapter 1.28 and/or the revocation or modification of any Use Permit issued for the Project under Chapter 23B.60.

13. Indemnification Agreement
The applicant shall hold harmless, defend, and indemnify the City of Berkeley and its officers, agents, and employees against any and all liability, damages, claims, demands, judgments or other losses (including without limitation, attorney's fees, expert witness and consultant fees and other litigation expenses), referendum or initiative relating to, resulting from or caused by, or alleged to have resulted from, or caused by, any action or approval associated with the project. The indemnity includes without limitation, any legal or administrative challenge, referendum or initiative filed or prosecuted to overturn, set aside, stay or otherwise rescind any or all approvals granted in connection with the Project, any environmental determination made for the project and granting any permit issued in accordance with the project. This indemnity includes, without limitation, payment of all direct and indirect costs associated with any action specified herein. Direct and indirect costs shall include, without limitation, any attorney's fees, expert witness and consultant fees, court costs, and other litigation fees. City shall have the right to select counsel to represent the City at Applicant's expense in the defense of any action specified in this condition of approval. City shall take reasonable steps to promptly notify the Applicant of any claim, demand, or legal actions that may create a claim for indemnification under these conditions of approval.

VII. ADDITIONAL CONDITIONS IMPOSED BY THE ZONING ADJUSTMENTS BOARD

Pursuant to BMC 23.404.050(H), the Zoning Adjustments Board attaches the following additional conditions to this Permit:

See conditions of approval # 15, 16, 17, 27, and 62 – below.

Prior to Submittal of Any Building Permit:

14. Project Liaison. The applicant shall include in all building permit plans and post onsite the name and telephone number of an individual empowered to manage construction-related complaints generated from the project. The individual's name, telephone number, and responsibility for the project shall be posted at the project site for the duration of the project in a location easily visible to the public. The individual shall record all complaints received and actions taken in response, and submit written reports of such complaints and actions to the project planner on a weekly basis. **Please designate the name of this individual below:**

☐ **Project Liaison** _____
Name Phone #

15. Meeting with Neighbors. The applicant shall meet with concerned neighbors and provide evidence that a meeting took place.

16. Consistency Between Floor Plans and Renderings. The floor plans shall be updated to conform with the project renderings (e.g. windows in the rendering shall be in the floor plan). A narrative describing any changes to the floor plans shall accompany the plans submitted for a building permit.

17. Native Plants Required. Eighty percent of plantings at the project site shall be native to the Bay Area. Confirmation of compliance with this condition shall be indicated in the plans submitted for the building permit.

18. Final Design Review. The Project requires approval of a Final Design Review application by the Design Review Committee.

19. Address Assignment. The applicant shall file an "Address Assignment Request Application" with the Permit Service Center (1947 Center Street) for any address change or new address associated with this Use Permit. The new address(es) shall be assigned and entered into the City's database prior to the applicant's submittal of a building permit application.

20. 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 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-driven 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.

21. Damage Due to Construction Vibration**.** The project applicant shall submit screening level analysis prior to, or concurrent with demolition building permit. If a screening level analysis shows that the project has the potential to result in damage to structures, a structural engineer or other appropriate professional shall be retained to prepare a vibration impact assessment (assessment). The assessment shall take into account project specific information such as the composition of the structures, location of the various types of equipment used during each phase of the project, as well as the soil characteristics in the project area, in order to determine whether project construction may cause damage to any of the structures identified as potentially impacted in the screening level analysis. If the assessment finds that the project may cause damage to nearby structures, the structural engineer or other appropriate professional shall recommend design means and methods of construction that to avoid the potential damage, if feasible. The assessment and its recommendations shall be reviewed and approved by the Building and Safety Division and the Zoning Officer. If there are no feasible design means or methods to eliminate the potential for damage, the structural engineer or other appropriate professional shall undertake an existing conditions study (study) of any structures (or, in case of large buildings, of the portions of the structures) that may experience damage. This study shall:

- establish the baseline condition of these structures, including, but not limited to, the location and extent of any visible cracks or spalls; and
- include written descriptions and photographs.

The study shall be reviewed and approved by the Building and Safety Division and the Zoning Officer prior to issuance of a grading permit. Upon completion of the project, the structures (or, in case of large buildings, of the portions of the structures) previously inspected will be resurveyed, and any new cracks or other changes shall be compared to pre-construction conditions and a determination shall be made as to whether the proposed project caused the damage. The findings shall be submitted to the Building and Safety Division and the Zoning Officer for review. If it is determined that project construction has resulted in damage to the structure, the damage shall be repaired to the pre-existing condition by the project sponsor, provided that the property owner approves of the repair.

Prior to Issuance of Any Building & Safety Permit (Demolition or Construction)

22. 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 during extended work hours and reason for extended hours, (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, and (5) 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.

23. Construction Phases. The applicant shall provide the Zoning Officer with a schedule of major construction phases with start dates and expected duration, a description of the activities and anticipated noise levels of each phase, and the name(s) and phone number(s) of the individual(s) directly supervising each phase. The Zoning Officer or his/her designee shall have the authority to require an on-site meeting with these individuals as necessary to ensure compliance with these conditions. The applicant shall notify the Zoning Officer of any changes to this schedule as soon as possible.

24. Demolition. Demolition of the existing building cannot commence until a complete application is submitted for the replacement building. In addition, all plans presented to the City to obtain a permit to allow the demolition are subject to these conditions.

25. Construction and Demolition Diversion. Applicant shall submit a Construction Waste Management Plan that meets the requirements of BMC Chapter 19.37 including 100% diversion of asphalt, concrete, excavated soil and land-clearing debris and a minimum of 65% diversion of other nonhazardous construction and demolition waste.

26. Toxics. The applicant shall contact the Toxics Management Division (TMD) at 1947 Center Street or (510) 981-7470 to determine which of the following documents are required and timing for their submittal:

A. Environmental Site Assessments:
   1) Phase I & Phase II Environmental Site Assessments (latest ASTM 1527-13). A recent Phase I ESA (less than 2 years old*) shall be submitted to TMD for developments for:
      - All new commercial, industrial and mixed use developments and all large improvement projects.
      - All new residential buildings with 5 or more dwelling units located in the Environmental Management Area (or EMA).
      - EMA is available online at: http://www.cityofberkeley.info/uploadedFiles/IT/Level_3_-_General/ema.pdf
   2) Phase II ESA is required to evaluate Recognized Environmental Conditions (REC) identified in the Phase I or other RECs identified by TMD staff. The TMD may require a third party toxicologist to review human or ecological health risks that may be identified. The applicant may apply to the appropriate state, regional or county cleanup agency to evaluate the risks.
   3) If the Phase I is over 2 years old, it will require a new site reconnaissance and interviews. If the facility was subject to regulation under Title 15 of the Berkeley Municipal Code since the last Phase I was conducted, a new records review must be performed.

B. Soil and Groundwater Management Plan:
   1) A Soil and Groundwater Management Plan (SGMP) shall be submitted to TMD for all non-residential projects, and residential or mixed-use projects with five or more dwelling units, that: (1) are in the Environmental Management Area (EMA) and (2) propose any excavations deeper than 5 feet below grade. The SGMP shall be site specific and identify procedures for soil and groundwater management including identification of pollutants and disposal methods. The SGMP will identify permits required and comply with all applicable local, state and regional requirements.
   2) The SGMP shall require notification to TMD of any hazardous materials found in soils and groundwater during development. The SGMP will provide guidance on managing

odors during excavation. The SGMP will provide the name and phone number of the individual responsible for implementing the SGMP and post the name and phone number for the person responding to community questions and complaints.

3) TMD may impose additional conditions as deemed necessary. All requirements of the approved SGMP shall be deemed conditions of approval of this Use Permit.

C. Building Materials Survey:

1) Prior to approving any permit for partial or complete demolition and renovation activities involving the removal of 20 square or lineal feet of interior or exterior walls, a building materials survey shall be conducted by a qualified professional. The survey shall include, but not be limited to, identification of any lead-based paint, asbestos, polychlorinated biphenyl (PBC) containing equipment, hydraulic fluids in elevators or lifts, refrigeration systems, treated wood and mercury containing devices (including fluorescent light bulbs and mercury switches). The Survey shall include plans on hazardous waste or hazardous materials removal, reuse or disposal procedures to be implemented that fully comply state hazardous waste generator requirements (22 California Code of Regulations 66260 et seq). The Survey becomes a condition of any building or demolition permit for the project. Documentation evidencing disposal of hazardous waste in compliance with the survey shall be submitted to TMD within 30 days of the completion of the demolition. If asbestos is identified, Bay Area Air Quality Management District Regulation 11-2-401.3 a notification must be made and the J number must be made available to the City of Berkeley Permit Service Center.

D. Hazardous Materials Business Plan:

1) A Hazardous Materials Business Plan (HMBP) in compliance with BMC Section 15.12.040 shall be submitted electronically at http://cers.calepa.ca.gov/ within 30 days if on-site hazardous materials exceed BMC 15.20.040. HMBP requirement can be found at http://ci.berkeley.ca.us/hmr/

Affordable Housing Requirements

27. Project shall comply with BMC Chapter 23.328 Inclusionary Housing, effective April 1, 2023 and Resolution 70,698-N.S. Adopting Regulations for Voucher Program and Establishing an In-Lieu Fee to Support the Provision of Affordable Housing Pursuant to Berkeley Municipal Code 23.328 and Rescinding Resolution 70,668-N.S.

Prior to Issuance of Any Building (Construction) Permit

28. Parcel Merger. The applicant shall secure approval of any parcel merger and/or lot line adjustment associated with this Use Permit.

29. Percent for Public Art: Consistent with BMC §23.316, the applicant shall either pay the required in-lieu fee or provide the equivalent amount in a financial guarantee to be released after installation of the On-Site Publicly Accessible Art.

30. HVAC Noise Reduction. Prior to the issuance of building permits, the project applicant shall submit plans that show the location, type, and design of proposed heating, ventilation, and cooling (HVAC) equipment. In addition, the applicant shall provide product specification sheets or a report from a qualified acoustical consultant showing that operation of the proposed HVAC equipment will meet the City's exterior noise requirements in BMC Section 13.40.050. The City's Planning and Development Department shall review the submitted plans, including the selected HVAC equipment, to verify compliance with exterior noise standards.

31. Interior Noise Levels. Prior to issuance of a building permit, the applicant shall submit a report to the Building and Safety Division and the Zoning Officer by a qualified acoustic engineer certifying that the interior residential portions of the project will achieve interior noise levels of no more than 45 Ldn (Average Day-Night Levels). If the adopted Building Code imposes a more restrictive standard for interior noise levels, the report shall certify compliance with this standard.

32. Solar Photovoltaic (Solar PV). Solar Photovoltaic (Solar PV) and Battery Energy Storage Systems (ESS). A solar PV system shall be installed, subject to specific limited exceptions, as specified by the Berkeley Energy Code (BMC Chapter 19.36). Energy storage system (ESS) readiness (new single-family, duplex, and townhouse homes) or ESS installation (new multifamily and most nonresidential buildings) shall be completed as specified by BMC Chapter 19.36. Location of the solar PV system and the ESS, if applicable, shall be noted on the construction plans.

33. Water Efficient Landscaping. Landscaping, totaling 500 square feet of more of new landscaping or 2,500 square feet or more of renovated irrigated area, shall comply with the State's Model Water Efficient Landscape Ordinance (MWELO). MWELO-compliant landscape documentation including a planting, grading, and irrigation plan shall be included in site plans. Water budget calculations are also required for landscapes of 2,500 square feet or more and shall be included in site plans. The reference evapotranspiration rate (ETo) for Berkeley is 41.8.

34. Prohibition of Natural Gas Infrastructure in New Buildings. The project shall comply with the City of Berkeley Prohibition of Natural Gas Infrastructure in New Buildings (BMC Chapter 12.80).

35. Recycling and Organics Collection. Applicant shall provide recycling and organics collection areas for occupants, clearly marked on site plans, which comply with the Alameda County Mandatory Recycling Ordinance (ACWMA Ordinance 2012-01).

36. Public Works ADA. Plans submitted for building permit shall include replacement of sidewalk, curb, gutter, and other streetscape improvements, as necessary to comply with current City of Berkeley standards for accessibility.

37. Required Parking Spaces for Persons with Disabilities. Per BMC Section 23.322.040.H of the Zoning Ordinance, "If the number of required off-street parking spaces in a non-residential district is reduced as allowed by this chapter, the number of required parking spaces for persons with disabilities shall be calculated as if there had been no reduction in required spaces."

Prior to Demolition or Start of Construction:

38. Construction Meeting. The applicant shall request of the Zoning Officer an on-site meeting with City staff and key parties involved in the early phases of construction (e.g., applicant, general contractor, foundation subcontractors) to review these conditions and the construction schedule. The general contractor or applicant shall ensure that all subcontractors involved in subsequent phases of construction aware of the conditions of approval.

During Construction:

39. Construction Hours. 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.

40. Construction Hours- Exceptions. It is recognized that certain construction activities, such as the placement of concrete, must be performed in a continuous manner and may require an extension of these work hours. Prior to initiating any activity that might require a longer period, the developer must notify the Zoning Officer and request an exception for a finite period of time. If the Zoning Officer approves the request, then two weeks prior to the expanded schedule, the developer shall notify businesses and residents within 500 feet of the project site describing the expanded construction hours. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval. The project shall not be allowed more than 15 extended working days.

41. Project Construction Website. The applicant shall establish a project construction website with the following information clearly accessible and updated monthly or more frequently as changes warrant:

- Contact information (i.e. “hotline” phone number, and email address) for the project construction manager
- Calendar and schedule of daily/weekly/monthly construction activities
- The final Conditions of Approval, Mitigation Monitoring and Reporting Program, Transportation Construction Plan, Construction Noise Reduction Program, and any other reports or programs related to construction noise, air quality, and traffic.

42. Public Works - Implement BAAQMD-Recommended Measures during Construction. For all proposed projects, BAAQMD recommends implementing all the Basic Construction Mitigation Measures, listed below to meet the best management practices threshold for fugitive dust:

A. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
B. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
C. All visible mud or dirt track-out 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.
D. All vehicle speeds on unpaved roads shall be limited to 15 mph.
E. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
F. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
G. All construction equipment shall be maintained and properly tuned in accordance with manufacturer‘s specifications. All equipment shall be checked by a certified visible emissions evaluator.
H. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action

within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

43. 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:

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. The health risk assessment shall be submitted to the Land Use Planning Division for review and approval prior to the issuance of building permits; or

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 (CARB). 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, CARB 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.

44. Construction and Demolition Diversion. Divert debris according to your plan and collect required documentation. Get construction debris receipts from sorting facilities in order to verify diversion requirements. Upload recycling and disposal receipts if using Green Halo and submit online for City review and approval prior to final inspection. Alternatively, complete the second page of the original Construction Waste Management Plan and present it, along with your construction debris receipts, to the Building Inspector by the final inspection to demonstrate diversion rate compliance. The Zoning Officer may request summary reports at more frequent intervals, as necessary to ensure compliance with this requirement.

45. Low-Carbon Concrete. The project shall maintain compliance with the Berkeley Green Code (BMC Chapter 19.37) including use of concrete mix design with a cement reduction of at least 25%. Documentation on concrete mix design shall be available at all times at the construction site for review by City Staff.

46. Transportation Construction Plan. The applicant and all persons associated with the project are hereby notified that a Transportation Construction Plan (TCP) is required for all phases of construction, particularly for the following activities:

- Alterations, closures, or blockages to sidewalks, pedestrian paths or vehicle travel lanes (including bicycle lanes);
- Storage of building materials, dumpsters, debris anywhere in the public ROW;
- Provision of exclusive contractor parking on-street; or
- Significant truck activity.

The applicant shall secure the City Traffic Engineer's approval of a TCP. Please contact the Office of Transportation at 981-7010, or 1947 Center Street, and ask to speak to a traffic engineer. In addition to other requirements of the Traffic Engineer, this plan shall include the locations of material and equipment storage, trailers, worker parking, a schedule of site operations that may block traffic, and provisions for traffic control. The TCP shall be consistent with any other requirements of the construction phase.

Contact the Permit Service Center (PSC) at 1947 Center Street or 981-7500 for details on obtaining Construction/No Parking Permits (and associated signs and accompanying dashboard permits). Please note that the Zoning Officer and/or Traffic Engineer may limit off-site parking of construction-related vehicles if necessary to protect the health, safety or convenience of the surrounding neighborhood. A current copy of this Plan shall be available at all times at the construction site for review by City Staff.

47. Avoid Disturbance of Nesting Birds. Initial site disturbance activities, including vegetation and concrete removal, shall be prohibited during the general avian nesting season (February 1 to August 30), if feasible. If nesting season avoidance is not feasible, the applicant shall retain a qualified biologist to conduct a preconstruction nesting bird survey to determine the presence/absence, location, and activity status of any active nests on or adjacent to the project site. The extent of the survey buffer area surrounding the site shall be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and CFGC, nesting bird surveys shall be performed not more than 14 days prior to scheduled vegetation and concrete removal. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines and a minimum buffer of 250 feet for raptors) shall be established around such active nests and no construction shall be allowed inside the buffer areas until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). No ground-disturbing activities shall occur within this buffer until the qualified biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Nesting bird surveys are not required for construction activities occurring between August 31 and January 31.

48. Archaeological Resources (*Ongoing throughout demolition, grading, and/or construction*). Pursuant to CEQA Guidelines section 15064.5(f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore:

A. In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist, historian or paleontologist to assess the significance of the find.

B. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified professional would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Berkeley. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by the qualified professional according to current professional standards.
C. In considering any suggested measure proposed by the qualified professional, the project applicant shall determine whether avoidance is necessary or feasible in light of factors such as the uniqueness of the find, project design, costs, and other considerations.
D. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation measures for cultural resources is carried out.
E. If significant materials are recovered, the qualified professional shall prepare a report on the findings for submittal to the Northwest Information Center.

49. Human Remains (*Ongoing throughout demolition, grading, and/or construction*). In the event that human skeletal remains are uncovered at the project site during ground-disturbing activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

50. Paleontological Resources (*Ongoing throughout demolition, grading, and/or construction*). In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards [SVP 1995,1996]). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.

51. Halt Work/Unanticipated Discovery of Tribal Cultural Resources. In the event that cultural resources of Native American origin are identified during construction, all work within 50 feet of the discovery shall be redirected. The project applicant and project construction contractor shall notify the City Planning Department within 24 hours. The City will again contact any tribes who have requested consultation under AB 52, as well as contact a qualified archaeologist, to evaluate the resources and situation and provide recommendations. If it is determined that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in

consultation with Native American groups. If the resource cannot be avoided, additional measures to avoid or reduce impacts to the resource and to address tribal concerns may be required.

52. Stormwater Requirements. The applicant shall demonstrate compliance with the requirements of the City's National Pollution Discharge Elimination System (NPDES) permit as described in BMC 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 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 BMC Chapter 17.20 and future revisions to the City's overall stormwater quality ordinances. This review shall be 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 & 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. All loading areas must be designated to minimize “run-on” or runoff from the area. Accumulated waste water that may contribute to the pollution of stormwater must be drained to the sanitary sewer or intercepted and pretreated prior to discharge to the storm drain system. The property owner shall ensure that BMPs are implemented to prevent potential stormwater pollution. These BMPs shall include, but are not limited to, a regular program of sweeping, litter control and spill cleanup.
K. Restaurants, where deemed appropriate, must be designed with a contained area for cleaning mats, equipment and containers. This contained wash area shall be covered or designed to prevent run-on or run-off from the area. The area shall not discharge to the storm drains; wash waters should drain to the sanitary sewer, or collected for ultimate disposal to the sanitary sewer. Employees shall be instructed and signs posted indicating that all washing activities shall be conducted in this area. Sanitary connections are subject to the review, approval and conditions of the waste water treatment plant receiving the discharge.
L. 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.
M. 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.

53. 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.

54. Public Works. 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 rights-of-way.

55. Public Works. 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.

56. Public Works. 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.

57. Public Works. The removal or obstruction of any fire hydrant shall require the submission of a plan to the City's Public Works Department for the relocation of the fire hydrant during construction.

58. Public Works. If underground utilities leading to adjacent properties are uncovered and/or broken, the contractor involved shall immediately notify the Public Works Department and the Building & Safety Division, and carry out any necessary corrective action to their satisfaction.

Prior to Final Inspection or Issuance of Occupancy Permit:

59. Compliance with Conditions. The project shall conform to the plans and statements in the Use Permit. The developer is responsible for providing sufficient evidence to demonstrate compliance with the requirements throughout the implementation of this Use Permit.

60. Compliance with Approved Plan. The project shall conform to the plans and statements in the Use Permit. All landscape, site and architectural improvements shall be completed per the attached approved drawings received May 2, 2023, except as modified by conditions of approval.

61. Transportation Demand Management. Prior to issuance of a Certificate of Occupancy, the property owner shall facilitate a site inspection by Land Use Division staff to confirm that the physical improvements required in Section 23.334.030(C) and 23.322.090 (bike parking) have been installed. A Parking and Transportation Demand Management (PTDM) compliance report documenting that the programmatic measures required in Sections 23.334.030(C) and 23.322.090 are implemented shall be submitted to the Land Use Division prior to occupancy, and on an annual basis thereafter, which demonstrates that the project is compliant with the applicable requirements in these sections.

A. Consistent with Section 23.334.030(B), at least one of the following transit benefits shall be offered, at no cost to the resident, for a period of ten years after the issuance of a Certificate of Occupancy. A notice describing these transportation benefits shall be posted in a location or locations visible to all employees.
   1. One monthly pass for unlimited local bus transit service for every bedroom in each dwelling unit.
   2. Subject to the review and approval of the Zoning Officer in consultation with the Transportation Division Manager, a functionally equivalent transit benefit in an amount at least equal to the price of a non-discounted unlimited adult monthly pass for unlimited local bus transit service monthly local bus pass.

B. Consistent with Section 23.334.030(C), publicly-available, real-time transportation information in a common area, such as a lobby or elevator bay, on televisions, computer monitors or other displays readily visible to residents and/or visitors, shall be provided. Transportation information shall include, but is not limited to, transit arrivals and departures for nearby transit routes.

At All Times:

62. Native Plants Required. Eighty percent of plantings at the project site shall be native to the Bay Area.

63. Transportation Demand Management Compliance. The property owner shall submit to the Planning Department periodic TDM Compliance Reports in accordance with Administrative Regulations, subject to the review and oversight of the Zoning Officer. Property owners may be required to pay administrative fees associated with compliance with this Condition, pursuant to BMC Section 23.334.040(B).

64. Exterior Lighting. All exterior lighting shall be energy efficient where feasible; and shielded and directed downward and away from property lines to prevent excessive glare beyond the subject property.

65. Noise and exterior lighting shall be controlled so as to prevent verified complaints from the surrounding neighborhood. This shall include noise created by employees working on the premises before or after patrons arrive.

66. Rooftop Projections. No additional rooftop or elevator equipment shall be added to exceed the approved maximum roof height without submission of an application for a Use Permit Modification, subject to Board review and approval.

67. Design Review. Signage and any other exterior modifications, including but not limited to landscaping and lighting, shall be subject to Design Review Committee approval.

68. Drainage Patterns. The applicant shall establish and maintain drainage patterns that do not adversely affect adjacent properties and rights-of-way. Drainage plans shall be submitted for approval of the Building & Safety Division and Public Works Department, if required.

69. Electrical Meter. Only one electrical meter fixture may be installed per dwelling unit.

70. Loading. All loading/unloading activities associated with deliveries to all uses shall be restricted to the hours of 7:00 a.m. to 10:00 p.m. daily.

71. Residential Permit Parking. No Residential Permit Parking (RPP) permits shall be issued to project residents, nor shall commercial placards be issued to non-residential occupants and/or users of the site. The project planner shall notify the Finance Department, Customer Service Center, to add these addresses to the list of addresses ineligible for RPP permits. The property owner shall notify all tenants of rental units, and/or buyers of condominium units, of this restriction in leases and/or contracts, and shall provide sample leases and/or contracts including such notification to the project planner prior to issuance of an occupancy permit or final inspection.

72. Bike Parking. Secure and on-site bike parking for at least 61 bicycles shall be provided for the life of the building.

73. Tenant Notification. The developer shall provide tenant notification, via a lease rider or deed covenant, that each dwelling unit is located in a mixed-use area that includes commercial, food service and entertainment uses, and that each occupant shall not seek to impede their lawful operation.

74. Periodic Review and Reporting. The City may require periodic review of this approved project to verify compliance with permit requirements and conditions of approval. The permit holder or property owner is responsible for complying with any periodic reporting, monitoring, or assessments requirement. This permit is subject to the provisions of BMC Section 23.404.080 (Permit Revocation) if violations of the permit requirements are found by the Zoning Officer.

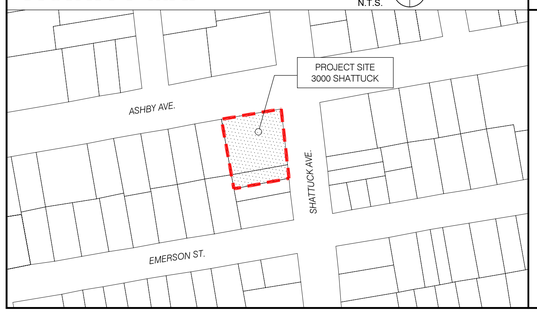
PLANS APPROVED BY ZONING ADJUSTMENTS BOARD

SIGNATURE

May 11, 2023
DATE

* Findings and Conditions Attached

VICINITY MAP



PROJECT DIRECTORY

PROJECT SPONSOR:
3000 Shattuck Avenue, LLC
NX Ventures, LLC
1958A University Ave
Berkeley, CA 94704

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

LANDSCAPE ARCHITECT:
Penn Phillips
INSIDEOUT DESIGN
6000 Harwood Avenue
Oakland CA 94618
510.655.7674
www.aboutinsideout.com

PROJECT DESCRIPTION

PROJECT ADDRESS: 3000 Shattuck
Berkeley, CA 94705 (APN: 053 159200100)

SCOPE OF WORK:
REMOVAL OF EXISTING 1 STORY COMMERCIAL STRUCTURE & CONSTRUCTION OF A NEW 9-STORY MIXED-USE BUILDING WITH 156-DWELLING UNITS, GROUND LEVEL LOBBIES AND COMMERCIAL SPACE WITH STATE OF CALIFORNIA DENSITY BONUS.

ZONING CODE SUMMARY

(BASED ON THE BERKELEY MUNICIPAL ZONING CODE)

ZONING: C-SA

SEE SHEET A0.1 FOR COMPLETE ZONING DATA

DRAWING LIST

A0.0	GENERAL INFORMATION	A3.6	PHOTO CONTEXT VIEWS	I1.1	ROOF DECK IRRIGATION PLAN
A0.1	ZONING INFORMATION & DIAGRAMS	A3.7	PHOTO CONTEXT VIEWS	I1.2	IRRIGATION NOTES AND LEGENDS
A0.3A	DENSITY BONUS DIAGRAMS	A3.8	PERSPECTIVE VIEWS	I1.3	IRRIGATION DETAILS
A0.3B	DENSITY BONUS CALCULATIONS	A3.9	PERSPECTIVE VIEWS	I1.4	IRRIGATION DETAILS
A0.4A	SHADOW STUDIES	A3.10	PERSPECTIVE VIEWS	I1.5	IRRIGATION DETAILS
A0.4B	SHADOW STUDIES	A3.11	PERSPECTIVE VIEWS	I1.6	IRRIGATION DETAILS AND WELO
A0.4C	SHADOW STUDIES	A3.12	PERSPECTIVE VIEWS		
A0.5	SITE CONTEXT PHOTOS	A3.13	PERSPECTIVE VIEWS		
A0.6	VICINITY MAP	A3.14	PERSPECTIVE VIEWS		
A1.1	SITE SURVEY	A3.15	PERSPECTIVE VIEWS		
A2.1	FLOOR PLANS	A3.16	PERSPECTIVE VIEWS		
A2.2	FLOOR PLANS	MAT	MATERIAL BOARD		
A2.3	FLOOR PLANS	A4.1	BUILDING SECTION		
A3.1	BUILDING ELEVATIONS	A5.1	CONCEPTUAL GRADING PLAN		
A3.2	BUILDING ELEVATIONS	L1.0	GROUND LEVEL LANDSCAPE PLAN		
A3.3	BUILDING ELEVATIONS	L1.1	ROOF DECK LANDSCAPE PLAN		
A3.4	BUILDING ELEVATIONS	L2.0	LANDSCAPE IMAGERY		
A3.5	STREETSCAPE ELEVATIONS	I1.0	GROUND LEVEL IRRIGATION PLAN		

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JOB: 2104

SHEET:

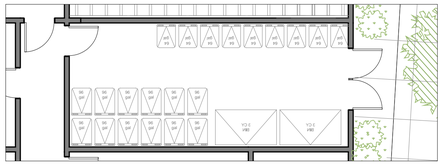
GENERAL INFORMATION

A0.0

ZONING MAP

N.T.S.

REFUSE AND RECYCLING

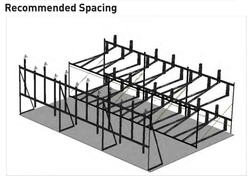


Waste and Recycling Calculation							
# of Bedrooms	Factor	Occupants	Total cuft required (.25cy or 50 gallons / 3	Waste (40%)		Recycling (40%)	Organics (20%)
166	1.00	166	13.83 cy	2,767 gal	5.53 cuft	1,107 gal	1,107 gal	553 gal
Space Calculation	Container Quantities			Space Required		150% Additional	
	Waste	Recycling	Organics	Factor/container	Space/ Container	Required	Provided
3 cy bin (606 gal)	2			28 sf	56 sf		
2 cy bin (404 gal)				28 sf	sf		
96 gallon cart		12		7 sf	84 sf		
64 gallon cart			9	6 sf	50 sf		
Total capacity	1212 gal	1152 gal	576 gal		190 sf	284 sf	363 SF

LONG TERM BIKE PARKING

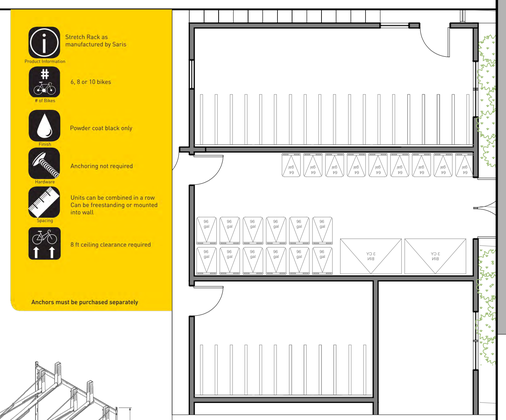
Stretch Rack

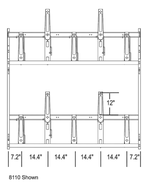
Recommended Spacing

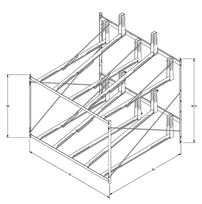


Product Details

- Modular construction allows for easy expansion, side by side or back to back
- Staggered bike position saves space and eases clearance between bikes
- Can be combined with vertical racks for full bike room layout
- Does not require anchoring (wall or floor)
- Bolt together design





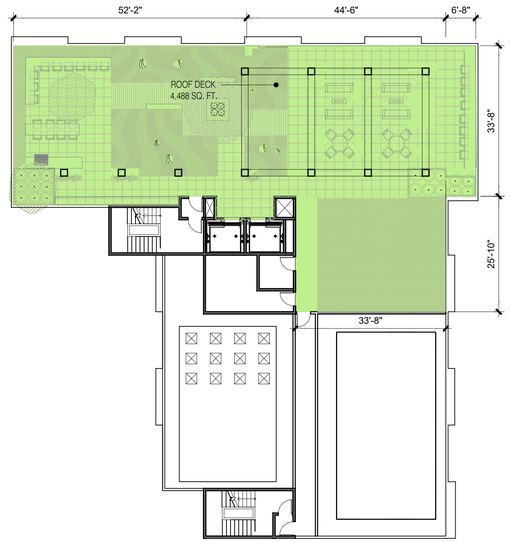


Downloadable product resources available online:

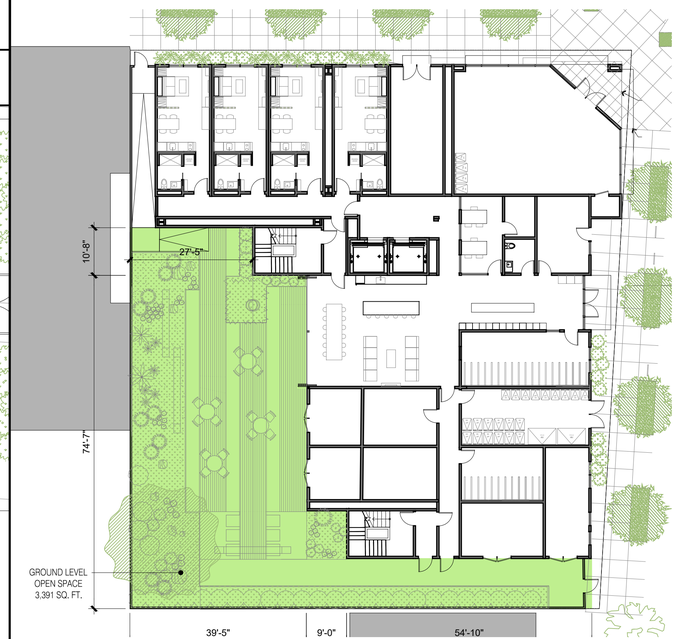
CAD Files | SketchUp Files | Written Specs | Photos

Saris Bicycle Parking & Storage Solutions 800.783.7257 x174 www.sarisparking.com

OPEN SPACE DIAGRAMS



ROOF LEVEL



LEVEL 1

ZONING CODE DATA

	BASELINE ZONING ALLOWABLE/REQUIRED	ALLOWABLE W/ UP OR AUP MODIFICATION	PROPOSED W/ DENSITY BONUS	** Via Density Bonus Waiver
NUMBER OF DWELLING UNITS	N/A	N/A	166	
COMMERCIAL AREA	N/A	N/A	1,043	
PARKING	SEE TABLE	SEE TABLE	SEE TABLE	
BIKE PARKING	N/A	61	61	
FRONT YARD SETBACK (ASHBY)	15'	0' COMPLIES W/ UP BMC 23.204.100.D.2	2'-6" and 3'-0"	**
STREET SIDE YARD SETBACK (SHATTUC	VARIES; 6' TO 15'	0' COMPLIES W/ UP BMC 23.204.100.D.2	0" to 6'-8"	**
SIDE YARD SETBACK	VARIES; 4' TO 12'	0' COMPLIES W/ UP BMC 23.204.100.D.2	5'-7" to 39'-4"	**
REAR YARD SETBACK	15'	0' COMPLIES W/ UP BMC 23.204.100.D.2	11'-3" to 85'-2"	**
BUILDING HEIGHT	36'	NOT LIMITED COMPLIES W/UP BMC 23.204.100.D.2	113'-10"	**
BUILDING STORIES	3	NOT LIMITED COMPLIES W/UP BMC 23.204.100.D.2	10	**
LOT AREA	13,561	13,561	13,561	
LOT AREA (ACRES)	0.31	0.31	0.31	
GROSS FLOOR AREA (SEE TABLE)	54,244	54,244	81,552	
BUILDING FOOTPRINT	6,781	NOT LIMITED COMPLIES W/UP BMC 23.204.100.D.2	8,399	**
LOT COVERAGE	50%	NOT LIMITED COMPLIES W/UP BMC 23.204.100.D.2	62%	**
USABLE OPEN SPACE (SEE TABLE)	SEE TABLE	SEE TABLE	SEE TABLE	
PROJECT FAR	4.0	4.0	6.00	**

PROPOSED FLOOR AREA WITH DENSITY BONUS

	COMMERCIAL	RESIDENTIAL	TOTAL
LEVEL 10		8,150	8,150
LEVEL 9		8,150	8,150
LEVEL 8		8,150	8,150
LEVEL 7		8,150	8,150
LEVEL 6		8,150	8,150
LEVEL 5		8,150	8,150
LEVEL 4		8,150	8,150
LEVEL 3		8,150	8,150
LEVEL 2		7,953	7,953
GROUND LEVEL (EXCLUDES PARKING)	1,043	7,356	8,399
TOTAL FLOOR AREA W/ DENSITY BONU	1,043	80,509	81,552

UNIT COUNTS

UNIT TYPE	STUDIO	TOTAL
LEVEL 10	18	18
LEVEL 9	18	18
LEVEL 8	18	18
LEVEL 7	18	18
LEVEL 6	18	18
LEVEL 5	18	18
LEVEL 4	18	18
LEVEL 3	18	18
LEVEL 2	18	18
GROUND LEVEL	4	4
TOTAL	166	166
PERCENT OF TOTAL	100%	
TOTAL BEDROOM COUNT	166	166

OPEN SPACE TABLE

	UNITS	RATIO	TOTAL	LANDSCAPE AREA (40%)
TOTAL UNITS	166	40	6,640	
TOTAL REQUIRED			6,640	
TOTAL AREA PROVIDED			7,879	3,186
GROUND LEVEL OPEN SPACE			3,391	
ROOF DECK			4,488	

BICYCLE PARKING CALCULATIONS

	UNITS/SF	SPACES/BEDROOM/SF	TOTAL REQ	PROVIDED
NEW COMMERCIAL	1,043	1/2000	1	1
RESIDENTIAL (LONG TERM)	166	0.33	55	55
RESIDENTIAL (SHORT TERM)	166	0.025	5	5
TOTAL PARKING			**61**	**61**

PARKING TABLE

	UNITS/SF	MIN.	REQUIRED	PROPOSED
RESIDENTIAL	166	0	0	0
COMMERCIAL (1ST 1,000 SF EXEMPT)	43	2/1000 SF	0	0

ROOFTOP ARCHITECTURAL ELEMENTS CALCS

AVERAGE AREA	8155
TOTAL AREA OF ROOFTOP ELEMENTS	1,020
% AREA OF ROOFTOP ARCH.	12.5%
ALLOWABLE % (PER 23E.04.020C)	15.0%

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ZONING DATA

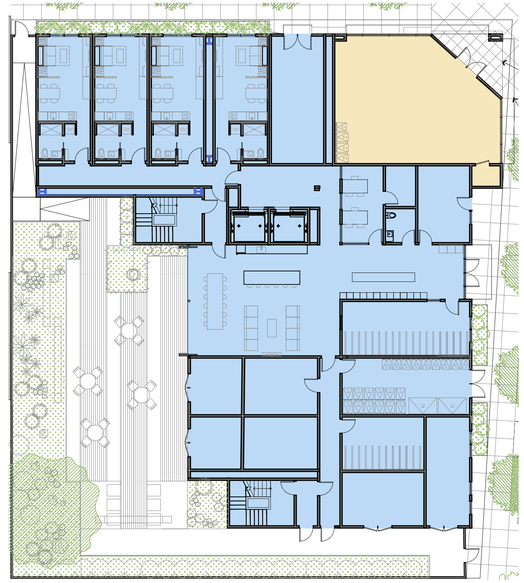
A0.1

DENSITY BONUS DIAGRAM AREA KEY

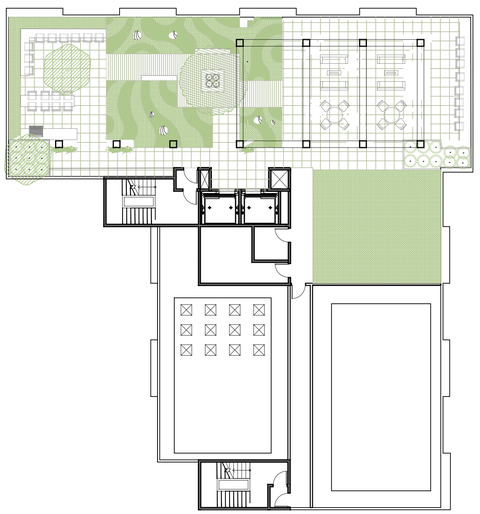
RESIDENTIAL AREA

COMMERCIAL AREA

PLAN AT LEVELS 3-10



PLAN AT GROUND



PLAN AT ROOF

PLAN AT LEVELS 2

PROPOSED DENSITY BONUS PROJECT

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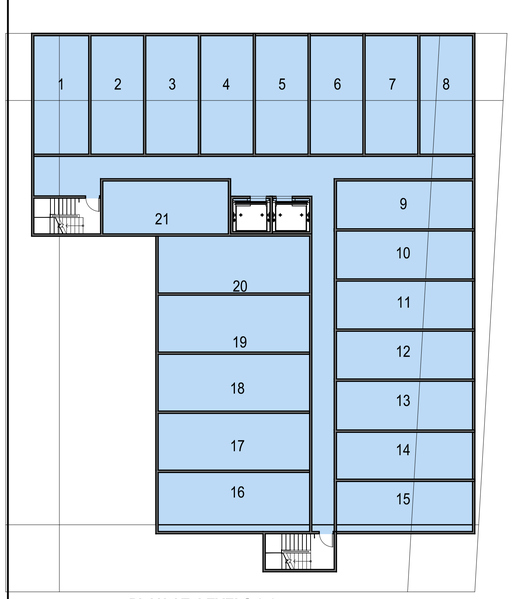
DENSITY BONUS DIAGRAMS

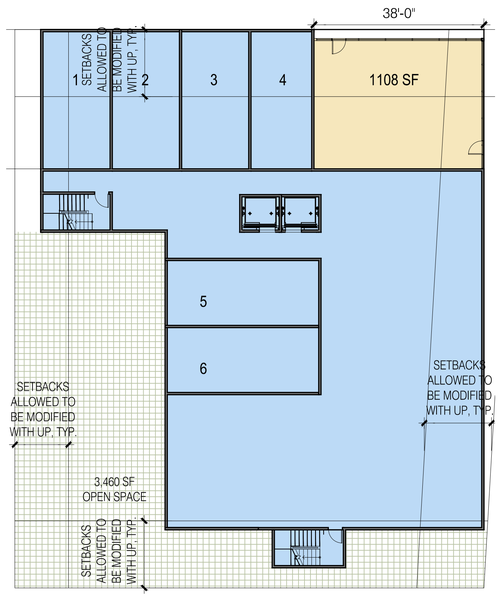
A0.3A

ZONING COMPLIANCE TABLE

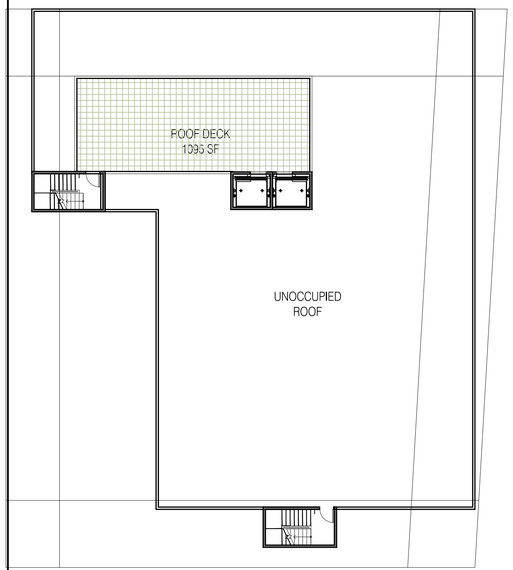
	ALLOWABLE BASE PROJECT W/ AVAILABLE USE PERMITS					PROPOSED DENSITY BONUS PROJECT	
	UNMODIFIED REQUIREMENT	ALLOWABLE MODIFICATION	CODE SECTION	TYPE	UP #	PROPOSED	COMPLIANCE CHECK
FRONT YARD SETBACK (ASHBY)	15'	0'	BMC 23.204.100.D.2	UP		VARIES 2'-6" AND 3'-0"	COMPLIES W/ DENSITY BONUS WAIVER
STREET SIDE YARD SETBACK (SHATTUCK)	VARIES 6' TO 15'	0'	BMC 23.204.100.D.2	UP		VARIES 0' TO 6'-8"	COMPLIES W/ DENSITY BONUS WAIVER
SIDE YARD SETBACK	VARIES 4' TO 12'	0'	BMC 23.204.100.D.2	UP		VARIES 5'-7" TO 39'-4"	COMPLIES W/ DENSITY BONUS WAIVER
REAR YARD SETBACK	15'	0'	BMC 23.204.100.D.2	UP	1	VARIES 11'-3" TO 85'-2"	COMPLIES W/ DENSITY BONUS WAIVER
BUILDING HEIGHT	36	NOT LIMITED	BMC 23.204.100.D.2	UP	2	113'-10"	COMPLIES W/ DENSITY BONUS WAIVER
BUILDING STORIES	3	NOT LIMITED	BMC 23.204.100.D.2	UP	3	10	COMPLIES W/ DENSITY BONUS WAIVER
LOT COVERAGE	VARIES 50% TO 40%	NOT LIMITED	BMC 23.204.100.D.2	UP	4	62%	COMPLIES W/ DENSITY BONUS WAIVER
USABLE OPEN SPACE	4440	NOT MODIFIABLE W/ UP				7879	COMPLIES
PROJECT FAR	4	NOT MODIFIABLE W/ UP				6	COMPLIES W/ DENSITY BONUS WAIVER



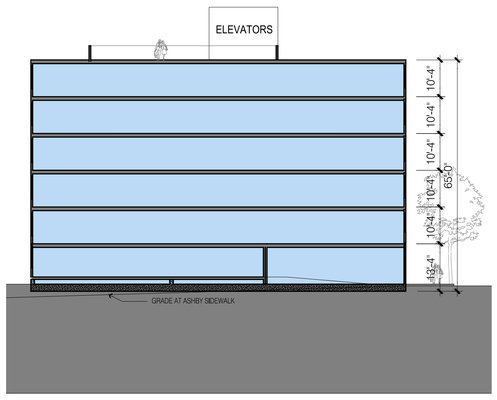
PLAN AT LEVELS 2-6



PLAN AT GROUND



PLAN AT ROOF



BASE PROJECT

DENSITY BONUS TABLE

	Base Project	Base # Units	Base # Units	% VLI units	# VLI Units	#VLI Units	Bonus %	# DB Units	# DB Units	Maximum DB Project
	sq. ft. - see calculation below	base project area / base 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)
	53,118	111	111	15%	16.65	17.00	50.0%	55.5000	56	167

Base Project Res. Area	Floor	Proposed Project Res. Area	#VLI	%VLI	%DB	#DB	#Concessions
	Tenth	8,150	6	5%	20.00%	134	1
	Ninth	8,150	7	6%	22.50%	136	1
	Eighth	8,150	8	7%	25.00%	139	1
	Seventh	8,150	9	8%	27.50%	142	1
8,985	Sixth	8,150	10	9%	30.00%	145	1
8,985	Fifth	8,150	12	10%	32.50%	148	2
8,985	Fourth	8,150	13	11%	35.00%	150	2
8,985	Third	8,150	14	12%	38.75%	155	2
8,985	Second	8,150	15	13%	42.50%	159	2
8,985	Second	7,953	16	14%	46.25%	163	2
8,193	Ground	7,356	**17**	**15%**	**50.00%**	**167**	**3**
53,118		**80,509**					

Total Floor Area:

Base Project # of Units	Floor	Proposed Project # of Units
	Tenth	18
	Ninth	18
	Eighth	18
	Seventh	18
21	Sixth	18
21	Fifth	18
21	Fourth	18
21	Third	18
21	Second	18
6	Ground	4
111		**166**

Total Units:

Proposed Area:	**80,509**
Proposed Units:	**166**
Average Unit Size:	**485**

BASE PROJECT ZONING COMPLIANCE CHECKS

Base Project - Open Space

	Units	Ratio	Total Area
Total Required for Base Unit	111	40	4440
Total Area Provided			4555
Provided Open Space (Ground Floor Open Space)			3460
Provided Open Space (Roof Deck)			1095

Base Project - FAR

	Res. Area	Commercial	Total GFA
GFA	53,118	1108	54,226
Site Area			13,561
FAR			3.999

Base Project - Parking

	Units/SF	Bedrooms	Ratio	Total Req.	Provided
Residential				0	0
Commercial (1,000 exempt)	108	N/A	2/1000 SF	0	0

Base Project -Bicycle Parking

	Units/SF	Bedrooms	Ratio	Total Req.	Provided
New Comm.	1,108		1/2000	2	2
Res. (Long)		111	0.33	37	34
Res (Short)		111	0.025	2	2

Base Project - Stormwater

	Roof Area	%	Required	Provided
Base Units	8,985	4%	359	949

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JOB: 2104

SHEET:

DENSITY BONUS CALCULATIONS

A0.3B

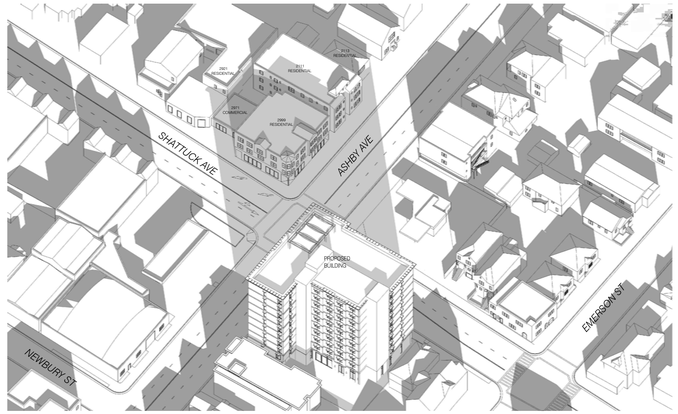
WINTER SOLSTICE
DEC 21ST:
2-HRS BEFORE SUNSET (PM)

DARK TONE GREY INDICATES SHADOWS FROM EXISTING BUILDINGS

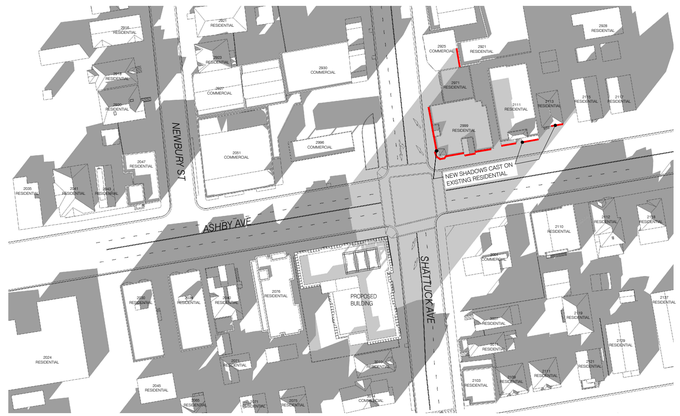
LIGHTER TONE GREY INDICATES SHADOWS FROM PROPOSED BUILDING

NEW SHADOW AT RESIDENTIAL BUILDING

ALL RESIDENTIAL BUILDINGS BEING SHADOWED SHOWN IN THESE DIAGRAMS



6 SHADOW STUDY AXONOMETRIC - PM
N.T.S.



5 SHADOW STUDY - PM
1:160 @ 11X17 1:80 @ 24X36

N

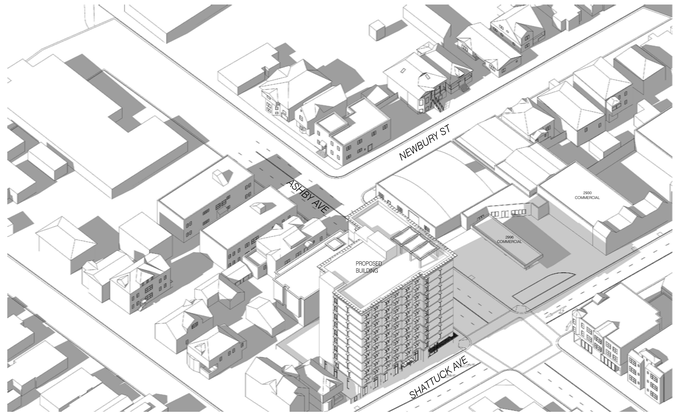
WINTER SOLSTICE
DEC 21ST:
NOON

DARK TONE GREY INDICATES SHADOWS FROM EXISTING BUILDINGS

LIGHTER TONE GREY INDICATES SHADOWS FROM PROPOSED BUILDING

NEW SHADOW AT RESIDENTIAL BUILDING

ALL RESIDENTIAL BUILDINGS BEING SHADOWED SHOWN IN THESE DIAGRAMS



4 SHADOW STUDY AXONOMETRIC - NOON
NT.S.

3 SHADOW STUDY - NOON
1:160 @ 11X17 1:80 @ 24X36

N

WINTER SOLSTICE
DEC 21ST:
2-HRS AFTER SUNRISE (AM)

DARK TONE GREY INDICATES SHADOWS FROM EXISTING BUILDINGS

LIGHTER TONE GREY INDICATES SHADOWS FROM PROPOSED BUILDING

NEW SHADOW AT RESIDENTIAL BUILDING

ALL RESIDENTIAL BUILDINGS BEING SHADOWED SHOWN IN THESE DIAGRAMS

2 SHADOW STUDY AXONOMETRIC - AM
N.T.S.

1 SHADOW STUDY - AM
1:160 @ 11X17 1:80 @ 24X36

N

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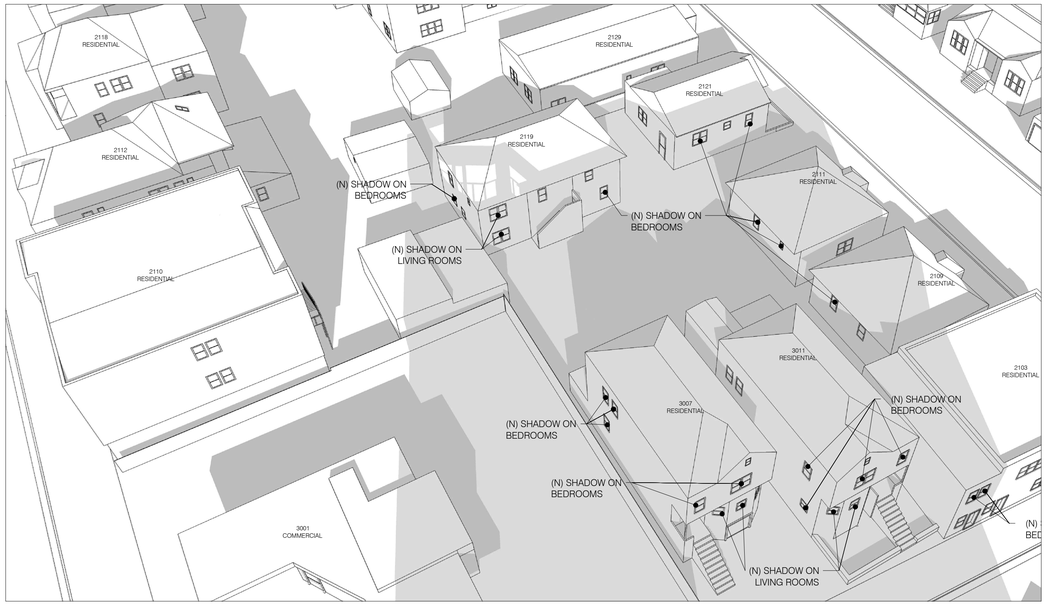
SHEET:

SHADOW STUDIES
DECEMBER 21ST

A0.4A

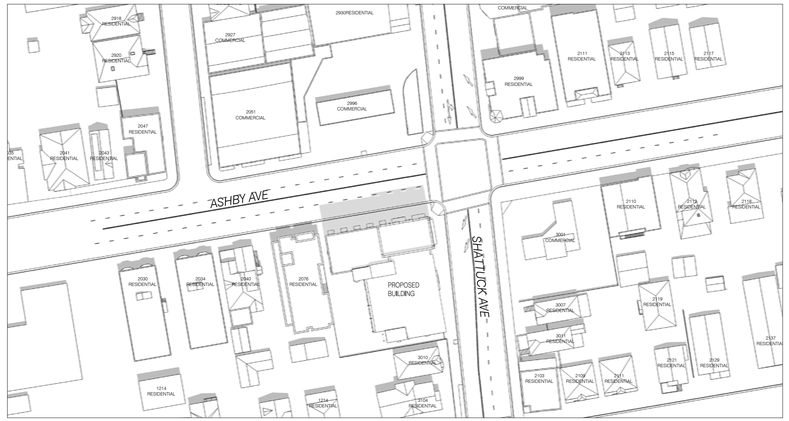
5 SHADOW STUDY AXONOMETRIC - JUNE 21: 2-HRS AFTER SUNRISE

NTS



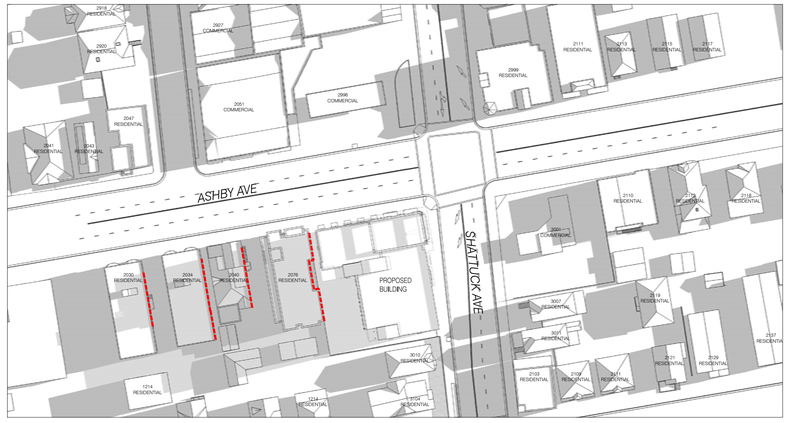
4 SHADOW STUDY AXONOMETRIC - JUN 21: 2-HRS BEFORE SUNSET

NTS



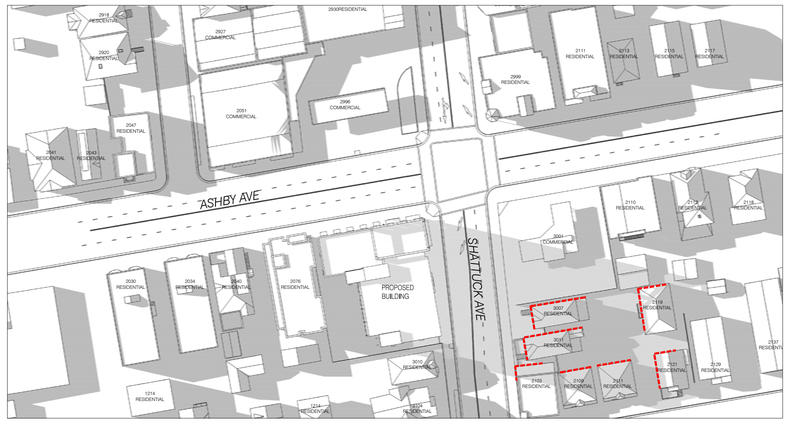
3 SHADOW STUDY - JUNE 21: NOON

1:130 @ 11X17 1:65 @ 24X36



2 SHADOW STUDY - JUNE 21: 2 HRS AFTER SUNRISE

1:130 @ 11X17 1:65 @ 24X36



1 SHADOW STUDY - JUNE 21: 2-HRS BEFORE SUNSET

1:130 @ 11X17 1:65 @ 24X36

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JOB: 2104

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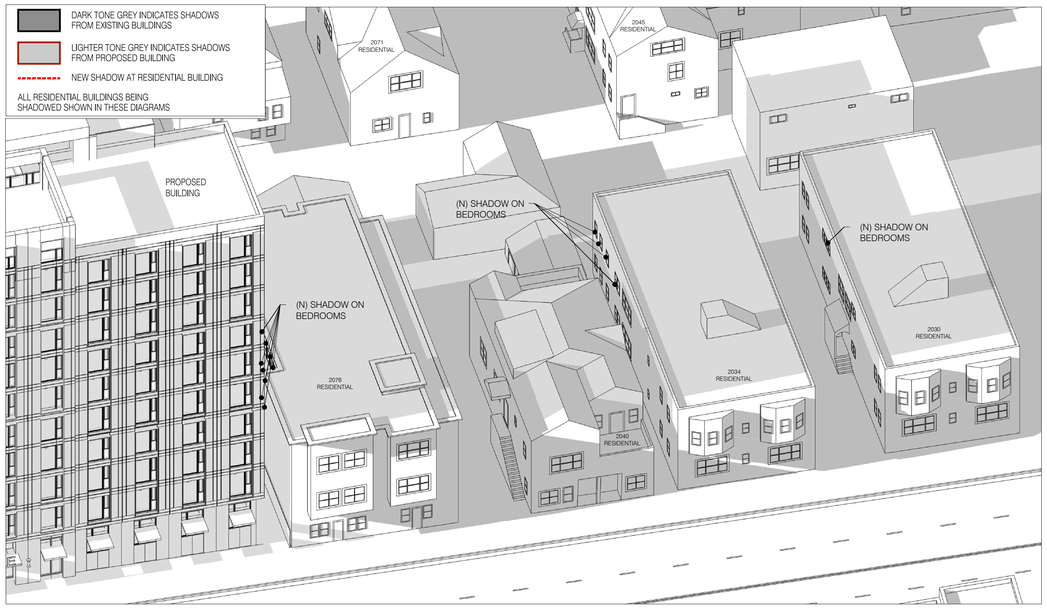
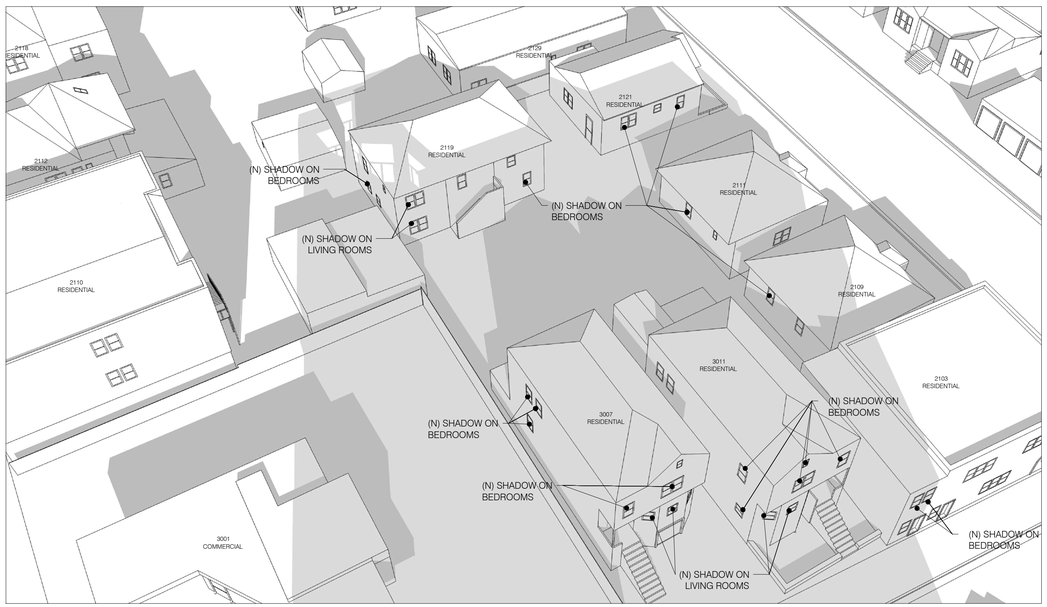
SHADOW STUDIES
JUNE 21ST

A0.4B



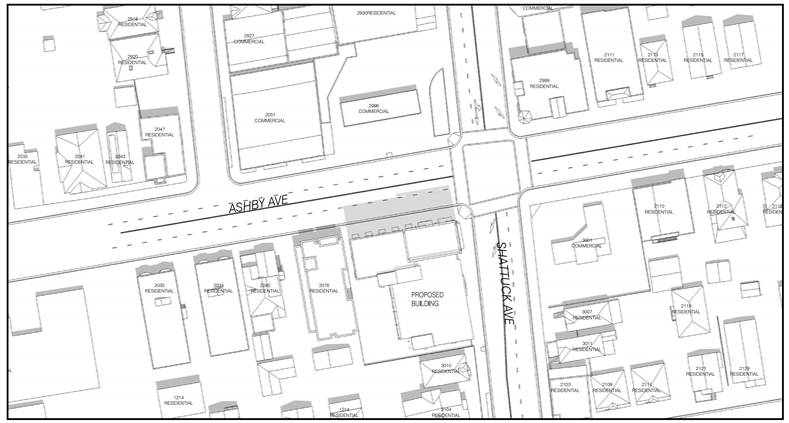
5 SHADOW STUDY AXONOMETRIC - JULY 8: 2 HRS AFTER SUNRISE

1:100 @ 11X17 1:50 @ 24X36



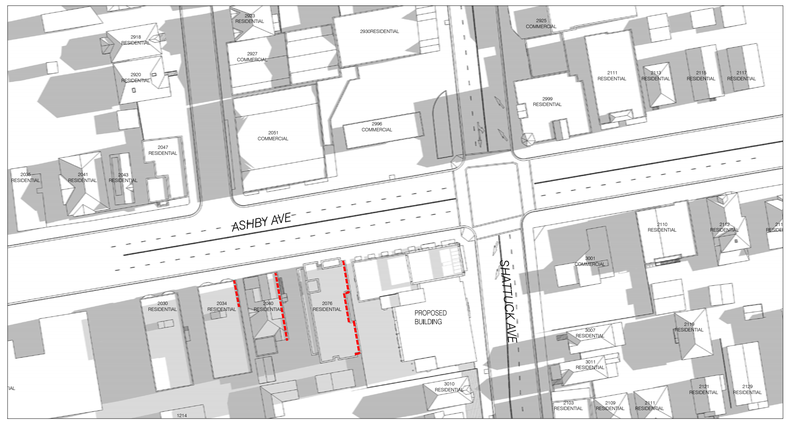
4 SHADOW STUDY AXONOMETRIC - JULY 8: 2-HRS BEFORE SUNSET

NTS



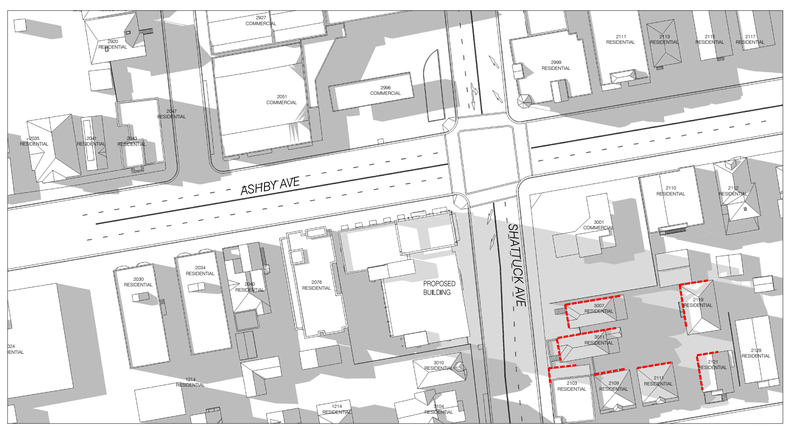
3 SHADOW STUDY - JULY 8: NOON

1:130 @ 11X17 1:65 @ 24X36



2 SHADOW STUDY - JULY 8: 2 HRS AFTER SUNRISE

1:130 @ 11X17 1:65 @ 24X36



1 SHADOW STUDY - JULY 8: 2-HRS BEFORE SUNSET

1:130 @ 11X17 1:65 @ 24X36

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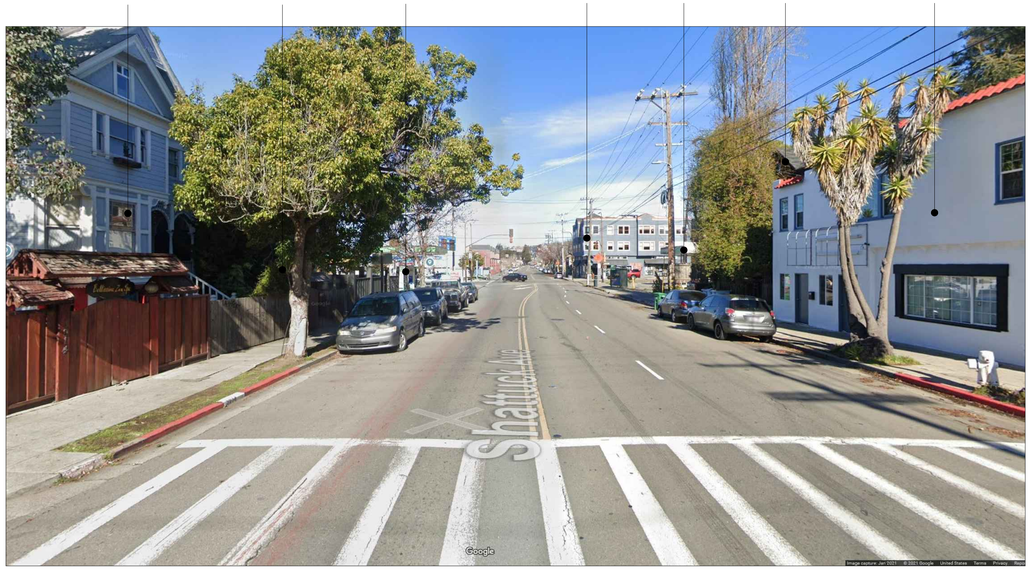
SHADOW STUDIES
JULY 8TH

A0.4C

4 - VIEW FROM SHATTUCK LOOKING SOUTH

2 - VIEW FROM ASHBY LOOKING WEST



3 - VIEW FROM SHATTUCK LOOKING NORTH

1 - GOOGLE EARTH BIRD'S EYE CONTEXT VIEW

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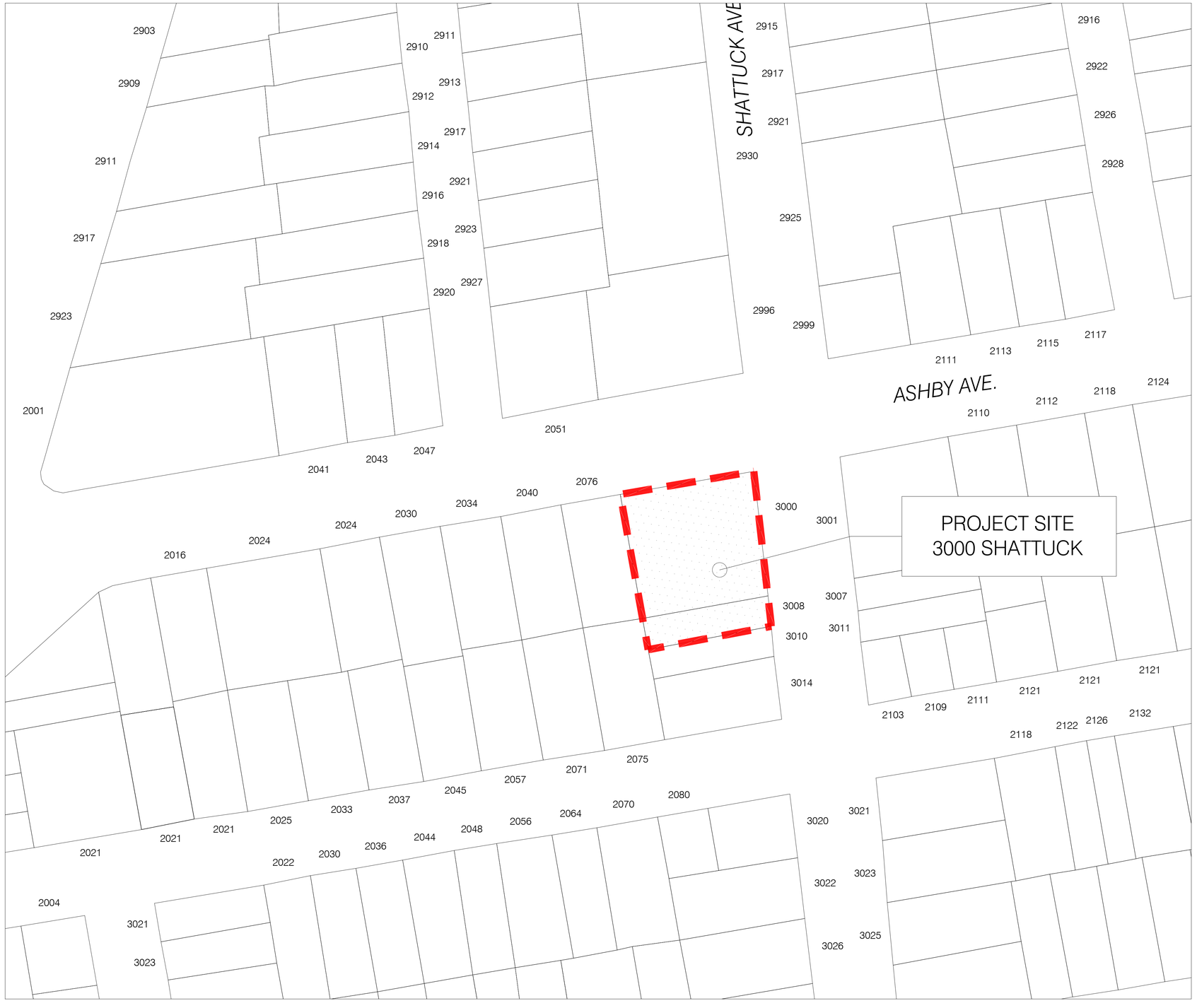
SHEET:

SITE CONTEXT
PHOTOS

A0.5



1 - VICINITY MAP
NTS

N

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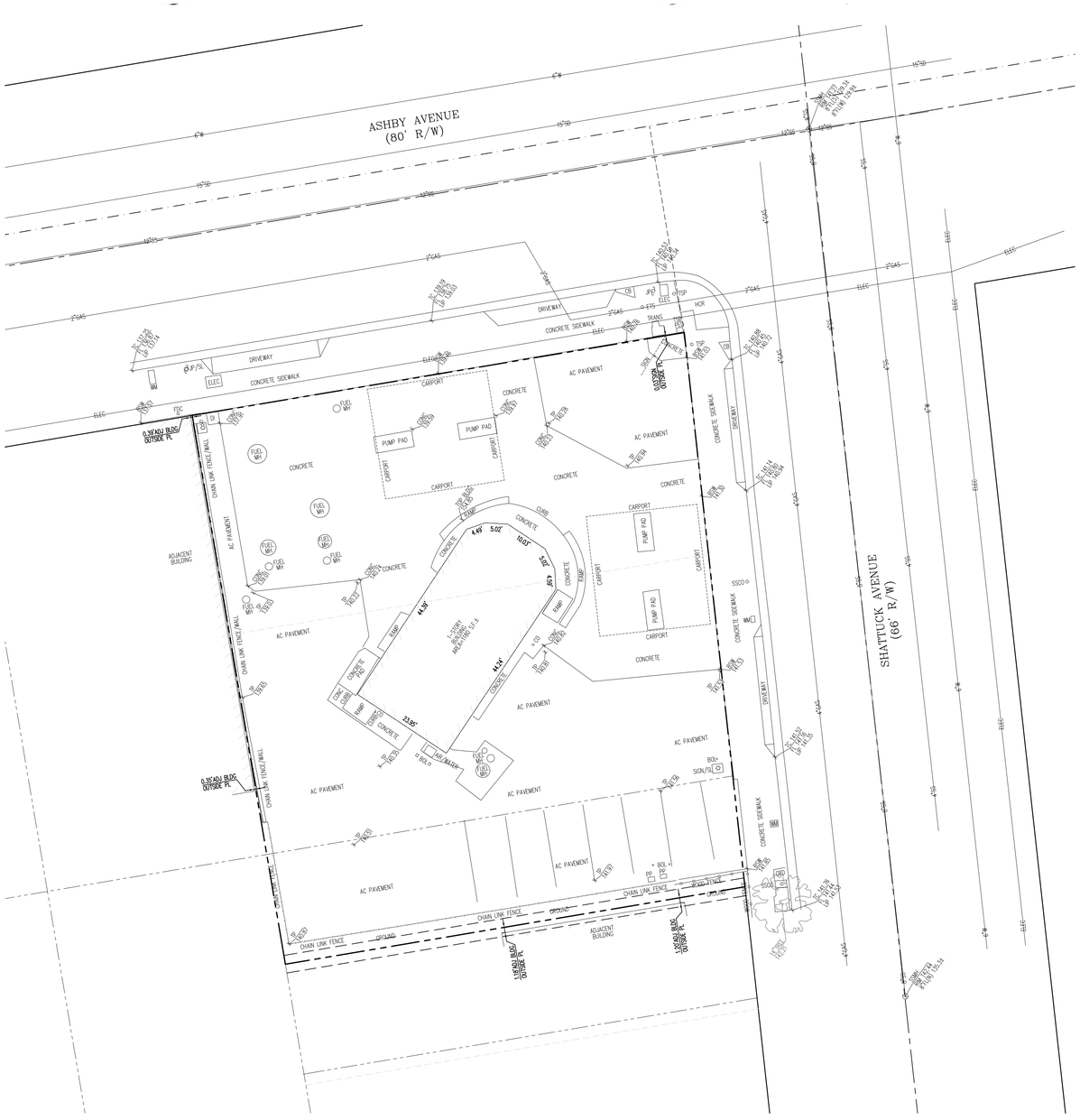
SHEET:

VICINITY MAP

A0.6



LEGEND

SYMBOLS	DESCRIPTION
	BOUNDARY OF SUBJECT PROPERTU
	RIGHT OF WAY LINE
	INTERIOR PROPERTY LINE
	MONUMENT LINE
	CENTERLINE
	TIE LINE
	OLD LOT LINE
	EASEMENT LINE
WM	WATER METER
SSMH	SANITARY SEWER MAN HOLE
JP	JOINT POLE
SL	STREET LIGHT
CB	CATCH BASIN
FDC	FIRE DEPARTMENT CONNECTOR
ELEC	ELECTRIC BOX
ETS	ELECTROLYSIS TEST SYSTEM
DI	DRAIN INLET
TRANS	TRANSFORMER
SSCO	SANITARY SEWER CLEAN OUT
TSP	TRAFFIC SIGNAL POLE
HCR	HANDICAP RAMP
PP	POWER POLE
TSB PED	TRAFFIC SIGNAL BOX PEDESTAL
AC PAVEMENT	ASPHALT CONCRETE
BOL	BOLLARD
FUEL MH	FUEL MAN HOLE
CONC	BOLLARD
GRD	FUEL MAN HOLE
BSW 65.60	BACK OF SIDEWALK ELEVATION
CONC 65.60	TOP OF CONCRETE ELEVATION
LIP 65.60	LIP OF GUTTER ELEVATION
TC 65.64	TOP OF CURB ELEVATION
TP 65.64	TOP OF PAVEMENT ELEVATION
FL 65.64	FLOW LINE ELEVATION
	TREE
SS	SANITARY SEWER LINE
W	WATER LINE
SD	STORM DRAIN LINE
GAS	STORM DRAIN LINE
ELEC	STORM DRAIN LINE

ALTA/NSPS
LAND TITLE SURVEY

OF

3000 SHATTUCK AVENUE
CITY OF BERKELEY, ALAMEDA COUNTY, CALIFORNIA
MARCH 2022

PREPARED BY
LUK AND ASSOCIATES
CIVIL ENGINEER – LAND PLANNERS – LAND SURVEYORS
738 ALFRED NOBEL DRIVE
HERCULES, CALIFORNIA 94547
(510) 724-3388

1 / - SURVEY / EXISTING CONDITIONS

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

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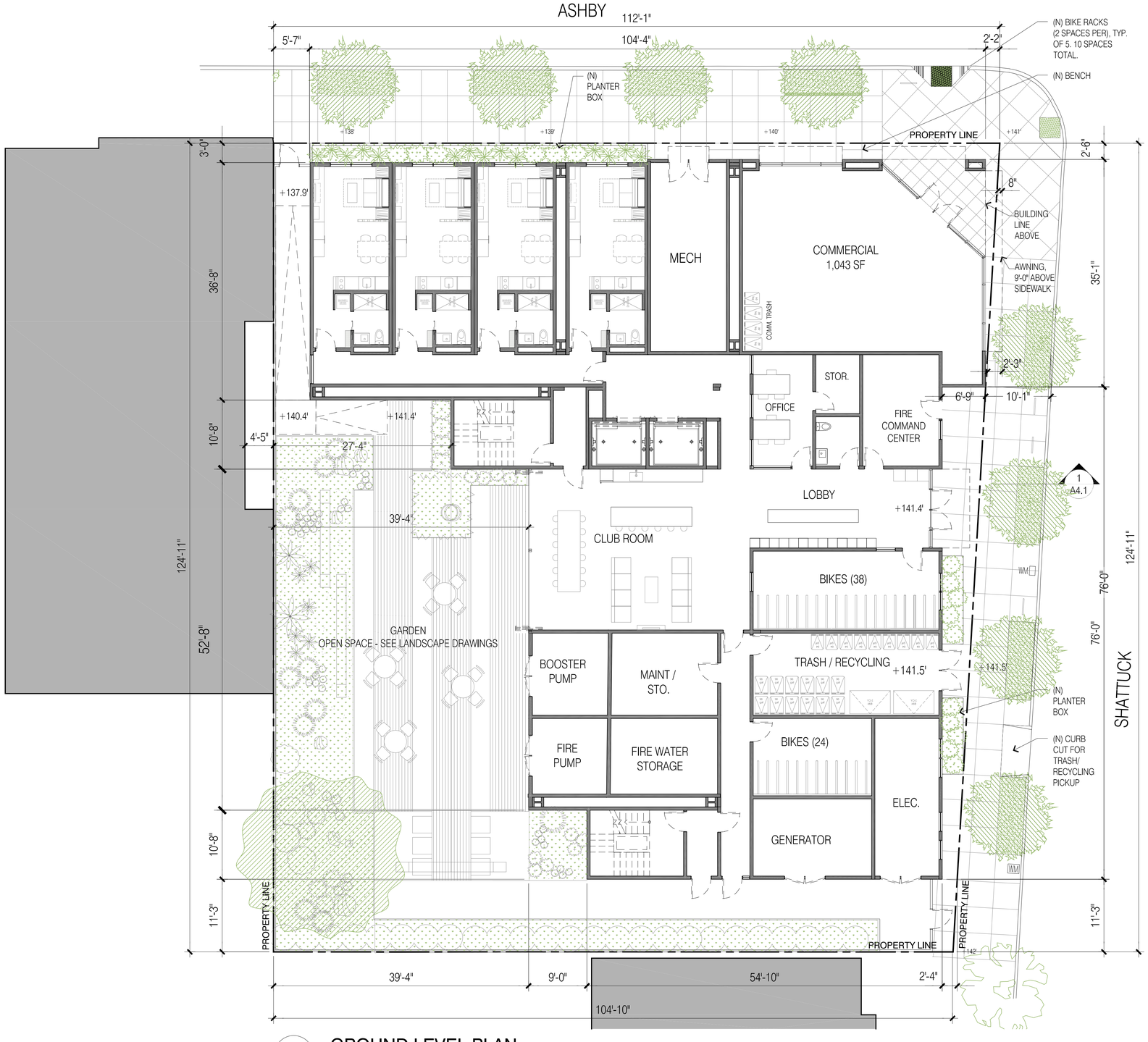
SHEET:

SURVEY /
EXISTING CONDITIONS

A1.1



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

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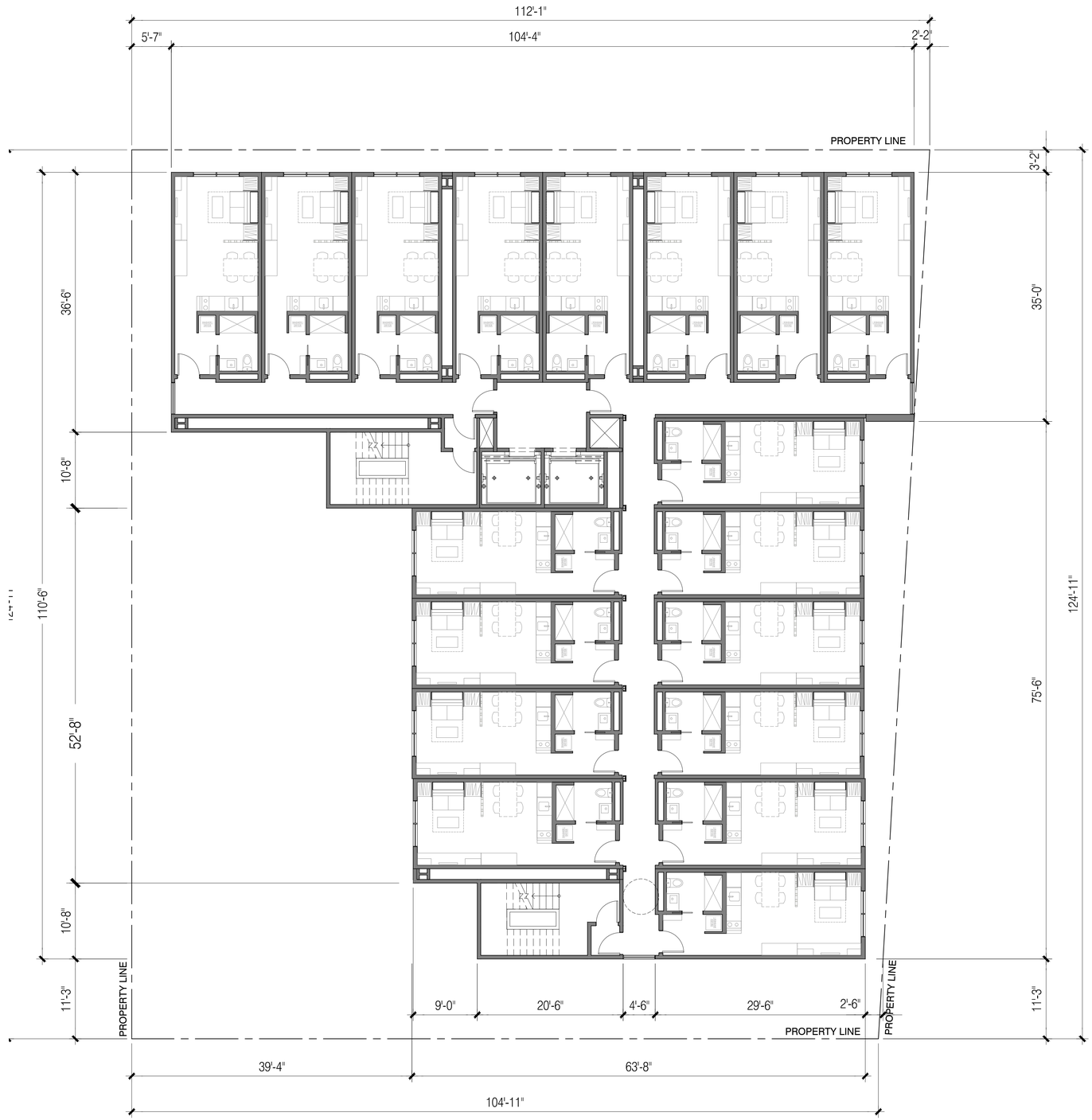
SHEET:

PLAN AT
GROUND LEVEL

A2.1



1 - PLAN AT LEVEL 2

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

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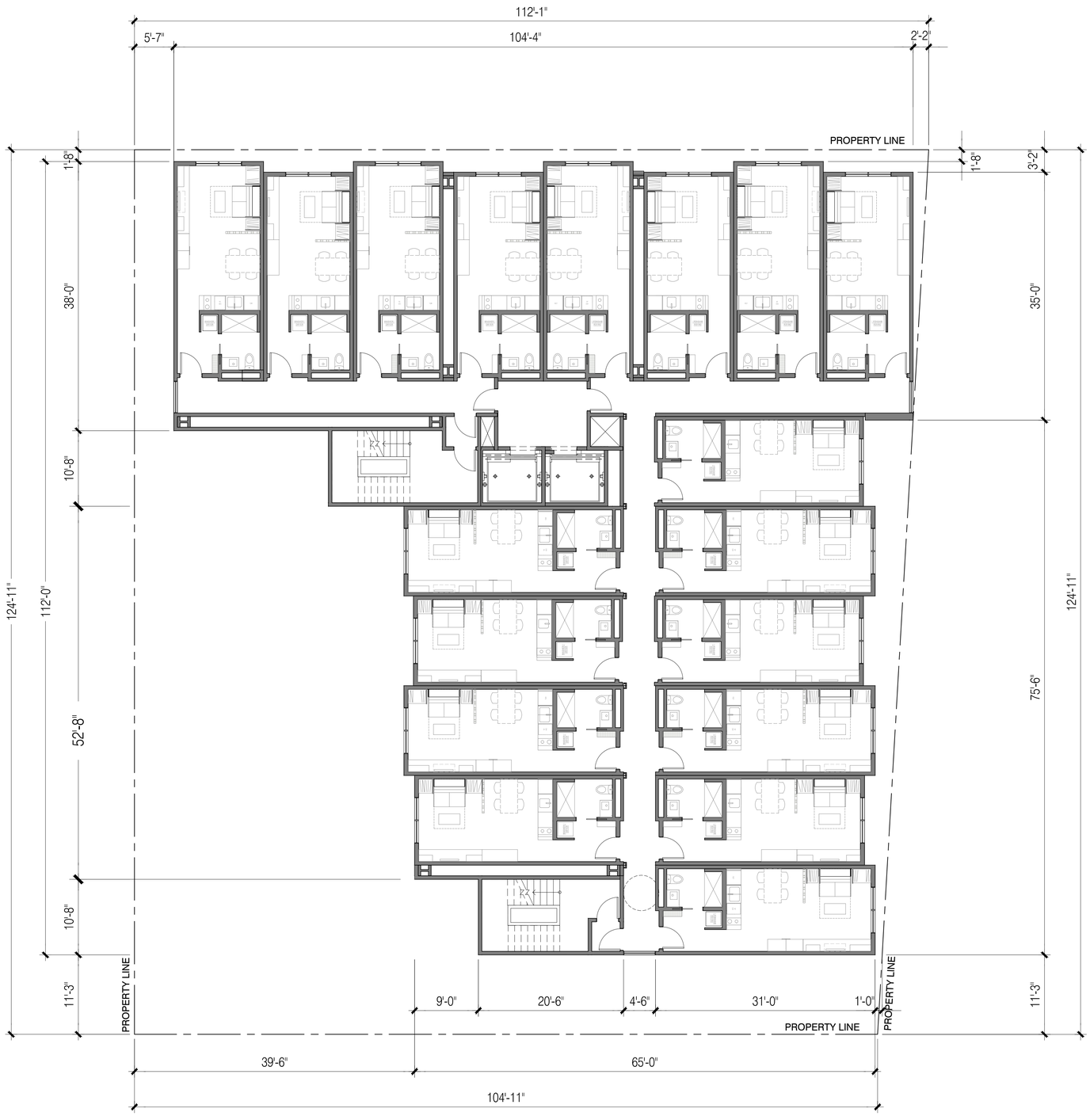
SHEET:

PLAN AT
LEVEL 2

A2.2



1
-

FLOORS 3-10 PLANS

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

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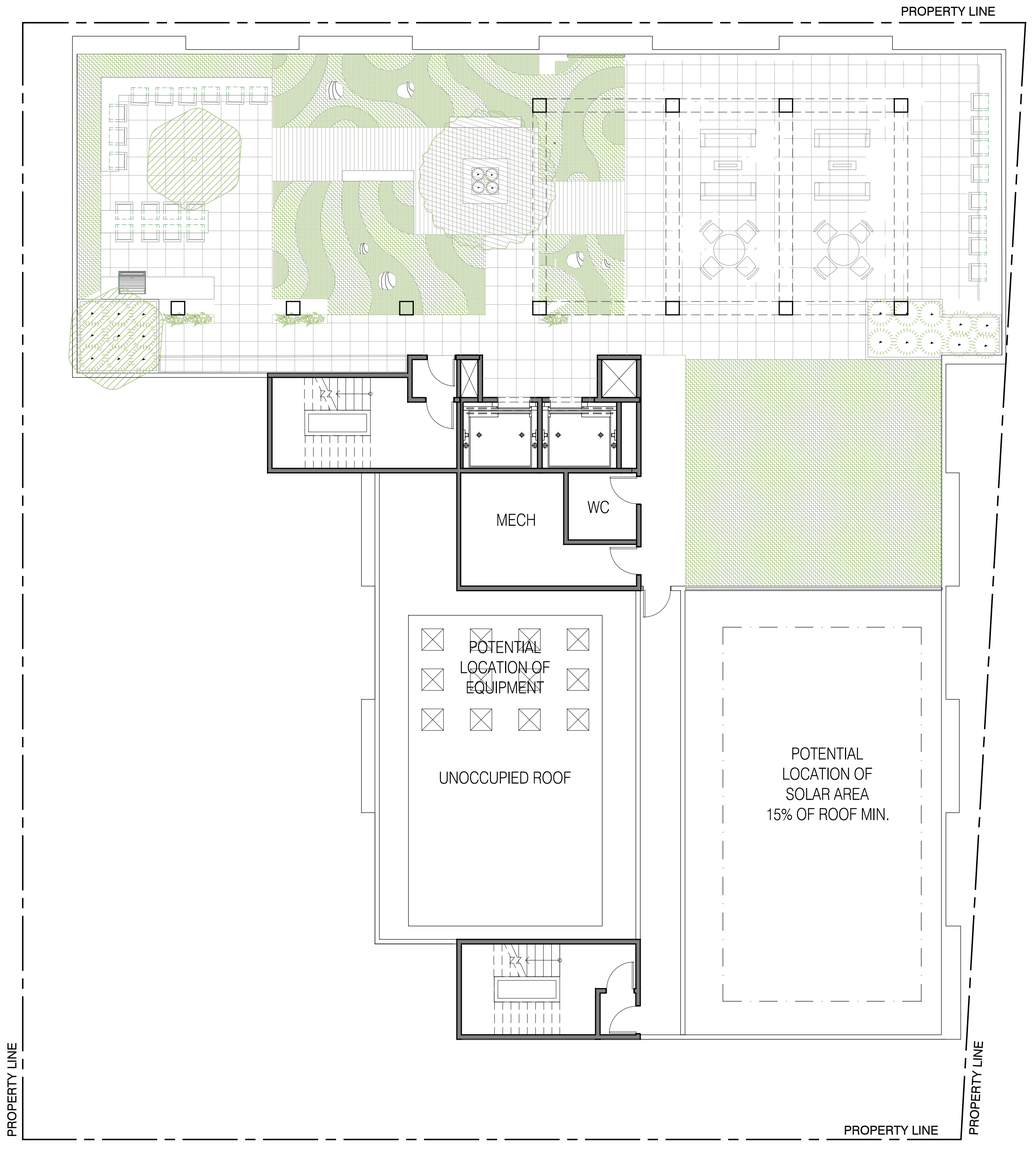
SHEET:

PLANS
FLOORS 3-10

A2.3



1
-

PLAN AT ROOF DECK LEVEL

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

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SHEET:

PLAN AT
ROOF DECK LEVEL

A2.4

1 - EAST ELEVATION

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

0 4 8 16

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JOB: 2104

SHEET:

BUILDING ELEVATIONS

A3.1

1 - NORTH ELEVATION

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

0 4 8 16

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JOB: 2104

SHEET:

BUILDING ELEVATIONS

A3.2

1 - WEST ELEVATION

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

0 4 8 16

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JOB: 2104

SHEET:

BUILDING ELEVATIONS

A3.3

1 - SOUTH ELEVATION

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

0 4 8 16

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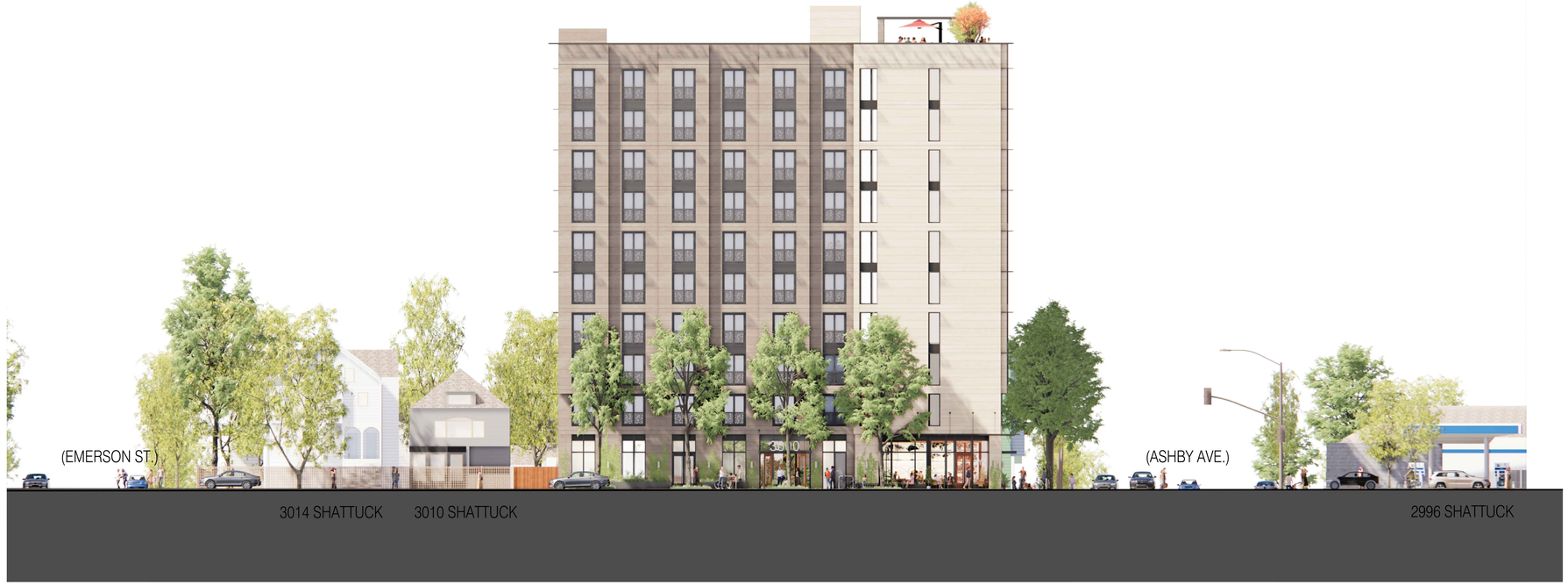
SHEET:

BUILDING ELEVATIONS

A3.4

2
-
STREET STRIP ELEVATION @ ASHBY AVENUE
1/32"=1'-0" @ 11X17 1/16" = 1'-0" @ 24X36
0 4 8 16 32



1
-
STREET STRIP ELEVATION @ SHATTUCK AVENUE
1/32"=1'-0" @ 11X17 1/16" = 1'-0" @ 24X36
0 4 8 16 32

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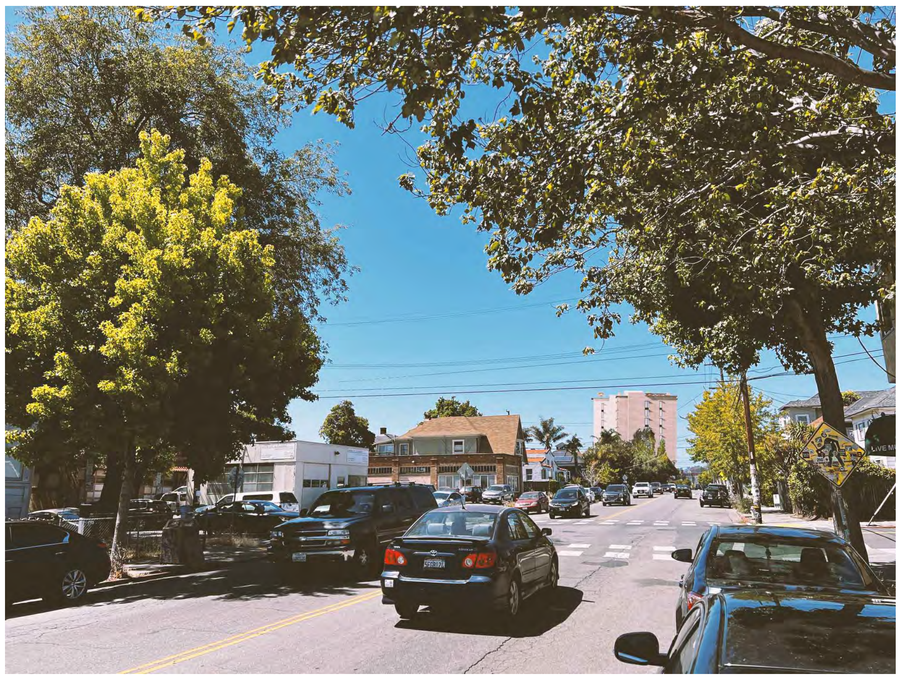
SHEET:

STREET STRIP ELEVATIONS

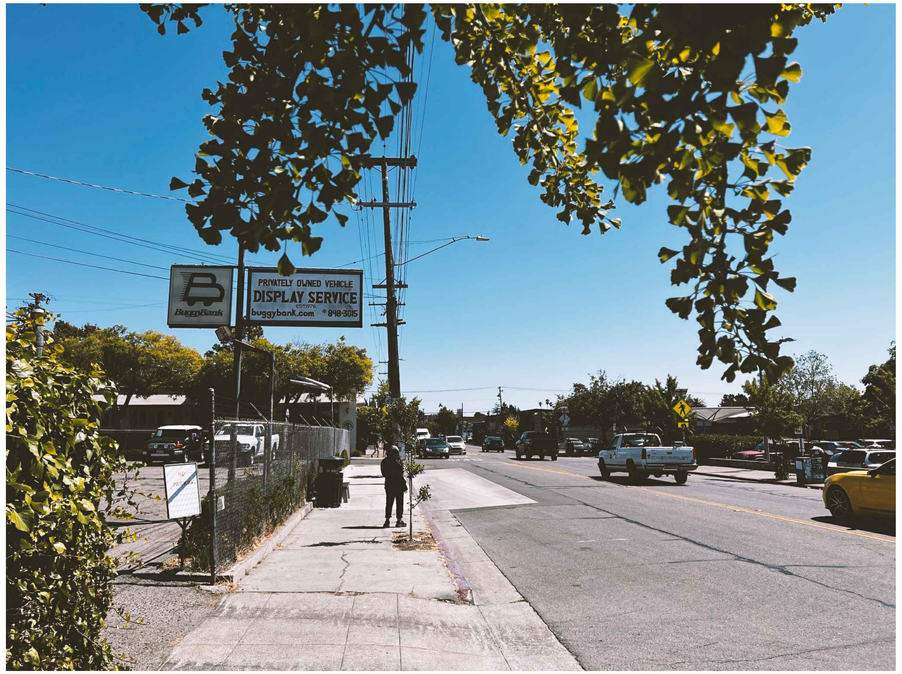
A3.5



4 - SHATTUCK LOOKING NORTH - AFTER

2 - SHATTUCK LOOKING SOUTH - AFTER

3 - SHATTUCK LOOKING NORTH - BEFORE



1 - SHATTUCK LOOKING SOUTH - BEFORE

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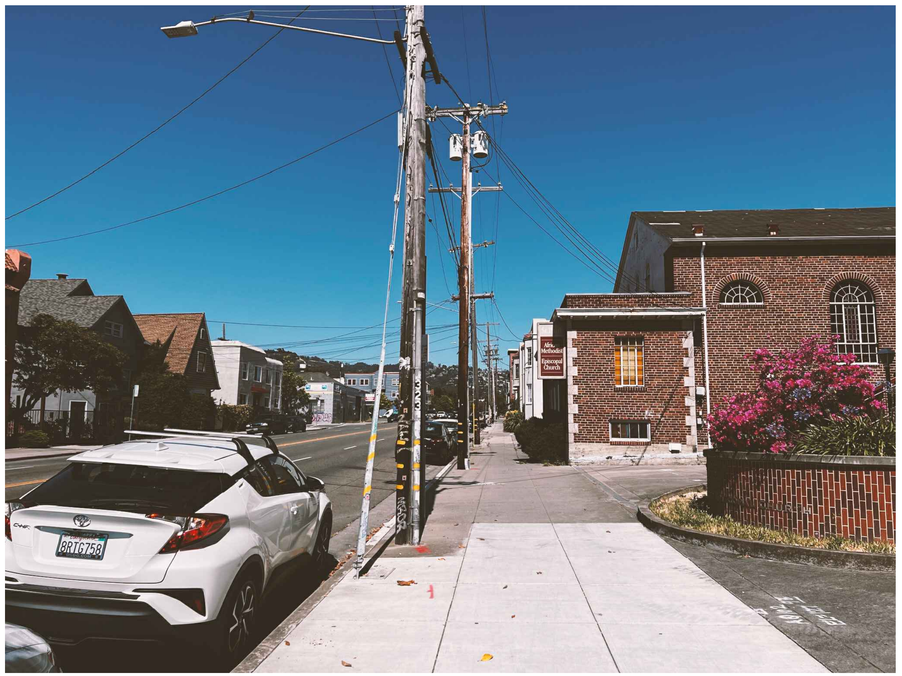
PHOTO CONTEXT VIEWS

A3.6

4 - ASHBY LOOKING EAST - AFTER

2 - ASHBY LOOKING WEST - AFTER



3 - ASHBY LOOKING EAST - BEFORE

1 - ASHBY LOOKING WEST - BEFORE

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PHOTO CONTEXT VIEWS

A3.7

1
-
VIEW ALONG SHATTUCK LOOKING SOUTH WEST

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PERSPECTIVE VIEWS

A3.8

1 - VIEW ALONG ASHBY LOOKING SOUTH WEST

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PERSPECTIVE VIEWS

A3.9

1
-

VIEW ALONG SHATTUCK LOOKING NORTH WEST

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PERSPECTIVE VIEWS

A3.10

1
-
VIEW ALONG ASHBY LOOKING EAST

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PERSPECTIVE VIEWS

A3.11

1
-
DETAIL AT SIDEWALK LEVEL

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PERSPECTIVE VIEWS

A3.12

1 - RETAIL ENTRY CLOSE-UP VIEW

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PERSPECTIVE VIEWS

A3.13

1
-
DETAIL AT SIDEWALK LOOKING EAST

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SHEET:

PERSPECTIVE VIEWS

A3.14

1 - DETAIL AT SIDEWALK LOOKING NORTHWEST

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SHEET:

PERSPECTIVE VIEWS

A3.15

1
-
LOBBY ENTRY CLOSE-UP VIEW

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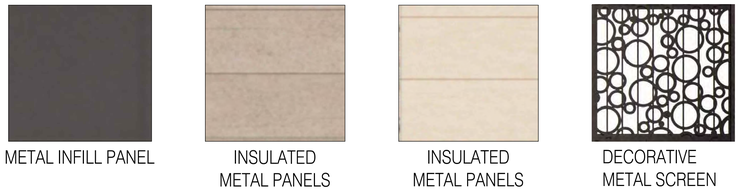
PERSPECTIVE VIEWS

A3.16



1 - NORTH ELEVATION

3/32"=1'-0" @ 11X17 3/16" = 1'-0" @ 24X36

0 4 8 16

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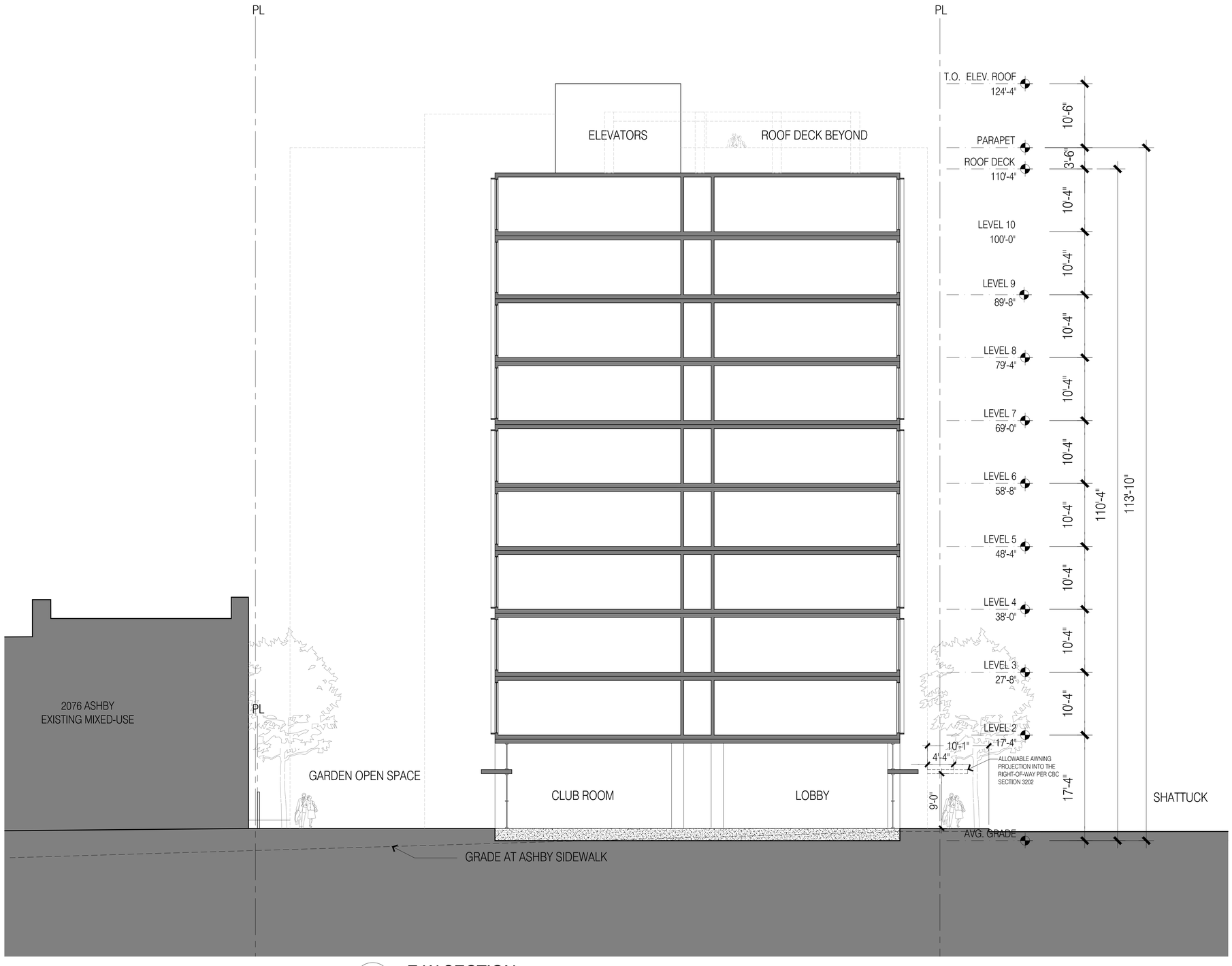
JOB: 2104

SHEET:

BUILDING MAT

MAT



1 / - E-W SECTION

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

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SHEET:

BUILDING SECTION

A4.1

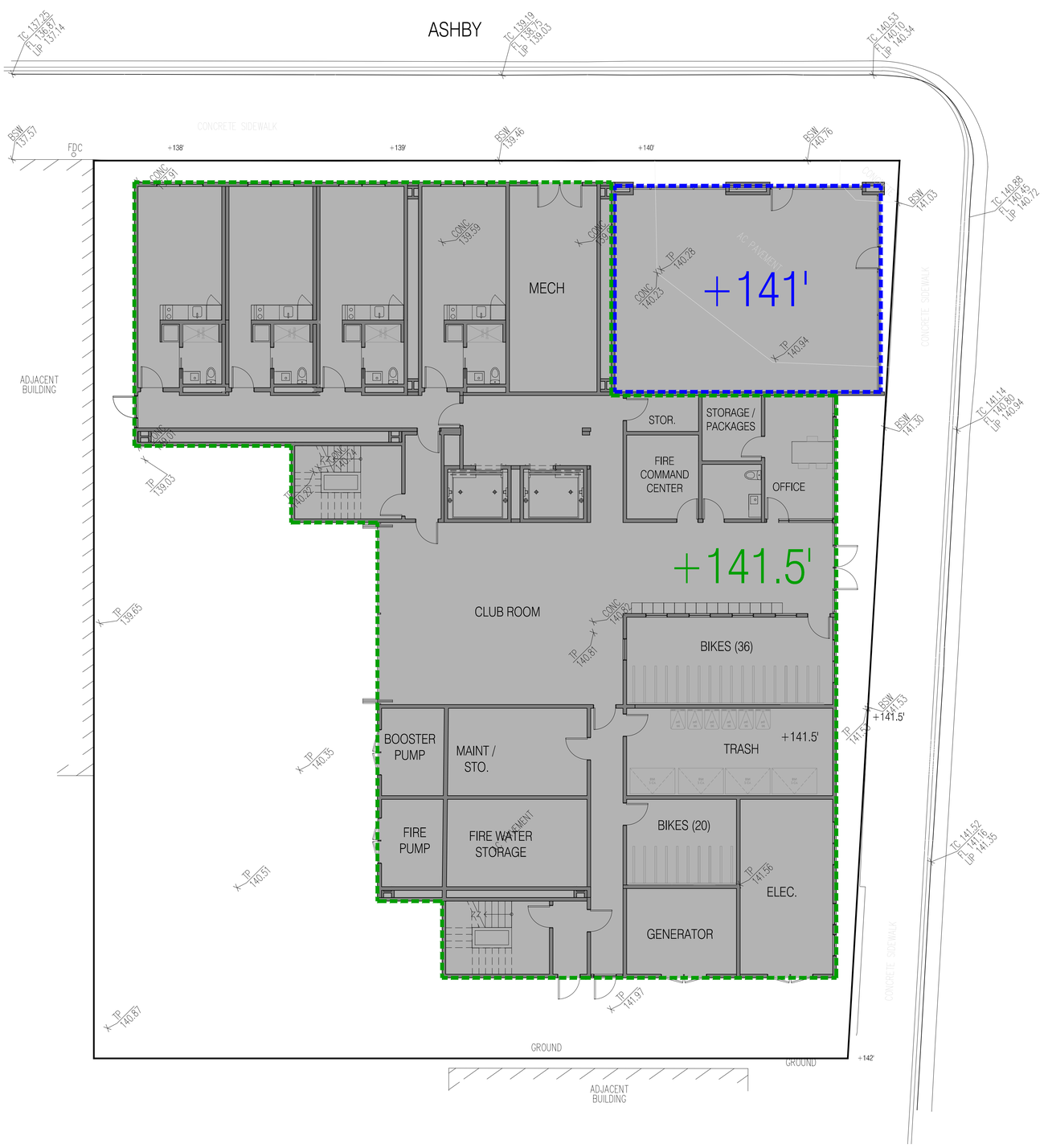
CUT AND FILL CALCULATIONS

	CUT/FILL AREA	AVERAGE CUT/FILL DEPTH (FT)	TOTAL VOLUME (CY)
PROPOSED BUILDING	8,502	2	630

EARTHWORK NOTES:

1. EARTHWORK QUATNITY IS A ROUGH ESTIMATE BASED ON A BUILDING PAD ELEVATION 12" BELOW FF OF GROUND FLOOR LEVEL. QUANTITIES MAY VARY DUE TO FINAL STRUCTURAL FOUNDATIONS AND PAVEMENT THICKNESS.

2. EARTHWORK QUANTITIES DO NOT TAKE INTO ACCOUNT SOIL SHRINKAGE, SOIL SWELLING, TRENCH SPOILS, SITE OVER-EXCAVATION REQUIREMENTS.



1
-

GROUND LEVEL PLAN

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

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SHEET:

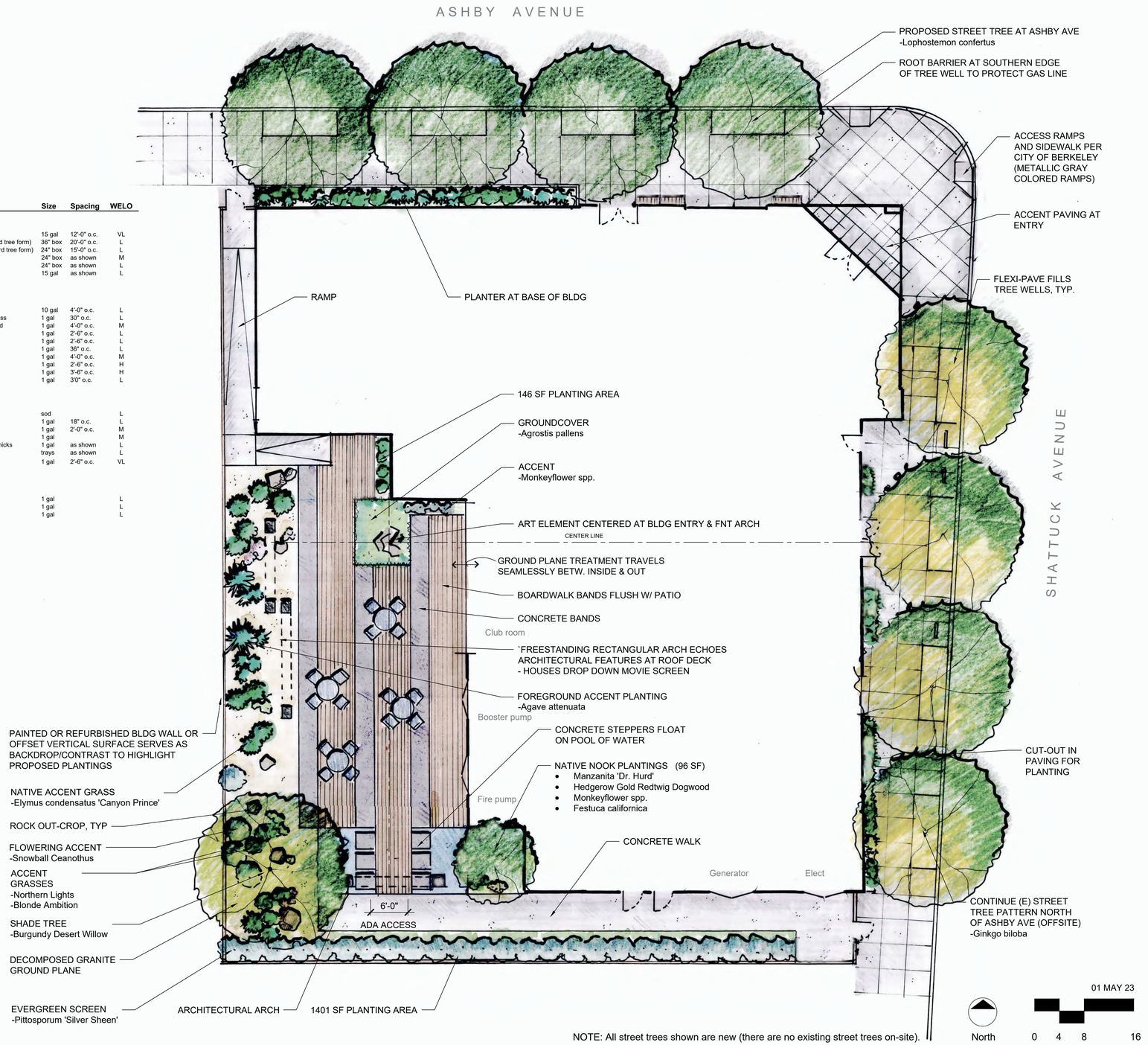
CONCEPTUAL GRADING PLAN

A5.1

Plant List

Index	Latin Name	Common Name	Size	Spacing	WELO
Trees					
AM	Arctostaphylos manzanita 'Dr. Hurd'	Manzanita	15 gal	12'-0" o.c.	VL
CL	Chilopsis linearis 'Burgundy'	Burgundy Desert Willow (standard tree form)	36" box	20'-0" o.c.	L
CR	Ceanothus 'Ray Hartman'	Ray Hartman Ceanothus (standard tree form)	24" box	15'-0" o.c.	L
GB	Ginkgo biloba	Ginkgo	24" box	as shown	M
LC	Lophstemon confertus	Brisbane Box	24" box	as shown	L
MC	Myrica californica	Pacific Wax Myrtle	15 gal	as shown	L
Shrubs					
AA	Agave attenuata 'Ray of Light'	Ray of Light Foxtail Agave	10 gal	4'-0" o.c.	L
BG	Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Blue Grama Grass	1 gal	30" o.c.	L
CS	Cornus sericea, C. Stolonifera 'Hedgerow Gol	Hedgerow Gold Redtwig Dogwood	1 gal	4'-0" o.c.	M
DA	Diplacus aurantiacus	Orange Bush Monkeyflower	1 gal	2'-6" o.c.	L
DP	Diplacus puniceus, Mimulus puniceus	Red Bush Monkeyflower	1 gal	2'-6" o.c.	L
EC	Elymus condensatus 'Canyon Prince'	Canyon Prince' Blue Rye Grass	1 gal	36" o.c.	L
FC	Festuca californica	California Fescue	1 gal	4'-0" o.c.	M
JE	Juncus effusus	Soft Rush	1 gal	2'-6" o.c.	H
JP	Juncus patens	Common Rush	1 gal	3'-6" o.c.	H
MR	Muhlenbergia rigens	Deer Grass	1 gal	3'0" o.c.	L
Groundcovers					
AP	Agrostis pallens	West Coast Native Bunchgrass	sod		L
CF	Calamagrostis foliosa	Mendocino Reed Grass	1 gal	18" o.c.	L
DC	Deschampsia cespitosa 'Northern Lights'	Northern Lights Tufted Hairgrass	1 gal	2'-0" o.c.	M
HA	Heuchera americana 'Green Spice'	Green Spice Coral Bells	1 gal		M
SK	Sempervivum 'Krebs 2'	Krebs Desert Bloom Hens and Chicks	1 gal	as shown	L
SR	Sedum rupestre 'Angelina'	Angelina Stonecrop	trays	as shown	L
ZC	Epilobium canum (Zauschneria californica)	California Fuschia	1 gal	2'-6" o.c.	VL
Rooftop Sedums					
SC1	Sedum spathulifolium 'Purpureum'	Red Pacific Stonecrop	1 gal		L
SC2	Sedum spathulifolium 'Cape Blanco'	Cape Blanco Pacific Stonecrop	1 gal		L
SC3	Sedum divergens	Pacific Stonecrop	1 gal		L

Note: *At least 80% of all plantings will be California natives.*



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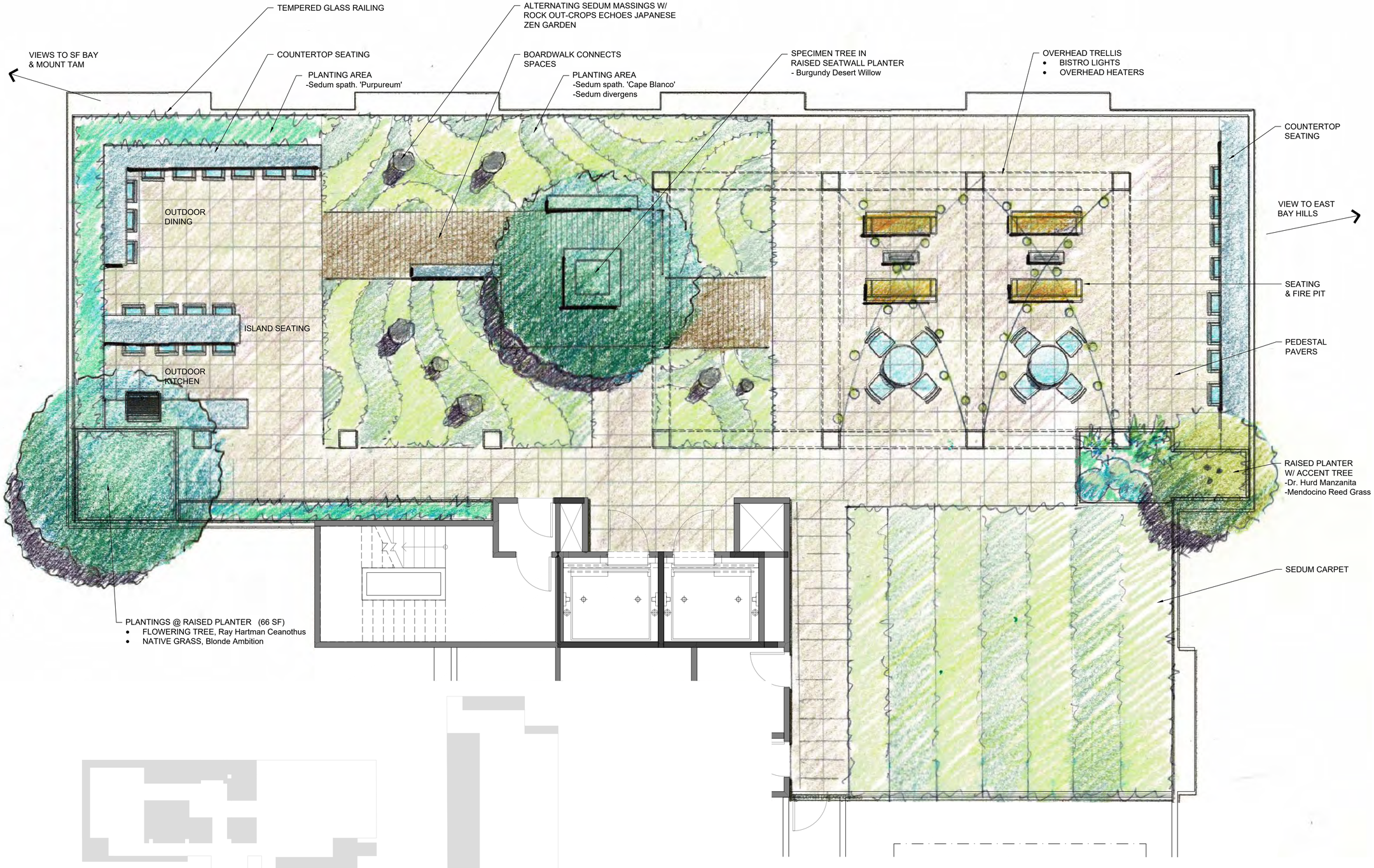
GROUND LEVEL
LANDSCAPE PLAN

L1.0



ROOF DECK TOTAL AREA = 4,488 SF

ROOF DECK PLANTING AREA = 1,830 SF

ROOF DECK LANDSCAPE % = 40%

GROUND LEVEL TOTAL AREA = 3,391 SF

GROUND LEVEL PLANTING AREA = 1,356 SF

GROUND LEVEL LANDSCAPE % = 40%

North 0 2 4 8

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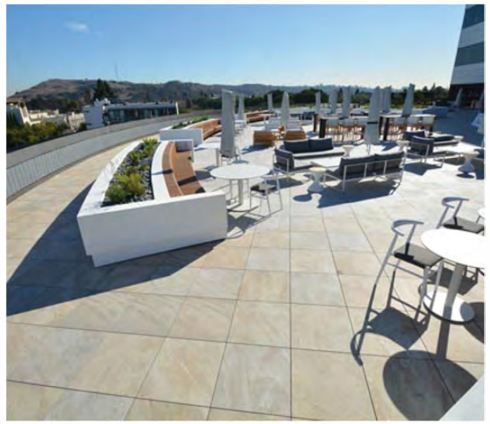
ROOF DECK
GROUND LEVEL

L1.1



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LANDSCAPE IMAGERY

L2.0

PLAN NOTES LEGEND

1. 1" WATER METER FOR IRRIGATION TO BE PROVIDED BY UTILITY EBMUD. MAXIMUM IRRIGATION DEMAND: ( )GPM AT ( )PSI STATIC PRESSURE AT WATER METER LOCATION.
2. INSTALL A 1" IRRIGATION BACKFLOW PREVENTER AT THIS APPROXIMATE LOCATION.
3. APPROXIMATE LOCATION OF BOOSTER PUMP BY OTHERS. PRESSURE ON DISCHARGE SIDE OF BOOSTER PUMP SHALL BE 95 PSI.
4. IRRIGATION CONTROLLER "C". MOUNT ON INTERIOR WALL AT THIS LOCATION AS DETAILED AND AS DIRECTED BY ARCHITECT. CONNECT TO 120 VOLT A.C. ELECTRICAL SERVICE INSTALLED AT THIS LOCATION UNDER ELECTRICAL CONTRACT. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF ELECTRICAL SERVICE PRIOR TO CONSTRUCTION.
5. IRRIGATION MASTER VALVE AND FLOW SENSOR.
6. INSTALL A 1" PRESSURE REDUCING VALVE FOR MAIN SERVICING SITE LEVEL. SET PRESSURE TO BE 50 PSI.
7. 1.25" COPPER PIPE STUB-OUT FOR IRRIGATION FROM MECHANICAL ROOM TO THIS APPROXIMATE LOCATION TO SERVICE SITE LEVEL PLANTERS TO BE PROVIDED AND INSTALLED IN-STRUCTURE UNDER PLUMBING CONTRACT. COORDINATE INSTALLATION OF PIPE WITH GENERAL/PLUMBING CONTRACTOR(S) PRIOR TO CONSTRUCTION.
8. 1.25" ELECTRICAL CONDUIT AND SPLICE BOX FOR 2-WIRE CABLE TO BE PROVIDED AND INSTALLED FROM IRRIGATION CONTROLLER "C" TO THIS LOCATION UNDER ELECTRICAL CONTRACT WORK BY A LICENSED ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION OF CONDUIT WITH GENERAL/ELECTRICAL CONTRACTOR(S) PRIOR TO CONSTRUCTION.
9. 1.25" COPPER PIPE STUB-OUT FOR IRRIGATION FROM MECHANICAL ROOM TO THIS APPROXIMATE LOCATION TO SERVICE ROOF LEVEL PLANTERS TO BE PROVIDED AND INSTALLED IN-STRUCTURE UNDER PLUMBING CONTRACT. COORDINATE INSTALLATION OF PIPE WITH GENERAL/PLUMBING CONTRACTOR(S) PRIOR TO CONSTRUCTION.
10. 1.25" ELECTRICAL CONDUIT AND SPLICE BOX FOR 2-WIRE CABLE TO BE PROVIDED AND INSTALLED FROM IRRIGATION CONTROLLER "C" TO THIS LOCATION UNDER ELECTRICAL CONTRACT WORK BY A LICENSED ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION OF CONDUIT WITH GENERAL/ELECTRICAL CONTRACTOR(S) PRIOR TO CONSTRUCTION.

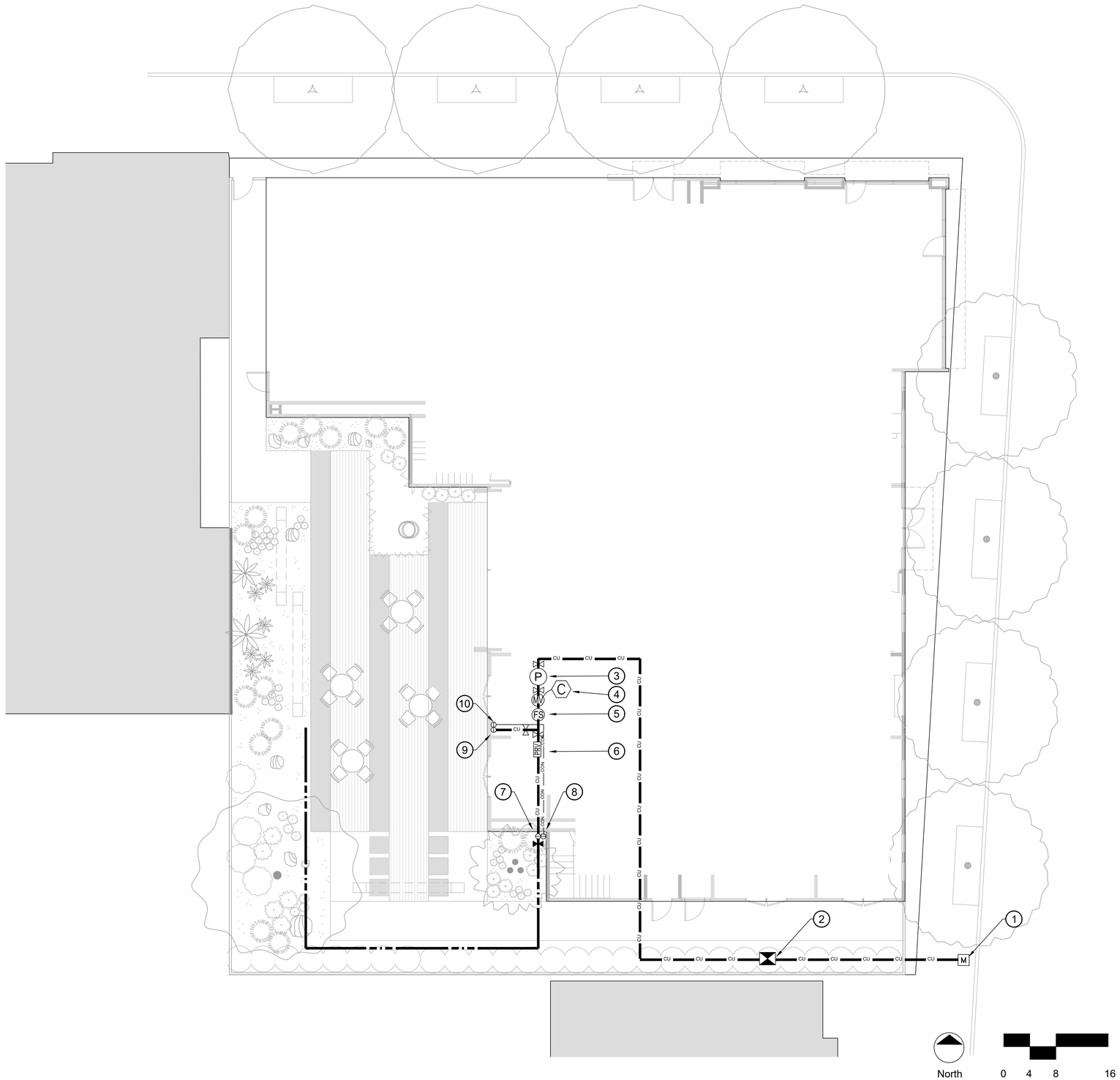
NOTES:

1. ONE BUBBLER SYMBOL IS SHOWN AT TREES FOR GRAPHIC CLARITY ONLY. INSTALL MINIMUM TWO BUBBLERS AT EACH TREE. INSTALL REQUIRED NUMBER OF BUBBLERS AS DETAILED.
2. IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITH SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.
3. UNSIZED LATERAL LINE PIPING LOCATED DOWN STREAM OF 1" PIPING SHALL BE 3/4" IN SIZE (TYPICAL).
4. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

   0.75" 0-6 GPM
   1" 7-12 GPM

5. SIZING OF LATERAL PIPE FOR DRIPLINE (12" O.C. GRID WITH 0.6 GPH OR LESS EMITTERS) SHALL BE AS FOLLOWS:

   0.75 0-500 FT
   1" 501-1100 FT



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JOB: 2104

SHEET:

GROUND LEVEL
IRRIGATION PLAN

I1.0

PLAN NOTES LEGEND

(1) 1.25" COPPER PIPE STUB-OUT FOR IRRIGATION FROM MECHANICAL ROOM TO THIS APPROXIMATE LOCATION TO SERVICE ROOF LEVEL PLANTERS TO BE PROVIDED AND INSTALLED IN-STRUCTURE UNDER PLUMBING CONTRACT. COORDINATE INSTALLATION OF PIPE WITH GENERAL/PLUMBING CONTRACTOR(S) PRIOR TO CONSTRUCTION.

(2) 1.25" ELECTRICAL CONDUIT AND SPLICE BOX FOR 2-WIRE CABLE TO BE PROVIDED AND INSTALLED FROM IRRIGATION CONTROLLER "C" TO THIS LOCATION UNDER ELECTRICAL CONTRACT WORK BY A LICENSED ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION OF CONDUIT WITH GENERAL/ELECTRICAL CONTRACTOR(S) PRIOR TO CONSTRUCTION.

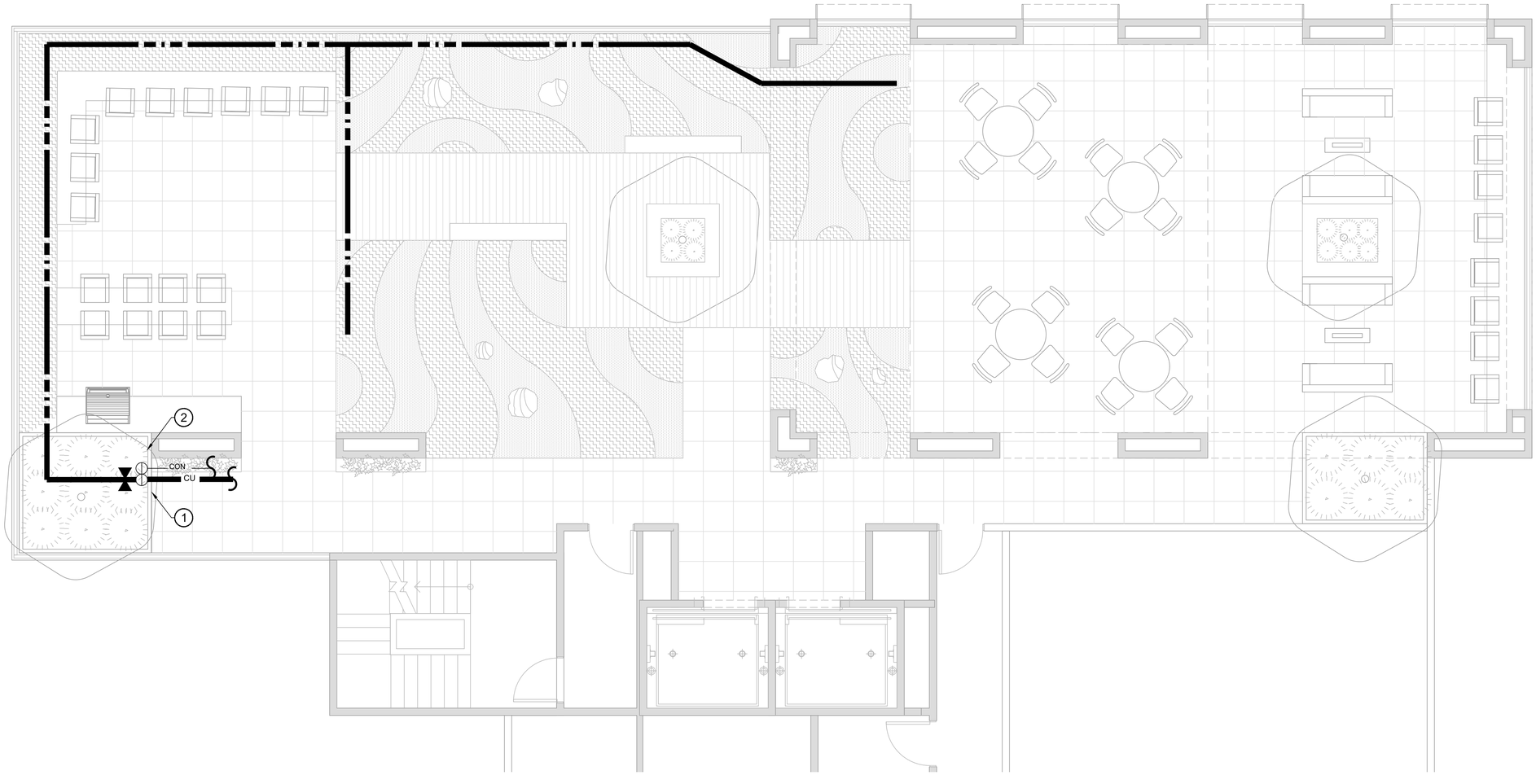
NOTES:

1. ONE BUBBLER SYMBOL IS SHOWN AT TREES FOR GRAPHIC CLARITY ONLY. INSTALL MINIMUM TWO BUBBLERS AT EACH TREE. INSTALL REQUIRED NUMBER OF BUBBLERS AS DETAILED.
2. IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITH SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.
3. UNSIZED LATERAL LINE PIPING LOCATED DOWN STREAM OF 1" PIPING SHALL BE 3/4" IN SIZE (TYPICAL).
4. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

   0.75" 0-6 GPM
   1" 7-12 GPM

5. SIZING OF LATERAL PIPE FOR DRIPLINE (12" O.C. GRID WITH 0.6 GPH OR LESS EMITTERS) SHALL BE AS FOLLOWS:

   0.75 0-500 FT
   1" 501-1100 FT



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JOB: 2104

SHEET:

ROOF DECK
IRRIGATION PLAN

I1.1

IRRIGATION NOTES

1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.

2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE; THE UNIFORM PLUMBING CODE, PUBLISHED BY THE WESTERN PLUMBING OFFICIALS ASSOCIATION; AND OTHER STATE OR LOCAL LAWS OR REGULATIONS. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR REGULATIONS. THE CONTRACTOR SHALL FURNISH WITHOUT ANY EXTRA CHARGE, ANY ADDITIONAL MATERIAL AND LABOR WHEN REQUIRED BY THE COMPLIANCE WITH THESE CODES AND REGULATIONS.

3. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LAYOUT AND INSTALLATION OF THE PLANT MATERIALS TO INSURE THAT THERE WILL BE COMPLETE AND UNIFORM IRRIGATION COVERAGE OF PLANTING IN ACCORDANCE WITH THESE DRAWINGS, AND CONTRACT DOCUMENTS. THE IRRIGATION LAYOUT SHALL BE CHECKED BY THE CONTRACTOR AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO CONSTRUCTION TO DETERMINE IF ANY CHANGES, DELETIONS, OR ADDITIONS ARE REQUIRED. IRRIGATION SYSTEM SHALL BE INSTALLED AND TESTED PRIOR TO INSTALLATION OF PLANT MATERIAL.

4. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

5. IT IS THE RESPONSIBILITY OF THE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLER(S) TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS, SLOPES, SUN, SHADE AND WIND EXPOSURE.

6. IT IS THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR TO PROVIDE 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO THE CONTROLLER LOCATION(S). IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE ELECTRICAL SERVICE STUB-OUT TO THE CONTROLLER(S). PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH LOCAL CODES.

7. INSTALL NEW BATTERIES IN THE IRRIGATION CONTROLLER(S) TO RETAIN PROGRAM IN MEMORY DURING TEMPORARY POWER FAILURES. USE QUANTITY, TYPE AND SIZE REQUIRED AS PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.

8. SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE CONTRACTOR, THE OWNER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER.

9. INSTALL 2-WIRE CABLE ALONG THE MAIN LINE. CONTACT CONTROLLER REPRESENTATIVE FOR A PRE-CONSTRUCTION MEETING.

10. INSTALL 2-WIRE CABLE WITHIN 1.25" CONDUIT WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM.

11. INSTALL A 14"X19" GREY ELECTRICAL PULL BOX EVERY 200' AND AT EVERY CHANGE IN DIRECTION. ONLY SPLICE TWO WIRE CABLE AT THREE WAY WIRE CONNECTIONS.

12. IRRIGATION CONTROL WIRES: SOLID COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND. SIZE #14AWG WIRE WITH A JACKETED 2-CONDUCTOR. PREFERRED WIRE MAKE AND MODEL IS THE PAIGE IRRIGATION WIRE, SPEC P7072D. ALL SPLICING SHALL BE MADE WITH 3-M DBR/Y-6 WATERPROOF SPLICE KIT.

13. DECODER GROUNDING SHALL BE PROVIDED EVERY 600 FEET, AT THE CONTROLLER AND AT THE LAST DECODER OR AT THE END OF THE 2 WIRE PATH. GROUND WITH A 5/8" X 8' COPPER CLAD GROUNDING ROD. #6 COPPER WIRE TO SURGE DEVICE/DECODER. INCLUDE A SURGE ARRESTOR AT EACH GROUNDING LOCATION. A SPLIT BOLT CONNECTION TO BE USED TO CONNECT THE SURGE DEVICE TO THE GROUND WIRE WITH A DBR/Y-6 WATERPROOF CONNECTOR.

14. SPLICING OF JACKETED 2-WIRE IS PERMITTED IN VALVE BOXES ONLY. LEAVE A 24" LONG COIL OF WIRE AT EACH SPLICE AND A 24" LONG EXPANSION LOOP IN ALL PULL BOXES.

15. INSTALL BLACK PLASTIC VALVE BOXES WITH BOLT DOWN, NON HINGED COVER MARKED "IRRIGATION CONTROL VALVE". BOX BODY SHALL HAVE KNOCK OUTS. ACCEPTABLE VALVE BOX MANUFACTURER'S INCLUDE NDS, CARSON OR APPROVED EQUAL.

16. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, INSTALL EACH BOX AN EQUAL DISTANCE FROM THE WALK, CURB, BUILDING OR LANDSCAPE FEATURE AND PROVIDE 12" BETWEEN BOX TOPS. ALIGN THE SHORT SIDE OF RECTANGULAR VALVE BOXES PARALLEL TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE.

17. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS.

18. THE CONTRACTOR SHALL LABEL CONTROL LINE WIRE AT EACH REMOTE CONTROL VALVE WITH A 2 1/4" X 2 3/4" POLYURETHANE I.D. TAG, INDICATING IDENTIFICATION NUMBER OF VALVE (CONTROLLER AND STATION NUMBER). ATTACH LABEL TO CONTROL WIRE. THE CONTRACTOR SHALL PERMANENTLY STAMP ALL VALVE BOX LIDS WITH APPROPRIATE IDENTIFICATION AS NOTED IN CONSTRUCTION DETAILS.

19. FLUSH AND ADJUST IRRIGATION OUTLETS AND NOZZLES FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF THE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.

20. LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE.

21. INSTALL A HUNTER HCV SERIES, KBI CV SERIES, OR APPROVED EQUAL SPRING LOADED CHECK VALVE IN SPRINKLER RISER ASSEMBLIES WHERE LOW OUTLET DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER.

22. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE CAUTION TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATE BY HAND IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR. BACK FILL TRENCHES ADJACENT TO TREE WITHIN TWENTY-FOUR (24) HOURS. WHERE THIS IS NOT POSSIBLE, SHADE THE SIDE OF THE TRENCH ADJACENT TO THE TREE WITH WET BURLAP OR CANVAS.

23. NOTIFY LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

24. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

25. IRRIGATION DEMAND: REFER TO PLANS.

26. PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION THE SIZE MAY NEED TO BE ADJUSTED ACCORDINGLY.

27. PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL #5.

28. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION DRAWINGS SUCH AS LIGHTS, FIRE HYDRANTS, SIGNS, ELECTRICAL ENCLOSURES, ETC.

29. WHEN WORK OF THIS SECTION HAS BEEN COMPLETED AND SUCH OTHER TIMES AS MAY BE DIRECTED, REMOVE ALL TRASH, DEBRIS, SURPLUS MATERIALS AND EQUIPMENT FROM SITE.

30. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLEMENTAL HAND WATERING OF ALL PLANT MATERIAL WITHIN DRIPLINE AREAS UNTIL THE PLANTS ARE SUFFICIENTLY ESTABLISHED.

31. VERIFY LOCATIONS OF ALL IRRIGATION COMPONENTS INSTALLED WITHIN A VALVE BOX WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. DO NOT INSTALL UNTIL LANDSCAPE ARCHITECT PROVIDES ACCEPTABLE LOCATIONS.

IRRIGATION COORDINATION NOTES

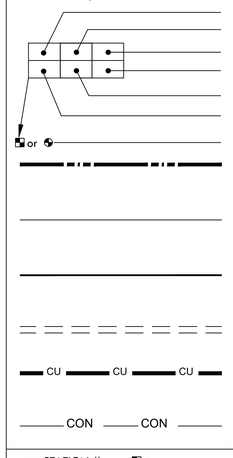
1. COPPER PIPING WITHIN STRUCTURE SHALL BE PROVIDED, ROUTED, AND INSTALLED BY PLUMBING CONTRACTOR. EXIT OF PIPE TO PLANTER SHALL BE A MINIMUM OF 6" BELOW FINISH GRADE.

2. IRRIGATION SLEEVING AND/OR CONDUIT IN STRUCTURE TO BE PROVIDED AND INSTALLED UNDER STRUCTURAL WORK.

3. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, PULL BOXES AND WIRE IN STRUCTURE. THE DRAWINGS INDICATE REQUIRED WIRE QUANTITIES FROM A GIVEN PLANTER LOCATION, THROUGH STRUCTURE, TO THE CONTROLLER LOCATION. 14 GAUGE WIRE SHALL BE USED FOR CONTROL WIRING AND 12 GAUGE FOR COMMON GROUND. FINAL CONNECTION OR WIRING TO REMOTE CONTROL VALVES AND CONTROLLER SHALL BE COMPLETED BY IRRIGATION CONTRACTOR.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	NOZZLE GPM	OPERATING PSI	OPERATING RADIUS (FEET)
	PCB-25	HUNTER BUBBLER (SHRUB)	0.25	30	TRICKLE
	PCB-25	HUNTER BUBBLER (TREE) MIN. 2 PER TREE. REFER TO BUBBLER DETAIL FOR QUANTITY OF BUBBLERS PER TREE SIZE.	0.25	30	TRICKLE
	WLT-0500-T	NDS SCH 40 BALL VALVE OR APPROVED EQUAL			
	ECO-ID	HUNTER ECO-INDICATOR			
	ICV-101/AS-40	HUNTER REMOTE CONTROL VALVE WITH 40 PSI PRESSURE REGULATOR			
	ICZ-101-40	HUNTER REMOTE CONTROL VALVE WITH A 40 PSI PRESSURE REGULATOR AND A 1" FILTER.			
	44-LRC	RAIN BIRD 1" TWO-PIECE QUICK COUPLING VALVE (YELLOW LOCKING RUBBER COVER)			
	QB44RCAR10	BUCKNER 1" TWO-PIECE QUICK COUPLING VALVE (ANTI-ROTATION)			
	T-FP600A-LF-1"	NIBCO 1" BRASS BALL VALVE			
PRV	500XLHLR	WILKINS PRESSURE REDUCING VALVE			
MV	WT-MV-100G-SNO	WeatherTRAK 1" BRASS MASTER VALVE (NORMALLY OPEN)			
FS	WTFLOW-HD-P-100	WeatherTRAK 1" FLOW SENSOR			
	975XL2SEU-1"	WILKINS REDUCED PRESSURE BACKFLOW ASSEMBL.			
C	WTPRO3-C-H2048-SWM	WeatherTRAK ET PRO3 2-WIRE 48 STATION CONTROLLER IN A STAINLESS STEEL WALL MOUNTED ENCLOSURE.			
—	WT2W-H2O-1VD	WEATHERTRAK DECODER (1 PER VALVE)			
—	WT2W-H2O-2VD	WEATHERTRAK DECODER - TWO STATION			
—	WT2W-H2O-MV	WEATHERTRAK MASTER VALVE DECODER			
—	WT2W-H2O-FS	WEATHERTRAK FLOW SENSOR DECODER			
—	WT2W-H2O-PS	WEATHERTRAK PUMP START DECODER			
—	WT2W-H20-SA	WEATHERTRAK SURGE ARRESTOR (1 EVERY 500 FEET ALONG MAIN) REFER TO DETAILS FOR INSTALLATION INSTRUCTIONS.			
—	CIMXL-5YA	5 YEAR EXTENSION OF WeatherTRAK Central.			
	NOT SHOWN ON PLANS	ROUTE TWO WIRE CABLE TO ALL REMOTE CONTROL VALVES. SIZE #14AWG WIRE WITH A JACKETED 2-CONDUCTOR. PREFERRED WIRE MAKE AND MODEL IS PAIGE ELECTRIC WIRE P7072D. ALL SPLICING SHALL BE MADE WITH 3-M DBR/Y-6 WATERPROOF SPLICE KITS OR APPROVED EQUAL. INSTALL 2 WIRE CABLE WITHIN 1.25" SCH 40 ELECTRICAL CONDUIT. PULL BOXES SHALL BE LOCATED EVERY 200' NO SPLICES ARE ALLOWED BETWEEN VALVES. REFER TO DETAIL FOR INSTALLATION INSTRUCTIONS.			
R	WT-WRS	WIRELESS RAIN SENSOR SYSTEM. AUTOMATICALLY SHUTS THE SYSTEM OFF AS SOON AS IT STARTS RAINING.			



CONTROLLER AND STATION NUMBER
REMOTE CONTROL VALVE SIZE (IN INCHES)
FLOW (GPM)
WATER USE CLASSIFICATION OF ZONE
APPLICATION RATE (IN/HR) or DRIPLINE SPACING
AREA (SQ. FT.)
ASSOCIATED REMOTE CONTROL VALVE

MAIN LINE: 1.25" THROUGHOUT: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.

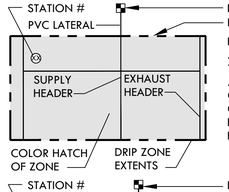
LATERAL LINE: 3/4" AND LARGER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.

DRIPLINE LATERAL LINE: 3/4" AND LARGER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.

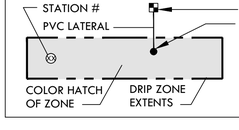
SLEEVING: SCHEDULE 40 PVC PLASTIC PIPE. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED ABOVE FOR PIPE DEPTH OF COVER.

MAIN LINE: 1.25" THROUGHOUT: TYPE 'K' COPPER PIPE WITH WROUGHT FITTINGS. SHOWN FOR REFERENCE ONLY, SEE PLUMBING PLANS FOR ROUTING THROUGH STRUCTURE.

ELECTRICAL CONDUIT: SHOWN FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR ROUTING THROUGH STRUCTURE.



DRIPLINE REMOTE CONTROL VALVE
DRIP ZONE:
HUNTER HDL SERIES DRIPLINE WITH BUILT IN PRESSURE COMPENSATION AND CHECK VALVE, PART #HDL-06-12-250-CV. USE PLD FITTINGS. TUBING TO BE INSTALLED 4" BELOW GRADE IN A 12" O.C. GRID ACCORDING TO DETAILS. SIZE EXHAUST HEADERS AS FOLLOWS: 1": 0-10 GPM, 1.25": 11-20 GPM. ALL EXHAUST HEADERS SHALL BE 1" SCH 40 PVC OR 1" SCH 40 FLEXIBLE PVC. USE SCH. 40 PVC SOLVENT WELD FITTINGS. EXTEND PVC HEADERS TO THE ENDS OF ALL DRIP ZONES TO BALANCE FLOW IF REQUIRED. SEE DETAILS FOR FURTHER INFORMATION.



DRIPLINE REMOTE CONTROL VALVE
APPROXIMATE CONNECTION POINT BETWEEN DRIPLINE TUBING AND PVC SUPPLY WHEN DRIP ZONE IS LESS THAN 3 GPM AND NO PVC SUPPLY/EXHUST HEADERS ARE NEEDED. REFER TO DRIPLINE TUBING CONNECTION DETAIL FOR MORE INFORMATION.

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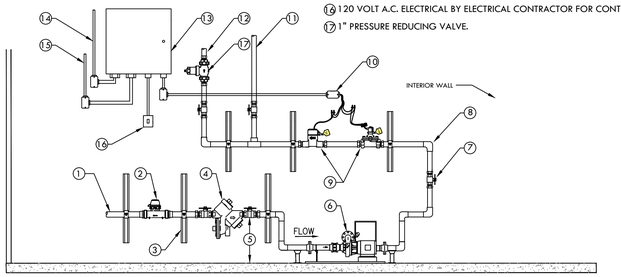
JOB: 2104

SHEET:

IRRIGATION NOTES AND LEGEND

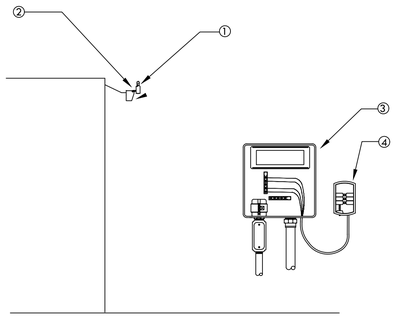
I1.2

1. 1.25" COPPER MAIN LINE TO FOR IRRIGATION FROM DOMESTIC LINE WITHIN EQUIPMENT ROOM. SHOWN ON MEP PLANS.
2. SUB-METER FOR IRRIGATION.
3. UNI-STRUT SUPPORT BRACKET, THREADED EXTENSIONS AND CLAMPS, LENGTH AS REQUIRED. PROVIDE A MINIMUM OF 6" SEPARATION FOR THE VALVES AND PIPE FROM THE WALL.
4. 1" WILKENS REDUCED PRESSURE BACKFLOW ASSEMBLY.
5. MIN. 18" ± FROM FINISH FLOOR.
6. WATER BOOSTER PUMP FOR IRRIGATION BY OTHERS.
7. 1.25" BRASS BALL VALVE.
8. ALL FITTINGS AND PIPING FOR WATER LINES WITHIN EQUIPMENT ROOM SHALL BE COPPER WITH WROT FITTINGS OR BRASS NIPPLES.
9. MASTER VALVE AND FLOW SENSOR. PROVIDE A MINIMUM LENGTH OF 10" UPSTREAM OF FLOW SENSOR AND 5" DOWNSTREAM OF ANY FITTING.
10. 1" ELECTRICAL CONDUIT WITH JUNCTION BOXES FOR CONTROL WIRES FOR FLOW SENSOR & MASTER VALVE.
11. 1.25" COPPER MAIN LINE ROUTED THROUGH STRUCTURE TO STUB-OUT LOCATION(S) AT ROOF LEVEL. INSTALLED BY PLUMBING CONTRACTOR. (REFER TO MEP PLAN FOR EXACT ROUTING THRU BUILDING)
12. 1.25" COPPER MAIN LINE ROUTED THROUGH STRUCTURE TO STUB-OUT LOCATION(S) AT SITE LEVEL. INSTALLED BY PLUMBING CONTRACTOR. (REFER TO MEP PLAN FOR EXACT ROUTING THRU BUILDING)
13. IRRIGATION CONTROLLER BY IRRIGATION CONTRACTOR. MINIMUM 42" ABOVE FINISHED FLOOR.
14. 1.25" ELECTRICAL CONDUIT WITH REQUIRED JUNCTION BOXES ROUTED THROUGH STRUCTURE FROM CONTROLLER LOCATION TO STUB-OUT LOCATION(S) AT ROOF LEVEL. INSTALLED BY ELECTRICAL CONTRACTOR.
15. 1.25" ELECTRICAL CONDUIT WITH REQUIRED JUNCTION BOXES ROUTED THROUGH STRUCTURE FROM CONTROLLER LOCATION TO STUB-OUT LOCATION(S) AT ROOF LEVEL. INSTALLED BY ELECTRICAL CONTRACTOR.
16. 120 VOLT A.C. ELECTRICAL BY ELECTRICAL CONTRACTOR FOR CONTROLLER.
17. 1" PRESSURE REDUCING VALVE.



NOTES:
1. THIS LAYOUT IS TO PROVIDE INFORMATION ON EQUIPMENT AND TYPICAL DISTANCES REQUIRED BETWEEN THE EQUIPMENT. IT IS DIAGRAMMATIC AND WILL NEED TO BE ADJUSTED ACCORDING TO AVAILABLE FLOOR SPACE AND OTHER EQUIPMENT INSTALLED WITHIN THE ENCLOSURE. OFFSETS AND FITTINGS WILL BE REQUIRED FOR THESE ADJUSTMENTS.
2. MAINTAIN 6" OF CLEARANCE FROM BUILDING WALLS FOR EASE OF MAINTENANCE FOR ALL COPPER PIPING, VALVES, AND FITTINGS.
3. SEAL ALL PIPE PENETRATIONS THROUGH WALLS/STRUCTURE AS REQUIRED (BY PLUMBING CONTRACTOR). SEE PLUMBING/WATERPROOFING DRAWINGS.
4. ALL FITTINGS AND PIPING FOR WATER LINES WITHIN EQUIPMENT ROOM SHALL BE COPPER WITH WROT FITTINGS OR BRASS NIPPLES.

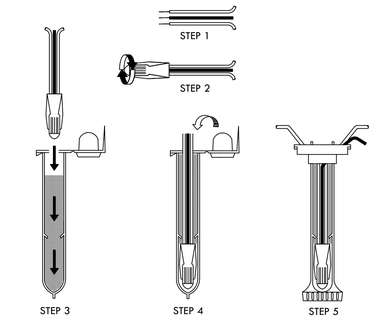
1 IRRIGATION EQUIPMENT LAYOUT DIAGRAM DETAIL
SCALE: NONE



NOTE: MAXIMUM LINE OF SIGHT FROM RAIN SENSOR TO RECEIVER IS 300 FT. DISTANCE IS LESS IF OBSTRUCTIONS EXIST. SENSOR MUST BE INSTALLED IN "CLEAR SPACE" WHERE IT IS EXPOSED TO UNOBSTRUCTED RAINFALL AND IS CLEAR OF IRRIGATION SPRAY.

1. WIRELESS RAIN SENSOR TRANSMITTER (GUTTER MOUNTED)
2. MOUNT RAIN SENSOR ON BUILDING WALL. ARCHITECT TO APPROVE LOCATION
3. CONTROLLER
4. RAIN SENSOR RECEIVER

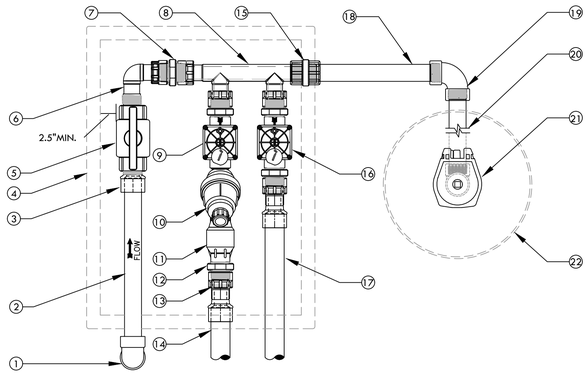
2 WIRELESS RAIN SENSOR-GUTTER MOUNT
SCALE: NONE



NOTE:
MAXIMUM # OF WIRES PER CONNECTOR:
- 3-#14 GAUGE
- 2-#12 GAUGE

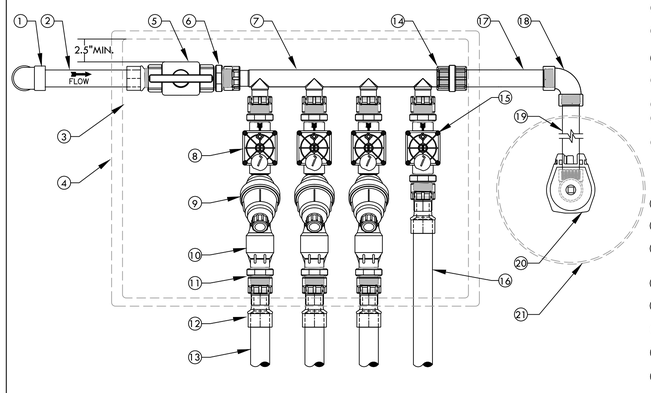
INSTRUCTIONS:
1. STRIP WIRES APPROXIMATELY 1/2" FROM ENDS TO EXPOSE WIRE.
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
3. INSERT WIRE ASSEMBLY TO BOTTOM OF GEL-FILLED TUBE. CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT THE BOTTOM OF THE TUBE.
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
5. INSPECT FINAL SPLICE ASSEMBLY THAT IT IS SECURED.

3 WEATHERPROOF WIRE SPLICE ASSEMBLY
SCALE: NONE



1. SCH 40 PVC 90° ELBOW (SxS) FROM PVC MAIN LINE BELOW.
2. SCH 40 PVC PIPE. LENGTH AS REQUIRED.
3. SCH 80 PVC MALE ADAPTER.
4. CARSON 1220 RECTANGULAR PLASTIC VALVE BOX WITH LID. INSTALL PER REMOTE CONTROL VALVE DETAIL.
5. NDS 1"LO-TORQ BALL VALVE THREADED (PART #LT-1000-T)
6. DURA 1" MIPT x 1" SWIVEL 90° (PART #306-009)
7. DURA 1"x1" THREADED ADAPTER (PART #08303) 4 TOTAL.
8. DURA 1" MULTI-PORT MANIFOLD (PART #301-010-2)
9. DRIP REMOTE CONTROL VALVE. REFER TO LEGEND FOR MODEL.
10. FILTER. REFER TO LEGEND FOR MODEL.
11. 40 PSI REGULATOR. REFER TO LEGEND FOR MODEL.
12. DURA 1" x 3/4" MALE ADAPTER (PART #08303-131). ONLY REQUIRED WITH 3/4" OUTLET REGULATORS. USE 1"x1" DURA THREAD ADAPTER ON 1" REGULATORS
13. DURA 1" SLIP X 1" SWIVEL (PART #329-011) 2 TOTAL.
14. SCHEDULE 40 PVC LATERAL TO DRIP IRRIGATION
15. SCHEDULE 80 PVC THREADED FEMALE COUPLING TO SERVICE QCV. IF NO QCV INSTALL A DURA 1" CAP (PART #348-010)
16. BUBBLER OR SPRINKLER REMOTE CONTROL VALVE. REFER TO LEGEND FOR MODEL.
17. SCHEDULE 40 PVC LATERAL TO BUBBLER OR SPRAY IRRIGATION.
18. SCHEDULE 80 PVC NIPPLE (LENGTH AS REQUIRED).
19. SCHEDULE 80 PVC 90° ELBOW (TxT).
20. SCHEDULE 80 PVC NIPPLE (LENGTH AS REQUIRED).
21. QUICK COUPLING VALVE. INSTALL PER DETAIL.
22. 10" ROUND BOX. INSTALL PER DETAIL.

4 TWO REMOTE VALVE MANIFOLD DETAIL WITH QUICK COUPLING VALVE (1" VALVES ONLY)
SCALE: NONE



1. SCH 40 PVC 90° ELBOW (SxS) FROM PVC MAIN LINE BELOW.
2. SCH 40 PVC PIPE. LENGTH AS REQUIRED.
3. SCH 80 PVC MALE ADAPTER.
4. CARSON 1220 RECTANGULAR PLASTIC VALVE BOX WITH LID. INSTALL PER REMOTE CONTROL VALVE DETAIL.
5. NDS 1"LO-TORQ BALL VALVE THREADED (PART #LT-1000-T)
6. DURA 1"x1" THREADED ADAPTER (PART #08303) 6 TOTAL.
7. DURA 1" MULTI-PORT MANIFOLD (PART #301-010-4)
8. DRIP REMOTE CONTROL VALVE. REFER TO LEGEND FOR MODEL.
9. FILTER. REFER TO LEGEND FOR MODEL.
10. 40 PSI REGULATOR. REFER TO LEGEND FOR MODEL.
11. DURA 1" x 3/4" MALE ADAPTER (PART #08303-131) 3 TOTAL. ONLY REQUIRED WITH 3/4" OUTLET REGULATORS. USE 1"x1" DURA THREAD ADAPTER ON 1" REGULATORS
12. DURA 1" SLIP X 1" SWIVEL (PART #329-011) 4 TOTAL.
13. SCHEDULE 40 PVC LATERAL TO DRIP IRRIGATION.
14. SCHEDULE 80 PVC THREADED FEMALE COUPLING TO SERVICE QCV. IF NO QCV INSTALL A DURA 1" CAP (PART #348-010)
15. BUBBLER OR SPRINKLER REMOTE CONTROL VALVE. REFER TO LEGEND FOR MODEL.
16. SCHEDULE 40 PVC LATERAL TO BUBBLERS OR SPRAY IRRIGATION.
17. SCHEDULE 80 PVC NIPPLE (LENGTH AS REQUIRED).
18. SCHEDULE 80 PVC 90° ELBOW (TxT).
19. SCHEDULE 80 PVC NIPPLE (LENGTH AS REQUIRED).
20. QUICK COUPLING VALVE. INSTALL PER DETAIL.
21. 10" ROUND BOX. INSTALL PER DETAIL.

5 FOUR REMOTE VALVE MANIFOLD DETAIL WITH QUICK COUPLING VALVE (1" VALVES ONLY)
SCALE: NONE

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07.08.2022 ZONING INCOMPLETE RESPONSE
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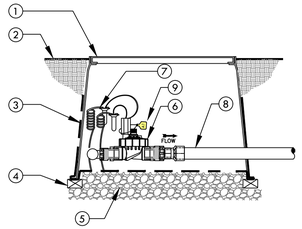
JOB: 2104

SHEET:

IRRIGATION DETAIL

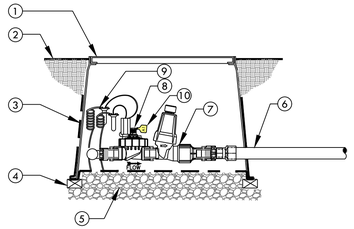
I1.3



1. CARSON 1220 RECTANGULAR VALVE BOX FOR FOUR VALVES OR CARSON 1419 FOR TWO VALVES
2. FINISH GRADE
3. 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP THE SIDES OF THE BOX
4. BRICK-1 EACH CORNER
5. PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
6. REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED. REFER TO TWO OR FOUR VALVE MANIFOLD DETAIL FOR INSTALLATION INSTRUCTIONS
7. VALVE CONTROL WIRE- PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 24" OF EXCESS UF WIRE IN A 1" DIAMETER COIL
8. SCH 40 PVC LATERAL LINE TO BUBBLERS OR SPRAY
9. VALVE I.D. TAG (WITH CONTROL AND STATION NUMBER).

1 BUBBLER OR SPRAY REMOTE CONTROL VALVE IN TWO OR FOUR VALVE MANIFOLD

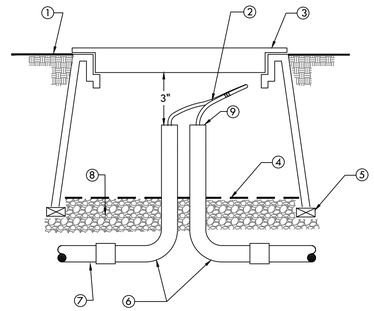
SCALE: NONE



1. CARSON 1220 RECTANGULAR VALVE BOX FOR FOUR VALVES OR CARSON 1419 FOR TWO VALVES
2. FINISH GRADE
3. 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP THE SIDES OF THE BOX
4. BRICK-1 EACH CORNER
5. PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
6. SCH 40 PVC LATERAL LINE TO DRIPLINE OR DRIP.
7. DRIP FILTER AND REGULATOR
8. REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED. REFER TO TWO OR FOUR VALVE MANIFOLD DETAIL FOR INSTALLATION INSTRUCTIONS
9. VALVE CONTROL WIRE- PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 24" OF EXCESS UF WIRE IN A 1" DIAMETER COIL
10. VALVE I.D. TAG (WITH CONTROL AND STATION NUMBER).

2 DRIP REMOTE CONTROL VALVE IN TWO OR FOUR VALVE MANIFOLD

SCALE: NONE

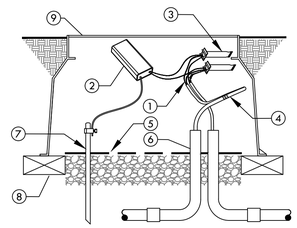


1. FINISH GRADE
2. 24" LOOP OF TWO WIRE CABLE.
3. GREY RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. HEAT BRAND "PB" INTO LID.
4. 18 GAUGE 1/2" [13mm] SQUARE STAINLESS STEEL WIRE MESH.
5. BRICK-ONE ON EACH CORNER
6. SCHEDULE 40 PVC SWEEP ELLS
7. SCHEDULE 40 U.L. LISTED PVC CONDUIT
8. PEA GRAVEL OR 3/4" [20mm] DRAIN ROCK - 4" [102mm] DEEP BELOW VALVE (NO SOIL IN VALVE BOX).
9. SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM.

3 IRRIGATION TWO WIRE PULL BOX

SCALE: NONE

NOTE:
TWO WIRE DECODER SYSTEMS MUST BE PROPERLY GROUNDED IN ORDER TO PROTECT AGAINST LIGHTNING SURGES. THE COMMUNICATION CABLE MUST BE GROUNDED NO FURTHER THAN 500' FROM ANY DECODER. THE SURGE DEVICE MUST BE A WEATHERTRAK MODEL WT2W-LSP. THE MINIMUM DISTANCE BETWEEN THE SURGE ARRESTOR AND THE GROUND ROD SHOULD BE 3' (91.4CM). WEATHERTRAK RECOMMENDS A SPLIT BOLT CONNECTION TO BE USED TO CONNECT THE SURGE DEVICE TO THE GROUND WIRE WITH A 3M DBY-6 WATERPROOF CONNECTOR.

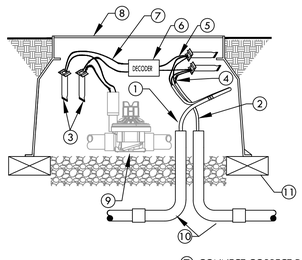


1. 2-WIRE PATH JACKETED/ TWISTED FROM CONTROLLER. ALLOW A 24" SLACK PER DECODER
2. LIGHTNING ARRESTOR (MODEL WT2W-LSP). 1 EVERY 500' FROM STARTING FROM CONTROLLER.
3. 3M DBR/Y-6 OR APPROVED EQUAL WATERPROOF SPLICE KIT (4 TOTAL)
4. 2-WIRE PATH JACKETED/ TWISTED TO NEXT DECODER
5. 18 GAUGE 1/2" [13mm] SQUARE STAINLESS STEEL WIRE MESH.
6. 1.25" CONDUIT FOR 2 WIRE CABLE WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM.
7. INSTALL 5/8" DIAMETER COPPER GROUND ROD OF 8' LENGTH.
8. BRICK-ONE ON EACH CORNER
9. GREY RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. HEAT BRAND "GR" INTO LID.

4 LIGHTNING ARRESTOR

SCALE: NONE

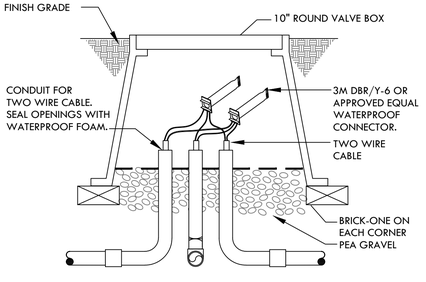
NOTE:
1. ALL DECODERS SHALL HAVE A VALVE NUMBER ADDRESSED AT CONTROLLER PRIOR TO INSTALLATION.
2. USE U.F. SAFETY CABLE STRIPPER BY KING INNOVATION (MODEL NUMBER 46200) FOR ALL TWO-WIRE SPLICE CONNECTIONS.



1. #14AWG TWO WIRE CABLE FROM CONTROLLER. REFER TO IRRIGATION NOTES FOR MODEL NUMBER OF WIRE. ALLOW A 24" SLACK PER DECODER. USE ELECTRICAL TAPE TO HOLD SLACK CABLES TOGETHER.
2. TWO WIRE CABLE TO NEXT DECODER
3. 3M DBR/Y-6 OR APPROVED EQUAL WATERPROOF SPLICE KIT (4 TOTAL)
4. A MAXIMUM OF 4" OF WIRE SHALL BE STRIPPED FROM TWO WIRE CABLE WHEN SPLICING AT DECODERS.
5. CONNECT CORRECT DECODER WIRES TO TWO WIRE CABLES.
6. DECODER
7. CONNECT CORRECT DECODER WIRES TO VALVE SOLENOID WIRES
8. VALVE BOX. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS.
9. REMOTE CONTROL VALVE. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS.
10. 1.25" CONDUIT FOR 2 WIRE CABLE WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROFF FOAM.
11. BRICK-ONE ON EACH CORNER

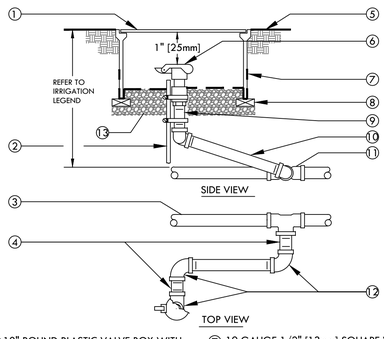
5 DECODER WIRING IN CONDUIT

SCALE: NONE



6 2-WIRE SPLICE BOX AT MAIN LINE TEE OR 3 WAY WIRE BRANCH

SCALE: NONE

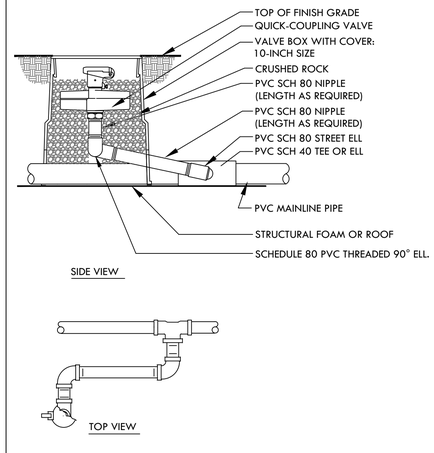


1. 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID.
2. 1 1/4" x 1 1/4" x 3/16" [30mm x 30mm x 5mm] ANGLE IRON 30" [760mm] LONG W/2 STAINLESS STEEL STRAPS (ONE AROUND QCV).
3. PVC MAIN LINE.
4. 3" [75mm] LONG SCHEDULE 80 PVC THREADED NIPPLE.
5. FINISH GRADE.
6. QUICK COUPLING VALVE.
7. 19 GAUGE 1/2" [13mm] SQUARE WIRE MESH.
8. BRICK - 2 TOTAL.
9. SCHEDULE 80 PVC THREADED NIPPLE.
10. 10" [250mm] LONG SCHEDULE 80 PVC THREADED NIPPLE.
11. UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW.
12. SCHEDULE 80 PVC THREADED 90° ELL.
13. PEA GRAVEL OR 3/4" DRAIN ROCK- 4" [100mm] DEEP BELOW VALVE (NO SOIL IN VALVE BOX).

NOTE:
NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE.

7 QUICK COUPLING VALVE

SCALE: NONE



NOTE:
1. NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE.
2. TRIM VALVE BOX LENGTH AS NECESSARY TO BE FLUSH WITH TOP OF PLANTING TILES.
3. IF NECESSARY SLOT SIDES VALVE BOX TO ALLOW PASSAGE OF PIPE THROUGH BOTTOM OF VALVE BOX.

8 QUICK COUPLING VALVE-ON STRUCTURE

SCALE: NONE

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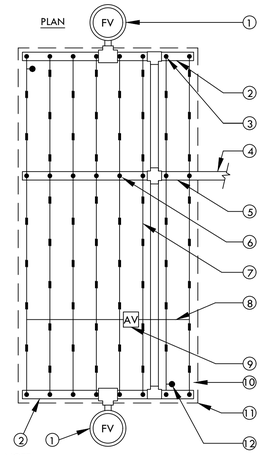
JOB: 2104

SHEET:

IRRIGATION DETAIL

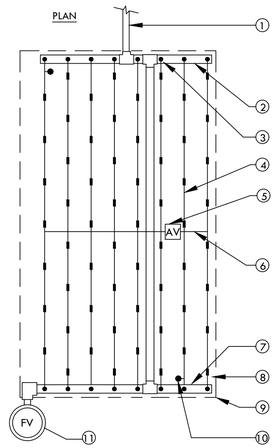
I1.4



1. FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
2. 1" FLEXIBLE PVC IPS HOSE FLUSH MANIFOLD.
3. MANIFOLD-TO-ELBOW CONNECTION (TYP).
4. PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
5. PVC SUPPLY MANIFOLD. EXTEND TO END OF ZONE/EXHAUST HEADER.
6. MANIFOLD-TO-TEE CONNECTION.
7. DRIPLINE LATERAL.
8. AIR/VACUUM RELIEF LATERAL, BLANK POLY TUBING CENTERED ON MOUND OR BERM.
9. AIR/VACUUM RELIEF PLUMBED TO BLANK 5/8" POLY TUBING AT EACH HIGH POINT.
10. PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.
11. AREA PERIMETER.
12. DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.

NOTE:
1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

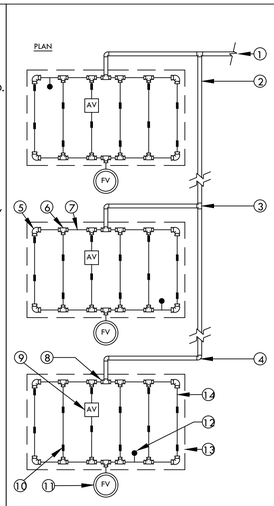
1 HLD DRIPLINE CENTER FEED LAYOUT
SCALE: NONE



1. PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
2. PVC FLUSH MANIFOLD. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
3. MANIFOLD-TO-ELBOW CONNECTION (TYP).
4. DRIPLINE LATERAL.
5. AIR/VACUUM RELIEF VALVE PLUMBED TO BLANK 5/8" TUBING AT EACH HIGH POINT.
6. AIR/VACUUM RELIEF LATERAL, BLANK 5/8" POLY TUBING CENTERED ON MOUND OR BERM.
7. 1" FLEXIBLE PVC IPS HOSE FLUSH MANIFOLD.
8. PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.
9. AREA PERIMETER.
10. DRIP OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONES.
11. FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT.

NOTE:
1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

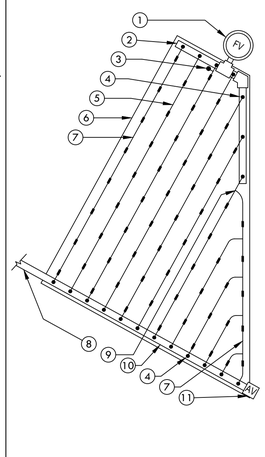
2 HLD DRIPLINE END FEED LAYOUT
SCALE: NONE



1. PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
2. PVC FLUSH MANIFOLD. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
3. PVC TEE (SxSxS).
4. PVC ELL (SxS).
5. HUNTER PLD-ELBOW (PLD-ELB)
6. HUNTER PLD-TEE (PLD-TEE).
7. BLANK 5/8" [16mm] POLY TUBING AT SUPPLY AND FLUSH END OF EACH ISLAND.
8. REFER TO DRIPLINE TO PVC CONNECTION DETAIL.
9. AIR/VACUUM RELIEF VALVE PLUMBED TO TUBING AT HIGH POINT.
10. DRIPLINE LATERAL.
11. MANUAL FLUSH VALVE PLUMBED TO TUBING AT LOW POINT.
12. DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
13. ISLAND PERIMETER.
14. PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.

NOTE:
1. THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

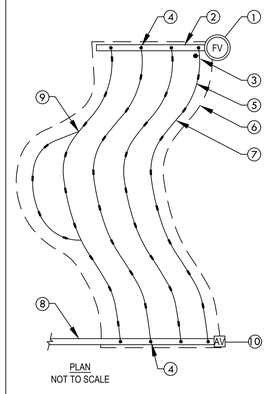
3 HLD DRIPLINE ISLAND LAYOUT
SCALE: NONE



1. FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
2. 1" SCH 40 PVC OR FLEXIBLE PVC IPS HOSE FLUSH MANIFOLD.
3. DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
4. MANIFOLD-TO-ELBOW CONNECTION.
5. DRIPLINE LATERAL.
6. AREA PERIMETER.
7. PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.
8. PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
9. HUNTER PLD-TEE (PLD-TEE)
10. PVC SUPPLY MANIFOLD.
11. HUNTER PLD AIR/VACUUM RELIEF VALVE (PLD-AVR) PLUMBED TO SUPPLY MANIFOLD AT HIGH POINT.

NOTE:
1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

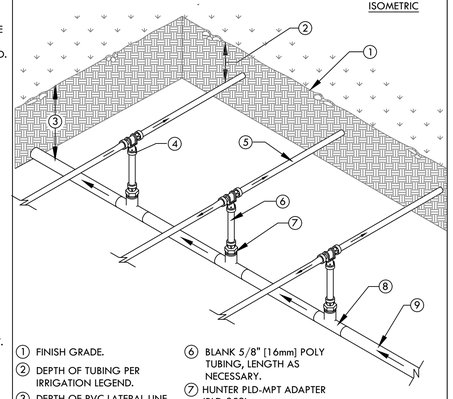
4 HLD DRIPLINE TRIANGULAR LAYOUT
SCALE: NONE



1. FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
2. 1" SCH 40 PVC OR FLEXIBLE PVC IPS HOSE FLUSH/EXHAUST MANIFOLD.
3. DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
4. MANIFOLD-TO-ELBOW CONNECTION.
5. DRIPLINE LATERAL.
6. AREA PERIMETER.
7. PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.
8. PVC SUPPLY LINE/HEADER FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
9. HUNTER PLD-TEE (PLD-TEE)
10. HUNTER PLD AIR/VACUUM RELIEF VALVE (PLD-AVR) PLUMBED TO SUPPLY MANIFOLD AT HIGH POINT.

NOTE:
1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

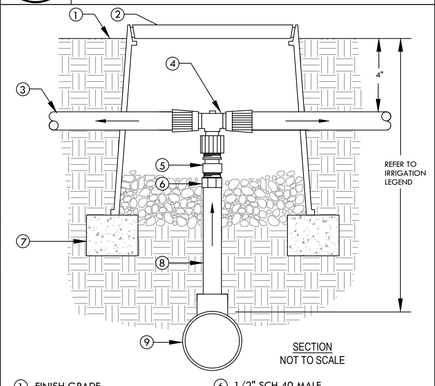
5 HLD DRIPLINE ODD CURVE LAYOUT
SCALE: NONE



1. FINISH GRADE.
2. DEPTH OF TUBING PER IRRIGATION LEGEND.
3. DEPTH OF PVC LATERAL LINE PER IRRIGATION LEGEND
4. HUNTER PLD-TEE (PLD-TEE)
5. DRIPLINE TUBING.
6. BLANK 5/8" [16mm] POLY TUBING, LENGTH AS NECESSARY.
7. HUNTER PLD-MPT ADAPTER (PLD-050)
8. PVC TEE (SxSxT) WITH 1/2" [13mm] FPT OUTLET.
9. PVC LATERAL LINE FROM REMOTE CONTROL VALVE.

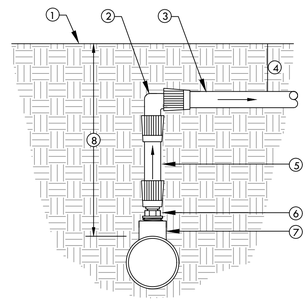
NOTE:
THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 300 FT.

6 HLD DRIPLINE CENTER FEED MANIFOLD
SCALE: NONE



1. FINISH GRADE
2. CARSON 708 OR EQUAL. COLOR: BLACK. USE PURPLE FOR RECYCLED WATER SYSTEMS.
3. DRIPLINE TUBING
4. HUNTER PLD-TEE X 1/2" FPT ADAPTER
5. TORO 1/2" CHECK VALVE (PCV-500)
6. 1/2" SCH 40 MALE ADAPTER.
7. BRICK (1 OF 2)
8. 1/2" SCH 40 PVC (LENGTH AS REQUIRED)
9. PVC LATERAL LINE SUPPLY. MINIMUM SIZE TO BE 1" UNLESS SIZED DIFFERENTLY ON DRAWINGS. USE SCH 40 PVC 1"x1"x1/2" TEE OR 90° ELBOW.

7 DRIPLINE TO PVC CONNECTION
SCALE: NONE



1. FINISH GRADE
2. HUNTER PLD-ELBOW (PLD-ELB)
3. DRIPLINE TUBING
4. DEPTH OF TUBING PER IRRIGATION LEGEND.
5. BLANK 5/8" [16mm] POLY TUBING, LENGTH AS NECESSARY.
6. HUNTER PLD-MPT ADAPTER (PLD-050)
7. SCH 40 PVC TEE (SxSxT) WITH 1/2" FPT OUTLET.
8. DEPTH OF PVC LATERAL LINE PER IRRIGATION LEGEND

8 DRIPLINE MANIFOLD TO ELBOW CONNECTION
SCALE: NONE

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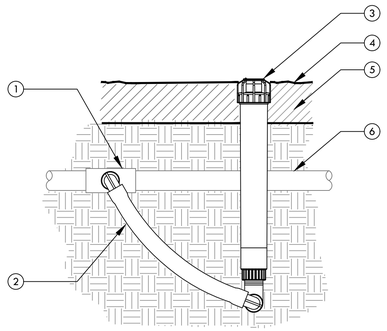
JOB: 2104

SHEET:

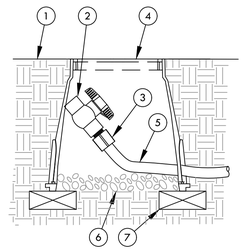
IRRIGATION DETAIL

I1.5



1. UPC APPROVED SCHEDULE 40 PVC TEE, ELBOW OR BARB x THREAD DRIP FITTING TEE OR ELBOW WITH 3/4" OUTLET.
2. 1/2" X 3/4" X 6" HUNTER SWING JOINT (SJ-7506)
3. ECO INDICATOR
4. FINISHED GRADE
5. MULCH
6. PVC LATERAL PIPE OR DRIPLINE

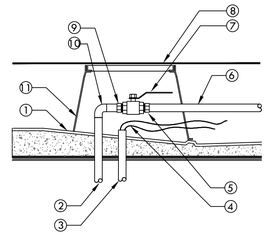
1 DRIPLINE OPERATION INDICATOR
SCALE: NONE



NOTE:
ALLOW A MINIMUM OF PVC HOSE IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

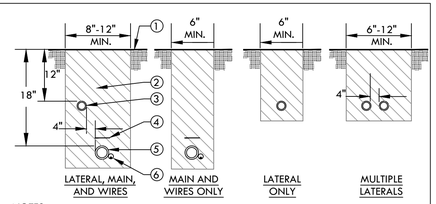
1. FINISH GRADE
2. 1/2" SCH 40 THREADED BALL VALVE.
3. 1/2" SCH 40 MALE ADAPTER.
4. 6" ROUND PLASTIC VALVE BOX.
5. 1" IPS PVC HOSE FROM EXHAUST HEADER.
6. PEA GRAVEL SUMP (6" DEEP).
7. BRICK (1 OF 2)

2 DRIPLINE-FLUSH POINT
SCALE: NONE



1. SLOPED ROOF BELOW PEDESTAL SYSTEM
2. COPPER PIPE THROUGH STRUCTURE PROVIDED BY PLUMBING CONTRACTOR. WATERPROOF ALL PENETRATIONS.
3. CONDUIT FOR CONTROL WIRES THROUGH STRUCTURE PROVIDED BY ELECTRICAL CONTRACTOR. WATERPROOF ALL PENETRATIONS
4. TWO-WIRE CABLE OR CONTROL WIRES
5. SCH 40 PVC MALE ADAPTER.
6. PVC MAIN LINE TO REMOTE CONTROL VALVES.
7. BRONZE BALL VALVE.
8. ROOF DECK PAVERS
9. COPPER MALE ADAPTER.
10. COPPER 90° ELBOW.
11. 10" ROUND PLASTIC VALVE BOX. CUT BOX TO FIT BELOW PEDESTAL PAVER SYSTEM

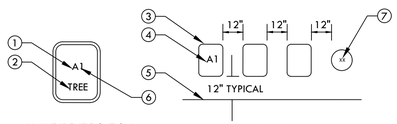
3 ON STRUCTURE STUB-OUT WITH BRONZE BALL VALVE
SCALE: NONE



NOTES:
1. ALL MAIN SUPPLY LINES AND LATERAL LINES SHALL BE PLACED IN SLEEVES UNDER PAVED SURFACES. INSTALL LOW VOLTAGE WIRES WITHIN A SEPARATE CONDUIT UNDER PAVED SURFACES. DO NOT TAPE WIRES WITHIN CONDUIT.
2. REUSE SALVAGED EXCAVATED FILL AND COMPACT TO ORIGINAL DENSITY IN LANDSCAPE AREAS. ALL OTHER AREAS SHALL BE AT 95% COMPACTION. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCHES, FREE FROM ROCKS (ANYTHING LARGER THAN 2"), CONCRETE CHUNKS, AND OTHER FOREIGN OR COARSE MATERIALS.
3. WHEN 12" POP-UP SPRINKLER HEADS ARE USED, INCREASE THE DEPTH OF LATERAL TO 18" AT THE SPRINKLER LOCATION ONLY.

1. FINISH GRADE.
2. CLEAN BACKFILL MATERIAL.
3. LATERAL LINE.
4. 3" DETECTABLE WARNING TAPE OVER MAIN LINE. INSTALL 3" ABOVE MAIN LINE. USE CHRISTY MODEL #TA-DT-3-BIRR FOR POTABLE IRRIGATION SYSTEMS OR #TA-DT-3-PRW FOR RECYCLED IRRIGATION WATER SYSTEMS
5. MAIN LINE.
6. TWO WIRE CABLE IN CONDUIT

4 TRENCHING
SCALE: NONE



VALVE IDENTIFICATION

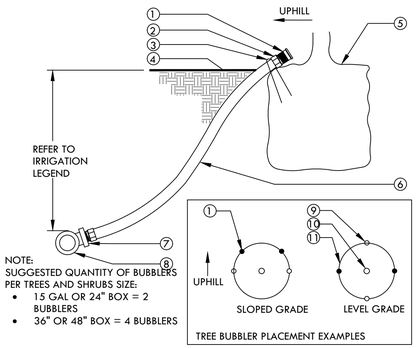
1. CONTROLLER ID.
2. ALL TREE VALVES TO HAVE TREE BRANDED INTO LID.
3. RECTANGULAR VALVE BOX.
4. HEAT BRAND VALVE TYPE PER TABLE OR CONTROLLER ID AND STATION NUMBER INTO LID.
5. EDGE OF LAWN, WALK, FENCE, CURB, ETC.
6. STATION NUMBER.
7. ROUND VALVE BOX FOR QCV AND GATE VALVE. HEAT BRAND VALVE TYPE INTO INTO LID PER TABLE.

TOP VIEW OF BOXES

ITEMS TO BRAND:	BRAND CODE
GATE VALVE	GV
PRESSURE REDUCER	PRV
MASTER VALVE	MV
FLOW SENSOR	FS
HYDROMETER	HM
MAIN LINE AIR RELIEF	ARV
REMOTE CONTROL VALVE	A___
QUICK COUPLER	QC
SPLICE BOX	SB
PULL BOX	PB
LIGHTNING ARRESTOR	LA
GROUND ROD	GR

INSTRUCTIONS:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.

5 VALVE BOX INSTALLATION
SCALE: NONE



TREE BUBBLER PLACEMENT EXAMPLES

NOTE:
SUGGESTED QUANTITY OF BUBBLERS PER TREES AND SHRUBS SIZE:
- 15 GAL OR 24" BOX = 2 BUBBLERS
- 36" OR 48" BOX = 4 BUBBLERS

1. BUBBLER (TO BE INSTALLED ON TOP OF ROOTBALL).
2. 1/2" SCH. 40 MALE ADAPTER (2 TOTAL).
3. 6" STAPLE.
4. FINISH GRADE.
5. TREE OR SHRUB ROOTBALL.
6. 1/2" IPS FLEXIBLE PVC. USE WELD-ON 795 SOLVENT CEMENT OR EQUAL WHEN BONDING PVC HOSE TO FITTINGS.
7. PVC TEE (SST), ELBOW (ST) OR FEMALE ADAPTER.
8. PVC LATERAL LINE.
9. TREE STAKES.
10. TREE.
11. EDGE OF ROOTBALL (TYPICAL).

6 TREE BUBBLER
SCALE: NONE

WATER USE ESTIMATION

WATER TYPE	POTABLE
SITE ETO=	39.7

REGULAR LANDSCAPE AREAS

HYDROZONE #	HYDROZONE NAME	PLANT WATER USE TYPE	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY	ETAF (PF/IE)	AREA (SQ. FT) (HA)	ETAF X AREA (HA)	ETWU (GAL/YR)	ACRE FEET/ YEAR	HCF/ YEAR	PERCENTAGE OF LANDSCAPE
GROUND LEVEL	GC/SHRUBS	LOW	0.3	DRIP	0.81	0.370	1,692	627	15,425	0.05	20.62	53%
ROOF	GC/SHRUBS	LOW	0.3	DRIP	0.81	0.370	1,008	373	9,189	0.03	12.29	32%
TREES	TREES	MOD	0.5	BUBBLER	0.81	0.617	480	296	7,293	0.02	9.75	15%
					TOTALS		3,180	1,296	31,907	0.10	42.66	100%

SPECIAL LANDSCAPE AREAS

HYDROZONE #	HYDROZONE NAME											
3						1	0					0%
						TOTALS	0					0%

MAWA	GALLONS/YR	35,223
	ACRE FEET/YR	0.11
	HCF/YR	47.09
ETWU	GALLONS/YR	31,907
	ACRE FEET/YR	0.10
	HCF/YR	42.66

MAWA FORMULA
MAXIMUM APPLIED WATER ALLOWANCE (MAWA) GALLONS PER YEAR
MAWA = (ETo)(0.62)[(LA x 0.45) + (0.55 x SLA)]
ETo = REFERENCE EVAPOTRANSPIRATION
0.55= ET ADJUSTMENT FACTOR
LA=LANDSCAPED AREA (SQUARE FEET)
0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)

ETWU FORMULA
ESTIMATED TOTAL WATER USE (ETWU) GALLONS PER YEAR
ETWU= ((ETO)(.62)(ETAF x LA))
ETo = REFERENCE EVAPOTRANSPIRATION
PF = PLANT FACTOR FOR HYDROZONES
HA = HYDROZONE AREA (SQ.FT)
0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)
IE = IRRIGATION EFFICIENCY (0.81)-BUBBLER/DRIP
IE = IRRIGATION EFFICIENCY (0.75)-ROTORS/SPRAY

SITE IRRIGATION EFFICIENCY	SITE PLANT FACTOR	MAWA COMPLIANT
81.0%	0.33	YES

ETAF Calculations	
REGULAR LANDSCAPE AREAS	
TOTAL ETAF x AREA	1,296
TOTAL AREA	3,180
AVG. ETAF	40.76%

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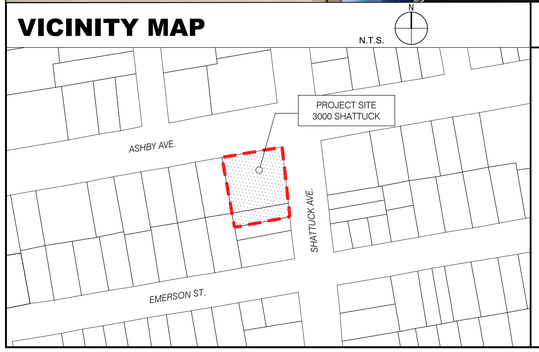
IRRIGATION DETAIL

I1.6

VICINITY MAP



PROJECT DIRECTORY

PROJECT SPONSOR:
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NX Ventures, LLC
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Berkeley, CA 94704

ARCHITECT:
Isaiah Stackhouse, Principal
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LANDSCAPE ARCHITECT:
Penn Phillips
INSIDEOUT DESIGN
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PROJECT DESCRIPTION

PROJECT ADDRESS: 3000 Shattuck
Berkeley, CA 94705 (APN: 053 159200100)

SCOPE OF WORK:

REMOVAL OF EXISTING 1 STORY COMMERCIAL STRUCTURE & CONSTRUCTION OF A NEW 9-STORY MIXED-USE BUILDING WITH 156-DWELLING UNITS, GROUND LEVEL LOBBIES AND COMMERCIAL SPACE WITH STATE OF CALIFORNIA DENSITY BONUS.

ZONING CODE SUMMARY

(BASED ON THE BERKELEY MUNICIPAL ZONING CODE)

ZONING: C-SA

SEE SHEET A0.1 FOR COMPLETE ZONING DATA

DRAWING LIST

A0.0	GENERAL INFORMATION	A3.6	PHOTO CONTEXT VIEWS	I1.1	ROOF DECK IRRIGATION PLAN
A0.1	ZONING INFORMATION & DIAGRAMS	A3.7	PHOTO CONTEXT VIEWS	I1.2	IRRIGATION NOTES AND LEGENDS
A0.3A	DENSITY BONUS DIAGRAMS	A3.8	PERSPECTIVE VIEWS	I1.3	IRRIGATION DETAILS
A0.3B	DENSITY BONUS CALCULATIONS	A3.9	PERSPECTIVE VIEWS	I1.4	IRRIGATION DETAILS
A0.4A	SHADOW STUDIES	A3.10	PERSPECTIVE VIEWS	I1.5	IRRIGATION DETAILS
A0.4B	SHADOW STUDIES	A3.11	PERSPECTIVE VIEWS	I1.6	IRRIGATION DETAILS AND WELO
A0.4C	SHADOW STUDIES	A3.12	PERSPECTIVE VIEWS		
A0.5	SITE CONTEXT PHOTOS	A3.13	PERSPECTIVE VIEWS		
A0.6	VICINITY MAP	A3.14	PERSPECTIVE VIEWS		
A1.1	SITE SURVEY	A3.15	PERSPECTIVE VIEWS		
A2.1	FLOOR PLANS	A3.16	PERSPECTIVE VIEWS		
A2.2	FLOOR PLANS	MAT	MATERIAL BOARD		
A2.3	FLOOR PLANS	A4.1	BUILDING SECTION		
A3.1	BUILDING ELEVATIONS	A5.1	CONCEPTUAL GRADING PLAN		
A3.2	BUILDING ELEVATIONS	L1.0	GROUND LEVEL LANDSCAPE PLAN		
A3.3	BUILDING ELEVATIONS	L1.1	ROOF DECK LANDSCAPE PLAN		
A3.4	BUILDING ELEVATIONS	L2.0	LANDSCAPE IMAGERY		
A3.5	STREETSCAPE ELEVATIONS	I1.0	GROUND LEVEL IRRIGATION PLAN		

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03.15.2022 ZONING APPLICATION
07.08.2022 ZONING RESUBMITTAL
01.19.2023 DRC HEARING SET
01.20.2023 LOADING ZONE PLAN
05.11.2023 ZAB HEARING SET

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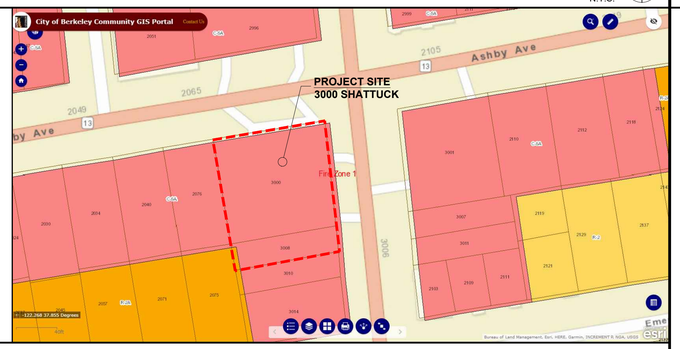
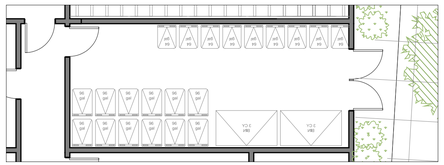
GENERAL INFORMATION

A0.0

ZONING MAP



REFUSE AND RECYCLING



Waste and Recycling Calculation

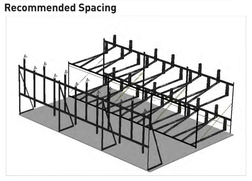
# of Bedrooms	Factor	Occupants	Total cuft required (.25cy or 50 gallons / 3		Waste (40%)		Recycling (40%)	Organics (20%)
166	1.00	166	13.83 cy	2,767 gal	5.53 cuft	1,107 gal	1,107 gal	553 gal

Space Calculation	Container Quantities			Space Required		150% Additional	
	Waste	Recycling	Organics	Factor/container	Space/ Container	Required	Provided
3 cy bin (606 gal)	2			28 sf	56 sf		
2 cy bin (404 gal)				28 sf	sf		
96 gallon cart		12		7 sf	84 sf		
64 gallon cart			9	6 sf	50 sf		
Total capacity	1212 gal	1152 gal	576 gal		190 sf	284 sf	363 SF

LONG TERM BIKE PARKING

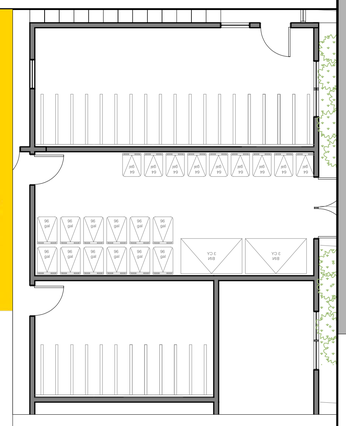
Stretch Rack

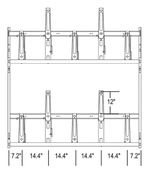
Recommended Spacing

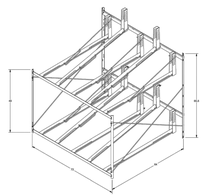


Product Details

- Modular construction allows for easy expansion, side by side or back to back
- Staggered bike position saves space and eases clearance between bikes
- Can be combined with vertical racks for full bike room layout
- Does not require anchoring (wall or floor)
- Bolt together design



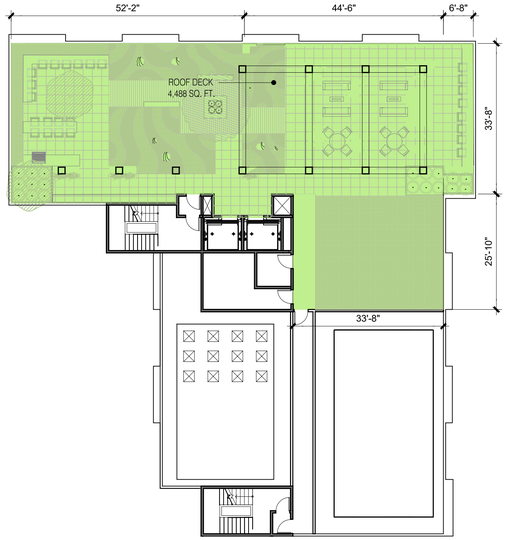




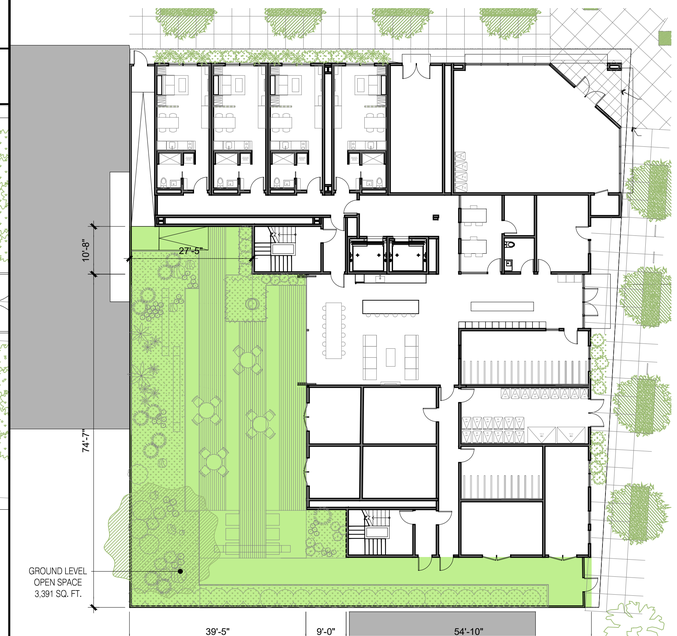
Saris Bicycle Parking & Storage Solutions 800.783.7257 x174 www.sarisparking.com

Downloadable product resources available online: CAD Files, Skim/Adj-Files, Written Specs, Photos

OPEN SPACE DIAGRAMS



ROOF LEVEL



LEVEL 1

ZONING CODE DATA

	BASELINE ZONING ALLOWABLE/REQUIRED	ALLOWABLE W/ UP OR AUP MODIFICATION	PROPOSED W/ DENSITY BONUS	** Via Density Bonus Waiver
NUMBER OF DWELLING UNITS	N/A	N/A	166	
COMMERCIAL AREA	N/A	N/A	1,043	
PARKING	SEE TABLE	SEE TABLE	SEE TABLE	
BIKE PARKING	N/A	61	61	
FRONT YARD SETBACK (ASHBY)	15'	0' COMPLIES W/ UP BMC 23.204.100.D.2	2'-6" and 3'-0"	**
STREET SIDE YARD SETBACK (SHATTUC	VARIES; 6' TO 15'	0' COMPLIES W/ UP BMC 23.204.100.D.2	0" to 6'-8"	**
SIDE YARD SETBACK	VARIES; 4' TO 12'	0' COMPLIES W/ UP BMC 23.204.100.D.2	5'-7" to 39'-4"	**
REAR YARD SETBACK	15'	0' COMPLIES W/ UP BMC 23.204.100.D.2	11'-3" to 85'-2"	**
BUILDING HEIGHT	36'	NOT LIMITED COMPLIES W/UP BMC 23.204.100.D.2	113'-10"	**
BUILDING STORIES	3	NOT LIMITED COMPLIES W/UP BMC 23.204.100.D.2	10	**
LOT AREA	13,561	13,561	13,561	
LOT AREA (ACRES)	0.31	0.31	0.31	
GROSS FLOOR AREA (SEE TABLE)	54,244	54,244	81,552	
BUILDING FOOTPRINT	6,781	NOT LIMITED COMPLIES W/UP BMC 23.204.100.D.2	8,399	**
LOT COVERAGE	50%	NOT LIMITED COMPLIES W/UP BMC 23.204.100.D.2	62%	**
USABLE OPEN SPACE (SEE TABLE)	SEE TABLE	SEE TABLE	SEE TABLE	
PROJECT FAR	4.0	4.0	6.00	**

PROPOSED FLOOR AREA WITH DENSITY BONUS

	COMMERCIAL	RESIDENTIAL	TOTAL
LEVEL 10		8,150	8,150
LEVEL 9		8,150	8,150
LEVEL 8		8,150	8,150
LEVEL 7		8,150	8,150
LEVEL 6		8,150	8,150
LEVEL 5		8,150	8,150
LEVEL 4		8,150	8,150
LEVEL 3		8,150	8,150
LEVEL 2		7,953	7,953
GROUND LEVEL (EXCLUDES PARKING)	1,043	7,356	8,399
TOTAL FLOOR AREA W/ DENSITY BONU	1,043	80,509	81,552

UNIT COUNTS

UNIT TYPE	STUDIO	TOTAL
LEVEL 10	18	18
LEVEL 9	18	18
LEVEL 8	18	18
LEVEL 7	18	18
LEVEL 6	18	18
LEVEL 5	18	18
LEVEL 4	18	18
LEVEL 3	18	18
LEVEL 2	18	18
GROUND LEVEL	4	4
TOTAL	166	166
PERCENT OF TOTAL	100%	
TOTAL BEDROOM COUNT	166	166

OPEN SPACE TABLE

	UNITS	RATIO	TOTAL	LANDSCAPE AREA (40%)
TOTAL UNITS	166	40	6,640	
TOTAL REQUIRED			6,640	
TOTAL AREA PROVIDED			7,879	3,186
GROUND LEVEL OPEN SPACE			3,391	
ROOF DECK			4,488	

BICYCLE PARKING CALCULATIONS

	UNITS/SF	SPACES/BEDROOM/SF	TOTAL REQ	PROVIDED
NEW COMMERCIAL	1,043	1/2000	1	1
RESIDENTIAL (LONG TERM)	166	0.33	55	55
RESIDENTIAL (SHORT TERM)	166	0.025	5	5
TOTAL PARKING			61	61

PARKING TABLE

	UNITS/SF	MIN.	REQUIRED	PROPOSED
RESIDENTIAL	166	0	0	0
COMMERCIAL (1ST 1,000 SF EXEMPT)	43	2/1000 SF	0	0

ROOFTOP ARCHITECTURAL ELEMENTS CALCS

AVERAGE AREA	8155
TOTAL AREA OF ROOFTOP ELEMENTS	1,020
% AREA OF ROOFTOP ARCH.	12.5%
ALLOWABLE % (PER 23E.04.020C)	15.0%

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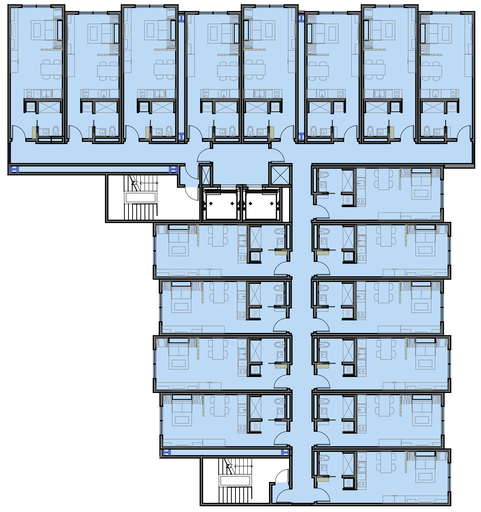
ZONING DATA

A0.1

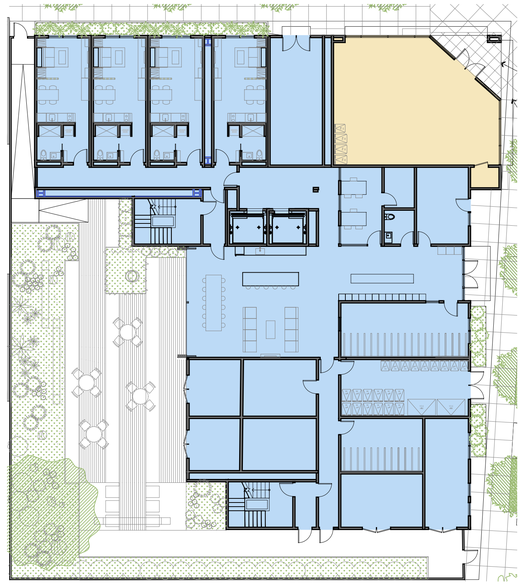
DENSITY BONUS DIAGRAM AREA KEY

RESIDENTIAL AREA

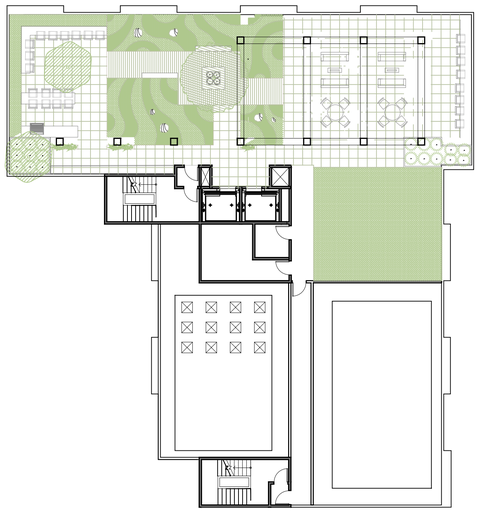
COMMERCIAL AREA



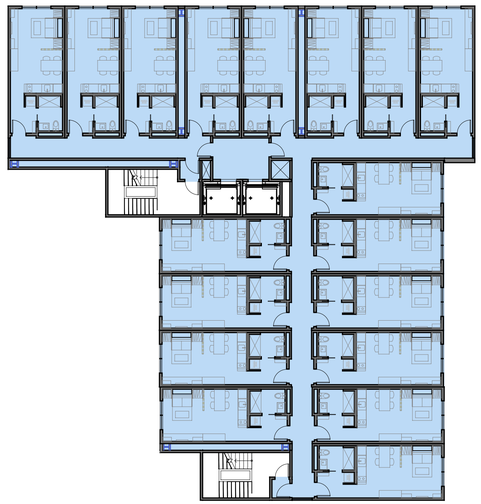
PLAN AT LEVELS 3-10



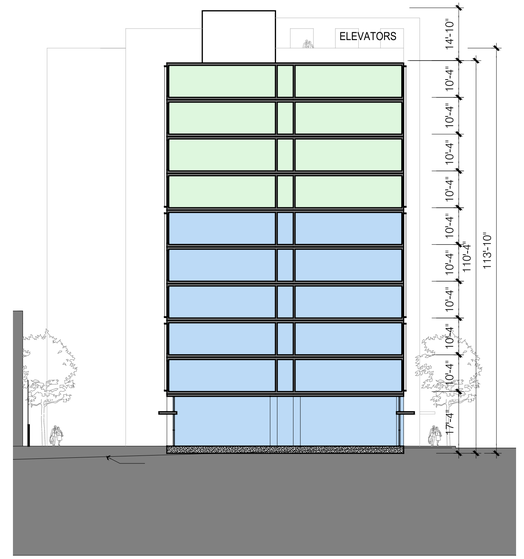
PLAN AT GROUND



PLAN AT ROOF



PLAN AT LEVELS 2



PROPOSED DENSITY BONUS PROJECT

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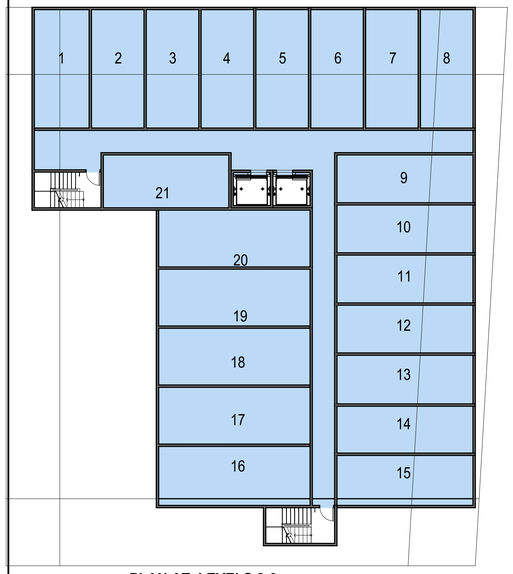
DENSITY BONUS DIAGRAMS

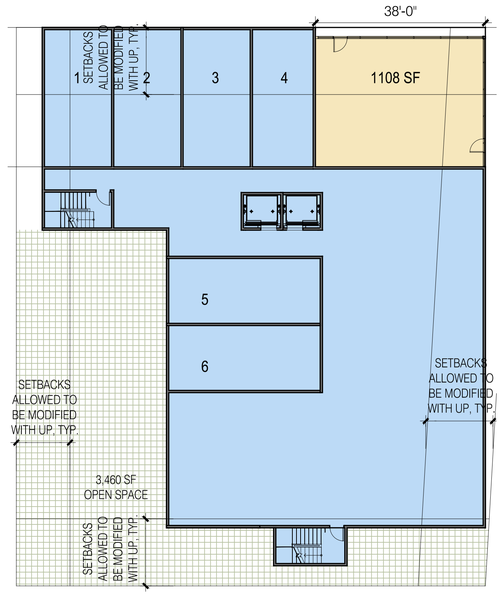
A0.3A

ZONING COMPLIANCE TABLE

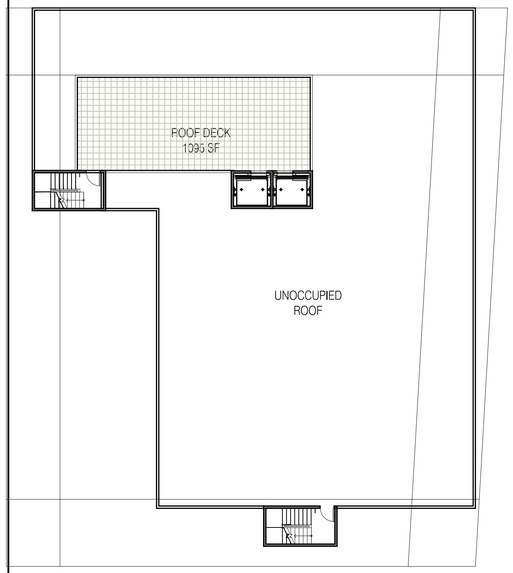
	ALLOWABLE BASE PROJECT W/ AVAILABLE USE PERMITS					PROPOSED DENSITY BONUS PROJECT	
	UNMODIFIED REQUIREMENT	ALLOWABLE MODIFICATION	CODE SECTION	TYPE	UP #	PROPOSED	COMPLIANCE CHECK
FRONT YARD SETBACK (ASHBY)	15'	0'	BMC 23.204.100.D.2	UP		VARIES 2'-6" AND 3'-0"	COMPLIES W/ DENSITY BONUS WAIVER
STREET SIDE YARD SETBACK (SHATTUCK)	VARIES 6' TO 15'	0'	BMC 23.204.100.D.2	UP		VARIES 0' TO 6'-8"	COMPLIES W/ DENSITY BONUS WAIVER
SIDE YARD SETBACK	VARIES 4' TO 12'	0'	BMC 23.204.100.D.2	UP		VARIES 5'-7" TO 39'-4"	COMPLIES W/ DENSITY BONUS WAIVER
REAR YARD SETBACK	15'	0'	BMC 23.204.100.D.2	UP	1	VARIES 11'-3" TO 85'-2"	COMPLIES W/ DENSITY BONUS WAIVER
BUILDING HEIGHT	36	NOT LIMITED	BMC 23.204.100.D.2	UP	2	113'-10"	COMPLIES W/ DENSITY BONUS WAIVER
BUILDING STORIES	3	NOT LIMITED	BMC 23.204.100.D.2	UP	3	10	COMPLIES W/ DENSITY BONUS WAIVER
LOT COVERAGE	VARIES 50% TO 40%	NOT LIMITED	BMC 23.204.100.D.2	UP	4	62%	COMPLIES W/ DENSITY BONUS WAIVER
USABLE OPEN SPACE	4440	NOT MODIFIABLE W/ UP				7879	COMPLIES
PROJECT FAR	4	NOT MODIFIABLE W/ UP				6	COMPLIES W/ DENSITY BONUS WAIVER



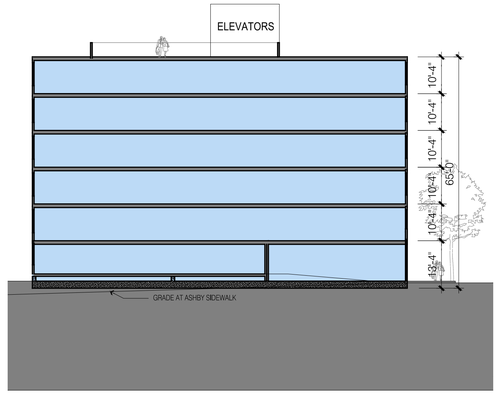
PLAN AT LEVELS 2-6



PLAN AT GROUND



PLAN AT ROOF



BASE PROJECT

DENSITY BONUS TABLE

	Base Project	Base # Units	Base # Units	% VLI units	# VLI Units	#VLI Units	Bonus %	# DB Units	# DB Units	Maximum DB Project
	sq. ft. - see calculation below	base project area / base 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)
	53,118	111	111	15%	16.65	17.00	50.0%	55.5000	56	167

	Base Project Res. Area	Floor	Proposed Project Res. Area	#VLI	%VLI	%DB	#DB	#Concessions
		Tenth	8,150	6	5%	20.00%	134	1
		Ninth	8,150	7	6%	22.50%	136	1
		Eighth	8,150	8	7%	25.00%	139	1
		Seventh	8,150	9	8%	27.50%	142	1
	8,985	Sixth	8,150	10	9%	30.00%	145	1
	8,985	Fifth	8,150	12	10%	32.50%	148	2
	8,985	Fourth	8,150	13	11%	35.00%	150	2
	8,985	Third	8,150	14	12%	38.75%	155	2
	8,985	Second	8,150	15	13%	42.50%	159	2
	8,985	Second	7,953	16	14%	46.25%	163	2
	8,193	Ground	7,356	**17**	**15%**	**50.00%**	**167**	**3**
Total Floor Area:	**53,118**		**80,509**					

	Base Project # of Units	Floor	Proposed Project # of Units
		Tenth	18
		Ninth	18
		Eighth	18
		Seventh	18
	21	Sixth	18
	21	Fifth	18
	21	Fourth	18
	21	Third	18
	21	Second	18
	6	Ground	4
Total Units:	**111**		**166**

Proposed Area:	**80,509**
Proposed Units:	**166**
Average Unit Size:	**485**

BASE PROJECT ZONING COMPLIANCE CHECKS

Base Project - Open Space

	Units	Ratio	Total Area
Total Required for Base Unit	111	40	4440
Total Area Provided			4555
Provided Open Space (Ground Floor Open Space)			3460
Provided Open Space (Roof Deck)			1095

Base Project - FAR

	Res. Area	Commercial	Total GFA
GFA	53,118	1108	54,226
Site Area			13,561
FAR			3.999

Base Project - Parking

	Units/SF	Bedrooms	Ratio	Total Req.	Provided
Residential				0	0
Commercial (1,000 exempt)	108	N/A	2/1000 SF	0	0

Base Project -Bicycle Parking

	Units/SF	Bedrooms	Ratio	Total Req.	Provided
New Comm.	1,108		1/2000	2	2
Res. (Long)		111	0.33	37	34
Res (Short)		111	0.025	2	2

Base Project - Stormwater

	Roof Area	%	Required	Provided
Base Units	8,985	4%	359	949

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DENSITY BONUS CALCULATIONS

A0.3B

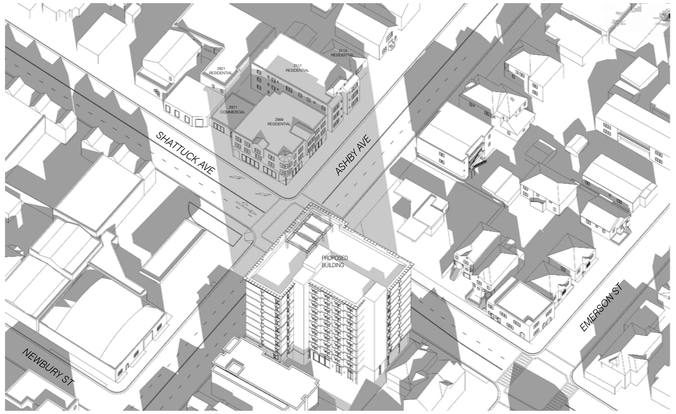
WINTER SOLSTICE
DEC 21ST:
2-HRS BEFORE SUNSET (PM)

DARK TONE GREY INDICATES SHADOWS FROM EXISTING BUILDINGS

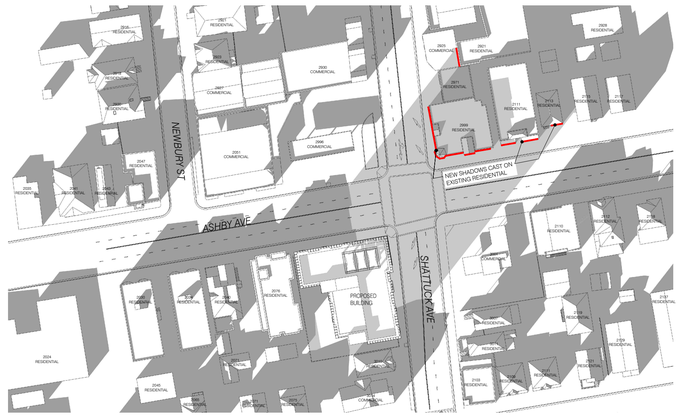
LIGHTER TONE GREY INDICATES SHADOWS FROM PROPOSED BUILDING

NEW SHADOW AT RESIDENTIAL BUILDING

ALL RESIDENTIAL BUILDINGS BEING SHADOWED SHOWN IN THESE DIAGRAMS



6 SHADOW STUDY AXONOMETRIC - PM
N.T.S.



5 SHADOW STUDY - PM
1:160 @ 11X17 1:80 @ 24X36

N

WINTER SOLSTICE
DEC 21ST:
NOON

DARK TONE GREY INDICATES SHADOWS FROM EXISTING BUILDINGS

LIGHTER TONE GREY INDICATES SHADOWS FROM PROPOSED BUILDING

NEW SHADOW AT RESIDENTIAL BUILDING

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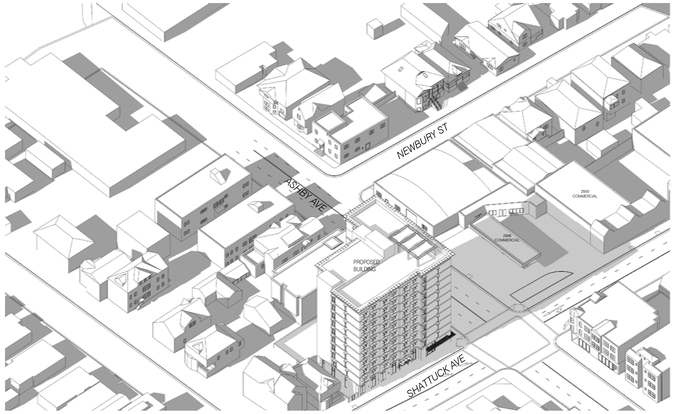


4 SHADOW STUDY AXONOMETRIC - NOON
NT.S.

3 SHADOW STUDY - NOON
1:160 @ 11X17 1:80 @ 24X36

N

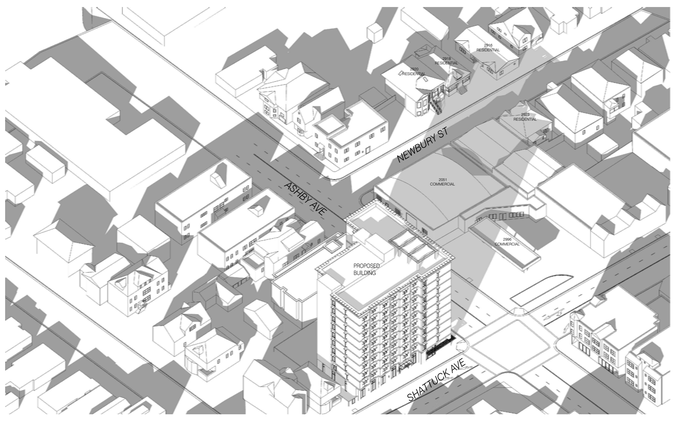
WINTER SOLSTICE
DEC 21ST:
2-HRS AFTER SUNRISE (AM)

DARK TONE GREY INDICATES SHADOWS FROM EXISTING BUILDINGS

LIGHTER TONE GREY INDICATES SHADOWS FROM PROPOSED BUILDING

NEW SHADOW AT RESIDENTIAL BUILDING

ALL RESIDENTIAL BUILDINGS BEING SHADOWED SHOWN IN THESE DIAGRAMS



2 SHADOW STUDY AXONOMETRIC - AM
N.T.S.

1 SHADOW STUDY - AM
1:160 @ 11X17 1:80 @ 24X36

N

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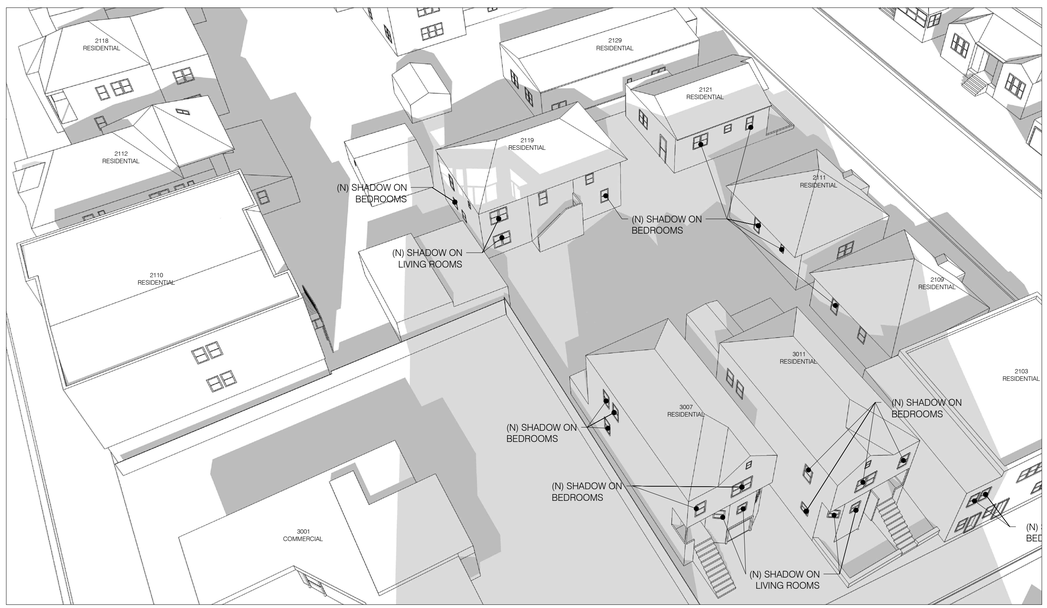
SHADOW STUDIES
DECEMBER 21ST

A0.4A

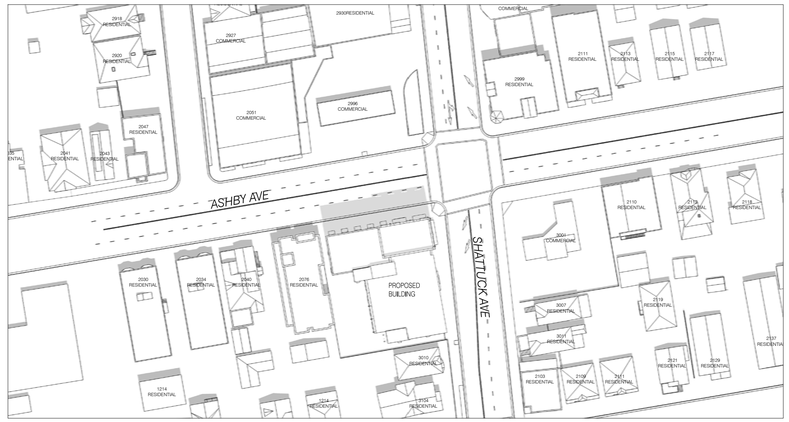
5 SHADOW STUDY AXONOMETRIC - JUNE 21: 2-HRS AFTER SUNRISE

NTS



4 SHADOW STUDY AXONOMETRIC - JUN 21: 2-HRS BEFORE SUNSET

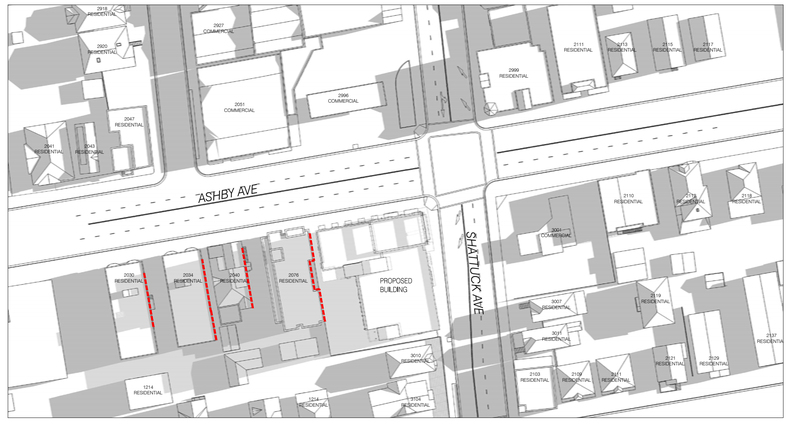
NTS



3 SHADOW STUDY - JUNE 21: NOON

1:130 @ 11X17 1:65 @ 24X36

N



2 SHADOW STUDY - JUNE 21: 2 HRS AFTER SUNRISE

1:130 @ 11X17 1:65 @ 24X36

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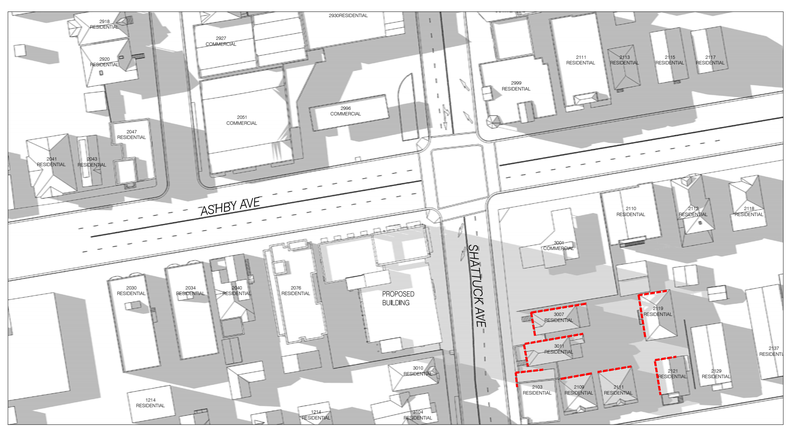

1 SHADOW STUDY - JUNE 21: 2-HRS BEFORE SUNSET

1:130 @ 11X17 1:65 @ 24X36

N

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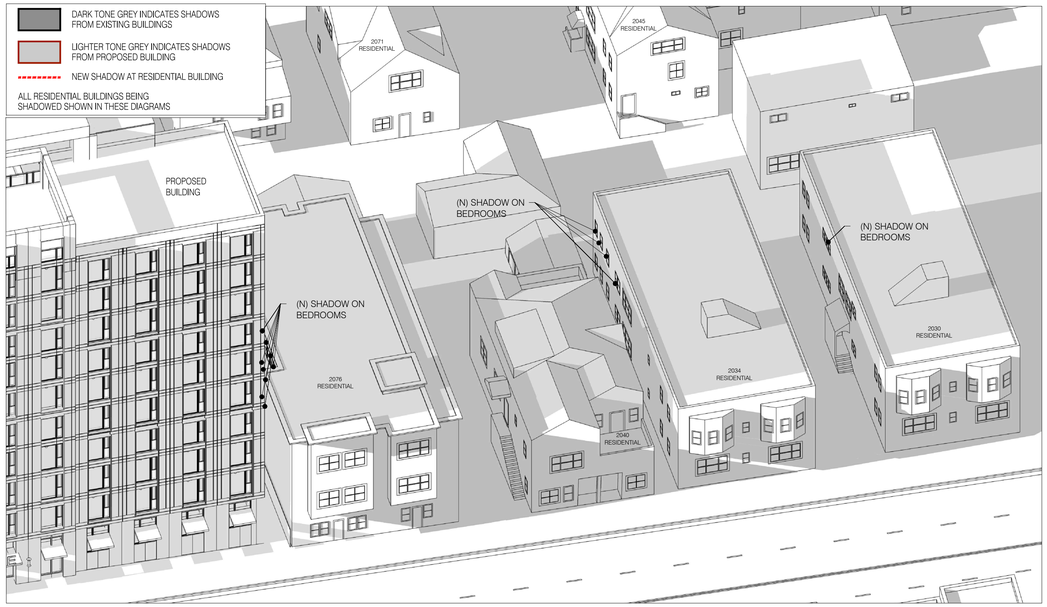
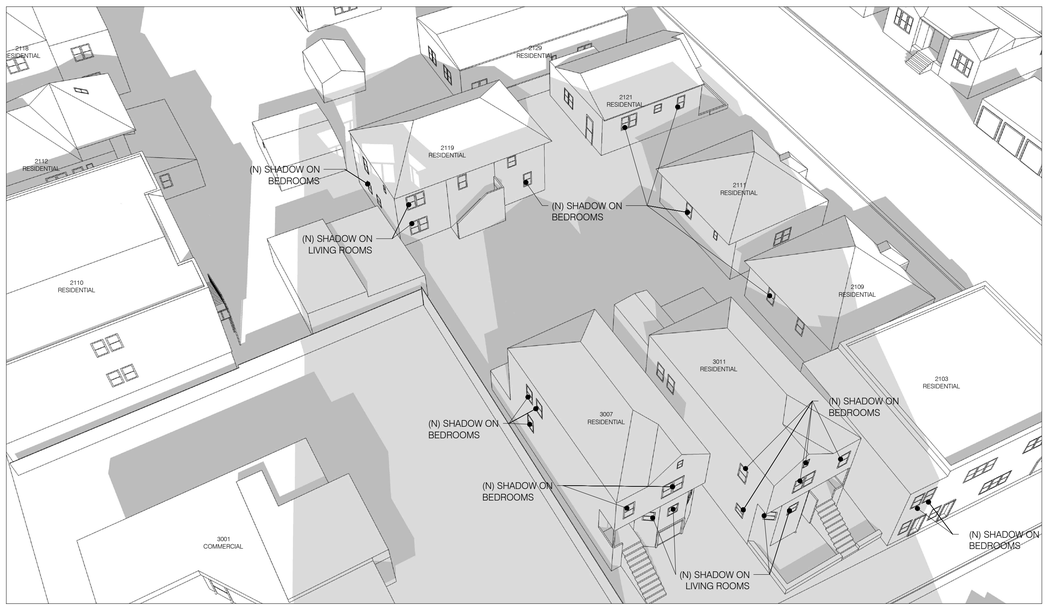
SHADOW STUDIES
JUNE 21ST

A0.4B



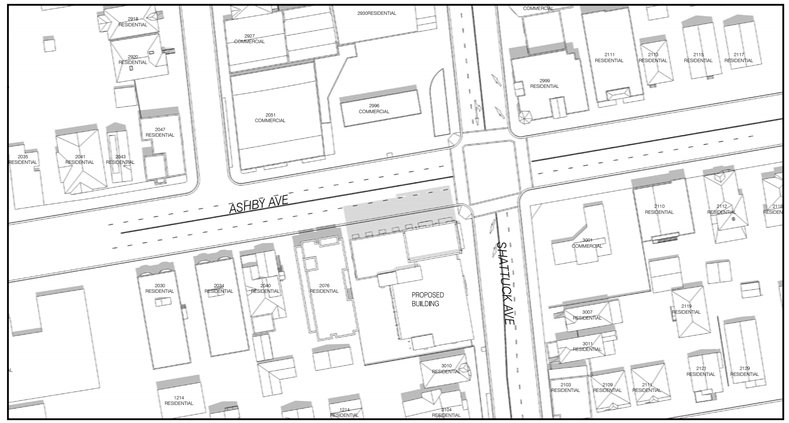
5 SHADOW STUDY AXONOMETRIC - JULY 8: 2 HRS AFTER SUNRISE

1:100 @ 11X17 1:50 @ 24X36



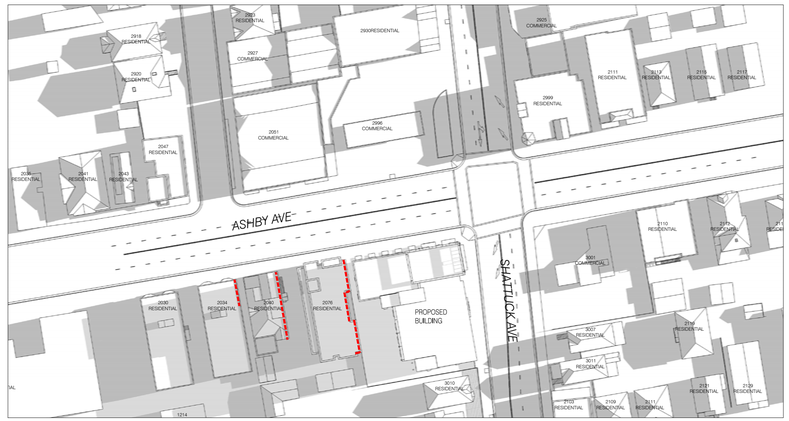
4 SHADOW STUDY AXONOMETRIC - JULY 8: 2-HRS BEFORE SUNSET

NTS



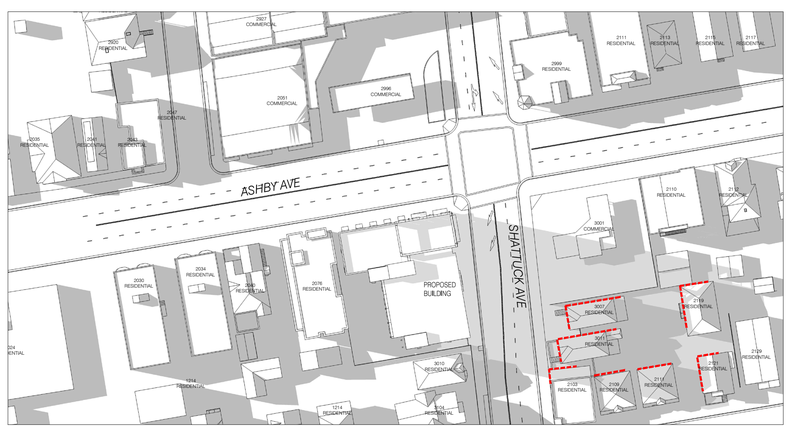
3 SHADOW STUDY - JULY 8: NOON

1:130 @ 11X17 1:65 @ 24X36



2 SHADOW STUDY - JULY 8: 2 HRS AFTER SUNRISE

1:130 @ 11X17 1:65 @ 24X36



1 SHADOW STUDY - JULY 8: 2-HRS BEFORE SUNSET

1:130 @ 11X17 1:65 @ 24X36

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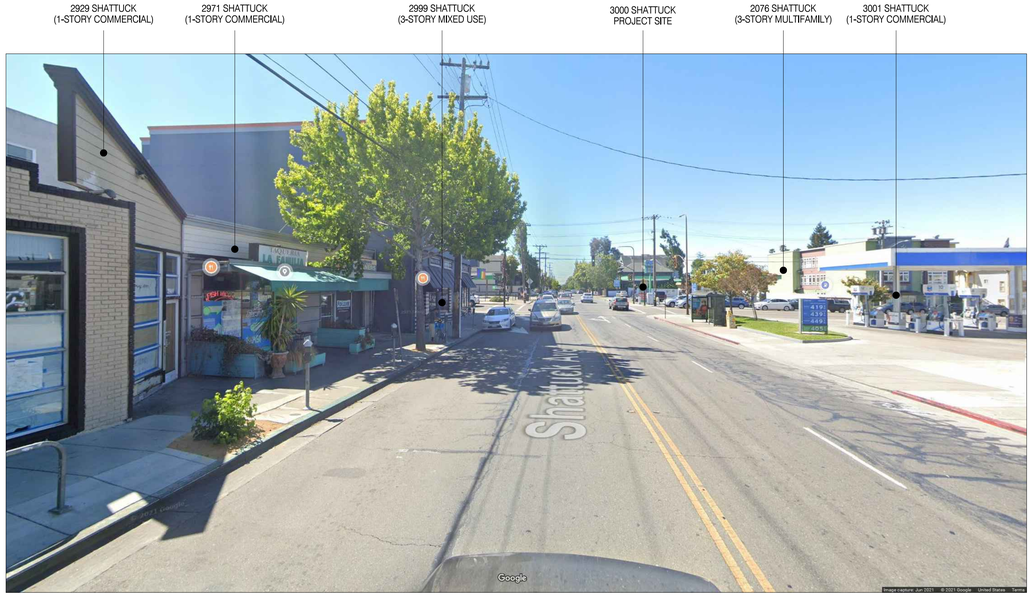
JOB: 2104

SHEET:

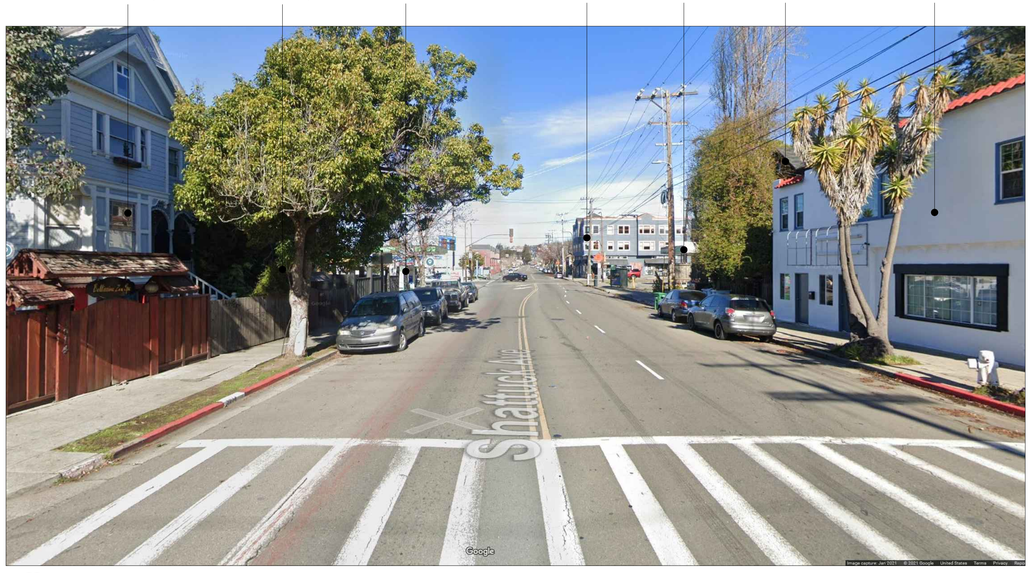
SHADOW STUDIES
JULY 8TH

A0.4C



4 - VIEW FROM SHATTUCK LOOKING SOUTH

2 - VIEW FROM ASHBY LOOKING WEST



3 - VIEW FROM SHATTUCK LOOKING NORTH

1 - GOOGLE EARTH BIRD'S EYE CONTEXT VIEW

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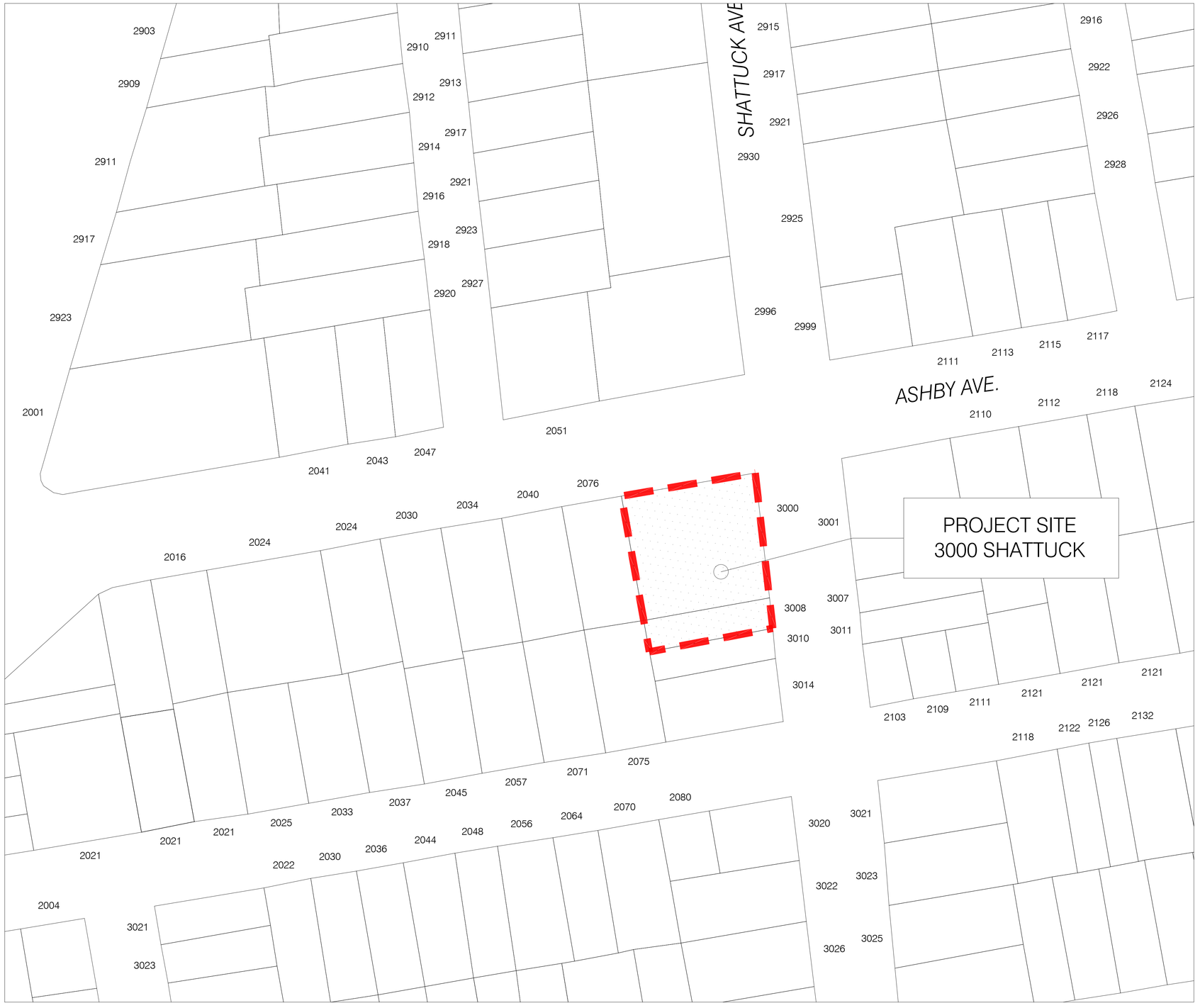
SHEET:

SITE CONTEXT
PHOTOS

A0.5



1 - VICINITY MAP
NTS

N

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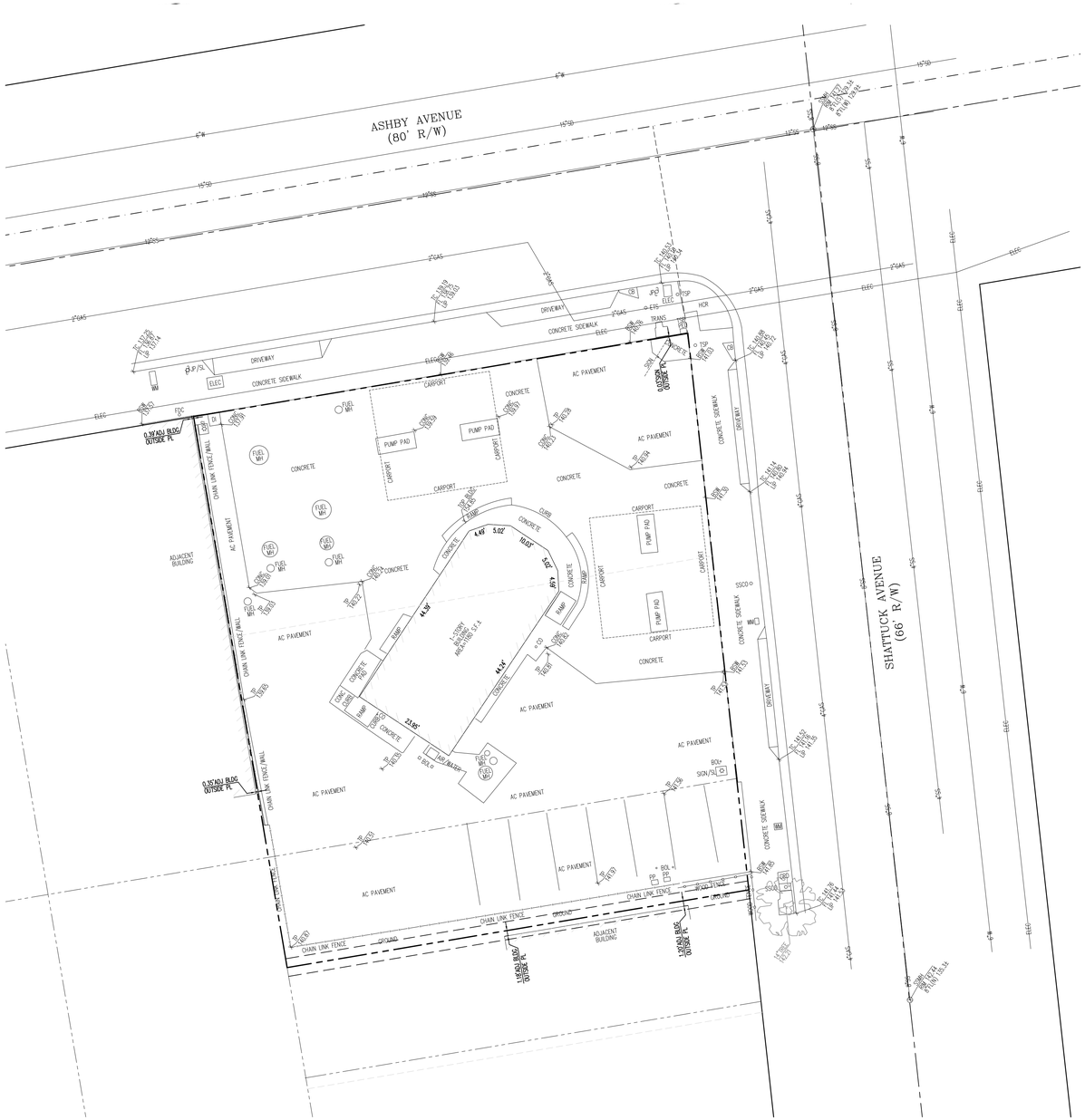
SHEET:

VICINITY MAP

A0.6



GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

NORTH SCALE 1" = 10'

LEGEND

SYMBOLS	DESCRIPTION
	BOUNDARY OF SUBJECT PROPERTU
	RIGHT OF WAY LINE
	INTERIOR PROPERTY LINE
	MONUMENT LINE
	CENTERLINE
	TIE LINE
	OLD LOT LINE
	EASEMENT LINE
WM	WATER METER
SSMH	SANITARY SEWER MAN HOLE
JP	JOINT POLE
SL	STREET LIGHT
CB	CATCH BASIN
FDC	FIRE DEPARTMENT CONNECTOR
ELEC	ELECTRIC BOX
ETS	ELECTROLYSIS TEST SYSTEM
DI	DRAIN INLET
TRANS	TRANSFORMER
SSCO	SANITARY SEWER CLEAN OUT
TSP	TRAFFIC SIGNAL POLE
HCR	HANDICAP RAMP
PP	POWER POLE
TSB PED	TRAFFIC SIGNAL BOX PEDESTAL
AC PAVEMENT	ASPHALT CONCRETE
BOL	BOLLARD
FUEL MH	FUEL MAN HOLE
CONC	BOLLARD
GRD	FUEL MAN HOLE
BSW 65.60	BACK OF SIDEWALK ELEVATION
CONC 65.60	TOP OF CONCRETE ELEVATION
LIP 65.60	LIP OF GUTTER ELEVATION
TC 65.64	TOP OF CURB ELEVATION
TP 65.64	TOP OF PAVEMENT ELEVATION
FL 65.64	FLOW LINE ELEVATION
	TREE
SS	SANITARY SEWER LINE
W	WATER LINE
SD	STORM DRAIN LINE
GAS	STORM DRAIN LINE
ELEC	STORM DRAIN LINE

ALTA/NSPS
LAND TITLE SURVEY

OF

3000 SHATTUCK AVENUE
CITY OF BERKELEY, ALAMEDA COUNTY, CALIFORNIA
MARCH 2022

PREPARED BY

LUK AND ASSOCIATES
CIVIL ENGINEER – LAND PLANNERS – LAND SURVEYORS
738 ALFRED NOBEL DRIVE
HERCULES, CALIFORNIA 94547
(510) 724-3388

1 / - SURVEY / EXISTING CONDITIONS

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

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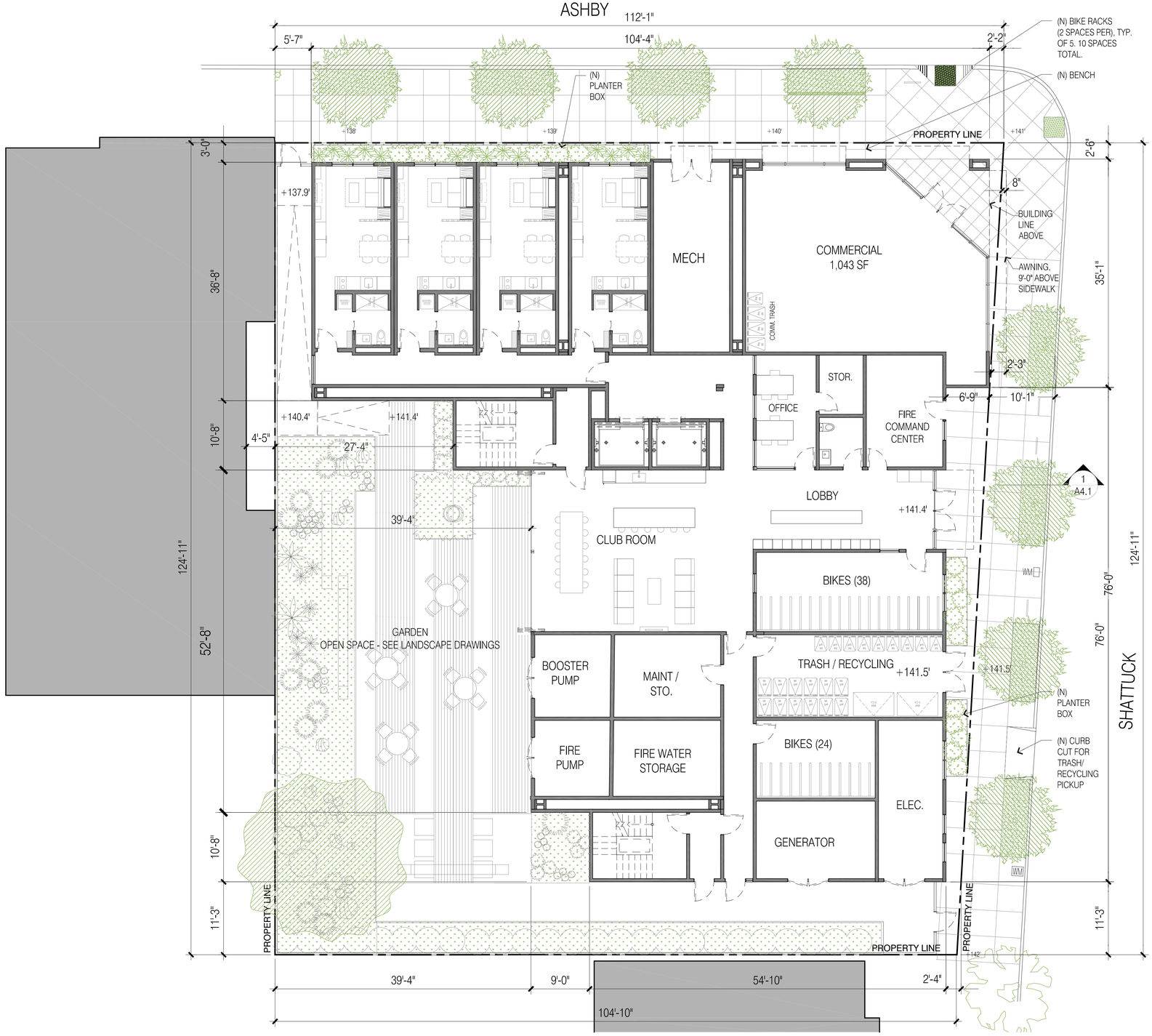
SURVEY /
EXISTING CONDITIONS

A1.1



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

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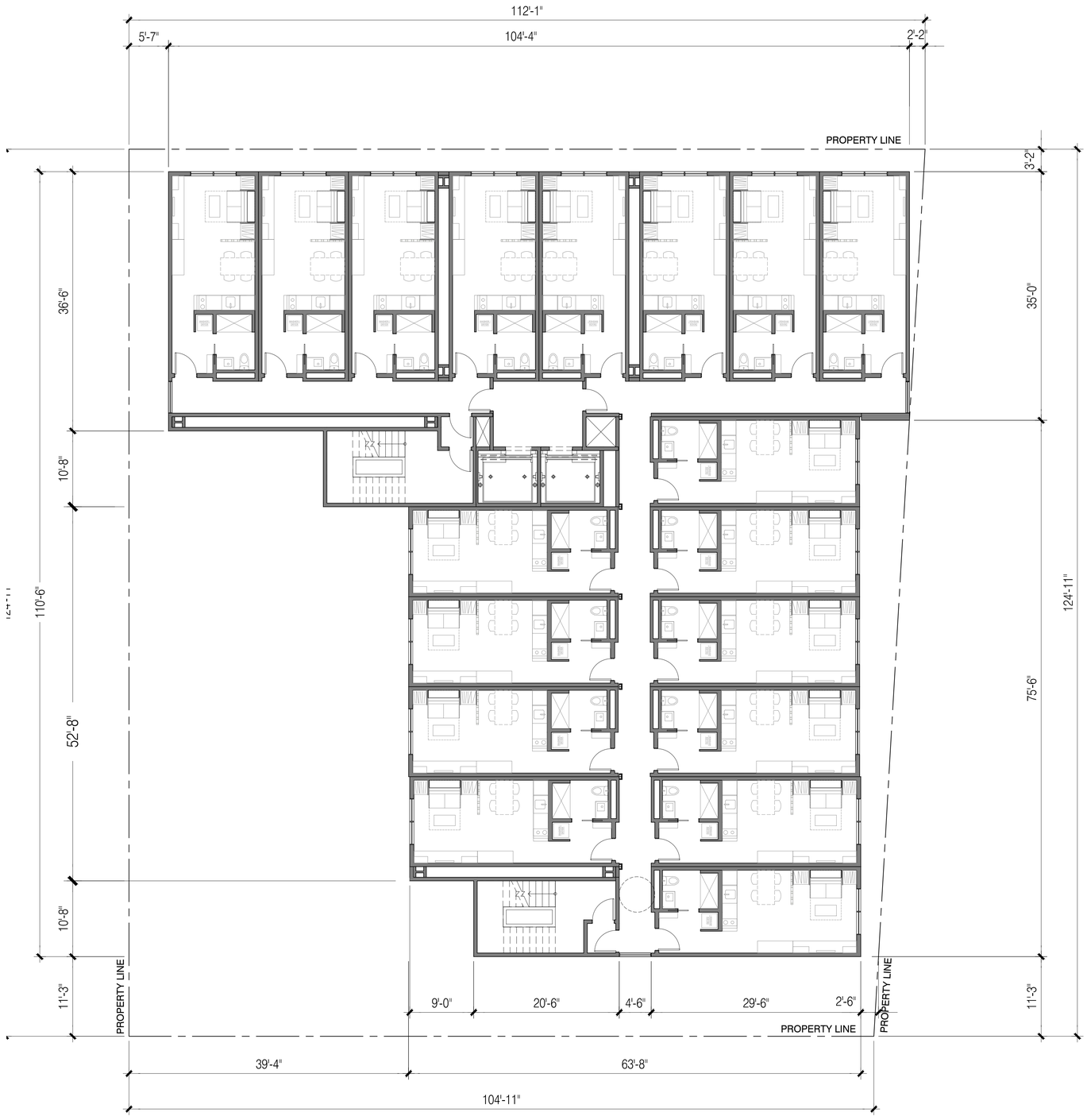
PLAN AT GROUND LEVEL

A2.1



1 - PLAN AT LEVEL 2

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

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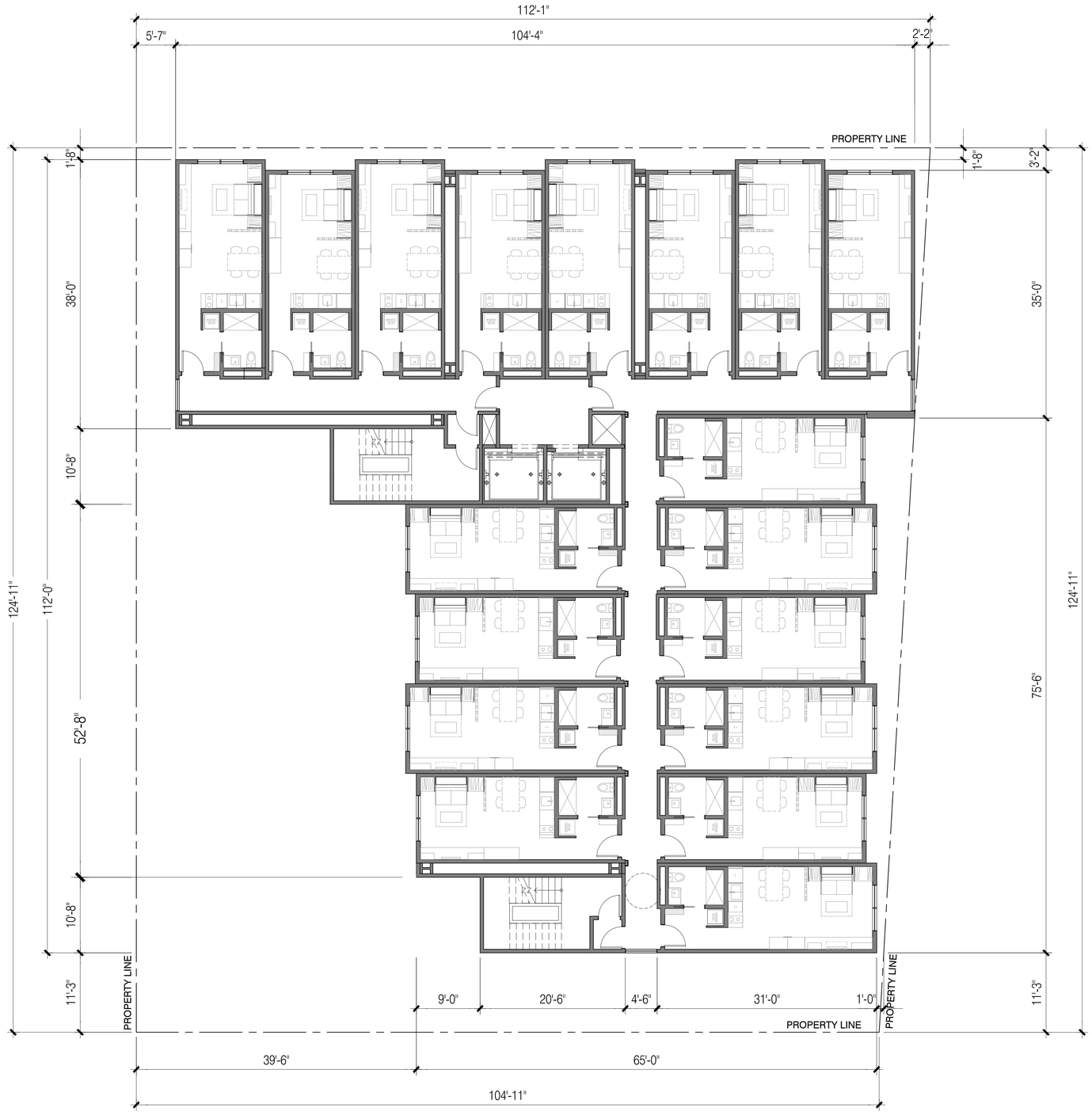
SHEET:

PLAN AT LEVEL 2

A2.2



1
-

FLOORS 3-10 PLANS

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

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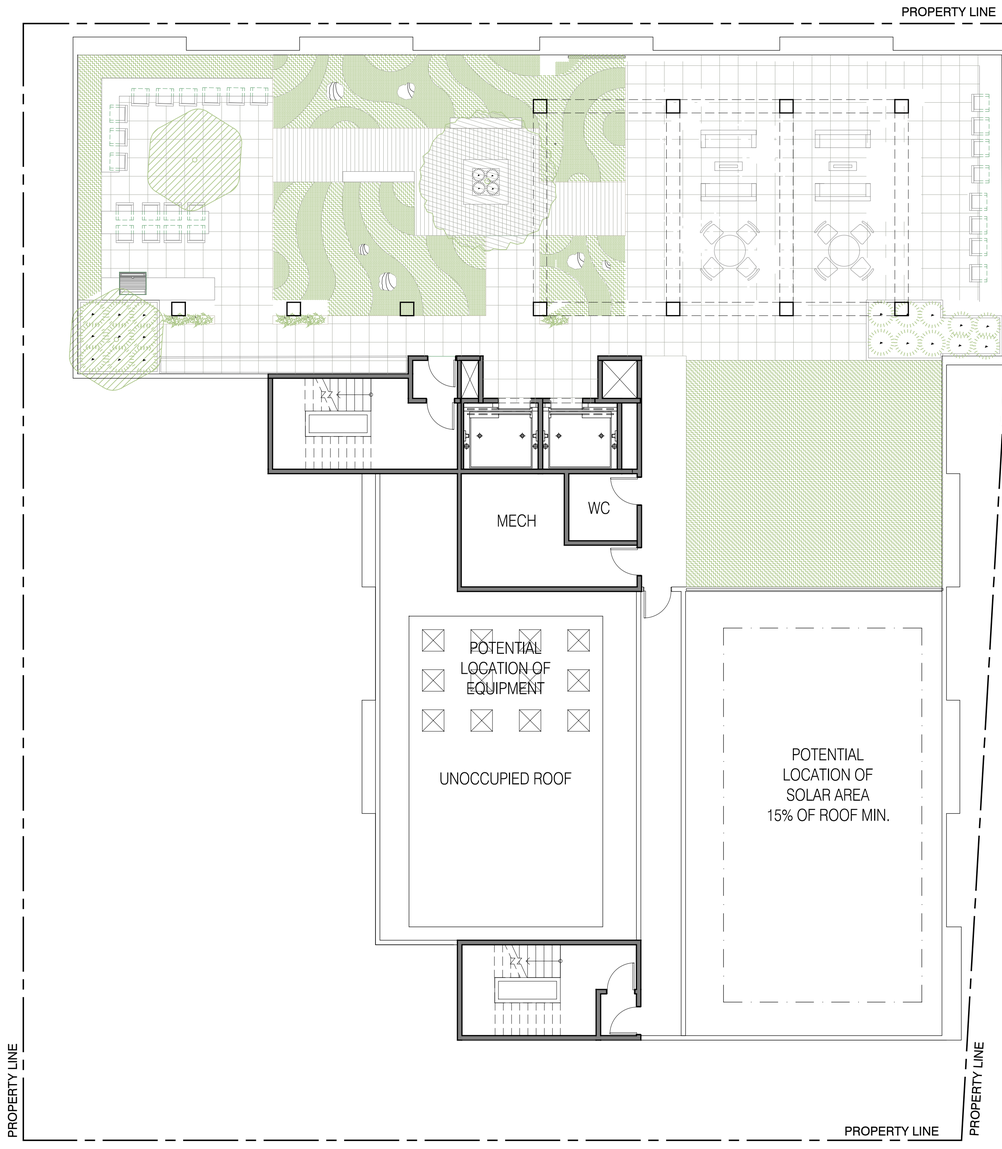
SHEET:

PLANS
FLOORS 3-10

A2.3



1 - PLAN AT ROOF DECK LEVEL

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

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SHEET:

PLAN AT
ROOF DECK LEVEL

A2.4

1 - EAST ELEVATION

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

0 4 8 16

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SHEET:

BUILDING ELEVATIONS

A3.1

1 - NORTH ELEVATION

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

0 4 8 16

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SHEET:

BUILDING ELEVATIONS

A3.2

1 - WEST ELEVATION

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

0 4 8 16

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SHEET:

BUILDING ELEVATIONS

A3.3

1 - SOUTH ELEVATION

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

0 4 8 16

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SHEET:

BUILDING ELEVATIONS

A3.4

2
-
STREET STRIP ELEVATION @ ASHBY AVENUE
1/32"=1'-0" @ 11X17 1/16" = 1'-0" @ 24X36
0 4 8 16 32

1
-
STREET STRIP ELEVATION @ SHATTUCK AVENUE
1/32"=1'-0" @ 11X17 1/16" = 1'-0" @ 24X36
0 4 8 16 32

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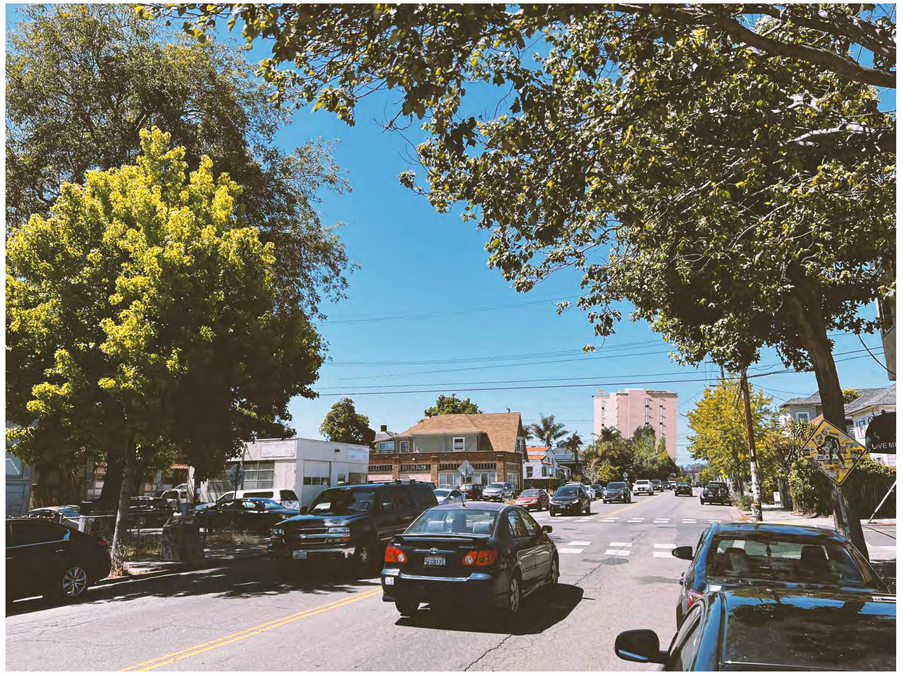
SHEET:

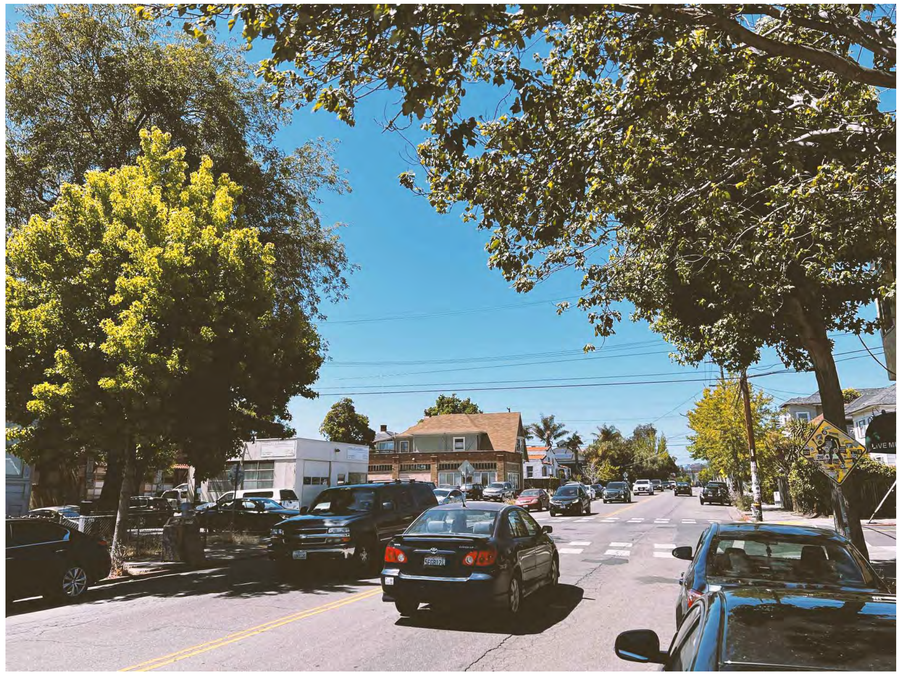
STREET STRIP
ELEVATIONS

A3.5



4
-
SHATTUCK LOOKING NORTH - AFTER

2
-
SHATTUCK LOOKING SOUTH - AFTER



3
-
SHATTUCK LOOKING NORTH - BEFORE

1
-
SHATTUCK LOOKING SOUTH - BEFORE

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SHEET:

PHOTO CONTEXT VIEWS

A3.6

4 - ASHBY LOOKING EAST - AFTER

2 - ASHBY LOOKING WEST - AFTER

3 - ASHBY LOOKING EAST - BEFORE

1 - ASHBY LOOKING WEST - BEFORE

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SHEET:

PHOTO CONTEXT VIEWS

A3.7

1
-

VIEW ALONG SHATTUCK LOOKING SOUTH WEST

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SHEET:

PERSPECTIVE VIEWS

A3.8

1
-
VIEW ALONG ASHBY LOOKING SOUTH WEST

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SHEET:

PERSPECTIVE VIEWS

A3.9

1
-
VIEW ALONG SHATTUCK LOOKING NORTH WEST

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PERSPECTIVE VIEWS

A3.10

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1
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VIEW ALONG ASHBY LOOKING EAST

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PERSPECTIVE VIEWS

A3.11

1 - DETAIL AT SIDEWALK LEVEL

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PERSPECTIVE VIEWS

A3.12

1
-

RETAIL ENTRY CLOSE-UP VIEW

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PERSPECTIVE VIEWS

A3.13

1
-
DETAIL AT SIDEWALK LOOKING EAST

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SHEET:

PERSPECTIVE VIEWS

A3.14

1
-
DETAIL AT SIDEWALK LOOKING NORTHWEST

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03.15.2022 ZONING APPLICATION
07.08.2022 ZONING RESUBMITTAL
01.19.2023 DRC HEARING SET
01.20.2023 LOADING ZONE PLAN
05.11.2023 ZAB HEARING SET

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JOB: 2104

SHEET:

PERSPECTIVE VIEWS

A3.15

1
-

LOBBY ENTRY CLOSE-UP VIEW

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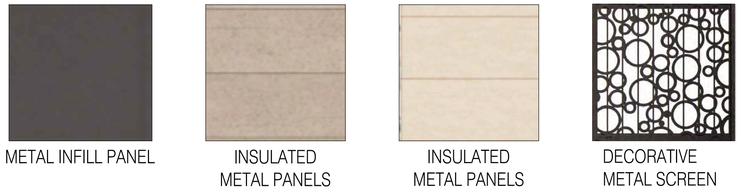
SHEET:

PERSPECTIVE VIEWS

A3.16



1 - NORTH ELEVATION

3/32"=1'-0" @ 11X17 3/16" = 1'-0" @ 24X36

0 4 8 16

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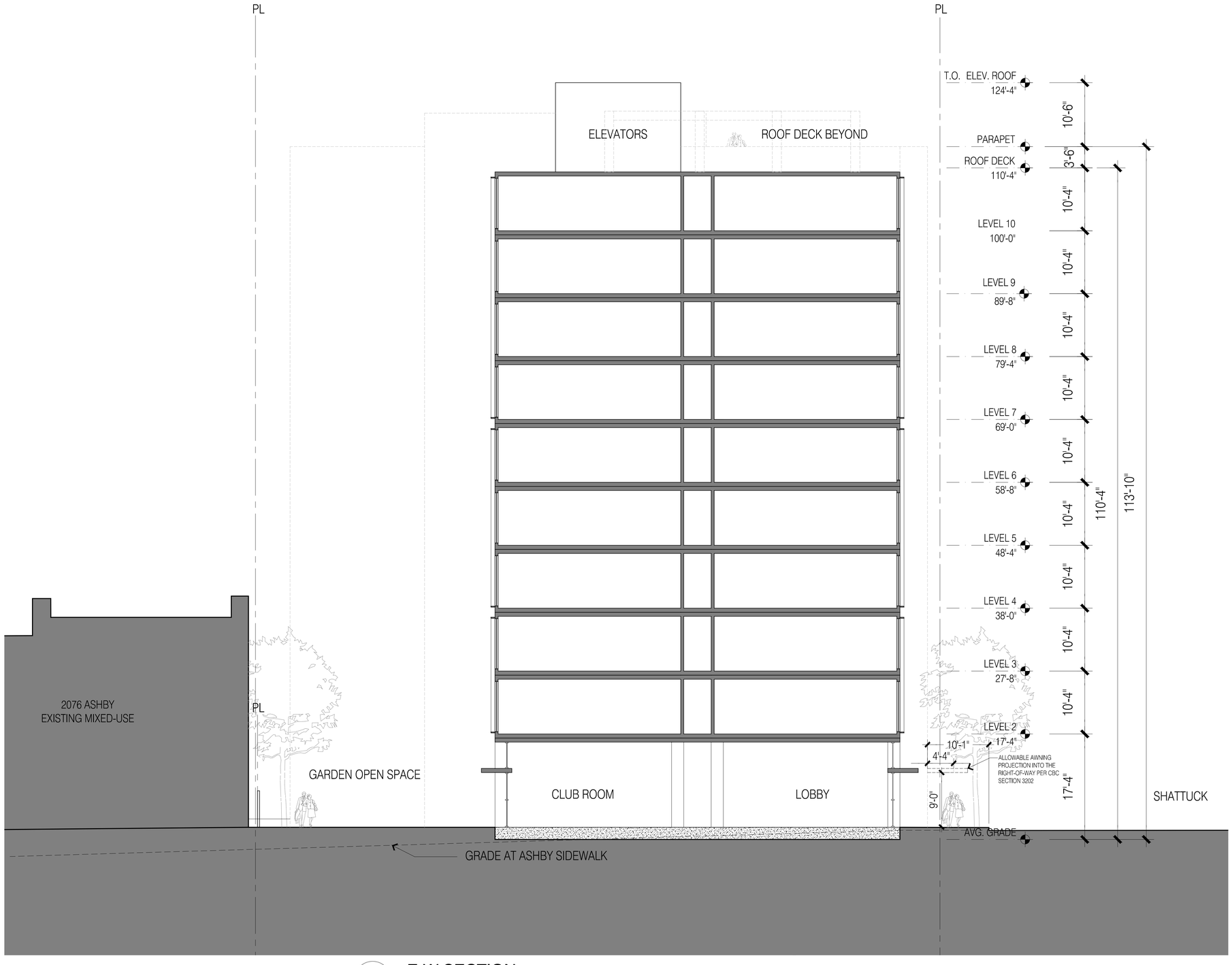
SHEET:

BUILDING MAT

MAT



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

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BUILDING SECTION

A4.1

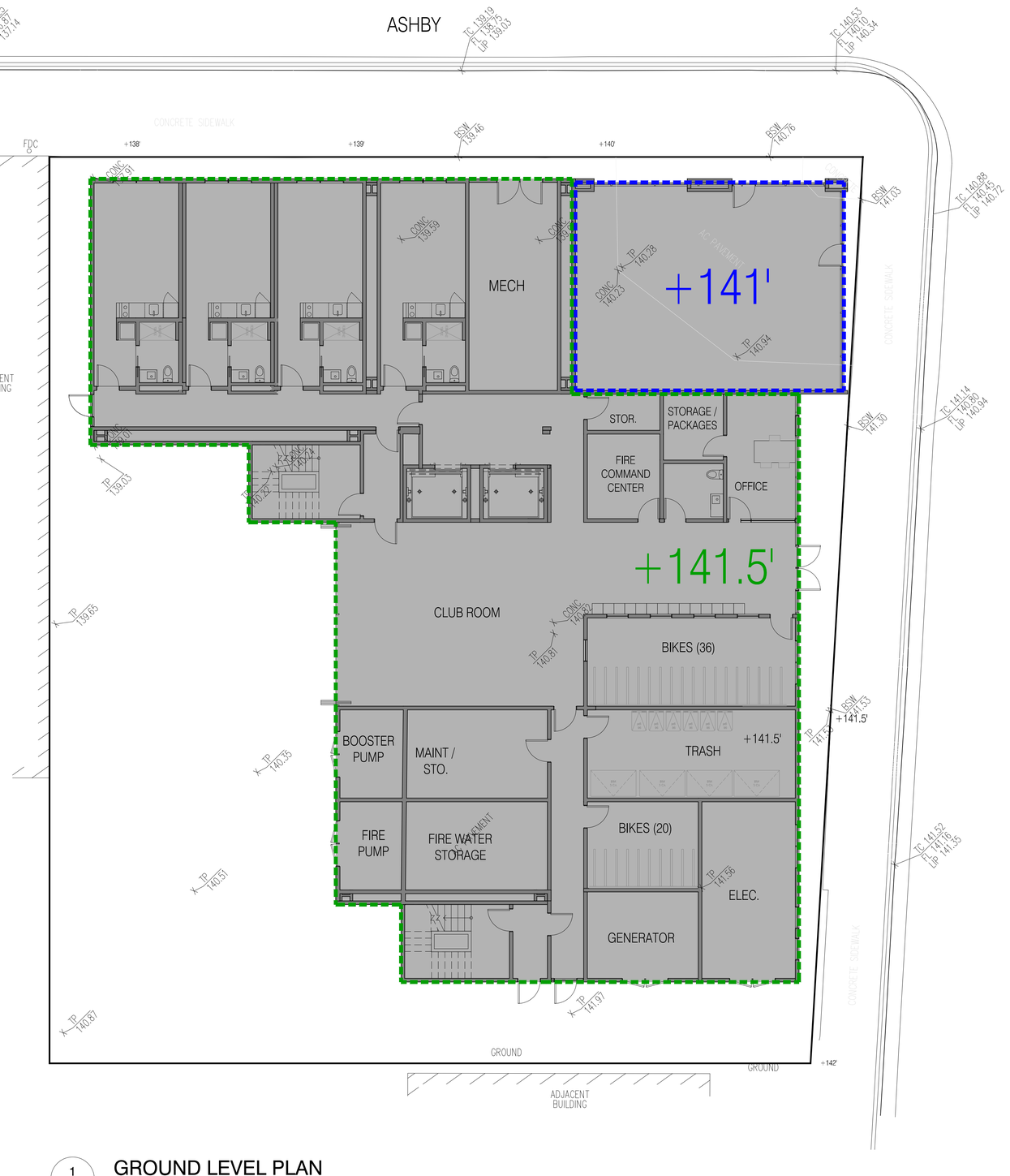
CUT AND FILL CALCULATIONS

	CUT/FILL AREA	AVERAGE CUT/FILL DEPTH (FT)	TOTAL VOLUME (CY)
PROPOSED BUILDING	8,502	2	630

EARTHWORK NOTES:

1. EARTHWORK QUATNITY IS A ROUGH ESTIMATE BASED ON A BUILDING PAD ELEVATION 12" BELOW FF OF GROUND FLOOR LEVEL. QUANTITIES MAY VARY DUE TO FINAL STRUCTURAL FOUNDATIONS AND PAVEMENT THICKNESS.

2. EARTHWORK QUANTITIES DO NOT TAKE INTO ACCOUNT SOIL SHRINKAGE, SOIL SWELLING, TRENCH SPOILS, SITE OVER-EXCAVATION REQUIREMENTS.



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GROUND LEVEL PLAN

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

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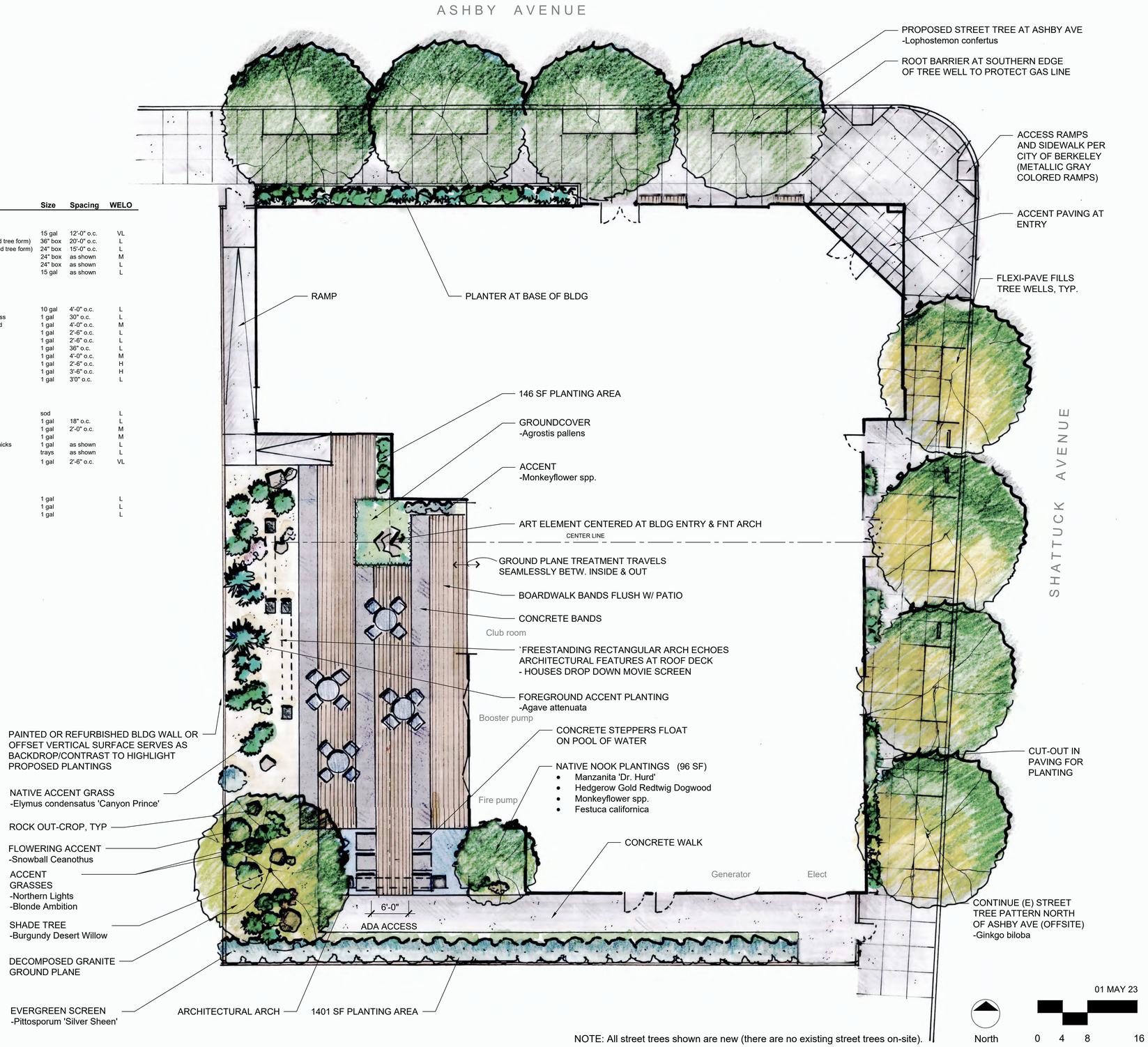
CONCEPTUAL GRADING PLAN

A5.1

Plant List

Index	Latin Name	Common Name	Size	Spacing	WELO
Trees					
AM	Arctostaphylos manzanita 'Dr. Hurd'	Manzanita	15 gal	12'-0" o.c.	VL
CL	Chilopsis linearis 'Burgundy'	Burgundy Desert Willow (standard tree form)	36" box	20'-0" o.c.	L
CR	Ceanothus 'Ray Hartman'	Ray Hartman Ceanothus (standard tree form)	24" box	15'-0" o.c.	L
GB	Ginkgo biloba	Ginkgo	24" box	as shown	M
LC	Lophstemon confertus	Brisbane Box	24" box	as shown	L
MC	Myrica californica	Pacific Wax Myrtle	15 gal	as shown	L
Shrubs					
AA	Agave attenuata 'Ray of Light'	Ray of Light Foxtail Agave	10 gal	4'-0" o.c.	L
BG	Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Blue Grama Grass	1 gal	30" o.c.	L
CS	Cornus sericea, C. Stolonifera 'Hedgerow Gol	Hedgerow Gold Redtwig Dogwood	1 gal	4'-0" o.c.	M
DA	Diplacus aurantiacus	Orange Bush Monkeyflower	1 gal	2'-6" o.c.	L
DP	Diplacus puniceus, Mimulus puniceus	Red Bush Monkeyflower	1 gal	2'-6" o.c.	L
EC	Elymus condensatus 'Canyon Prince'	Canyon Prince' Blue Rye Grass	1 gal	36" o.c.	L
FC	Festuca californica	California Fescue	1 gal	4'-0" o.c.	M
JE	Juncus effusus	Soft Rush	1 gal	2'-6" o.c.	H
JP	Juncus patens	Common Rush	1 gal	3'-6" o.c.	H
MR	Muhlenbergia rigens	Deer Grass	1 gal	3'0" o.c.	L
Groundcovers					
AP	Agrostis pallens	West Coast Native Bunchgrass	sod		L
CF	Calamagrostis foliosa	Mendocino Reed Grass	1 gal	18" o.c.	L
DC	Deschampsia cespitosa 'Northern Lights'	Northern Lights Tufted Hairgrass	1 gal	2'-0" o.c.	M
HA	Heuchera americana 'Green Spice'	Green Spice Coral Bells	1 gal		M
SK	Sempervivum 'Krebs 2'	Krebs Desert Bloom Hens and Chicks	1 gal	as shown	L
SR	Sedum rupestre 'Angelina'	Angelina Stonecrop	trays	as shown	L
ZC	Epilobium canum (Zauschneria californica)	California Fuschia	1 gal	2'-6" o.c.	VL
Rooftop Sedums					
SC1	Sedum spathulifolium 'Purpureum'	Red Pacific Stonecrop	1 gal		L
SC2	Sedum spathulifolium 'Cape Blanco'	Cape Blanco Pacific Stonecrop	1 gal		L
SC3	Sedum divergens	Pacific Stonecrop	1 gal		L

Note: *At least 80% of all plantings will be California natives.*



NOTE: All street trees shown are new (there are no existing street trees on-site).

North 0 4 8 16

01 MAY 23

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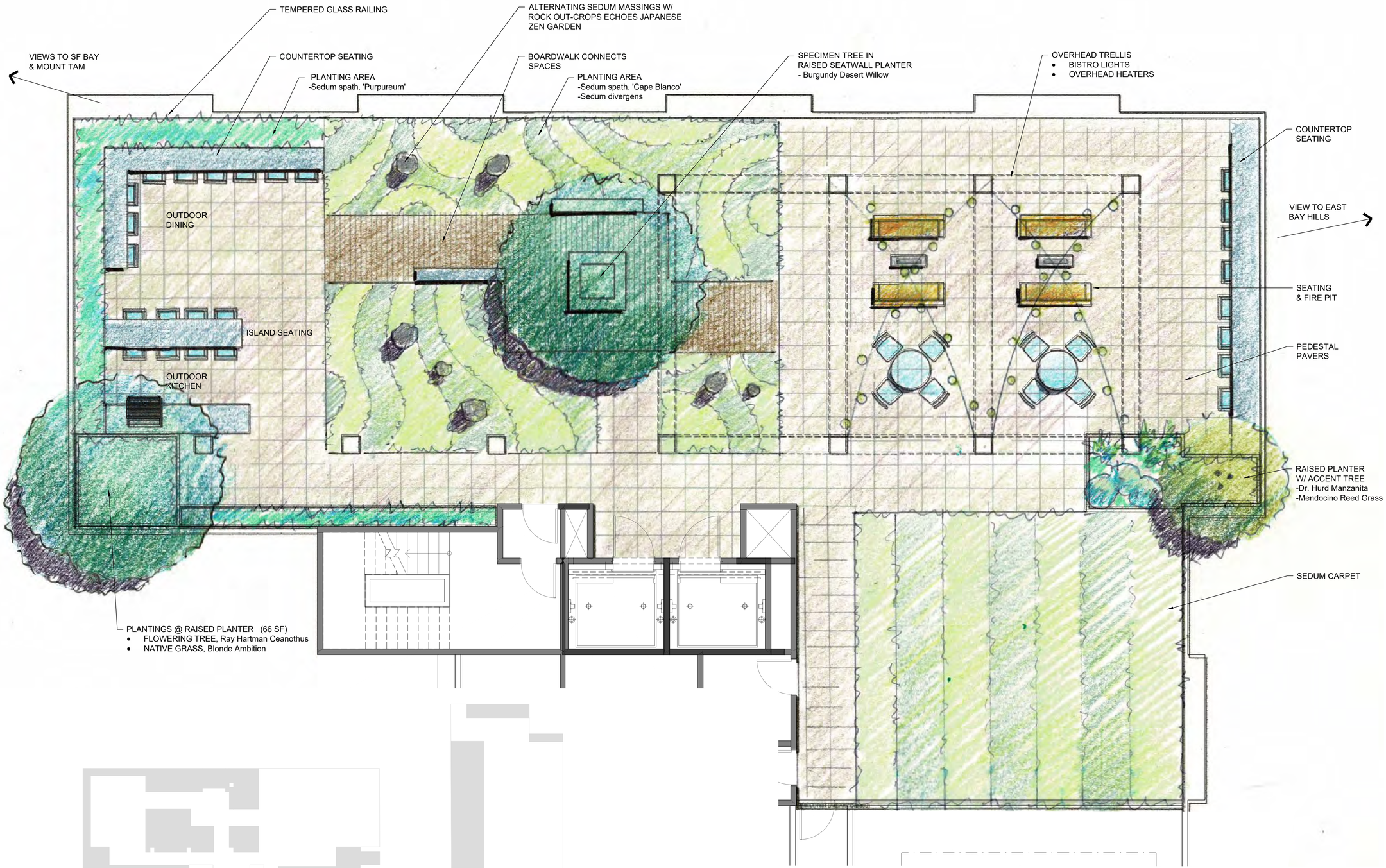
SHEET:

GROUND LEVEL
LANDSCAPE PLAN

L1.0



ROOF DECK TOTAL AREA = 4,488 SF

ROOF DECK PLANTING AREA = 1,830 SF

ROOF DECK LANDSCAPE % = 40%

GROUND LEVEL TOTAL AREA = 3,391 SF

GROUND LEVEL PLANTING AREA = 1,356 SF

GROUND LEVEL LANDSCAPE % = 40%

North

0 2 4 8

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ROOF DECK
GROUND LEVEL

L1.1

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JOB 2104

SHEET

LANDSCAPE IMAGERY

L2.0

PLAN NOTES LEGEND

1. 1" WATER METER FOR IRRIGATION TO BE PROVIDED BY UTILITY EBMUD. MAXIMUM IRRIGATION DEMAND: ( )GPM AT ( )PSI STATIC PRESSURE AT WATER METER LOCATION.
2. INSTALL A 1" IRRIGATION BACKFLOW PREVENTER AT THIS APPROXIMATE LOCATION.
3. APPROXIMATE LOCATION OF BOOSTER PUMP BY OTHERS. PRESSURE ON DISCHARGE SIDE OF BOOSTER PUMP SHALL BE 95 PSI.
4. IRRIGATION CONTROLLER "C". MOUNT ON INTERIOR WALL AT THIS LOCATION AS DETAILED AND AS DIRECTED BY ARCHITECT. CONNECT TO 120 VOLT A.C. ELECTRICAL SERVICE INSTALLED AT THIS LOCATION UNDER ELECTRICAL CONTRACT. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF ELECTRICAL SERVICE PRIOR TO CONSTRUCTION.
5. IRRIGATION MASTER VALVE AND FLOW SENSOR.
6. INSTALL A 1" PRESSURE REDUCING VALVE FOR MAIN SERVICING SITE LEVEL. SET PRESSURE TO BE 50 PSI.
7. 1.25" COPPER PIPE STUB-OUT FOR IRRIGATION FROM MECHANICAL ROOM TO THIS APPROXIMATE LOCATION TO SERVICE SITE LEVEL PLANTERS TO BE PROVIDED AND INSTALLED IN-STRUCTURE UNDER PLUMBING CONTRACT. COORDINATE INSTALLATION OF PIPE WITH GENERAL/PLUMBING CONTRACTOR(S) PRIOR TO CONSTRUCTION.
8. 1.25" ELECTRICAL CONDUIT AND SPLICE BOX FOR 2-WIRE CABLE TO BE PROVIDED AND INSTALLED FROM IRRIGATION CONTROLLER "C" TO THIS LOCATION UNDER ELECTRICAL CONTRACT WORK BY A LICENSED ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION OF CONDUIT WITH GENERAL/ELECTRICAL CONTRACTOR(S) PRIOR TO CONSTRUCTION.
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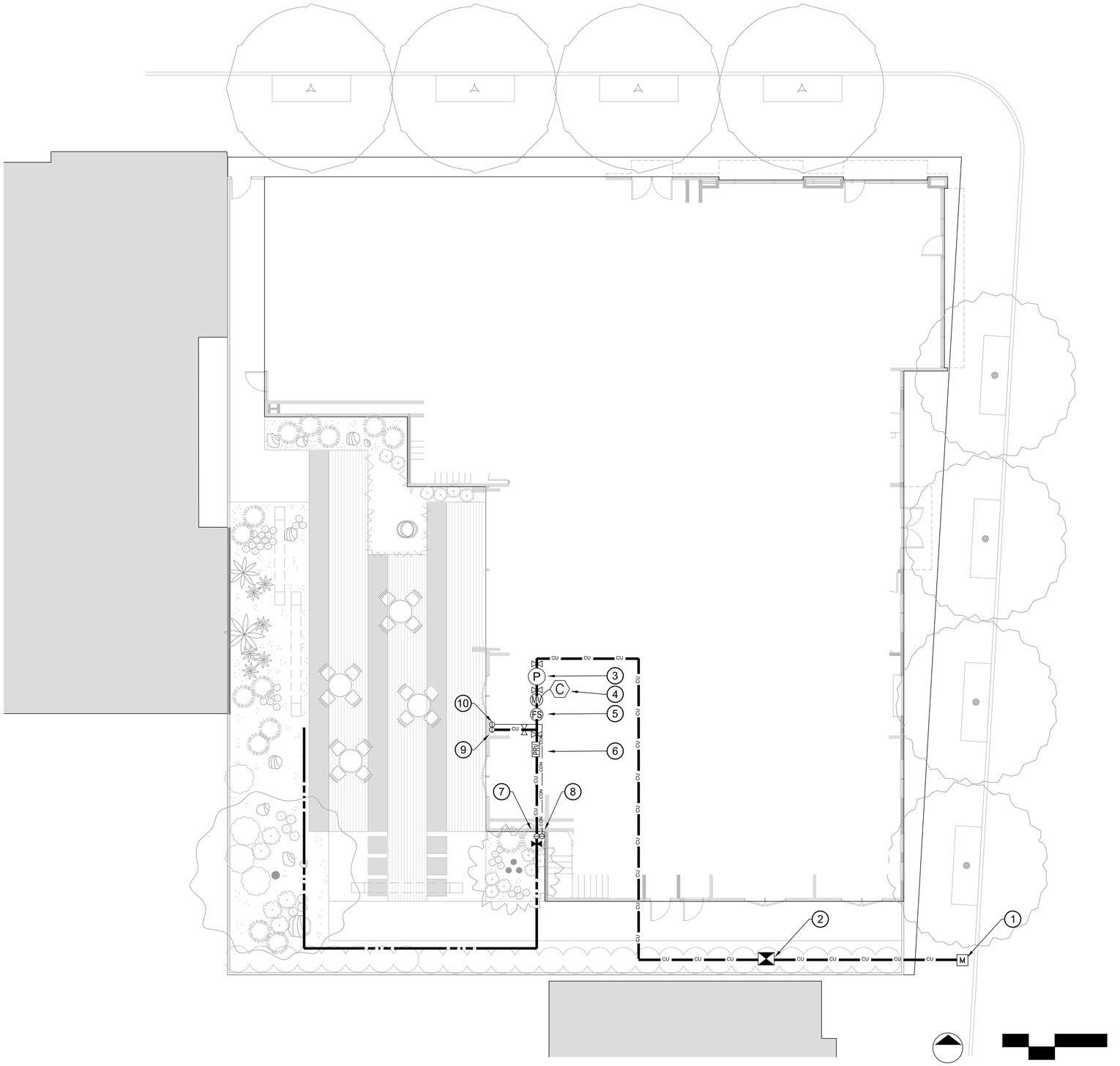
NOTES:

1. ONE BUBBLER SYMBOL IS SHOWN AT TREES FOR GRAPHIC CLARITY ONLY. INSTALL MINIMUM TWO BUBBLERS AT EACH TREE. INSTALL REQUIRED NUMBER OF BUBBLERS AS DETAILED.
2. IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITH SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.
3. UNSIZED LATERAL LINE PIPING LOCATED DOWN STREAM OF 1" PIPING SHALL BE 3/4" IN SIZE (TYPICAL).
4. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

   0.75" 0-6 GPM
   1" 7-12 GPM

5. SIZING OF LATERAL PIPE FOR DRIPLINE (12" O.C. GRID WITH 0.6 GPH OR LESS EMITTERS) SHALL BE AS FOLLOWS:

   0.75 0-500 FT
   1" 501-1100 FT



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JOB: 2104

SHEET:

GROUND LEVEL IRRIGATION PLAN

I1.0

PLAN NOTES LEGEND

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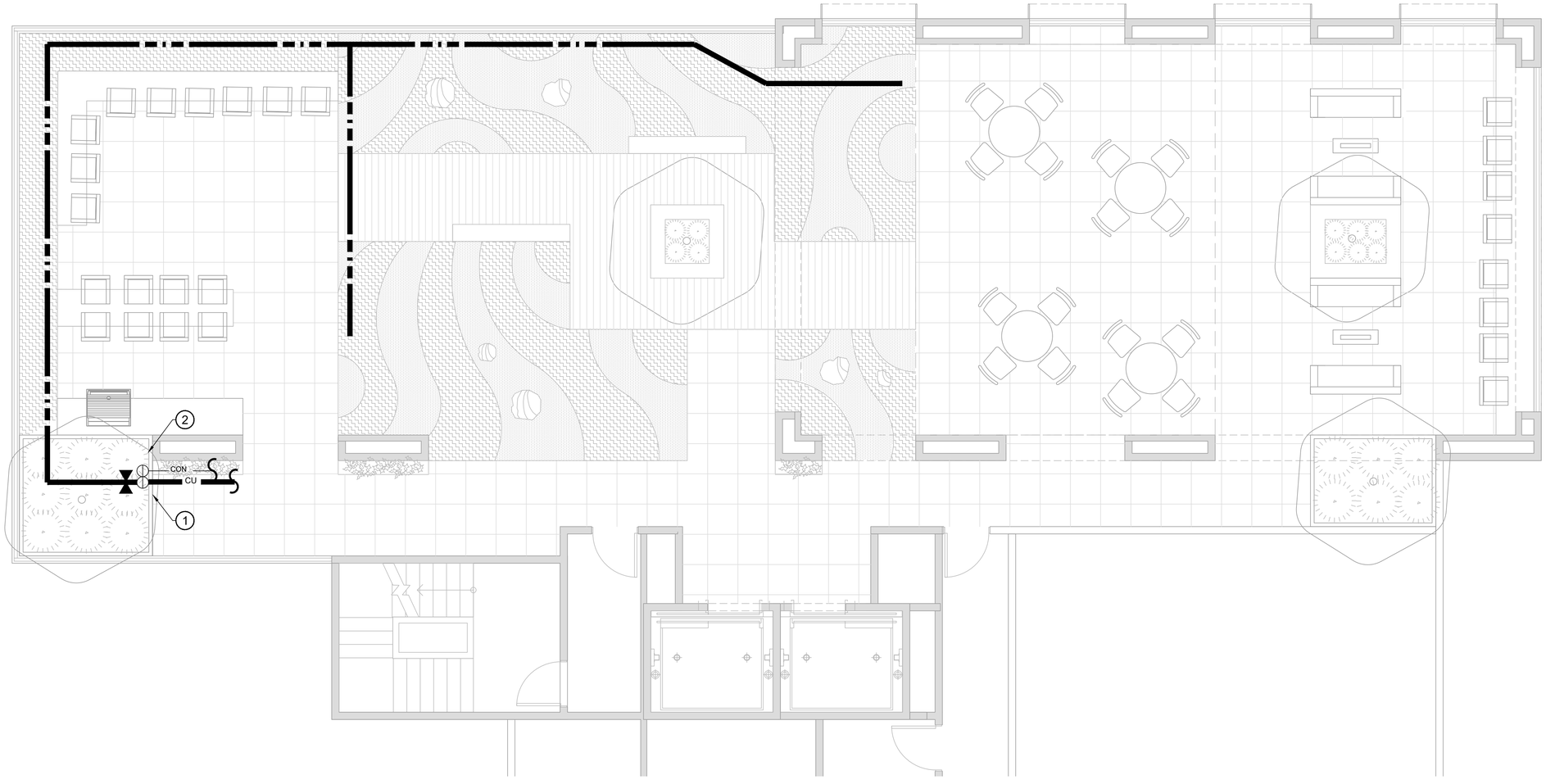

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SHEET:

ROOF DECK
IRRIGATION PLAN

I1.1

IRRIGATION NOTES

1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.

2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE; THE UNIFORM PLUMBING CODE, PUBLISHED BY THE WESTERN PLUMBING OFFICIALS ASSOCIATION; AND OTHER STATE OR LOCAL LAWS OR REGULATIONS. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR REGULATIONS. THE CONTRACTOR SHALL FURNISH WITHOUT ANY EXTRA CHARGE, ANY ADDITIONAL MATERIAL AND LABOR WHEN REQUIRED BY THE COMPLIANCE WITH THESE CODES AND REGULATIONS.

3. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LAYOUT AND INSTALLATION OF THE PLANT MATERIALS TO INSURE THAT THERE WILL BE COMPLETE AND UNIFORM IRRIGATION COVERAGE OF PLANTING IN ACCORDANCE WITH THESE DRAWINGS, AND CONTRACT DOCUMENTS. THE IRRIGATION LAYOUT SHALL BE CHECKED BY THE CONTRACTOR AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO CONSTRUCTION TO DETERMINE IF ANY CHANGES, DELETIONS, OR ADDITIONS ARE REQUIRED. IRRIGATION SYSTEM SHALL BE INSTALLED AND TESTED PRIOR TO INSTALLATION OF PLANT MATERIAL.

4. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

5. IT IS THE RESPONSIBILITY OF THE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLER(S) TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS, SLOPES, SUN, SHADE AND WIND EXPOSURE.

6. IT IS THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR TO PROVIDE 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO THE CONTROLLER LOCATION(S). IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE ELECTRICAL SERVICE STUB-OUT TO THE CONTROLLER(S). PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH LOCAL CODES.

7. INSTALL NEW BATTERIES IN THE IRRIGATION CONTROLLER(S) TO RETAIN PROGRAM IN MEMORY DURING TEMPORARY POWER FAILURES. USE QUANTITY, TYPE AND SIZE REQUIRED AS PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.

8. SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE CONTRACTOR, THE OWNER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER.

9. INSTALL 2-WIRE CABLE ALONG THE MAIN LINE. CONTACT CONTROLLER REPRESENTATIVE FOR A PRE-CONSTRUCTION MEETING.

10. INSTALL 2-WIRE CABLE WITHIN 1.25" CONDUIT WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM.

11. INSTALL A 14"X19" GREY ELECTRICAL PULL BOX EVERY 200' AND AT EVERY CHANGE IN DIRECTION. ONLY SPLICE TWO WIRE CABLE AT THREE WAY WIRE CONNECTIONS.

12. IRRIGATION CONTROL WIRES: SOLID COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND. SIZE #14AWG WIRE WITH A JACKETED 2-CONDUCTOR. PREFERRED WIRE MAKE AND MODEL IS THE PAIGE IRRIGATION WIRE, SPEC P7072D. ALL SPLICING SHALL BE MADE WITH 3-M DBR/Y-6 WATERPROOF SPLICE KIT.

13. DECODER GROUNDING SHALL BE PROVIDED EVERY 600 FEET, AT THE CONTROLLER AND AT THE LAST DECODER OR AT THE END OF THE 2 WIRE PATH. GROUND WITH A 5/8" X 8' COPPER CLAD GROUNDING ROD. #6 COPPER WIRE TO SURGE DEVICE/DECODER. INCLUDE A SURGE ARRESTOR AT EACH GROUNDING LOCATION. A SPLIT BOLT CONNECTION TO BE USED TO CONNECT THE SURGE DEVICE TO THE GROUND WIRE WITH A DBR/Y-6 WATERPROOF CONNECTOR.

14. SPLICING OF JACKETED 2-WIRE IS PERMITTED IN VALVE BOXES ONLY. LEAVE A 24" LONG COIL OF WIRE AT EACH SPLICE AND A 24" LONG EXPANSION LOOP IN ALL PULL BOXES.

15. INSTALL BLACK PLASTIC VALVE BOXES WITH BOLT DOWN, NON HINGED COVER MARKED "IRRIGATION CONTROL VALVE". BOX BODY SHALL HAVE KNOCK OUTS. ACCEPTABLE VALVE BOX MANUFACTURER'S INCLUDE NDS, CARSON OR APPROVED EQUAL.

16. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, INSTALL EACH BOX AN EQUAL DISTANCE FROM THE WALK, CURB, BUILDING OR LANDSCAPE FEATURE AND PROVIDE 12" BETWEEN BOX TOPS. ALIGN THE SHORT SIDE OF RECTANGULAR VALVE BOXES PARALLEL TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE.

17. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS.

18. THE CONTRACTOR SHALL LABEL CONTROL LINE WIRE AT EACH REMOTE CONTROL VALVE WITH A 2 1/4" X 2 3/4" POLYURETHANE I.D. TAG, INDICATING IDENTIFICATION NUMBER OF VALVE (CONTROLLER AND STATION NUMBER). ATTACH LABEL TO CONTROL WIRE. THE CONTRACTOR SHALL PERMANENTLY STAMP ALL VALVE BOX LIDS WITH APPROPRIATE IDENTIFICATION AS NOTED IN CONSTRUCTION DETAILS.

19. FLUSH AND ADJUST IRRIGATION OUTLETS AND NOZZLES FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF THE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.

20. LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE.

21. INSTALL A HUNTER HCV SERIES, KBI CV SERIES, OR APPROVED EQUAL SPRING LOADED CHECK VALVE IN SPRINKLER RISER ASSEMBLIES WHERE LOW OUTLET DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER.

22. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE CAUTION TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATE BY HAND IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR. BACK FILL TRENCHES ADJACENT TO TREE WITHIN TWENTY-FOUR (24) HOURS. WHERE THIS IS NOT POSSIBLE, SHADE THE SIDE OF THE TRENCH ADJACENT TO THE TREE WITH WET BURLAP OR CANVAS.

23. NOTIFY LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

24. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

25. IRRIGATION DEMAND: REFER TO PLANS.

26. PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION THE SIZE MAY NEED TO BE ADJUSTED ACCORDINGLY.

27. PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL #5.

28. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION DRAWINGS SUCH AS LIGHTS, FIRE HYDRANTS, SIGNS, ELECTRICAL ENCLOSURES, ETC.

29. WHEN WORK OF THIS SECTION HAS BEEN COMPLETED AND SUCH OTHER TIMES AS MAY BE DIRECTED, REMOVE ALL TRASH, DEBRIS, SURPLUS MATERIALS AND EQUIPMENT FROM SITE.

30. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLEMENTAL HAND WATERING OF ALL PLANT MATERIAL WITHIN DRIPLINE AREAS UNTIL THE PLANTS ARE SUFFICIENTLY ESTABLISHED.

31. VERIFY LOCATIONS OF ALL IRRIGATION COMPONENTS INSTALLED WITHIN A VALVE BOX WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. DO NOT INSTALL UNTIL LANDSCAPE ARCHITECT PROVIDES ACCEPTABLE LOCATIONS.

IRRIGATION COORDINATION NOTES

1. COPPER PIPING WITHIN STRUCTURE SHALL BE PROVIDED, ROUTED, AND INSTALLED BY PLUMBING CONTRACTOR. EXIT OF PIPE TO PLANTER SHALL BE A MINIMUM OF 6" BELOW FINISH GRADE.

2. IRRIGATION SLEEVING AND/OR CONDUIT IN STRUCTURE TO BE PROVIDED AND INSTALLED UNDER STRUCTURAL WORK.

3. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, PULL BOXES AND WIRE IN STRUCTURE. THE DRAWINGS INDICATE REQUIRED WIRE QUANTITIES FROM A GIVEN PLANTER LOCATION, THROUGH STRUCTURE, TO THE CONTROLLER LOCATION. 14 GAUGE WIRE SHALL BE USED FOR CONTROL WIRING AND 12 GAUGE FOR COMMON GROUND. FINAL CONNECTION OR WIRING TO REMOTE CONTROL VALVES AND CONTROLLER SHALL BE COMPLETED BY IRRIGATION CONTRACTOR.

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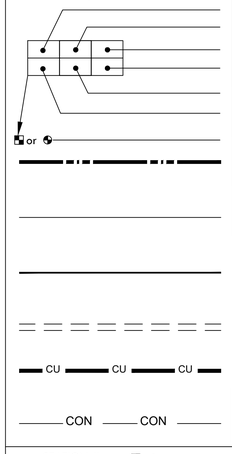
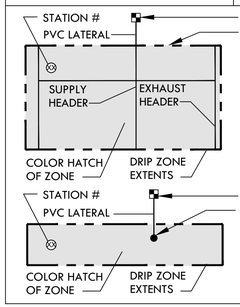
IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	NOZZLE GPM	OPERATING PSI	OPERATING RADIUS (FEET)
	PCB-25	HUNTER BUBBLER (SHRUB)	0.25	30	TRICKLE
■	PCB-25	HUNTER BUBBLER (TREE) MIN. 2 PER TREE. REFER TO BUBBLER DETAIL FOR QUANTITY OF BUBBLERS PER TREE SIZE.	0.25	30	TRICKLE
	WLT-0500-T	NDS SCH 40 BALL VALVE OR APPROVED EQUAL			
	ECO-ID	HUNTER ECO-INDICATOR			
	ICV-101/AS-40	HUNTER REMOTE CONTROL VALVE WITH 40 PSI PRESSURE REGULATOR			
	ICZ-101-40	HUNTER REMOTE CONTROL VALVE WITH A 40 PSI PRESSURE REGULATOR AND A 1" FILTER.			
	44-LRC	RAIN BIRD 1" TWO-PIECE QUICK COUPLING VALVE (YELLOW LOCKING RUBBER COVER)			
	QB44RCAR10	BUCKNER 1" TWO-PIECE QUICK COUPLING VALVE (ANTI-ROTATION)			
	T-FP600A-LF-1"	NIBCO 1" BRASS BALL VALVE			
PRV	500XLHLR	WILKINS PRESSURE REDUCING VALVE			
MV	WT-MV-100G-SNO	WeatherTRAK 1" BRASS MASTER VALVE (NORMALLY OPEN)			
FS	WTFLOW-HD-P-100	WeatherTRAK 1" FLOW SENSOR			
	975XL2SEU-1"	WILKINS REDUCED PRESSURE BACKFLOW ASSEMBL.			
C	WTPRO3-C-H2048-SWM	WeatherTRAK ET PRO3 2-WIRE 48 STATION CONTROLLER IN A STAINLESS STEEL WALL MOUNTED ENCLOSURE.			
—	WT2W-H2O-1VD	WEATHERTRAK DECODER (1 PER VALVE)			
—	WT2W-H2O-2VD	WEATHERTRAK DECODER - TWO STATION			
—	WT2W-H2O-MV	WEATHERTRAK MASTER VALVE DECODER			
—	WT2W-H2O-FS	WEATHERTRAK FLOW SENSOR DECODER			
—	WT2W-H2O-PS	WEATHERTRAK PUMP START DECODER			
—	WT2W-H20-SA	WEATHERTRAK SURGE ARRESTOR (1 EVERY 500 FEET ALONG MAIN) REFER TO DETAILS FOR INSTALLATION INSTRUCTIONS.			
—	CIMXL-5YA	5 YEAR EXTENSION OF WeatherTRAK Central.			
	NOT SHOWN ON PLANS	ROUTE TWO WIRE CABLE TO ALL REMOTE CONTROL VALVES. SIZE #14AWG WIRE WITH A JACKETED 2-CONDUCTOR. PREFERRED WIRE MAKE AND MODEL IS PAIGE ELECTRIC WIRE P7072D. ALL SPLICING SHALL BE MADE WITH 3-M DBR/Y-6 WATERPROOF SPLICE KITS OR APPROVED EQUAL. INSTALL 2 WIRE CABLE WITHIN 1.25" SCH 40 ELECTRICAL CONDUIT. PULL BOXES SHALL BE LOCATED EVERY 200' NO SPLICES ARE ALLOWED BETWEEN VALVES. REFER TO DETAIL FOR INSTALLATION INSTRUCTIONS.			
R	WT-WRS	WIRELESS RAIN SENSOR SYSTEM. AUTOMATICALLY SHUTS THE SYSTEM OFF AS SOON AS IT STARTS RAINING.			



CONTROLLER AND STATION NUMBER
REMOTE CONTROL VALVE SIZE (IN INCHES)
FLOW (GPM)
WATER USE CLASSIFICATION OF ZONE
APPLICATION RATE (IN/HR) or DRIPLINE SPACING
AREA (SQ. FT.)
ASSOCIATED REMOTE CONTROL VALVE

MAIN LINE:	1.25" THROUGHOUT: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.
LATERAL LINE:	3/4" AND LARGER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.
DRIPLINE LATERAL LINE:	3/4" AND LARGER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.
SLEEVING:	SCHEDULE 40 PVC PLASTIC PIPE. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED ABOVE FOR PIPE DEPTH OF COVER.
MAIN LINE:	1.25" THROUGHOUT: TYPE 'K' COPPER PIPE WITH WROUGHT FITTINGS. SHOWN FOR REFERENCE ONLY, SEE PLUMBING PLANS FOR ROUTING THROUGH STRUCTURE.
ELECTRICAL CONDUIT:	SHOWN FOR REFERENCE ONLY, SEE ELECTRICAL PLANS FOR ROUTING THROUGH STRUCTURE.



DRIPLINE REMOTE CONTROL VALVE
DRIP ZONE:
HUNTER HDL SERIES DRIPLINE WITH BUILT IN PRESSURE COMPENSATION AND CHECK VALVE, PART #HDL-06-12-250-CV. USE PLD FITTINGS. TUBING TO BE INSTALLED 4" BELOW GRADE IN A 12" O.C. GRID ACCORDING TO DETAILS. SIZE EXHAUST HEADERS AS FOLLOWS: 1": 0-10 GPM, 1.25": 11-20 GPM. ALL EXHAUST HEADERS SHALL BE 1" SCH 40 PVC OR 1" SCH 40 FLEXIBLE PVC. USE SCH. 40 PVC SOLVENT WELD FITTINGS. EXTEND PVC HEADERS TO THE ENDS OF ALL DRIP ZONES TO BALANCE FLOW IF REQUIRED. SEE DETAILS FOR FURTHER INFORMATION.

DRIPLINE REMOTE CONTROL VALVE
APPROXIMATE CONNECTION POINT BETWEEN DRIPLINE TUBING AND PVC SUPPLY WHEN DRIP ZONE IS LESS THAN 3 GPM AND NO PVC SUPPLY/EXHUST HEADERS ARE NEEDED. REFER TO DRIPLINE TUBING CONNECTION DETAIL FOR MORE INFORMATION.

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03.09.2021 REVISED BASE PLANS
07.08.2022 ZONING INCOMPLETE RESPONSE
01.06.2023 DESIGN REVIEW SUBMITTAL
05.01.2023 RESPONSE TO DESIGN REVIEW

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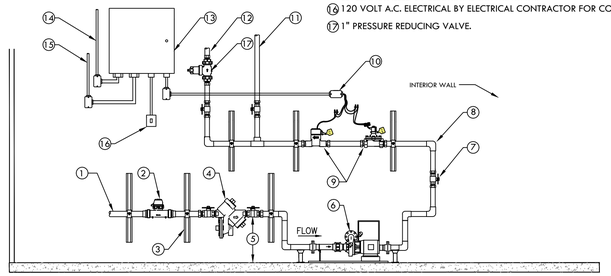
JOB: 2104

SHEET:

IRRIGATION NOTES AND LEGEND

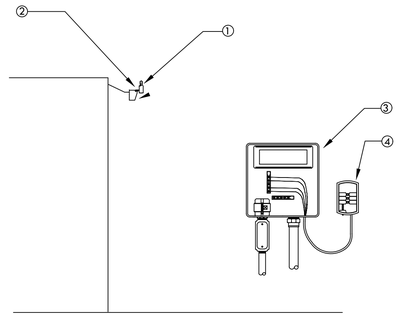
I1.2

① 1.25" COPPER MAIN LINE TO FOR IRRIGATION FROM DOMESTIC LINE WITHIN EQUIPMENT ROOM. SHOWN ON MEP PLANS.
② SUB-METER FOR IRRIGATION.
③ UNI-STRUT SUPPORT BRACKET, THREADED EXTENSIONS AND CLAMPS, LENGTH AS REQUIRED. PROVIDE A MINIMUM OF 6" SEPARATION FOR THE VALVES AND PIPE FROM THE WALL
④ 1" WILKENS REDUCED PRESSURE BACKFLOW ASSEMBLY.
⑤ MIN. 18" ± FROM FINISH FLOOR.
⑥ WATER BOOSTER PUMP FOR IRRIGATION BY OTHERS.
⑦ 1.25" BRASS BALL VALVE.
⑧ ALL FITTINGS AND PIPING FOR WATER LINES WITHIN EQUIPMENT ROOM SHALL BE COPPER WITH WROT FITTINGS OR BRASS NIPPLES.
⑨ MASTER VALVE AND FLOW SENSOR. PROVIDE A MINIMUM LENGTH OF 10" UPSTREAM OF FLOW SENSOR AND 5" DOWNSTREAM OF ANY FITTING.
⑩ 1" ELECTRICAL CONDUIT WITH JUNCTION BOXES FOR CONTROL WIRES FOR FLOW SENSOR & MASTER VALVE.
⑪ 1.25" COPPER MAIN LINE ROUTED THROUGH STRUCTURE TO STUB-OUT LOCATION(S) AT ROOF LEVEL. INSTALLED BY PLUMBING CONTRACTOR. (REFER TO MEP PLAN FOR EXACT ROUTING THRU BUILDING)
⑫ 1.25" COPPER MAIN LINE ROUTED THROUGH STRUCTURE TO STUB-OUT LOCATION(S) AT SITE LEVEL. INSTALLED BY PLUMBING CONTRACTOR. (REFER TO MEP PLAN FOR EXACT ROUTING THRU BUILDING)
⑬ IRRIGATION CONTROLLER BY IRRIGATION CONTRACTOR. MINIMUM 42" ABOVE FINISHED FLOOR.
⑭ 1.25" ELECTRICAL CONDUIT WITH REQUIRED JUNCTION BOXES ROUTED THROUGH STRUCTURE FROM CONTROLLER LOCATION TO STUB-OUT LOCATION(S) AT ROOF LEVEL. INSTALLED BY ELECTRICAL CONTRACTOR.
⑮ 1.25" ELECTRICAL CONDUIT WITH REQUIRED JUNCTION BOXES ROUTED THROUGH STRUCTURE FROM CONTROLLER LOCATION TO STUB-OUT LOCATION(S) AT ROOF LEVEL. INSTALLED BY ELECTRICAL CONTRACTOR.
⑯ 120 VOLT A.C. ELECTRICAL BY ELECTRICAL CONTRACTOR FOR CONTROLLER.
⑰ 1" PRESSURE REDUCING VALVE.



NOTES:
1. THIS LAYOUT IS TO PROVIDE INFORMATION ON EQUIPMENT AND TYPICAL DISTANCES REQUIRED BETWEEN THE EQUIPMENT. IT IS DIAGRAMMATIC AND WILL NEED TO BE ADJUSTED ACCORDING TO AVAILABLE FLOOR SPACE AND OTHER EQUIPMENT INSTALLED WITHIN THE ENCLOSURE. OFFSETS AND FITTINGS WILL BE REQUIRED FOR THESE ADJUSTMENTS.
2. MAINTAIN 6" OF CLEARANCE FROM BUILDING WALLS FOR EASE OF MAINTENANCE FOR ALL COPPER PIPING, VALVES, AND FITTINGS.
3. SEAL ALL PIPE PENETRATIONS THROUGH WALLS/STRUCTURE AS REQUIRED (BY PLUMBING CONTRACTOR). SEE PLUMBING/WATERPROOFING DRAWINGS.
4. ALL FITTINGS AND PIPING FOR WATER LINES WITHIN EQUIPMENT ROOM SHALL BE COPPER WITH WROT FITTINGS OR BRASS NIPPLES.

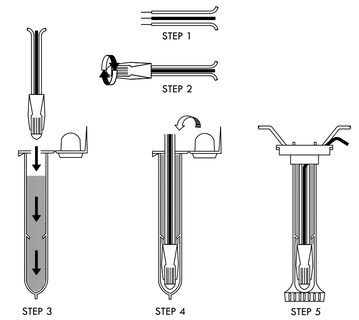
1 IRRIGATION EQUIPMENT LAYOUT DIAGRAM DETAIL
SCALE: NONE



NOTE: MAXIMUM LINE OF SIGHT FROM RAIN SENSOR TO RECEIVER IS 300 FT. DISTANCE IS LESS IF OBSTRUCTIONS EXIST. SENSOR MUST BE INSTALLED IN "CLEAR SPACE" WHERE IT IS EXPOSED TO UNOBSTRUCTED RAINFALL AND IS CLEAR OF IRRIGATION SPRAY.

① WIRELESS RAIN SENSOR TRANSMITTER (GUTTER MOUNTED)
② MOUNT RAIN SENSOR ON BUILDING WALL. ARCHITECT TO APPROVE LOCATION
③ CONTROLLER
④ RAIN SENSOR RECEIVER

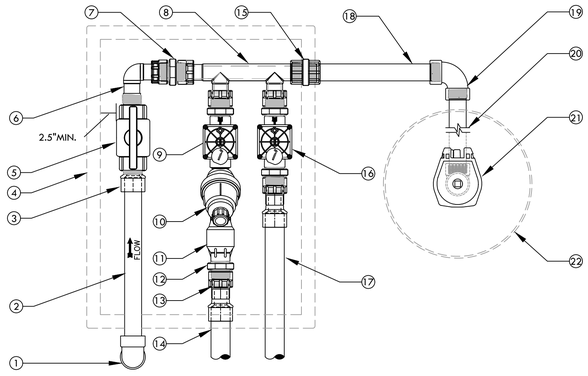
2 WIRELESS RAIN SENSOR-GUTTER MOUNT
SCALE: NONE



NOTE:
MAXIMUM # OF WIRES PER CONNECTOR:
- 3-#14 GAUGE
- 2-#12 GAUGE

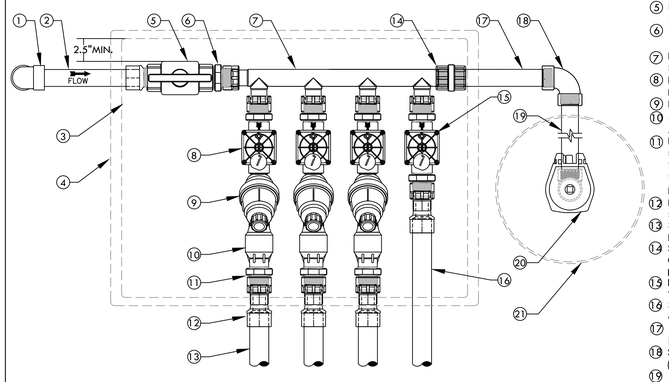
INSTRUCTIONS:
1. STRIP WIRES APPROXIMATELY 1/2" FROM ENDS TO EXPOSE WIRE.
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
3. INSERT WIRE ASSEMBLY TO BOTTOM OF GEL-FILLED TUBE. CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT THE BOTTOM OF THE TUBE.
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
5. INSPECT FINAL SPLICE ASSEMBLY THAT IT IS SECURED.

3 WEATHERPROOF WIRE SPLICE ASSEMBLY
SCALE: NONE



① SCH 40 PVC 90° ELBOW (SxS) FROM PVC MAIN LINE BELOW.
② SCH 40 PVC PIPE. LENGTH AS REQUIRED.
③ SCH 80 PVC MALE ADAPTER.
④ CARSON 1220 RECTANGULAR PLASTIC VALVE BOX WITH LID. INSTALL PER REMOTE CONTROL VALVE DETAIL.
⑤ NDS 1"LO-TORQ BALL VALVE THREADED (PART #LT-1000-T)
⑥ DURA 1" MIPT x 1" SWIVEL 90° (PART #306-009)
⑦ DURA 1"x1" THREADED ADAPTER (PART #08303) 4 TOTAL.
⑧ DURA 1" MULTI-PORT MANIFOLD (PART #301-010-2)
⑨ DRIP REMOTE CONTROL VALVE. REFER TO LEGEND FOR MODEL.
⑩ FILTER. REFER TO LEGEND FOR MODEL.
⑪ 40 PSI REGULATOR. REFER TO LEGEND FOR MODEL.
⑫ DURA 1" x 3/4" MALE ADAPTER (PART #08303-131). ONLY REQUIRED WITH 3/4" OUTLET REGULATORS. USE 1"x1" DURA THREAD ADAPTER ON 1" REGULATORS
⑬ DURA 1" SLIP X 1" SWIVEL (PART #329-011) 2 TOTAL.
⑭ SCHEDULE 40 PVC LATERAL TO DRIP IRRIGATION
⑮ SCHEDULE 80 PVC THREADED FEMALE COUPLING TO SERVICE QCV. IF NO QCV INSTALL A DURA 1" CAP (PART #348-010)
⑯ BUBBLER OR SPRINKLER REMOTE CONTROL VALVE. REFER TO LEGEND FOR MODEL.
⑰ SCHEDULE 40 PVC LATERAL TO BUBBLER OR SPRAY IRRIGATION.
⑱ SCHEDULE 80 PVC NIPPLE (LENGTH AS REQUIRED).
⑲ SCHEDULE 80 PVC 90° ELBOW (TxT).
⑳ SCHEDULE 80 PVC NIPPLE (LENGTH AS REQUIRED).
㉑ QUICK COUPLING VALVE. INSTALL PER DETAIL.
㉒ 10" ROUND BOX. INSTALL PER DETAIL.

4 TWO REMOTE VALVE MANIFOLD DETAIL WITH QUICK COUPLING VALVE (1" VALVES ONLY)
SCALE: NONE



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② SCH 40 PVC PIPE. LENGTH AS REQUIRED.
③ SCH 80 PVC MALE ADAPTER.
④ CARSON 1220 RECTANGULAR PLASTIC VALVE BOX WITH LID. INSTALL PER REMOTE CONTROL VALVE DETAIL.
⑤ NDS 1"LO-TORQ BALL VALVE THREADED (PART #LT-1000-T)
⑥ DURA 1"x1" THREADED ADAPTER (PART #08303) 6 TOTAL.
⑦ DURA 1" MULTI-PORT MANIFOLD (PART #301-010-4)
⑧ DRIP REMOTE CONTROL VALVE. REFER TO LEGEND FOR MODEL.
⑨ FILTER. REFER TO LEGEND FOR MODEL.
⑩ 40 PSI REGULATOR. REFER TO LEGEND FOR MODEL.
⑪ DURA 1" x 3/4" MALE ADAPTER (PART #08303-131) 3 TOTAL. ONLY REQUIRED WITH 3/4" OUTLET REGULATORS. USE 1"x1" DURA THREAD ADAPTER ON 1" REGULATORS
⑫ DURA 1" SLIP X 1" SWIVEL (PART #329-011) 4 TOTAL.
⑬ SCHEDULE 40 PVC LATERAL TO DRIP IRRIGATION.
⑭ SCHEDULE 80 PVC THREADED FEMALE COUPLING TO SERVICE QCV. IF NO QCV INSTALL A DURA 1" CAP (PART #348-010)
⑮ BUBBLER OR SPRINKLER REMOTE CONTROL VALVE. REFER TO LEGEND FOR MODEL.
⑯ SCHEDULE 40 PVC LATERAL TO BUBBLERS OR SPRAY IRRIGATION.
⑰ SCHEDULE 80 PVC NIPPLE (LENGTH AS REQUIRED).
⑱ SCHEDULE 80 PVC 90° ELBOW (TxT).
⑲ SCHEDULE 80 PVC NIPPLE (LENGTH AS REQUIRED).
⑳ QUICK COUPLING VALVE. INSTALL PER DETAIL.
㉑ 10" ROUND BOX. INSTALL PER DETAIL.

5 FOUR REMOTE VALVE MANIFOLD DETAIL WITH QUICK COUPLING VALVE (1" VALVES ONLY)
SCALE: NONE

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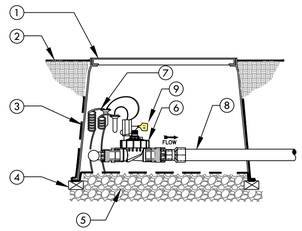
JOB: 2104

SHEET:

IRRIGATION DETAIL

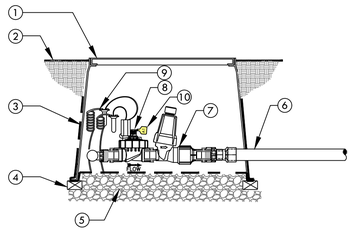
I1.3



① CARSON 1220 RECTANGULAR VALVE BOX FOR FOUR VALVES OR CARSON 1419 FOR TWO VALVES
② FINISH GRADE
③ 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP THE SIDES OF THE BOX
④ BRICK-1 EACH CORNER
⑤ PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
⑥ REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED. REFER TO TWO OR FOUR VALVE MANIFOLD DETAIL FOR INSTALLATION INSTRUCTIONS
⑦ VALVE CONTROL WIRE- PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 24" OF EXCESS UF WIRE IN A 1" DIAMETER COIL
⑧ SCH 40 PVC LATERAL LINE TO BUBBLERS OR SPRAY
⑨ VALVE I.D. TAG (WITH CONTROL AND STATION NUMBER).

1 BUBBLER OR SPRAY REMOTE CONTROL VALVE IN TWO OR FOUR VALVE MANIFOLD

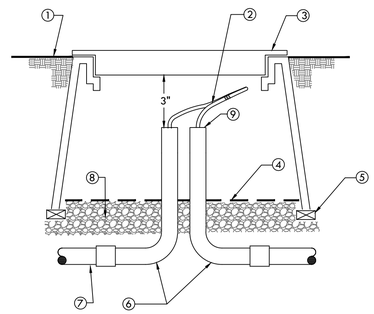
SCALE: NONE



① CARSON 1220 RECTANGULAR VALVE BOX FOR FOUR VALVES OR CARSON 1419 FOR TWO VALVES
② FINISH GRADE
③ 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP THE SIDES OF THE BOX
④ BRICK-1 EACH CORNER
⑤ PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
⑥ SCH 40 PVC LATERAL LINE TO DRIPLINE OR DRIP.
⑦ DRIP FILTER AND REGULATOR
⑧ REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED. REFER TO TWO OR FOUR VALVE MANIFOLD DETAIL FOR INSTALLATION INSTRUCTIONS
⑨ VALVE CONTROL WIRE- PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 24" OF EXCESS UF WIRE IN A 1" DIAMETER COIL
⑩ VALVE I.D. TAG (WITH CONTROL AND STATION NUMBER).

2 DRIP REMOTE CONTROL VALVE IN TWO OR FOUR VALVE MANIFOLD

SCALE: NONE

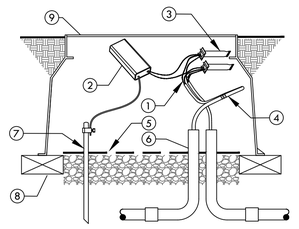


① FINISH GRADE
② 24" LOOP OF TWO WIRE CABLE.
③ GREY RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. HEAT BRAND "PB" INTO LID.
④ 18 GAUGE 1/2" [13mm] SQUARE STAINLESS STEEL WIRE MESH.
⑤ BRICK-ONE ON EACH CORNER
⑥ SCHEDULE 40 PVC SWEEP ELLS
⑦ SCHEDULE 40 U.L. LISTED PVC CONDUIT
⑧ PEA GRAVEL OR 3/4" [20mm] DRAIN ROCK - 4" [102mm] DEEP BELOW VALVE (NO SOIL IN VALVE BOX).
⑨ SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM.

3 IRRIGATION TWO WIRE PULL BOX

SCALE: NONE

NOTE:
TWO WIRE DECODER SYSTEMS MUST BE PROPERLY GROUNDED IN ORDER TO PROTECT AGAINST LIGHTNING SURGES. THE COMMUNICATION CABLE MUST BE GROUNDED NO FURTHER THAN 500' FROM ANY DECODER. THE SURGE DEVICE MUST BE A WEATHERTRAK MODEL WT2W-LSP. THE MINIMUM DISTANCE BETWEEN THE SURGE ARRESTOR AND THE GROUND ROD SHOULD BE 3' (91.4CM). WEATHERTRAK RECOMMENDS A SPLIT BOLT CONNECTION TO BE USED TO CONNECT THE SURGE DEVICE TO THE GROUND WIRE WITH A 3M DBY-6 WATERPROOF CONNECTOR.

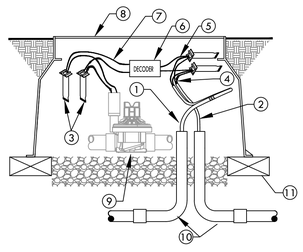


① 2-WIRE PATH JACKETED/ TWISTED FROM CONTROLLER. ALLOW A 24" SLACK PER DECODER
② LIGHTNING ARRESTOR (MODEL WT2W-LSP), 1 EVERY 500' FROM STARTING FROM CONTROLLER.
③ 3M DBR/Y-6 OR APPROVED EQUAL WATERPROOF SPLICE KIT (4 TOTAL)
④ 2-WIRE PATH JACKETED/ TWISTED TO NEXT DECODER
⑤ 18 GAUGE 1/2" [13mm] SQUARE STAINLESS STEEL WIRE MESH.
⑥ 1.25" CONDUIT FOR 2 WIRE CABLE WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM.
⑦ INSTALL 5/8" DIAMETER COPPER GROUND ROD OF 8' LENGTH.
⑧ BRICK-ONE ON EACH CORNER
⑨ GREY RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. HEAT BRAND "GR" INTO LID.

4 LIGHTNING ARRESTOR

SCALE: NONE

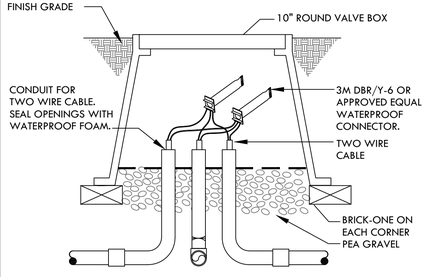
NOTE:
1. ALL DECODERS SHALL HAVE A VALVE NUMBER ADDRESSED AT CONTROLLER PRIOR TO INSTALLATION.
2. USE U.F. SAFETY CABLE STRIPPER BY KING INNOVATION (MODEL NUMBER 46200) FOR ALL TWO-WIRE SPLICE CONNECTIONS.



① #14AWG TWO WIRE CABLE FROM CONTROLLER. REFER TO IRRIGATION NOTES FOR MODEL NUMBER OF WIRE. ALLOW A 24" SLACK PER DECODER. USE ELECTRICAL TAPE TO HOLD SLACK CABLES TOGETHER.
② TWO WIRE CABLE TO NEXT DECODER
③ 3M DBR/Y-6 OR APPROVED EQUAL WATERPROOF SPLICE KIT (4 TOTAL)
④ A MAXIMUM OF 4" OF WIRE SHALL BE STRIPPED FROM TWO WIRE CABLE WHEN SPLICING AT DECODERS.
⑤ CONNECT CORRECT DECODER WIRES TO TWO WIRE CABLES.
⑥ DECODER
⑦ CONNECT CORRECT DECODER WIRES TO VALVE SOLENOID WIRES
⑧ VALVE BOX. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS.
⑨ REMOTE CONTROL VALVE. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS.
⑩ 1.25" CONDUIT FOR 2 WIRE CABLE WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROFF FOAM.
⑪ BRICK-ONE ON EACH CORNER

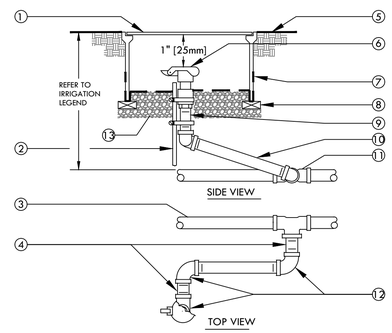
5 DECODER WIRING IN CONDUIT

SCALE: NONE



6 2-WIRE SPLICE BOX AT MAIN LINE TEE OR 3 WAY WIRE BRANCH

SCALE: NONE

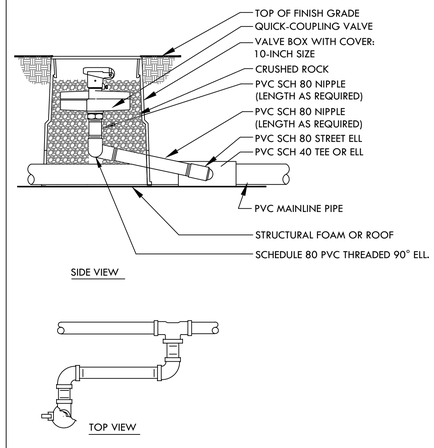


① 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID.
② 1 1/4" x 1 1/4" x 3/16" [30mm x 30mm x 5mm] ANGLE IRON 30" [760mm] LONG W/2 STAINLESS STEEL STRAPS (ONE AROUND QCV).
③ PVC MAIN LINE.
④ 3" [75mm] LONG SCHEDULE 80 PVC THREADED NIPPLE.
⑤ FINISH GRADE.
⑥ QUICK COUPLING VALVE.
⑦ 19 GAUGE 1/2" [13mm] SQUARE WIRE MESH.
⑧ BRICK - 2 TOTAL.
⑨ SCHEDULE 80 PVC THREADED NIPPLE.
⑩ 10" [250mm] LONG SCHEDULE 80 PVC THREADED NIPPLE.
⑪ UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW.
⑫ SCHEDULE 80 PVC THREADED 90° ELL.
⑬ PEA GRAVEL OR 3/4" DRAIN ROCK- 4" [100mm] DEEP BELOW VALVE (NO SOIL IN VALVE BOX).

NOTE:
NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE.

7 QUICK COUPLING VALVE

SCALE: NONE



NOTE:
1. NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE.
2. TRIM VALVE BOX LENGTH AS NECESSARY TO BE FLUSH WITH TOP OF PLANTING TILES.
3. IF NECESSARY SLOT SIDES VALVE BOX TO ALLOW PASSAGE OF PIPE THROUGH BOTTOM OF VALVE BOX.

8 QUICK COUPLING VALVE-ON STRUCTURE

SCALE: NONE

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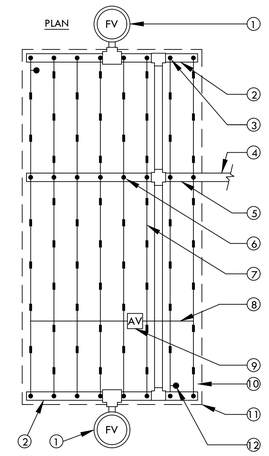
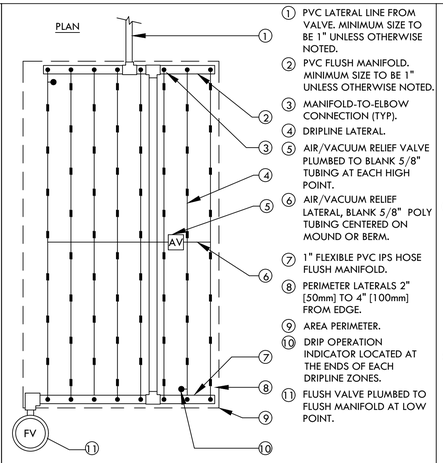
IRRIGATION DETAIL

I1.4



NOTE:
1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

1 HLD DRIPLINE CENTER FEED LAYOUT
SCALE: NONE



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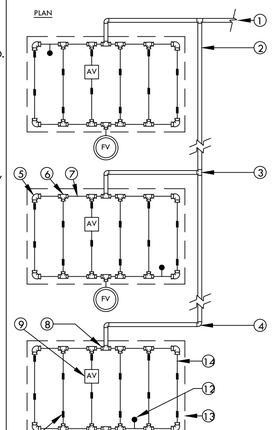
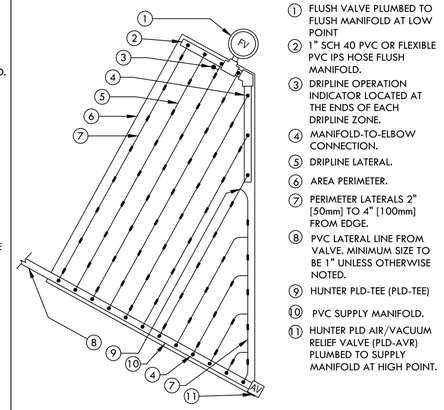
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

2 HLD DRIPLINE END FEED LAYOUT
SCALE: NONE



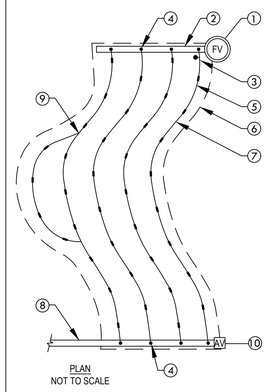
NOTE:
1. THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

3 HLD DRIPLINE ISLAND LAYOUT
SCALE: NONE



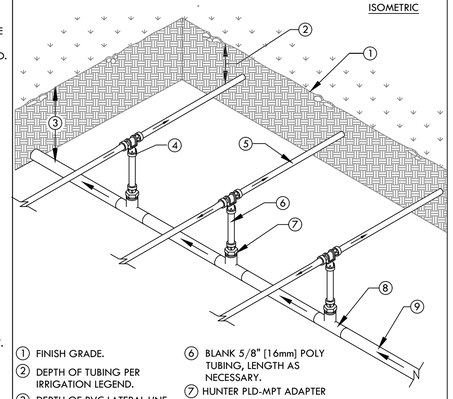
NOTE:
1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

4 HLD DRIPLINE TRIANGULAR LAYOUT
SCALE: NONE



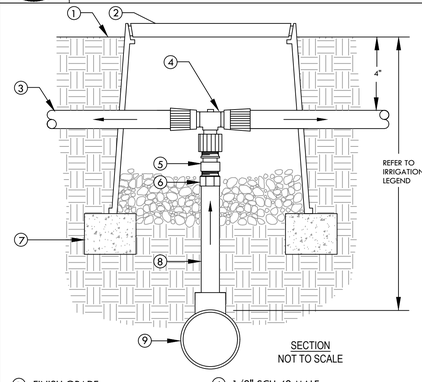
NOTE:
1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

5 HLD DRIPLINE ODD CURVE LAYOUT
SCALE: NONE

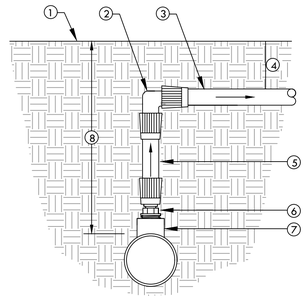


NOTE:
THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 300 FT.

6 HLD DRIPLINE CENTER FEED MANIFOLD
SCALE: NONE



7 DRIPLINE TO PVC CONNECTION
SCALE: NONE



8 DRIPLINE MANIFOLD TO ELBOW CONNECTION
SCALE: NONE

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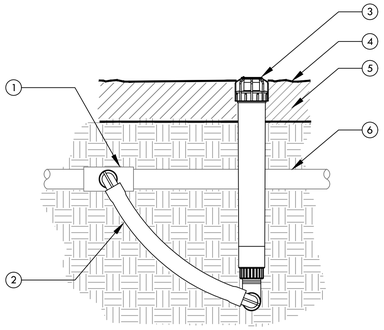
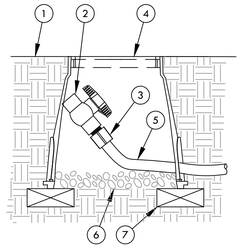
IRRIGATION DETAIL

I1.5



1. UPC APPROVED SCHEDULE 40 PVC TEE, ELBOW OR BARB x THREAD DRIP FITTING TEE OR ELBOW WITH 3/4" OUTLET.
2. 1/2" X 3/4" X 6" HUNTER SWING JOINT (SJ-7506)
3. ECO INDICATOR
4. FINISHED GRADE
5. MULCH
6. PVC LATERAL PIPE OR DRIPLINE

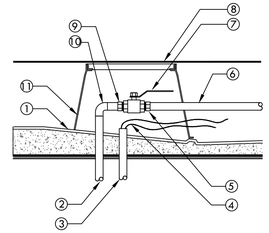
1 DRIPLINE OPERATION INDICATOR
SCALE: NONE



NOTE:
ALLOW A MINIMUM OF PVC HOSE IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

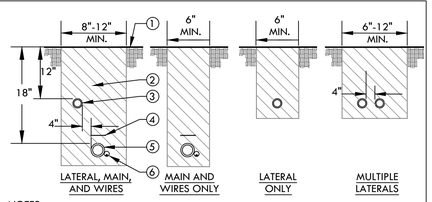
1. FINISH GRADE
2. 1/2" SCH 40 THREADED BALL VALVE.
3. 1/2" SCH 40 MALE ADAPTER.
4. 6" ROUND PLASTIC VALVE BOX.
5. 1" IPS PVC HOSE FROM EXHAUST HEADER.
6. PEA GRAVEL SUMP (6" DEEP).
7. BRICK (1 OF 2)

2 DRIPLINE-FLUSH POINT
SCALE: NONE



1. SLOPED ROOF BELOW PEDESTAL SYSTEM
2. COPPER PIPE THROUGH STRUCTURE PROVIDED BY PLUMBING CONTRACTOR. WATERPROOF ALL PENETRATIONS.
3. CONDUIT FOR CONTROL WIRES THROUGH STRUCTURE PROVIDED BY ELECTRICAL CONTRACTOR. WATERPROOF ALL PENETRATIONS
4. TWO-WIRE CABLE OR CONTROL WIRES
5. SCH 40 PVC MALE ADAPTER.
6. PVC MAIN LINE TO REMOTE CONTROL VALVES.
7. BRONZE BALL VALVE.
8. ROOF DECK PAVERS
9. COPPER MALE ADAPTER.
10. COPPER 90° ELBOW.
11. 10" ROUND PLASTIC VALVE BOX. CUT BOX TO FIT BELOW PEDESTAL PAVER SYSTEM

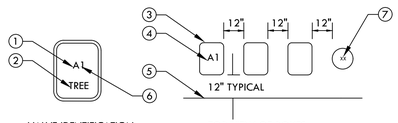
3 ON STRUCTURE STUB-OUT WITH BRONZE BALL VALVE
SCALE: NONE



NOTES:
1. ALL MAIN SUPPLY LINES AND LATERAL LINES SHALL BE PLACED IN SLEEVES UNDER PAVED SURFACES. INSTALL LOW VOLTAGE WIRES WITHIN A SEPARATE CONDUIT UNDER PAVED SURFACES. DO NOT TAPE WIRES WITHIN CONDUIT.
2. REUSE SALVAGED EXCAVATED FILL AND COMPACT TO ORIGINAL DENSITY IN LANDSCAPE AREAS. ALL OTHER AREAS SHALL BE AT 95% COMPACTION. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCHES, FREE FROM ROCKS (ANYTHING LARGER THAN 2"), CONCRETE CHUNKS, AND OTHER FOREIGN OR COARSE MATERIALS.
3. WHEN 12" POP-UP SPRINKLER HEADS ARE USED, INCREASE THE DEPTH OF LATERAL TO 18" AT THE SPRINKLER LOCATION ONLY.

1. FINISH GRADE.
2. CLEAN BACKFILL MATERIAL.
3. LATERAL LINE.
4. 3" DETECTABLE WARNING TAPE OVER MAIN LINE. INSTALL 3" ABOVE MAIN LINE. USE CHRISTY MODEL #TA-DT-3-BIRR FOR POTABLE IRRIGATION SYSTEMS OR #TA-DT-3-PRW FOR RECYCLED IRRIGATION WATER SYSTEMS
5. MAIN LINE.
6. TWO WIRE CABLE IN CONDUIT

4 TRENCHING
SCALE: NONE



VALVE IDENTIFICATION

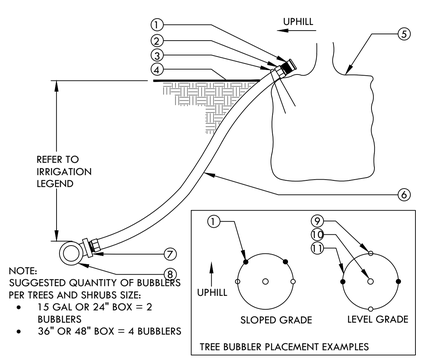
1. CONTROLLER ID.
2. ALL TREE VALVES TO HAVE TREE BRANDED INTO LID.
3. RECTANGULAR VALVE BOX.
4. HEAT BRAND VALVE TYPE PER TABLE OR CONTROLLER ID AND STATION NUMBER INTO LID.
5. EDGE OF LAWN, WALK, FENCE, CURB, ETC.
6. STATION NUMBER.
7. ROUND VALVE BOX FOR QCV AND GATE VALVE. HEAT BRAND VALVE TYPE INTO INTO LID PER TABLE.

TOP VIEW OF BOXES

ITEMS TO BRAND:	BRAND CODE
GATE VALVE	GV
PRESSURE REDUCER	PRV
MASTER VALVE	MV
FLOW SENSOR	FS
HYDROMETER	HM
MAIN LINE AIR RELIEF	ARV
REMOTE CONTROL VALVE	A___
QUICK COUPLER	QC
SPLICE BOX	SB
PULL BOX	PB
LIGHTNING ARRESTOR	LA
GROUND ROD	GR

INSTRUCTIONS:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.

5 VALVE BOX INSTALLATION
SCALE: NONE



NOTE:
SUGGESTED QUANTITY OF BUBBLERS PER TREES AND SHRUBS SIZE:
- 15 GAL OR 24" BOX = 2 BUBBLERS
- 36" OR 48" BOX = 4 BUBBLERS

TREE BUBBLER PLACEMENT EXAMPLES

1. BUBBLER (TO BE INSTALLED ON TOP OF ROOTBALL).
2. 1/2" SCH. 40 MALE ADAPTER (2 TOTAL).
3. 6" STAPLE.
4. FINISH GRADE.
5. TREE OR SHRUB ROOTBALL.
6. 1/2" IPS FLEXIBLE PVC. USE WELD-ON 795 SOLVENT CEMENT OR EQUAL WHEN BONDING PVC HOSE TO FITTINGS.
7. PVC TEE (SST), ELBOW (ST) OR FEMALE ADAPTER.
8. PVC LATERAL LINE.
9. TREE STAKES.
10. TREE.
11. EDGE OF ROOTBALL (TYPICAL).

6 TREE BUBBLER
SCALE: NONE

WATER USE ESTIMATION

WATER TYPE	POTABLE
SITE ETO=	39.7

REGULAR LANDSCAPE AREAS

HYDROZONE #	HYDROZONE NAME	PLANT WATER USE TYPE	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY	ETAF (PF/IE)	AREA (SQ. FT) (HA)	ETAF X AREA (HA)	ETWU (GAL/YR)	ACRE FEET/ YEAR	HCF/ YEAR	PERCENTAGE OF LANDSCAPE
GROUND LEVEL	GC/SHRUBS	LOW	0.3	DRIP	0.81	0.370	1,692	627	15,425	0.05	20.62	53%
ROOF	GC/SHRUBS	LOW	0.3	DRIP	0.81	0.370	1,008	373	9,189	0.03	12.29	32%
TREES	TREES	MOD	0.5	BUBBLER	0.81	0.617	480	296	7,293	0.02	9.75	15%
					TOTALS		3,180	1,296	31,907	0.10	42.66	100%

SPECIAL LANDSCAPE AREAS

HYDROZONE #	HYDROZONE NAME											
3						1	0					0%
						TOTALS	0					0%

MAWA	GALLONS/YR	35,223
	ACRE FEET/YR	0.11
	HCF/YR	47.09
ETWU	GALLONS/YR	31,907
	ACRE FEET/YR	0.10
	HCF/YR	42.66

MAWA FORMULA
MAXIMUM APPLIED WATER ALLOWANCE (MAWA) GALLONS PER YEAR
MAWA = (ETo)(0.62)[(LA x 0.45) + (0.55 x SLA)]
ETo = REFERENCE EVAPOTRANSPIRATION
0.55= ET ADJUSTMENT FACTOR
LA=LANDSCAPED AREA (SQUARE FEET)
0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)

ETWU FORMULA
ESTIMATED TOTAL WATER USE (ETWU) GALLONS PER YEAR
ETWU= ((ETO)(.62)(ETAF x LA))
ETo = REFERENCE EVAPOTRANSPIRATION
PF = PLANT FACTOR FOR HYDROZONES
HA = HYDROZONE AREA (SQ.FT)
0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)
IE = IRRIGATION EFFICIENCY (0.81)-BUBBLER/DRIP
IE = IRRIGATION EFFICIENCY (0.75)-ROTORS/SPRAY

SITE IRRIGATION EFFICIENCY	SITE PLANT FACTOR	MAWA COMPLIANT
81.0%	0.33	YES

ETAF Calculations	
REGULAR LANDSCAPE AREAS	
TOTAL ETAF x AREA	1,296
TOTAL AREA	3,180
AVG. ETAF	40.76%

TRACHTENBERG ARCHITECTS

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3000 SHATTUCK

3000 Shattuck Ave
Berkeley, CA

03.09.2021 REVISED BASE PLANS
07.08.2022 ZONING INCOMPLETE RESPONSE
01.06.2023 DESIGN REVIEW SUBMITTAL
05.01.2023 RESPONSE TO DESIGN REVIEW

ALL DRAWINGS AND WRITTEN MATERIAL APPEARING HEREIN CONSTITUTE ORIGINAL AND UNPUBLISHED WORK OF THE ARCHITECT AND MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT WRITTEN CONSENT OF TRACHTENBERG ARCHITECTS.

JOB: 2104

SHEET:

IRRIGATION DETAIL

I1.6

Attachment 1
Exhibit C

Voluminous Attachment

Revised Addendum to the Initial Study-Negative Declaration

Attachment 1, Exhibit C to this report is on file and available for review at the City Clerk Department, or can be accessed from the City of Berkeley Website.

City Clerk Department
2180 Milvia Street
Berkeley, CA 94704
(510) 981-6900

or from:

The City of Berkeley's Website
http://www.berkeleyca.gov

Attachment 2

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CITY OF BERKELEY - CITY CLERK
2023 MAY 25 AM 11:40

Via Email

May 19, 2023

City Clerk Department
Attn: Mark Numainville, City Clerk
City of Berkeley
2180 Milvia Street, 1st Floor
Berkeley, CA 94704
clerk@cityofberkeley.info

Re: Appeal of Zoning Adjustments Board Approval of the Addendum to the 2018 Initial Study-Negative Declaration for the 3000 Shattuck Avenue Project (State Clearinghouse # 2017062025) (Administrative Use Permit # ZP2022-0046)

Dear Mr. Numainville:

I am writing on behalf of the Laborers International Union of North America, Local Union 304 and its members living in the City of Berkeley ("LiUNA"), regarding the project known as 3000 Shattuck Avenue (Administrative Use Permit # ZP2022-0046), including all actions related or referring to the proposed development of a 10-story (114 feet) mixed-use building utilizing a Density Bonus, with 166 dwellings, including 17 Very Low-Income units, and 1,043 square-feet of commercial space, located at 3000 Shattuck Avenue in the City of Berkeley, California (the "Project").

The Project was approved by the Zoning Adjustments Board ("ZAB") at a public hearing on May 11, 2023. LiUNA wishes to appeal the ZAB's approval to the City Council for further review pursuant to Berkeley Municipal Code Section 23.410.030. LiUNA is concerned by the City's improper use of an Addendum which, if approved, would violate the California Environmental Quality Act ("CEQA"). This letter incorporates by reference and adopts in their entirety the May 5, 2023 letter and exhibits submitted by LiUNA (attached as **Exhibit A**) and the May 9, 2023 letter and exhibits submitted by East Bay Residents for Responsible Development (attached as **Exhibit B**).

In November 2018, the City approved the Project and adopted an Initial Study and Negative Declaration ("2018 IS-ND") for a prior iteration of the Project, which included 44 units and was 5 stories high ("2018 Project"). Now, the City has approved an Addendum to allow the development of a 10-story building with 166 units ("2023 Project"). The 2018 IS-ND did not consider the significant environmental impacts that would result from the increased scale of the new Project nor did it consider new information of substantial importance which LiUNA and

others have presented regarding the Project's significant environmental effects.

The use of an Addendum here is improper under CEQA. CEQA prohibits the use of an addendum if a revised Project may have one or more significant impacts that were not discussed in the originating negative declaration. To comply with CEQA, the City should prepare either a mitigated negative declaration ("MND") or an environmental impact report ("EIR") to properly analyze and mitigate the impacts of the proposed Project. LiUNA is specifically concerned by the following issues related to the Project:

1. **Indoor air quality:** Interior composite wood materials will off-gas indoor air emissions of formaldehyde, a known human carcinogen, resulting in significant health risks to future residents. Neither the Addendum nor the 2018 IS-ND have considered or mitigated this significant impact. Therefore, this issue must be addressed by an MND or an EIR.

2. **Hazardous materials:** The Project site is listed on the State Water Resources Control Board's Geotracker database and is therefore included on a Cortese List pursuant to California Government Code Section 65962.5. The Addendum states that the site's cleanup case is "closed." However, the site was closed because it met commercial/industrial screening levels, a determination which was based on the assumption that the land use at the site would remain unchanged from its current use as a gas station. The site has not been independently determined to meet environmental safety levels for residential development. This is a previously undisclosed significant impact which must be addressed by an MND or an EIR.

3. **ROG emissions:** The Project may result in potentially significant Reactive Organic Gas ("ROG") emissions which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold of significance. These impacts were not considered by the 2018 IS-ND and thus constitute a significant impact which must be addressed by an MND or an EIR.

4. **Construction and demolition emissions:** The Addendum underestimates the Project's air emissions by inexplicably altering the estimated length of Project construction times and failing to account for emissions from the Project's demolition activities. These significant omissions are not supported by substantial evidence and must be addressed by an MND or an EIR.

5. **Trucking emissions:** The Addendum and the 2018 IS-ND fail to analyze or disclose the potentially significant air quality impacts that will result from the trucking of modular units to the Project site. This is a significant air quality impact which must be addressed by an MND or an EIR.

6. **Detriment to the General Welfare:** Pursuant to Berkeley Municipal Code Section 22.20.020(F):

> development projects create individual and cumulative impacts, including changes in, and in many cases deterioration of, the visual environment; an increase in noise, air and water pollution levels; new and increased traffic and parking impacts; power, sewer and other utility demand and consumption; loss of valuable open space; and increased demands on parks, schools, libraries, police, fire and public facilities, services and amenities;...

When such impacts are not mitigated, Municipal Code Section 22.20.020(G) goes on to state that these and other "impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare...." Here, the Addendum violates the Municipal Code because it fails to mitigate the Project's detrimental impacts to air quality.

CONCLUSION

The use of an Addendum to approve the proposed Project violates CEQA. An Addendum is not appropriate "if the proposed modification may produce a significant environmental effect that had not previously been studied." (*Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.

Based on the foregoing, there is a fair argument that the Project will have numerous significant environmental impacts which have not been previously considered. These impacts were not adequately analyzed or mitigated by the Addendum nor by the 2018 IS-ND.

LiUNA therefore respectfully requests that the City Council grant its appeal and overturn the ZAB's approval of the Addendum. Thereafter, the City should return the Project to the Planning and Development Department for further consideration of its environmental impacts, including the necessary preparation and public review of either an MND or an EIR.

Sincerely,

Adam Frankel
LOZEAU | DRURY LLP

EXHIBIT A

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Via Email

May 5, 2023

Land Use Planning Division
Attn: Samantha Updegrave (Zoning Adjustments Board Secretary)
1947 Center Street, 2nd Floor
Berkeley, CA 94704
zab@cityofberkeley.info

Re: Proposed Addendum to the 2018 Initial Study-Negative Declaration for the 3000 Shattuck Avenue Project (State Clearinghouse # 2017062025) (Administrative Use Permit # ZP2022-0046) (Zoning Adjustments Board, Meeting of May 11, 2023, Agenda Item No. 5)

Dear Honorable Members of the Zoning Adjustments Board:

I am writing on behalf of the Laborers International Union of North America, Local Union 304 and its members living in the City of Berkeley ("LiUNA"), regarding the project known as 3000 Shattuck Avenue (Administrative Use Permit # ZP2022-0046), including all actions related or referring to the proposed development of a 10-story (114 feet) mixed-use building utilizing a Density Bonus, with 166 dwellings, including 17 Very Low-Income units, and 1,043 square-feet of commercial space, located at 3000 Shattuck Avenue in the City of Berkeley, California (the "Project").

LiUNA is concerned by the City's improper use of an Addendum which, if approved, would violate the California Environmental Quality Act ("CEQA"). In November 2018, the City approved the Project and adopted an Initial Study and Negative Declaration ("2018 IS-ND") for a prior iteration of the Project, which included 44 units and was 5 stories high ("2018 Project"). Now, the City proposes an Addendum to allow the development of a 10-story building with 166 units ("2023 Project"). The 2018 IS-ND did not consider the significant environmental impacts that would result from the increased scale of the new Project nor did it consider new information of substantial importance which LiUNA has presented regarding the Project's significant environmental effects.

The use of an Addendum here is improper under CEQA. CEQA prohibits the use of an addendum if a revised Project may have one or more significant impacts that were not discussed in the originating negative declaration. To comply with CEQA, the City should prepare either a

mitigated negative declaration ("MND") or an environmental impact report ("EIR") to properly analyze and mitigate the impacts of the proposed Project.

LEGAL REVIEW OF CEQA ADDENDUM

a. The Addendum Disregards Established Legal Precedent and Violates CEQA

A CEQA addendum must adhere to the courts' guidance informing when, and under what circumstances, its use is legally permissible. The courts have established a detailed, two-step inquiry for reviewing legal challenges to a CEQA addendum. This deliberative process is outlined in two important court decisions arising from the same case, *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016). The first decision was issued by the California Supreme Court and will be referred to here as "*San Mateo Gardens I.*"[1] A subsequent decision in the same case was issued by the Court of Appeal and will be referred to here as "*San Mateo Gardens II.*"[2]

The first step in this two-step analysis is for the reviewing court to determine whether **substantial evidence** supports the lead agency's determination that the original CEQA document, in this case the 2018 IS-ND, "retains some informational value." (*San Mateo Gardens I* at p. 952.) If the court finds that the original document "retains some informational value," it must hold that CEQA's subsequent review provisions apply (*San Mateo Gardens II* at 604-605.)

But this determination is "only the first step" in the court's analysis. (*San Mateo Gardens I* at 956.) "[T]he next—and critical—step is to determine whether the agency has properly determined how to comply with its obligations under those provisions." (*San Mateo Gardens I* at 953.) "[W]hen a project is initially approved by negative declaration, a "major revision" to the initial negative declaration will necessarily be required if the proposed modification *may* produce a significant environmental effect that had not previously been studied. (San Mateo Gardens I, 1 Cal. 5th 937, 958, citing CEQA Guidelines, § 15162.) "Indeed, if the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR." (*Id.*)

The *San Mateo Gardens II* opinion helpfully outlines the analysis required during this second stage of review:

> [O]nce we have determined that the [CEQA] subsequent review provisions apply to a project approved through a negative declaration, **our application of the standard of review changes and is *less deferential to the agency.*** It is less deferential because a negative declaration requires a major revision—i.e., a subsequent EIR or mitigated negative declaration—whenever there is substantial evidence to support a fair argument that proposed changes 'might have a significant environmental impact not previously

[1] 1 Cal.5th 937 (2016).
[2] 11 Cal.App.5th 596 (2017).

> considered in connection with the project as originally approved.' (quoting *San Mateo Gardens I* at 959 [additional citations omitted].)
>
> Proposed changes might have a significant environmental impact when there is some competent evidence to suggest such an impact, even if other evidence suggests otherwise. (See *Friends of "B" Street* (1980) 106 Cal.App.3d 988, 1002.) This means that an agency's determination that a major revision to a negative declaration is not required will necessarily lack substantial evidence when **a fair argument exists that the project might have a previously unstudied significant environmental impact.** (*San Mateo Gardens II* at 607-608 [emph. added].)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors,* 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in their decision making. Ordinarily, public agencies weigh the evidence in the record and reach a decision based on a preponderance of the evidence. [Citation]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact.

(Kostka & Zischke, *Practice Under the California Environmental Quality Act*, §6.37 (2d ed. Cal. CEB 2021).) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with *a preference for resolving doubts in favor of environmental review.*" (*Pocket Protectors*, 124 Cal.App.4th at 928 (emphasis in original).)

In proposing the Addendum, the City seeks to make substantial revisions to the 2018 Project without performing a legally sufficient environmental review or offering appropriate mitigation for the Project's potentially significant environmental effects. The expert evidence which LiUNA presents today constitutes substantial evidence of a fair argument that the expanded Project will have significant environmental effects which the Addendum has not adequately addressed. Therefore, to comply with CEQA, the City should refrain from approving the Addendum and undertake the necessary efforts to prepare an MND or EIR for the Project.

DISCUSSION

I. The Project Will Have Significant Indoor Air Quality Impacts.

Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, has conducted a review of the proposed Project and relevant documents regarding the Project's indoor air emissions. Mr. Offermann concludes that the Project will likely expose future residents of the Project to significant impacts related to indoor air quality, and in particular, emissions of the cancer-causing chemical formaldehyde. Mr. Offermann is a leading expert on indoor air quality and has published extensively on the topic. Mr. Offermann's expert comments and CV are attached as **Exhibit A**.

Mr. Offermann explains that many composite wood products used in building materials and furnishings commonly found in offices, warehouses, residences, and hotels contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states that "[t]he primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. A., pp. 2-3.)

Formaldehyde is a known human carcinogen. Mr. Offermann estimates that future residents of the Project would be exposed to a cancer risk of 120 per million. (Ex. A., p. 4.) This calculation assumes that all materials would be compliant with the California Air Resources Board's ("CARB") Phase 2 formaldehyde airborne toxics control measure ("Phase 2 Formaldehyde ATCM"). (*Id.*, p. 3.) These potential exposure levels exceed the Bay Area Air Quality Management District's ("BAAQMD") CEQA significance threshold for airborne cancer risks of 10 per million. (*Id.*, p. 2.)

Mr. Offermann concludes that these significant environmental impacts should be analyzed in an MND or EIR and that mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (*Id.*, p. 5.) Mr. Offermann identifies mitigation measures that are available to reduce these significant health risks, including the installation of air filters and a requirement that the Applicant use only composite wood materials (e.g., hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins, or ultra-low emitting formaldehyde (ULEF) resins, for all of the buildings' interior spaces. (*Id.*, pp. 11-13.)

Mr. Offermann's comments constitute new information of substantial importance related to the presence of a significant environmental effect which was not discussed by the 2018 IS-ND. Furthermore, they provide substantial evidence of a fair argument that the Project will likely cause significant impacts on human health and indoor air quality. The City must therefore prepare an MND or an EIR to fully evaluate and mitigate these likely impacts to future Project residents.

II. The Increased Size and Height of the Project May Cause Significant Noise Impacts on the Adjacent Residents.

The Addendum asserts that noise impacts from the expanded Project would be less than significant. However, it provides no quantified analysis of the Project's noise impacts to support this assertion. This is a clear oversight. For instance, the significantly increased height of the expanded building will likely require the use of larger construction equipment which may generate more significant noise impacts than would have resulted from construction of the original project. Additionally, operational noise impacts will be distinct from those of the original project because of the building's increased height and the differing angles from which sound will travel to surrounding receptors. The City must prepare an EIR or an MND to fully evaluate the Project's noise impacts and analyze if, and to what extent, these impacts will be greater than those that would have been generated by the original project.

III. The Project's Additional Height May Have Significant Visual Impacts From its Increased Shadow Effects.

The Addendum concedes that "the modified Project could result in potentially greater impacts associated with the increased building height." (Addendum, p. 12.) These potential impacts would be especially significant for the surrounding residences which will experience increased shadow effects from the building's significantly increased height, which itself is much higher than any of the area's surrounding structures. Appendix G of the CEQA Guidelines asks whether a Project would "[s]ubstantially degrade the existing visual character or quality of the site and its surroundings." (CEQA Guidelines, Appen. G, § I, subd. (d).) Here, there is substantial evidence of a fair argument that a Project may have significant aesthetic impacts, thus requiring the preparation of either an MND or an EIR. (*Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 938.)

CONCLUSION

The use of an Addendum to approve the proposed Project violates CEQA. An Addendum is not appropriate "if the proposed modification may produce a significant environmental effect that had not previously been studied" (*San Mateo Gardens*, 1 Cal.5th at 958). Based on the foregoing, there is a fair argument that the Project will have significant health and indoor air quality impacts which have not been previously considered, and that it may have significant noise and aesthetic impacts. These impacts were not adequately analyzed or mitigated by the Addendum.

LiUNA therefore respectfully requests that the Zoning Adjustments Board refrain from taking any action on the Project and instead return the Project to the Planning and Development Department for further consideration of its environmental impacts, including the necessary preparation and public review of either an MND or an EIR.

Sincerely,

Adam Frankel
LOZEAU | DRURY LLP

EXHIBIT A

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Date: April 26, 2023

To: Michael Lozeau
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: 3000 Shattuck Avenue Project, Berkeley, CA
(IEE File Reference: P-4704)

Pages: 19

Indoor Air Quality Impacts

NOTE: This Indoor Air Quality letter contains similar comments as the letter I wrote for 2900-2920 Shattuck Avenue Project, but is specific for a separate adjacent project, 3000 Shattuck Avenue Project.

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek.

Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Bay Area Air Quality Management District (BAAQMD, 2017).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment

(OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 $\mu g/m^3$ to 28% for the Acute REL of 55 $\mu g/m^3$.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood

products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to 3000 Shattuck Avenue Project, Berkeley, CA, the buildings consist of residential spaces and commercial spaces.

The residential occupants will potentially have continuous exposure (e.g. 24 hours per day, 52 weeks per year). These exposures are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residential construction.

Because these residences will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor residential formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020).

Assuming that the residential occupants inhale 20 m^3 of air per day, the average 70-year lifetime formaldehyde daily dose is 482 µg/day for continuous exposure in the residences. This exposure represents a cancer risk of 120 per million, which is more than 12 times the CEQA cancer risk of 10 per million. For occupants that do not have continuous exposure, the cancer risk will be proportionally less but still substantially over the CEQA cancer risk of 10 per million (e.g. for 12/hour/day occupancy, more than 6 times the CEQA cancer risk of 10 per million).

The employees of the commercial spaces are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because the commercial spaces will be constructed with CARB Phase 2 Formaldehyde

ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the employees of commercial spaces work 8 hours per day and inhale 20 m^3 of air per day, the formaldehyde dose per work-day at the offices is 161 μg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 μg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 μg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

In addition, we note that the average outdoor air concentration of formaldehyde in California is 3 ppb, or 3.7 $\mu g/m^3$, (California Air Resources Board, 2004), and thus represents an average pre-existing background airborne cancer risk of 1.85 per million. Thus, the indoor air formaldehyde exposures describe above exacerbate this pre-existing risk resulting from outdoor air formaldehyde exposures.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of

formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each

ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the

maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., $\mu g/m^2$-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 $\mu g/m^2$-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 $\mu g/m^2$-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. $\mu g/h$) from the individual formaldehyde emission

rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration ($\mu g/m^3$) from Equation 1 by dividing the total formaldehyde emission rates (i.e. $\mu g/h$) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration ($\mu g/m^3$)

E_{total} = total formaldehyde emission rate ($\mu g/h$) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In

the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

According to the Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (City of Berkeley, 2023), the Project is close to roads with moderate to high traffic (e.g., Shattuck Avenue, Adeline Street, Ashby Avenue, Russell Street, Newbury Street etc.). As a result the Project site is a sound impacted site.

According to the Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (City of Berkeley, 2023), no assessment of the ambient noise levels resulting from the local traffic has been conducted. In order to design the building for this Project such that interior noise levels are acceptable, an acoustic study with actual on site measurements of the existing ambient noise levels and modeled future ambient noise levels needs to be conducted. The acoustic study of the existing ambient noise levels should be conducted over a one-week period and report the dBA CNEL or Ldn. This study will allow for the selection of a building envelope and windows with a sufficient STC such that the indoor noise levels are acceptable. A mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors will also be required. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of $PM_{2.5}$. According to the Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative

Declaration (City of Berkeley, 2023), the Project is located in the San Francisco Bay Area Basin, which is a State and Federal non-attainment area for $PM_{2.5}$.

An air quality analyses should be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence concentration of 35 $\mu g/m^3$, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins

made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the

mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California"*. In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality*" when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California

Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry,

could be used without causing indoor formaldehyde concentrations that result in CEQA cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

EXHIBIT B

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May 9, 2023

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Igor Tregub, Member
Michael Thompson, Member
Holly Scheider, Member
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Re: Comments on Agenda Item 5: 3000 Shattuck Avenue Project Addendum to the Initial Study Negative Declaration (SCH #2017062025)

Dear Chairperson Duffy, Vice Chairperson Gaffney, Members: Tregub, Thompson, Schneider, O'Keefe, Kahn, Yung, Sanderson, and Ms. Riemer:

On behalf of East Bay Residents for Responsible Development ("East Bay Residents"), we submit these comments on the Addendum to the 3000 Shattuck Avenue Project Initial Study Negative Declaration (SCH #2017062025) prepared by the City of Berkeley (the "City") for the 3000 Shattuck Avenue Project ("Project") proposed by Mark Rhoades of the Rhoades Planning Group and Khan Shazada & Farhat (collectively, "Applicant").[1] The City adopted the IS/ND ("2018 IS/ND") for the original 3000 Shattuck Avenue Project ("original project") and approved the

[1] City of Berkeley, Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (Permit No. ZP2015-0229, SCH # 2017062025) (January 2023), https://www.dropbox.com/s/kr0fme3neozjqyf/2023-01-27_CEQA_Addendum%20to%20IS-ND_3000%20Shattuck.pdf?dl=0 (hereinafter "Addendum").

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original project on November 27, 2018.[2] These comments precede the hearing of the City of Berkeley Zoning Adjustment Board ("ZAB") on May 11, 2023 at 7:00 pm.[3]

The Project consists of changes to the original project considered in the 2018 IS/ND. The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235 sf of residential space including 166 residential units, 1,095 SF of retail space, and zero parking spaces on the 0.31-acre site. Construction of the Project is anticipated to last eighteen (18) months. The Project site is located at 3000 Shattuck Avenue, Berkeley, CA 94705 (APNs 53-1592-1 & 53-1592-2). The Project site is designated as Avenue Commercial in the City's General Plan and is located in the South Area Commercial (C-SA) zoning district. The original project proposed 32,603 SF of residential uses, with 44 units including 4 affordable units. This Project proposes 80,235 SF of residential uses, with 166 units including 17 affordable units. The original project proposed the inclusion of 17 parking spaces for automobiles, this Project proposes zero parking spaces.[4]

We prepared these comments with the assistance of air quality and hazards expert Matt Hagemann and Paul Rosenfeld of Soil Water Air Protection Enterprise (SWAPE), whose technical comments and curriculum vitae are attached hereto as Exhibit A.[5] Our review of the Addendum and 2018 IS/ND demonstrates that the Project fails to comply with CEQA. As explained more fully below, the Addendum fails to accurately disclose the extent of the Project's potentially significant air quality, public health, hazardous contamination, land use, and cumulative impacts which are new or more severe than the impacts analyzed in the 2018 IS/ND. There is substantial evidence to support a fair argument that the Project will result in significant, unmitigated impacts in each of these areas. Further, the Project fails to comply with the City's General Plan and Housing Element. The City may not approve the Project until the City prepares an EIR that adequately analyzes the Project's potentially significant impacts and incorporates all feasible mitigation measures to avoid or minimize these impacts.

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[2] City of Berkeley, 3000 Shattuck Avenue Mixed Use Project Initial Study–Negative Declaration, https://www.dropbox.com/s/ui1snla3csdgpik/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0 (hereinafter "2018 IS/ND").
[3] City of Berkeley Zoning Adjustments Meeting Agenda, May 11, 2023, https://berkeleyca.gov/sites/default/files/legislative-body-meeting-agendas/2023-05-11_ZAB_Agenda_Linked.pdf.
[4] Addendum p. 3.
[5] See **Exhibit A,** Matt Hagemann, P.G., C.Hg., Paul E. Rosenfeld, Ph.D., Comments on the 3000 Shattuck Mixed-Use Project (SCH No. 2017062025) (April 10, 2023) ("SWAPE Comments").

Moreover, the City prepared the Addendum in violation of CEQA and the court's holding in *Friends of College of San Mateo Gardens v. San Mateo County Community College District.* There, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[6] Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[7] Here, the changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the MND based on new significant environmental effects thus requiring preparation of an Environmental Impact Report ("EIR") if the impacts cannot be mitigated. Substantial evidence supports a fair argument that the Project's potentially significant impacts cannot be adequately mitigated by the measures proposed in the Addendum and 2018 IS/ND.

For the reasons discussed herein, and in the attached expert comments, East Bay Residents urges the City to remedy the deficiencies in the Addendum by preparing a legally adequate EIR and circulating it for public review and comment.[8] East Bay Residents and their expert consultants have identified numerous potentially significant impacts that the Addendum either mischaracterizes, underestimates, or fails to identify.

I. STATEMENT OF INTEREST

East Bay Residents for Responsible Development ("ERRBD" or "Residents") is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential impacts associated with Project development. The association includes the UA Plumbers and Pipefitters Local 342, International Brotherhood of Electrical Workers Local 595, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, and their members and their families who live and/or work in the City of Berkeley and Alameda County.

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[6] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2022) 11 Cal.App.5th 596, 600.

[7] CEQA Guidelines, § 15164, subd. (b).

[8] We reserve the right to supplement these comments at later hearings on this Project. Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199–1203; *see Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

The individual members of EBRRD live, work, and raise their families in the City and in Alameda County. They would be directly affected by the Project's impacts. Individual members may also work on the Project itself. They will therefore be first in line to be exposed to any health and safety hazards that may exist on the Project site.

The organizational members of EBRRD also have an interest in enforcing the City's planning and zoning laws and the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there. Indeed, continued degradation can, and has, caused restrictions on growth that reduce future employment opportunities. Finally, Residents' members are concerned about projects that are built without providing opportunities to improve local recruitment, apprenticeship training, and retention of skilled workforces, and without providing lifesaving healthcare expenditures for the construction workforce.

II. LEGAL BACKGROUND

CEQA is designed to inform decision-makers and the public about the potential, significant environmental effects of a project.[9] "CEQA's fundamental goal [is] fostering informed decision-making."[10] "The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind."[11]

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR, except in certain limited circumstances.[12] The EIR is the very heart of CEQA.[13] The EIR acts like an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return."[14] The EIR aids an agency in identifying, analyzing, disclosing, and, to the extent possible, avoiding a project's significant environmental effects through implementing feasible

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[9] 14 Cal. Code Regs. ("CEQA Guidelines") § 15002, subd. (a)(1).
[10] *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 402.
[11] *Bozung v. LAFCO* (1975) 13 Cal.3d 263, 283.
[12] See, e.g., Pub. Resources Code, § 21100.
[13] *Dunn-Edwards v. Bay Area Air Quality Management Dist.* (1992) 9 Cal.App.4th 644, 652.
[14] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1220.

mitigation measures.[15] The EIR also serves "to demonstrate to an apprehensive citizenry that the [agency] has analyzed and considered the ecological implications of its action."[16] Thus, an EIR "protects not only the environment but also informed self-government."[17]

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment."[18] The EIR aids an agency in identifying, analyzing, disclosing, and, to the extent possible, avoiding a project's significant environmental effects through implementing feasible mitigation measures.[19] In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact. Because "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process" by allowing the agency to dispense with the duty to prepare an EIR, negative declarations are allowed only in cases where there is not even a "fair argument" that the project will have a significant environmental effect.[20]

Under the fair argument standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[21] The phrase "significant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[22] In certain circumstances, a project with potentially significant impacts can be modified by the adoption of mitigation measures to reduce the impacts to a level of insignificance. In such cases, an agency may satisfy its CEQA obligation by preparing a mitigated

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[15] Pub. Resources Code § 21002.1(a); CEQA Guidelines § 15002(a), (f).
[16] *No Oil, Inc. v. City of Richmond* (1974) 13 Cal.3d 68, 86.
[17] *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.
[18] Pub. Resources Code, § 21080, subd. (d) (emphasis added); CEQA Guidelines, § 15064; see also *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927; *Mejia v. City of Richmond* (2005) 13 Cal.App.4th 322.
[19] Pub. Resources Code, § 21002.1, subd. (a); CEQA Guidelines, § 15002, subd. (a) & (f).
[20] *Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440; Pub. Resources Code, §§ 21100, 21064.
[21] Pub. Res. Code §§21080(d), 21082.2(d); 14 Cal. Code Reg. §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Richmond* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.
[22] Pub. Resources Code, § 21068.

negative declaration.[23] A mitigated negative declaration, however, is also subject to the fair argument standard. Thus, an MND is also inadequate, and an EIR is required, whenever substantial evidence in the record supports a "fair argument" that significant impacts may occur, even with the imposition of mitigation measures.

The "fair argument" standard is an exceptionally "low threshold" favoring environmental review in an EIR rather than a negative declaration.[24] The "fair argument" standard requires the preparation of an EIR if any substantial evidence in the record indicates that a project may have an adverse environmental effect.[25] As a matter of law, substantial evidence includes both expert and lay opinion.[26] Even if other substantial evidence supports the opposite conclusion, the agency nevertheless must prepare an EIR.[27] Under the "fair argument" test, CEQA always resolves the benefit of the doubt in favor of the public and the environment.

Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[28] "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration," and if no subsequent EIR is required, the agency "shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation." (CEQA Guidelines, § 15162, subd. (b).) Additionally, CEQA requires preparation of an EIR where "[s]ubstantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects."

Here, the changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the 2018 IS/ND based on new significant environmental effects thus requiring the preparation of a negative

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[23] Pub. Resources Code, § 21064.5; CEQA Guidelines, § 15064, subd. (f)(2).
[24] *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928.
[25] CEQA Guidelines, § 15064, subd. (f)(1); *Pocket Protectors v. City of Sacramento, supra*, 124 Cal.App.4th at 931.
[26] Pub. Resources Code, § 21080, subd. (e)(1); CEQA Guidelines, § 15064, subd. (f)(5).
[27] *Arviv Enterprises v. South Valley Area Planning Comm.* (2002) 101 Cal.App.4th 1333, 1346; *Stanislaus Audubon v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens v. City of Encinitas* (1994) 29 Cal.App.4th 1597.
[28] CEQA Guidelines, § 15164, subd. (b).

declaration at a minimum, and an EIR if the impacts cannot be mitigated. As shown below, SWAPE provided substantial evidence that ROG emissions, and construction and demolition emissions may be significant and were not analyzed or mitigated in the 2018 IS/ND.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[29] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[30]

In *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.*, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[31] In that case, the court found that the change in the Project as detailed in the Addendum was significant enough to require additional environmental review, and that an Addendum was not the appropriate CEQA document. Similarly, here, the Project's changes, including the doubling of its height, increased air quality, public health, and hazards impacts results in new significant impact such that an Addendum is inappropriate and an EIR must be prepared. The ZAB must remand the Project to Staff to prepare a legally adequate EIR for the Project, because substantial evidence supports a fair argument that the Project's changes may result in significant impacts, which have not been avoided through the revisions in the Addendum. Project impacts remain significant and unmitigated, as detailed herein.

Moreover, the ZAB lacks the evidence necessary to approve the requested Use Permit for the Project because substantial evidence demonstrates that the Project will be detrimental to the general welfare. The Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce, or that the Project will provide apprenticeship training opportunities or

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[29] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[30] *Id.* at p. 959.
[31] (2022) 11 Cal.App.5th 596.

healthcare benefits or other workforce benefits for City of Berkeley or East Bay residents. The Project may be built with low-wage, out-of-area workers who lack the livable wages, health benefits, stability, and basic standard of living that Berkeley has committed to ensuring for all of its workers on all housing developments constructed in the City. The Project would therefore be detrimental to the health, safety, peace, morals, comfort, and general welfare of the City and its residents, especially its local construction workforce who may not have the opportunity to build much-needed housing in their own community. The Project is also inconsistent with the workforce and economic requirements of the City of Berkeley General Plan ("General Plan").

The ZAB should remand the Project to Staff to prepare a legally adequate EIR and include conditions of approval requesting community benefits, including local hire provisions, workforce standards, and healthcare benefits for workers, to ensure the Project does not cause a detriment to the general welfare of the City.

III. THE PROJECT'S POTENTIALLY SIGNIFICANT HAZARDS IMPACTS REQUIRE PREPARATION OF AN EIR

The Project site is contaminated with hazardous contaminants from its historical use as a service station operated by Atlantic Richfield Company (ARCO).[32] ARCO later became an affiliate of BP and the site was operated as BP Station No. 00414 until it was sold to Mr. Shahzada Khan on February 25, 2004.[33] The Project site is listed on the State Water Resources Control Board's Geotracker database as Site T0600100094. The site is therefore on a Cortese List per Section 65962.5 of the Government Code. The Project site is currently an operational gas station and smog check location operated by Berkeley Gas & Smog. The Project site contained three underground storage tanks (USTs) that contained gasoline, and one waste oil UST.[34]

The Addendum tiers from the IS which states:

> The site is included on the list of hazardous materials sites compiled pursuant to Government Code 65962.5 (Cortese List) as "closed" cases. As

[32] Atlantic Richfield Company, Case Closure Summary Report Former British Petroleum Station #00414 City of Berkeley case #27540. 3000 Shattuck Avenue Berkeley, California (June 9, 2010), https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8836282312/T0600100094.PDF p. 2/16 (hereinafter "Case Closure Summary Report").
[33] *Id.*
[34] *Id.*

> described in the Environmental Setting, the RWQCB issued a case closure letter for the clean-up case in September 2014, concluding that the current plume is restricted to the site and does not present a current or potential risk to human health or the environment. Therefore, the project would not create a significant hazard to the public or the environment and the impact would be less than significant.[35]

The IS relies on the misleading statement that the cleanup case is "closed."[36] The Addendum then relies on the same misleading proposition. The Addendum states that "[t]here are two closed State Water Quality Control Board GeoTracker investigations on the project site (T0600100094 [closed 2013] and T10000004483 [closed 2014])."[37]

These statements are misleading because the site was closed to commercial/industrial screening levels, "based on the assumption that land use at the site will remain unchanged."[38] The Project site fails to meet the residential ESL levels necessary to place housing on the site. The site must undergo additional soil remediation to remove excess contaminants and reach acceptable residential ESLs because the site is being converted from commercial/industrial to residential use. People will live on the site, their children may play on the grounds, but the site was cleaned only to commercial/industrial screening levels. The contamination that currently remains onsite may result in health risk impacts to the residents and the community.

Moreover, the Addendum includes the Case Closure Summary Report that states that "[s]oil vapor samples have not been collected at the site."[39] The Case Closure Summary was required to include "Cumulative data tables for all soil, groundwater samples, including grab samples, and soil vapor ***must*** be included."[40] Data on soil vapor samples and cumulative data on the potential for soil vapor intrusion was not included in the Case Closure Summary, the Initial Study, or the Addendum and is not available for public review and scrutiny.

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[35] IS, https://www.dropbox.com/s/19ieh5spqqet2qb/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0, p. 23.
[36] *Id.*
[37] Addendum p. 22.
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[39] Case Closure Summary Report, p. 10/16.
[40] *Id.* at pdf 83 of 86.

At the time of the site's closure in 2010, "[a] station building [was] present at the site and the entire site [was] paved, with no exposed soil present at the ground surface."[41] Project construction here, will disrupt and expose soil, potentially exposing dangerous and previously untested levels of soil vapor. At the time of the closure, the "potential for soil vapor intrusion was evaluated by comparing current groundwater concentrations to groundwater ESLs...for the protection of the vapor intrusion pathway in a ***commercial setting***."[42] The soil vapor and potential health risk impacts have not been analyzed for a residential setting and may pose a significant risk to residents of the Project site.

The City must draft an EIR because substantial evidence supports a fair argument that hazardous contamination and soil vapor may result in a significant environmental impact. The courts have repeatedly held that an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact.[43] Here, the City cannot approve the Project based on an Addendum to the Initial Study because project modification results in potentially significant impacts from hazardous contamination and soil vapor which were unstudied at the time of preparation of the 2018 IS/ND.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[44] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[45] The City must prepare an EIR to adequately analyze and mitigate the Project's potentially significant and as yet unstudied impacts from soil vapor and hazardous contamination, before the Project can lawfully be approved.

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[41] Case Closure Summary Report, p. 10/16.
[42] *Id.*
[43] Pub. Resources Code § 21151; CEQA Guidelines § 15064(f); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* ("*CREED*") (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319 ("*CBE v. SCAQMD*").
[44] Friends of College of San Mateo Gardens v. San Mateo County Community College Dist. (2016) 1 Cal.5th 937, 958.
[45] Id. at p. 959.
6154-007j

IV. THE PROJECT RESULTS IN SIGNIFICANT AIR QUALITY IMPACTS REQUIRING PREPARATION OF AN EIR

An EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact.[46] "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[47] An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial."[48] Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact."[49] The Project may result in potentially significant impacts to air quality. Air quality impacts constitute new or increased significant environmental effects "not previously considered in connection with the project as originally approved."[50]

A. The Project Results in Significant ROG Emissions

East Bay Resident's air quality expert consultants at SWAPE found that the Project results in significant emissions from Reactive Organic Gas ("ROG") which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold. BAAQMD provides that ROG emissions shall not exceed 54 pounds per day ("lbs/day"), but the Project would result in ROG emissions of 71.55 lbs/day.[51] The 2018 IS/ND makes no mention of ROG emissions, but the Addendum states that the ROG emissions would be 3 lbs/day.[52] This conclusion is not supported by substantial evidence. SWAPE found that the changes to the Project result in a 2,285% increase in ROG emissions, far and away exceeding the BAAQMD significance threshold. Therefore, ROG emissions remain significant and the Addendum nor the 2018 IS/ND adequately mitigate such impacts. The City must prepare an EIR to satisfy CEQA.

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[46] Pub. Resources Code § 21151; CEQA Guidelines § 15064(f); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* ("*CREED*") (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319 ("*CBE v. SCAQMD*").
[47] Pub. Resources Code § 21068; CEQA Guidelines § 15382; *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1581.
[48] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.
[49] Pub. Resources Code § 21080(e)(1) (emphasis added); *CREED*, 197 Cal.App.4th at 331.
[50] *Friends of College of San Mateo Gardens v. San Mateo Community College District, supra*, 1 Cal.5th at 959.
[51] SWAPE Comments, p. 5.
[52] Addendum, p. 14.
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The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[53] Further, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[54]

East Bay Residents present substantial evidence, in these comments and in our expert comments attached, showing that the Project may result in potentially significant ROG emissions, which must be mitigated before the Project can be approved. These impacts were not considered in the prior 2018 IS/ND, and must be analyzed in an EIR. SWAPE's comments present dozens of effective mitigation measures to help reduce Project ROG, construction, and operational air emissions. Such measures should be implemented in an EIR's Mitigation Monitoring and Reporting Program. The City must prepare an EIR to study the previously unstudied and potentially significant air quality impacts from the Project, particularly with respect to ROG emissions, to satisfy CEQA.

B. The Addendum Underestimates the Project's Construction and Demolition Emissions

The Addendum states that Project construction will last 18 months.[55] The Addendum states that the original project included a construction period of 18 months as well.[56] But, the 2018 IS/ND provided that the construction period will last 20 months.[57] Thus, it is particularly troubling, that the Addendum's air quality analysis relies on a 21-month construction period, resulting in an underestimation of the Project's construction emissions. SWAPE concludes that the elongated construction duration results in an underestimation of the daily emissions resultant from construction equipment onsite. SWAPE concludes that the analysis improperly relies on the assumption that "there will be less construction activities

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[53] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[54] Id. at p. 959.
[55] Addendum, p. 3.
[56] *Id.*
[57] 2018 IS/ND.

required per day and, consequently, less pollutants emitted per day."[58] The Addendum's air quality construction emissions calculations underestimate the Project's daily emissions and are therefore not supported by substantial evidence. The City must prepare a legally adequate EIR which accurately analyzes the Project's daily construction emissions with an accurate construction schedule guiding the analysis.

Further, the Addendum fails as an informational document under CEQA for failing to model the emissions associated with demolition of the existing building on the Project site. SWAPE concludes that the Addendum fails altogether to analyze the demolition phase of construction and inputted zeros into the calculations for square feet being demolished.[59] This is not an accurate assessment of the required demolition of the existing gas station, two gas pump islands, and related infrastructure.[60] Demolition of existing infrastructure will obviously exceed zero square feet of demolition activity, counter to the Addendum's unsupported calculations. SWAPE concludes that the failure to include the demolition emissions presents a significant issue, because by failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, which may be significant and remain unmitigated.[61] These impacts were not considered in the prior 2018 IS/ND, and must be analyzed in an EIR.

C. The Addendum Underestimates the Project's Construction Emissions from Trucking the Modular Units

The Addendum fails as an informational document under CEQA for failing to quantify and analyze the Project's potentially significant air pollution impacts from trucking the modular units potentially hundreds of miles to the Project site. The Addendum and 2018 IS/ND failed to quantify the potentially significant air quality, health risk, and cumulative impact associated with trucking the modular units. These modular units may be transported from out of state or hundreds of miles from the Project site. Absent an analysis of the emissions associated with trucking these modular units, the Addendum fails as an informational document under CEQA, and the conclusion that air impacts from Project construction are less than significant is not supported by substantial evidence.

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[58] SWAPE Comments, p. 4.
[59] *Id.*
[60] 2018 IS/ND, p. 6.
[61] SWAPE Comments, p. 5. s

V. THE PROJECT RESULTS IN SIGNIFICANT CUMULATIVE IMPACTS REQUIRING PREPARATION OF AN EIR

CEQA requires agencies to analyze whether a project has impacts that are individually limited, but cumulatively considerable.[62] Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects). Cumulative impacts are defined as "two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts."[63]

The Addendum fails to include any analysis supported by substantial evidence to conclude that the Project does not result in cumulatively considerable impacts. In fact, the Addendum only mentions cumulative impacts for traffic and air quality impacts, but dismisses all other potentially significant cumulative impacts out of hand, without providing substantial evidence to support the conclusions. The 2018 IS/ND concluded that because the Project is "an infill location" cumulative impacts are less than significant for all resource areas.[64] But, it is particularly because this Project is an infill project, that a cumulative analysis of concurrent construction impacts is so critical. Here, the Project is proposed to be constructed concurrently with the 2920 Shattuck Project, just down the street, among other new Berkeley high rise developments. Both this Project and the 2920 Shattuck project will result in potentially cumulatively significant air quality, hazards, and land use impacts that were not analyzed in conjunction with either Project's analysis.

The City must prepare an EIR which accurately analyzes the Project's potentially significant cumulative impacts before the Project can lawfully be approved.

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[62] 14 CCR § 15355(b); *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 905.
[63] 14 CCR § 15355.
[64] 2018 IS/ND, p. 38.

VI. THE PROJECT MAY BE DETRIMENTAL TO THE GENERAL WELFARE OF THE CITY, RESIDENTS, AND WORKERS

In order to approve a Use Permit, under Berkeley Municipal Code Section 23.406.040, the Zoning Adjustments Board must find that the proposed project:

1) Will not be detrimental to the health, safety, peace, morals, comfort, or **general welfare** of persons residing or visiting in the area or neighborhood of the proposed use; and
2) Will not be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City.

Municipal Code Section 22.20.020 defines detrimental impacts to include, *inter alia*, increased demand for workforce housing, training, and benefits: "The increased demand for affordable housing, child care and public services, ***adequate employment training and placement facilities and amenities***, and the other impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare."[65] Under Section 22.20.020, a detriment to the general welfare occurs when the City fails to mitigate the impacts of a development project, including the increased demand for housing, workforce training, and public services that may result from the Project.[66] Pursuant to Municipal Code Section 22.20.020, the Project's impacts to the general welfare for failure to provide employment training, placement facilities, and amenities, require mitigation.[67]

Further, the ZAB may approve a Use Permit for demolition of a non-residential building or structure only if the ZAB finds that "demolition will not be materially detrimental to the commercial needs and public interest of any affected neighborhood or the City of Berkeley"[68] Here, the ZAB cannot make the necessary findings that demolition of the existing structure and construction of the Project is in the public interest, absent community and workforce benefits to promote the general welfare.

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[65] BMC § 22.20.020(G) (emphasis added).
[66] *Id.*
[67] BMC § 22.20.020(G).
[68] *Id.* at § 23.326.070(D)(1).

Housing projects, like this one, that are constructed with low-wage or uninsured construction workers are detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or visiting the City and the Project's Downtown neighborhood, as well as to the general welfare of the City. The City should request the Applicant include community benefits in the Project conditions of approval, including local hire provisions and healthcare standards and benefits in order to promote the general welfare.

A. The Project is Detrimental to the General Welfare for Failing to Hire Locally

Absent a provision requiring the Applicant to hire locally, the Project may be detrimental to the general welfare of Berkeley residents. Local hire commitments are a critical way not only to hire local residents, but to use project hiring needs to target opportunities to low-income residents and people of color who might otherwise not benefit from new development.[69] Local hire programs help address the fragmentation inherent in the development process, establishing better communication among developers, employers, community organizations, local job training resources, and the workforce development system that can provide job readiness and job retention support services.[70] Here, the Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce. The Project is therefore likely to be detrimental to City goals and the Berkeley community – particularly to its highly qualified construction workforce, who may not have the opportunity to build much-needed housing in their own community. The City should request the Applicant provide a local hire percentage of 30 percent as a community benefit for the Project.

B. The Project is Detrimental to the General Welfare for Failing to Provide Healthcare to Construction Workers

Further, the Project has not committed to healthcare standards or benefits for the construction workers building the Project. This results in a detriment to the general welfare of the City and its residents, including in particular, to its construction worker residents. By failing to provide healthcare for its construction

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[69] Kathleen Mulligan-Hansel, *Making Development Work for Local Residents: Local Hire Programs and Implementation Strategies that Serve Low-Income Communities,* (July 2008). Available at: https://s3.amazonaws.com/proggov21-uploads/uploads/asset/asset_file/Making_Development_Work_Local_Residents_Mulligan-HanselPWF2008.pdf.

[70] *Id.*

workers, the Project leaves the responsibility of providing for the health, safety, and welfare of the workers and the community on the workers themselves, or on taxpayer-funded public assistance, thus externalizing the cost of construction. By failing to provide healthcare standards, the Project would perpetuate existing income and healthcare inequities for construction workers, causing a detriment to the general welfare by failing to provide for the health and safety of its workers. The City should request the Applicant provide healthcare benefits as a community benefit of the Project.

Project construction will increase the local demand for a construction workforce. The Project's lack of workforce standards and worker healthcare may exacerbate the existing demand for local affordable housing and public services by construction workers that currently receive low pay without benefits. Without mitigation, these impacts remain significant, and the ZAB cannot make the necessary findings that the Project complies with the General Plan and zoning code. To comply with the General Plan Economic Development and Employment Element, the City must ensure that new housing developments provide jobs that go to Berkeley residents and provide job training programs and job readiness.

Moreover, the Municipal Code provides that the "Zoning Ordinance establishes *minimum* requirements to promote the public health, safety, and general welfare."[71] The Municipal Code also provides that, "[t]o the extent possible, it is the government's responsibility to balance the responsibility to ensure the health, safety, and general welfare of the public at large in a fiscally and environmentally sustainable manner."[72] It is therefore the responsibility of the Zoning Adjustment Board to promote the general welfare beyond the minimum required by law. Here, the ZAB must require the Project to include community benefits like those detailed herein, otherwise, the Project contravenes the Municipal Code and General Plan.

VII. THE PROJECT IS INCONSISTENT WITH THE GENERAL PLAN

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an

[71] BMC § 22.104.030.
[72] *Id.* at § 2.09.020.

environmental effect.[73] The Addendum fails as an informational document under CEQA for failing to analyze the Project's inconsistency with the General Plan.

A. The Project is Inconsistent with the General Plan Economic Development & Employment Element

The Project is inconsistent with the General Plan Economic Development & Employment Element, and thus cannot be approved until consistency is demonstrated.[74] The General Plan Economic Development and Employment Element Policy (ED-1) provides that the City must "[i]ncrease the number of jobs that go to Berkeley citizens by coordinating economic development efforts with employment placement."[75] Further, the General Plan provides that the City intends to "[w]ork with job training programs and encourage training for life skills, job readiness, and specific target industries."[76] The Project does not include any commitment to provide construction jobs to Berkeley or East Bay residents, and does not contribute to any apprenticeship or other construction job training programs. Housing development projects in the City must also implement the goals and policies of the General Plan, including the following:

1) Ensure that Berkeley has an adequate supply of decent housing, living wage jobs, and businesses providing basic goods and services.
2) New housing will be developed to expand housing opportunities in Berkeley to meet the needs of all income groups.[77]

The City has determined that "it is in the City of Berkeley's economic interest to support a pipeline of skilled workers to accomplish the construction objectives and policies of the Berkeley General Plan."[78] The Project must support this goal by

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[73] CEQA Guidelines Appendix G, XI Land Use and Planning.
[74] SB 330 requires conformance with applicable, objective general plan and zoning standards. Gov. Code § 65905.5. (a).
[75] Berkeley General Plan Economic Development and Employment Element, p. ED-5. Available at: https://berkeleyca.gov/sites/default/files/documents/12_Economic%20Development%20and%20Employment%20Element-FINAL.pdf.
[76] *Id.*
[77] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[78] City of Berkeley, Agenda and Staff Report, Berkeley City Council, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS), https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report") (Sept. 20, 2022) p. 7.

including community benefits such as local hire and healthcare and workforce benefits, otherwise the Project is detrimental to the general welfare, violates the General Plan, and may not be approved.

Moreover, the Project's failure to provide sufficient affordable housing onsite contravenes the General Plan's objective that development in the City should ensure an "adequate supply of decent housing."[79] The City may allow the Applicant to pay a fee, in-lieu of providing an adequate supply of affordable housing on the Project site.[80] If the City continues this practice of allowing developers to get away with paying in lieu fees, instead of providing onsite affordable housing, the City will have an insufficient supply of decent affordable housing as required by the General Plan. The Project's failure to provide *onsite* affordable housing for local residents therefore contravenes the General Plan's Economic Development and Employment Element and cannot be approved by ZAB.

VIII. THE PROJECT IS INCONSISTENT WITH THE CITY'S HOUSING ELEMENT

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.[81] The Addendum fails as an informational document under CEQA for failing to analyze the Project's inconsistency with the Housing Element.

The Project proposes to construct a ten-story residential building containing 166 dwelling units (17 Very Low-Income unit).[82] The project is seeking a 50% Density Bonus by providing 15% of the base project units as affordable to very low-income households. The Developer stated in their application for the Project that in order to "comply with City of Berkeley Affordable Housing rental requirements, the project will also be providing additional Affordable Units and/or/or-in-combination-

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[79] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[80] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.
[81] CEQA Guidelines Appendix G, XI Land Use and Planning.
[82] Addendum p. 2.

with providing an in-lieu Mitigation Fee per the City of Berkeley requirements."[83] More affordable units must be provided for the Project to be consistent with the City's Housing Element and state law.

The Regional Housing Needs Assessment is the California State-required process that seeks to ensure cities and counties plan for enough housing in their Housing Element cycle to accommodate all economic segments of the community.[84] Accordingly, the Housing Element of the City's General Plan identifies the City's housing conditions and needs, evaluates the City's ability to meet its Regional Housing Needs Allocation ("RHNA"), establishes the goals, objectives, and policies of the City's housing strategy, and provides an array of programs to create mixed-income neighborhoods across the City.[85] The Housing Element, which was amended on February 17, 2023, states that "the City has a remaining RHNA of 5,033 units (1,923 very low income; 852 low income; 1,227 moderate income; and 1,031 above moderate income units)... The City must identify adequate sites capacity for this remaining RHNA."[86] Accordingly, Policy H-1 – Extremely Low, Very Low, Low and Moderate-Income Housing – provides: "Increase the number of housing units affordable to Berkeley residents with lower income levels."[87] Because the City has not produced and is not expected to produce enough affordable housing to meet its RHNA, projects that do not contribute to the City's RHNA are inconsistent with the City's Housing Element, a primary goal of which is to meet the RHNA.

Berkeley Municipal Code Section 23.328.010 provides that residential housing projects constructing five or more dwelling units must include at least 20 percent of the total number of dwelling units within the project as inclusionary units. As an alternative to providing inclusionary units required in an ownership project, the applicant may elect to enter in an agreement with the City to pay fees in-lieu of providing below-market rate units.[88]

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[83] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.

[84] Cal. Gov. Code Section 65580 – 65589.9; *see* City of Berkeley, Adopted 2023-2031 Housing Element, available at https://berkeleyca.gov/sites/default/files/documents/Berkeley_2023-2031%20Housing%20Element_02-17-2023v2_0.pdf.

[85] *Id.*

[86] City of Berkeley, Adopted 2023-2031 Housing Element, p 107.

[87] *Id.* at 15.

[88] Effective July 1, 2022, the fee is set at follows: Paid at Certificate of Occupancy: $46,185 per rental unit; or Paid at building permit: $43,185 per rental unit.

However, the City has failed to meet its RHNA in previous cycles. Under the 5th RHNA Cycle from 2015-2023, Berkeley was required to plan for 2,959 units.[89] This includes 532 at very low income, 442 at low income, 584 at moderate income, and 1,401 at above moderate income. The Housing Element states that 3,742 units have been built, or 126% of the target. However, the targets for affordable housing were missed, with 309 very low income (58%), 130 low income (29%), and 106 moderate income (18%) units completed. 3,197 units of above moderate, or market rate housing was built, which was 228% of the goal. Thus, the City already has adequate above moderate and market rate housing units to meet its RHNA requirements, but is short on production of affordable units.

Here, the Project fails to provide the City's required 20% affordable units on-site, contributing to the City's current shortage of affordable units, while at the same time taking a viable project site out of production for those additional affordable units. Although the Project will pay an in-lieu fee, the Project would not be consistent with the Housing Element because it places the burden on the City to identify alternate sites to construct affordable housing units in time to meet its RHNA requirements.[90]

The Applicant's proposal to pay in lieu fees instead of providing 20% on-site affordable units for the 3000 Shattuck Project is not unique. The Project is one of at least three concurrent projects proposed by the Applicant, which similarly fail to contribute an adequate percentage of affordable units. The Applicant also proposes to construct the 2900-2920 Shattuck Avenue Project,[91] a ten-story residential building containing 221 dwelling units (22 Very Low-Income unit).[92] The 2920 Shattuck Avenue project is seeking a 46.25% Density Bonus by providing only 14% of the base project units as affordable to very low-income households.[93] The Applicant's 1598 University Project similarly proposes to pay an in lieu fee for the affordable units required by the City in excess of the on-site affordable necessary to qualify for a density bonus. The Applicant's decision not to provide the recommended 20% of on-site affordable units for its pending projects contributes to a cumulative shortage of affordable units that the City should address before considering approval of this Project.

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[89] City of Berkeley, Adopted 2023-2031 Housing Element, pg. D-8.
[90] City of Berkeley, Adopted 2023-2031 Housing Element, p. 107.
[91] Use Permit #ZP2022-0116 (APN: 053 159000501).
[92] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave. Berkeley CA 94705, APN 053 159000501, (Sept. 4, 2022), https://www.dropbox.com/s/528twax3fw4fw9p/2022-09-04_APP_PCKT_2920%20Shattuck.pdf?dl=0 ("Application Packet"), pdf pg. 2108 of 2143.
[93] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave.

IX. CONCLUSION

CEQA requires that an agency prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved may have a significant environmental impact not previously considered in connection with the project as originally approved.[94] As discussed herein, there is substantial evidence supporting a fair argument that the Project would result in significant adverse impacts that were not considered in the prior 2018 IS/ND, and that are not adequately analyzed or mitigated. The Project is detrimental to the general welfare for failing to provide workforce and community benefits.

The Addendum also fails to contain the basic information and analysis required by CEQA, deficiencies which "cannot be dismissed as harmless or insignificant defects."[95] The City's findings regarding Project impacts do not comply with the law and are not supported by substantial evidence. The City cannot approve the Project until it prepares an EIR that resolves these issues and complies with CEQA's requirements.

Thank you for your attention to these comments. Please include them in the record of proceedings for the Project.

Sincerely,

Kelilah D. Federman

KDF:ljl

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[94] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[95] *Bakersfield Citizens for Local Control v. Bakersfield ("Bakersfield")* (2004) 124 Cal. App. 4th 1184, 1220.
6154-007j

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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April 10, 2023

Kelilah Federman
Adams Broadwell Joseph & Cardozo
601 Gateway Blvd #1000
South San Francisco, CA 94080

Subject: Comments on the 3000 Shattuck Mixed-Use Project (SCH No. 2017062025)

Dear Ms. Federman,

We have reviewed the January 2023 Addendum ("Addendum") and the 2018 Final Initial Study and Negative Declaration ("FIS/ND") for the 3000 Shattuck Mixed-Use ("Project") located in the City of Berkeley ("City"). The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235-SF of residential space, as well as 1,095-SF of retail space on the 0.31-acre site.

Our review concludes that the Addendum fails to adequately evaluate the Project's air quality impacts. As a result, emissions associated with construction of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality impacts that the project may have on the environment.

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod").[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's

[1] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected. Regarding the evaluation of the criteria air pollutant emissions associated with Project construction and operation, the Addendum states:

> "Additionally, since the adoption of the 2018 Final IS-ND, a new version (2022.1) of California Emissions Estimator Model (CalEEMod) has been published. Based on these updates, updated emissions estimates for the modified project were calculated for this analysis" (p. 14).

As stated above, the Addendum relies on CalEEMod Version 2022.1 to estimate the Project's emissions. However, this poses a problem as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files.[2] Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix A, pp. 83):

8. User Changes to Default Data

Section	Justification
Land Use	Project site plans
Construction: Construction Phases	Applicant provided
Operations: Hearths	no fireplaces or woodstoves

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

Thus, the output files associated with CalEEMod Version 2022.1 fail to disclose the exact parameters utilized to calculate Project emissions. To remedy this issue, the Addendum should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[3] Without access to the complete output files, including the specific numeric changes to the

[2] "CalEEMod California Emissions Estimator Model Soft Release." California Air Pollution Control Officers Association (CAPCOA), 2022, *available at:* https://caleemod.com/.
[3] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.

default values, we cannot verify that the Addendum's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, an EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[4]

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the Addendum relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 14).[5] Regardless, when reviewing the Project's CalEEMod output files, provided as Appendix A to the Addendum, we were able to identify several model inputs that are inconsistent with information disclosed in the Addendum. As such, the Project's construction emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction of the Project will have on local and regional air quality.

Incorrect and Unsubstantiated Construction Schedule

Review of the CalEEMod output files demonstrates that the "3000 Shattuck Detailed Report" model includes the following construction schedule (see excerpt below) (Appendix A, pp. 70):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Site Preparation	Site Preparation	7/3/2023	11/15/2023	5.00	98.0
Grading	Grading	11/16/2023	1/1/2024	5.00	33.0
Building Construction	Building Construction	1/2/2024	2/10/2025	5.00	290
Paving	Paving	1/2/2024	7/31/2024	5.00	152
Architectural Coating	Architectural Coating	2/11/2025	3/30/2025	5.00	34.0

According to the "User Changes to Default Data" table, the justification provided for this schedule is:

> "Applicant provided" (Appendix A, pp. 83).

Additionally, regarding Project construction, the Addendum states:

> "Site preparation, construction procedures, and proposed utility connections would remain like the original project. Please refer to the 2018 Final IS-ND for details regarding these project components. Overall construction of the modified project would occur over a similar time span as was anticipated for the original project but would be more intensive due to the height increase" (p. 2).

Furthermore, regarding the Project's anticipated construction duration, the FIS/ND states:

> "The project would include demolition of the existing building and surface parking lot on the site. [...] Construction would take place over an 18-month period" (p. 7).

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[4] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.
[5] "CalEEMod Version 2022.1.0." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/.

However, the model's construction schedule is incorrect and unsubstantiated for three reasons.

First, as discussed by the FIS/ND, the construction of the Project is anticipated to occur over 18 months. However, the model includes a 21-month total construction length, and is therefore overestimated by 3 months. By including an overestimated construction schedule, the model is incorrect and inconsistent with information provided by the Addendum and associated documents.

Second, the model does not include a demolition phase of construction. This is incorrect, as the Addendum clearly states that demolition would be required prior to Project construction:

> "Like the original project, the modified project would involve demolition of the existing structures on the site, as detailed in the 2018 Final IS-ND for the original project" (p. 6)

As such, the model's construction schedule is incorrect and inconsistent with information provided by the Addendum and associated documents.

Third, the model's revised construction schedule remains unsubstantiated as the Addendum and associated documents fail to mention the Project's proposed *individual* construction phases whatsoever. This is inconsistent with guidance provided by the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site-or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA."[6]

As the Addendum and associated documents only mention the Project's total construction duration of 18 months, the Addendum fails to provide substantial evidence to support the revised individual construction phase lengths. As such, we cannot verify the changes. Instead, the model should have proportionately altered all phase lengths to match the proposed construction duration of 18 months.[7]

By including an incorrect and overestimated construction schedule, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. As such, the model underestimates the peak daily emissions associated with Project construction and should not be relied upon to determine Project significance.

Failure to Model Demolition

Regarding demolition of the existing building, the Addendum states:

> "Like the original project, the modified project would involve demolition of the existing structures on the site, as detailed in the 2018 Final IS-ND for the original project" (p. 6)

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[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide,p. 13,14.

[7] See Attachment A for proportionately altered construction schedule.

However, as previously mentioned, review of the CalEEMod output files demonstrates that the "3000 Shattuck Detailed Report" model fails to include a demolition phase of construction. Furthermore, the model fails to include any amount of demolition debris (see excerpt below) (Appendix A, pp. 72).

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (sq. ft.)
Site Preparation	0.00	0.00	20.5	0.00
Grading	0.00	0.00	15.8	0.00
Paving	0.00	0.00	0.00	0.00

By failing to include any amount of demolition material, the model is inconsistent with the information provided in the Addendum.

This inconsistency presents an issue, as demolition material is used by CalEEMod to determine emissions associated with the demolition phase of construction. The three primary operations that generate dust emission during the demolition phase are mechanical or explosive dismemberment, site removal of debris, and on-site truck traffic on paved and unpaved road.[8] By failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, and should not be relied upon to determine the significance of the Project's air quality impacts.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions we prepared an updated CalEEMod model, using the Project-specific information provided by the Addendum. In our updated model, we included the required amount of demolition and proportionately altered the individual construction phase lengths to match the proposed construction duration of 18 months.[9]

Our updated analysis estimates that the Reactive Organic Gas ("ROG") emissions associated with Project construction exceed the applicable BAAQMD threshold of 54 pounds per day ("lbs/day"), as referenced by the Addendum (p. 14) (see table below).[10]

[8] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 11.
[9] See Attachment B for updated CalEEMod model.
[10] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde, p. 2-2.

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
Addendum	3.0
SWAPE	71.55
% Increase	2,285%
BAAQMD Threshold	**54**
Exceeds?	*Yes*

As demonstrated above, construction-related ROG emissions, as estimated by SWAPE, increase by approximately 2,285% and exceed the applicable BAAQMD significance threshold. Our updated modeling demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed by the Addendum. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project's emissions, we recommend consideration of SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1"):[11]

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.

[11] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.
l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.
q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.
s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.
t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.
u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).
x) As applicable for rail projects, the following measures should be considered...
z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.
bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible: - Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85% - Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%. - Nonroad diesel engines on site shall be Tier 2 or higher. - Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or

CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.

- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
    iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

An EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Proportionately Altered Construction Schedule
Attachment B: Updated CalEEMod Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul Rosenfeld CV

Attachment A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
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mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989-- 1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

Attachment B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
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Office: (310) 452-5555
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Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

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Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research.* 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology.* 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology.* 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research.* 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution.* 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research.* 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research.* 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld.** (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution.* Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference.* Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust.* Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association.* Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America.* Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant.*
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants.*
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

Attachment 3

CITY OF BERKELEY - CITY CLERK
2023 MAY 31 PM2:26

City Council, City of Berkeley
2180 Milvia Street
Berkeley, CA 94704

May 31, 2023
Hand-delivered to City Clerk's Office

Emailed to council@berkeleyca.gov;
clerk@cityofberkeley.info

Dear City Council Members:

This an appeal of the May 11, 2023 decision of the Zoning Adjustments Board ("ZAB") to issue a Use Permit for the project known as 3000 Shattuck, (ZP#2022-00046) ("Project"), on all the grounds stated in the May 9, 2023 Objections ("Objections", copied below), which were provided to ZAB by a group of neighbors to the Project. The grounds are summarized here with further arguments following the ZAB meeting:

There can be no dispute that the City has failed to perform the required *cumulative impact* analysis. City Council must deny the Use Permit and direct the City to perform a proper CEQA analysis as required by law, including, but not limited to, the following.

1. Applicable Law

- State law SB330 expressly requires the City to comply with CEQA per Govt. Code Section 65589.5(e).
- CEQA requires an "Initial Study" per CEQA Guidelines ("Guidelines"), Title 14, California Code of Regulations, Sections 15063-15365.
- The purpose of the Initial Study is to determine whether there may be a significant environmental impact. Id. "Careful judgment [...] based on scientific and factual data" is required. Guidelines Section 15064(b)(1). Under Section 15064(b)(2), "[t]hresholds of significance, as defined in Section 15064(a), may assist lead agencies in determining whether a project may cause a significant impact. When using a threshold, the lead agency should briefly explain how compliance with the threshold means that the project's impacts are less than significant. *Compliance with the threshold does not relieve a lead agency of the obligation to consider substantial evidence indicating that the project's environmental effects may still be significant.*" (emphasis added)
- Under Guidelines Section 15065(a), the City is required to find that a project may have a significant effect on the environment and thereby require an Environmental Impact Report (EIR) to be prepared for the project "where there is

substantial evidence, in light of the whole record, that any of the following conditions may occur: [...] (3) The project has possible environmental effects that are individually limited but cumulatively considerable. 'Cumulatively considerable' means that the *incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."* (emphasis added) "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." Guidelines Section 15355. When analyzing the cumulative impacts of a project, the City is required to discuss not only approved projects under construction and approved related projects not yet under construction, but also unapproved projects currently under environmental review and probable projects (e.g., here, Ashby BART) with related impacts or which result in significant cumulative impacts. CEQA requires the City to undertake a legitimate good faith effort in characterizing the future cumulative condition. Performing cumulative impact analyses helps to implement the overall goal of CEQA, which is to insert environmental considerations into the planning process as early as possible and provide a sound basis for government decision-making.

- Under Guidelines Section 15064(c), the lead agency must consider input from the public as part of its determination of whether to conduct an EIR. "In determining whether an effect will be adverse or beneficial, the lead agency shall consider the views held by members of the public in all areas affected as expressed in the whole record before the lead agency."

- Under Guideline Section 15162(b), "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a) [a determination of whether there is substantial evidence of substantial changes or new information of substantial importance having significant effect]. Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation."

2. Neither the 2018 Initial Study - Negative Declaration ("Initial Study") nor the January 2023 Addendum to Initial Study - Negative Declaration ("Addendum") contains any analysis or determinations per above, in particular, there is *no analysis* of the Project in connection with other projects, past, current or future. The same omission is true of the CEQA Consultant's May 5, 2023 Supplemental Analysis ("Rincon Supplement") identifying "minor project revisions" without mention of cumulative impacts. *Additionally, the Initial Study, Addendum, and Ricon Supplement each show no evidence of consideration of public input.*

With regard to the fifteen projects identified in the Objections, very few were known to the City at the time of the 2018 Initial Study. See attached May 2023 revisions to the spreadsheet submitted with the Objections, including several additional new projects that have been located, beyond fifteen. (2023 COB Multi-family Housing Projects - in/nr S. Berk (revised 5/2023) docs.google.com/document/d/1XJjfwOBuzCHNYv-mm-6vmLFWXVIgVcFan_4DAYsEBgE/)

Per Section 15162(b), these conditions are new information, which requires further determinations:

A) The City listed only four projects in the Addendum, which were not analyzed; and
B) More than fifteen projects are currently under development, approved, proposed, or probable within the surrounding area. The impacts are likely to be greater than shown by any relevant, in any event scant, analysis in the Initial Study and the Addendum.

Furthermore, the original project proposed only 32,603 square feet of residential uses, with 44 units including 4 affordable units, whereas the current Project proposes 80,235 square feet of residential uses, with 166 units including 17 affordable units. The original project proposed the inclusion of 17 parking spaces for automobiles, whereas the current Project plans for zero parking spaces (Addendum, p. 3).[1]

3. The Objections include evidence regarding potential construction and traffic impacts in the dangerous Russell-Shattuck-Ashby corridors (including long-standing evidence of one of the highest crash rates in the city), where there are currently five proposed projects, with one currently under construction. This core area, only a couple blocks in size, may become home to the three tallest of the fifteen plus local projects, at 9-10 stories, which will have by far the most units.[2] ***This community is facing myriad***

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[1] Further, the Addendum assesses duration of construction and foundation work to be comparable despite the massive change in the building design since 2018. Addendum, p. 2. This is highly suspect as explained in the Objections.

[2] Indeed, both the CEQA Consultant's Supplement (Rincon Supplement, bottom p. 4) and the Addendum fail to analyze very serious traffic hazards identified in the Objections, and ignore City standards, as described by the City's own Traffic and Parking Requirements for Development Projects | City of Berkeley. See, e.g., City of Berkeley Guidelines for Development of Traffic Impact Reports, pp. 3-4: "Many neighborhoods are located adjacent to major trip generators, and in many cases studies will require analysis of on-street parking in the adjacent area. Developers are encouraged to provide transportation demand management measures; such measures likely will be required if variances are sought in required off-street parking. The City requires the analysis of cumulative conditions for larger projects in order to identify

prospects of very significant environmental effects, without the protection that CEQA is intended to provide.

4. The City Planner, the City's Consultant, and ZAB members ignored or misinterpreted the Objections below at the May 11, 2023 meeting. The condition of fifteen contemporaneous projects in the vicinity, in particular, was ignored by ZAB. Collectively, the representatives incorrectly made the following statements:

a) that it was the Objectors' responsibility - and failure - to identify cumulative impacts regarding the projects;

b) that the Objectors asserted that an automatic finding of significant impact must be made; and,

c) that no further action needed to be performed to meet the requirements of CEQA.

For details, see the transcript of May 11, 2023 meeting (with timestamps):

a) 21:32:41 to 21:35:29. ZAB discussion with City Planner and CEQA Consultant refers to Objections below, and failure of Objectors to identify specific impacts, suggesting, for that reason, that Objections may be ignored and there are no significant impacts. The condition of fifteen contemporaneous projects was ignored.

b) 21:35:06 to 21:35:27. CEQA Consultant asserts to ZAB that the "threshold" to analyze cumulative impact was not met:

> "K. Green: YEAH, DOES REQUIRE COMMUTATIVE [SIC] IMPACT TO GET DISCUSSION BUT NOT IN THIS ONE."

c) 21:43:45 to 21:47:12, and 22:35:06 to 22:36:17. Project architect makes several confusing statements about proposals for a loading zone. One statement describes a potential 35-foot loading zone on Shattuck Avenue beyond the south portion of the building, in front of private residences, where southbound traffic merges from two lanes to one. Another statement describes a potential loading zone in front of the proposed building, where a bus stop may be relocated. The City Planner responds not with clear guidance on the process for making determinations about a loading zone, but only with

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whether mitigations in the future are required and the extent to which the project contributes to unacceptable conditions. [...] The assessment of impacts may be based on one or more of the following factors: counts for bicycle and pedestrian movements, location of bus stops, street width, collision history, transit boardings and alightings, and approved land use and transportation plans and capital improvement projects." Id., p. 8.

guesses. Questions from ZAB members about providing a safe loading zone were not resolved in any meaningful way;

d) 22:03:52 to 22:05:51. Objectors' effort to alert ZAB to requirements of CEQA in light of foregoing misleading discussion;

e) 22:29:14 to 22:31:05. CEQA Consultant falsely states that other projects in the area have been acknowledged in public documents. CEQA Consultant states that no further analysis is necessary, as no automatic finding of significant cumulative impact can be made;

f) 22:46:05 to 22:46:13. ZAB member makes a motion, which passed under the misinformed belief that the Project must be approved per state law:

> "I AM MAKING A MOTION BECAUSE WE ARE REQUIRED TO APPROVE THIS PROJECT TONIGHT, OR AT LEAST THAT IS MY BELIEF BASED ON MY UNDERSTANDING OF STATE LAW AS IT CURRENTLY STANDS."[3]

See also, further transcript of May 11, 2023 meeting (with timestamps):

20:53:45 to 20:54:44. The City does not clarify to ZAB the Project's unit size and unit type–all studio apartments–although this is clearly stated in the Rincon Supplement. A ZAB member speculates that a family of four earning $42,000 would benefit from housing like this, and thus expresses support for the Project. The City does not inform ZAB or the public how much money this Project would contribute to the Affordable Housing Trust Fund.

> ZAB member: "AND THOSE WOULD BE 21 FAMILIES THAT MAKE THOSE INCOMES THAT WOULD BE ABLE TO MOVE IN."

5. ZAB was misguided in its deliberations and discussion during its May 11 meeting, and thus has overlooked several relevant laws. These oversights place at risk public health and safety through its failure to conduct the required careful judgment analysis. This decision must be reversed.

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[3]The May 11, 2023 ZAB hearing was only the second hearing on the applicable SB 330 application submitted December 14, 2021. This would allow three more hearings, because SB 330 mandates a maximum of five hearings before project approval. Therefore, the ZAB was incorrect to conclude that the Project was required by SB 330 to be approved on May 11.

6. The City Council has no recourse under the law but to deny the Use Permit. The City must conduct a legally compliant further review and analysis under CEQA and demonstrate its consideration of public input under Guideline Section 15064(c).

Sincerely yours,

Larisa Cummings, 2913 Newbury Street, 510-435-9812
Paul Dillingham, 2927 Newbury Street, 510-575-6852
Dave Auerbach, 2907 Newbury Street, 310-954-7102
Les Shipnuck, 2071 Emerson Street, 510-542-4559
Lynn Cooper, 2129 Emerson Street, 510-542-6082

Additional 29 signatories to this appeal who own or lease within 300 feet of 3000 Shattuck - please see attached list with handwritten signatures.

---------- Forwarded message ---------
From: **Larisa Cummings** <pidicummings@gmail.com>
Date: Tue, May 9, 2023 at 4:08 PM
Subject: SUPPLEMENTAL OBJECTIONS TO 3000 SHATTUCK PROJECT PLANS, #ZP2022-00046 5/11/23 ZAB MEETING
To: <zab@cityofberkeley.info>
Cc: Gong, Sharon <SGong@cityofberkeley.info>, Burns, Anne M <ABurns@cityofberkeley.info>, <council@cityofberkeley.info>, Berkeley Mayor's Office <mayor@cityofberkeley.info>

Dear ZAB members:

As neighbors to the proposed plans to develop 3000 Shattuck Avenue, we strenuously object to the project on numerous health and safety grounds, per applicable state law. Far from being merely obstructionist, we bring to your attention that the City is overlooking state laws that exist to protect public health and safety. Further, we are concerned about the obvious inequities at hand; clearly, this part of Berkeley is bearing

the brunt of intensive multi-family housing development, whereas this kind of housing should be spread equitably throughout the city and its transit hubs.

We are asking the ZAB to deny issuance of Use Permit #ZP2022-0046 at the upcoming May 11, 2023 meeting until the concerns below are appropriately addressed:

1. The City's recommendation – that ZAB adopt the Addendum to the Initial Study/Negative Declaration and approve Use Permit #ZP2022-0046 pursuant to BMC Section 23.406.040 – is not in compliance with the California Environmental Quality Act (CEQA). To protect public health and safety, a subsequent Environmental Impact Review pursuant to CEQA is clearly required.

A. State law SB330 expressly requires the City to comply with CEQA per Govt. Code Section 65589.5(e).

The City's January 2023 Addendum to the 3000 Shattuck Avenue Project Initial Study - Negative Declaration largely fails to comply with its obligations under CEQA.

i. No Cumulative Impact Study Has Been Performed

Section 15355 of the State CEQA Guidelines defines a cumulative impact as the condition under which "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." Title 14, California Code of Regulations, Section 15355. Further,

Section 15130 explicitly requires a factual analysis. Section 15332 addresses in-fill development projects and requires a finding that "(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality." Section 15065 lists mandatory findings of significant effect, which must be evaluated. In other words, the City is required to evaluate these potential impacts, including analysis of cumulative impacts of all closely related projects. Note that there are quite a number of closely related current projects.

In its January 2023 Addendum (pp. 11-12) to the 3000 Shattuck Avenue Project Initial Study - Negative Declaration, the City listed only four projects in the vicinity of 3000 Shattuck: 2650 Telegraph, 2801 Adeline, 2440 Shattuck, and Ashby BART. In its January Addendum, the City made no analysis of those sites or impacts, but rather simply listed them in its determination that "The existing environmental conditions on and around the project site are substantially the same under present conditions as those described in the 2018 Final IS-ND, with the exception of two relevant changes described below in Section 4.1." Addendum p. 11. Section 4.1 similarly makes no analysis of the sites or impacts, but simply lists the same four projects. However, a careful recent search of several sources has identified fifteen projects in the vicinity. No comprehensive listing by the City could be located, which makes it very difficult for the public to follow these developments. Note the following developments:

- Five (5) projects are very intensively situated in a one to two block radius. 3000 Shattuck and two more projects are *the tallest (9-10 stories) with the most units* of the 15 projects, in the vulnerable and dangerous Russell-Shattuck-Ashby corridor, and where the Russell Bike Boulevard traverses Shattuck. **None of them provide for onsite loading zones, or any planning for right-of-way improvements or features to facilitate safe loading in an age of intensive loading activity, e.g., ride-hailing, food and commercial deliveries, service**

vehicles, etc., which often double park. For an example of the long-standing traffic hazards, note that the Shattuck/Ashby intersection is second only to San Pablo/Ashby intersection in the City's crash rate for the period from 2011 through 2022 - https://tims.berkeley.edu/tools/gismap/

- Four (4) projects surround these projects within another one to three block radius (including where the Russell Bike Boulevard traverses Adeline),
- the remaining six (6) projects fall within the area covered by the January 2023 Addendum's original listing of four projects. See this appendix:
2023 COB Multi-family Housing Projects - in/nr S. Berk.xlsx

In summary, the City must fully comply with CEQA; the January 2023 Addendum has no analysis of cumulative impacts at all, nor does the 2018 Final Initial Study - Negative Declaration, regarding a much smaller design for 3000 Shattuck.

ii. Erroneous or Misleading Conclusions

In the January 2023 Addendum, Section 2, Project Description, two statements are inaccurate and misleading, overlooking adverse impacts on the surrounding community, including but not limited to, extra traffic congestion, noise, odors, etc. Although they pertain to the construction phase only, they need to be reconsidered or rewritten.

--Duration of construction, estimated to be 18 months to construct the five-story structure in the previously proposed project (see 2018 Final Initial Study - Negative Declaration cited in January 2023 Addendum), is estimated to be the *same length of time to build* out the revised building of ten-stories. This is highly unrealistic. Construction duration can be foreshortened somewhat, by accelerating the work, but not without incurring large amounts of additional costs, raising the overall project budget far beyond levels of competitive pricing. Addendum p. 2 and p. 3, Table 1.

--Foundation work for the ten-story building is similarly projected to be comparable to the foundation's scope for the five-story building. It might be similar in terms of foundation type (spread footings, most likely) but with a doubling of the size of the structure, a stronger type of foundation might be necessitated (drilled pier-and-grade beam) at considerable additional cost. Addendum p. 2. This increases the construction costs and duration, and is dependent on soil-types, and access at the site.

While statements of this type may not devalue the January 2023 Addendum as a whole, they reflect a very casual attitude about construction realities, and as such, raise questions about the accuracy of other assertions in the study.

We ask the ZAB either to deny the issuance of a Use Permit, or to delay issuance of such Use Permit until these and all other related concerns are appropriately addressed by the City, as required by applicable state law. Thank you for your due consideration.

Sincerely yours,

Larisa Cummings (2913 Newbury Street),
Les Shipnuck, retired architect, construction manager (2071 Emerson Street),
Janis Ching (1937 Oregon Street),
Reed Dillingham (2903 Newbury Street),
Paul Dillingham (2927 Newbury Street)

https://tims.berkeley.edu/tools/gismap/
Most Visited
Getting Started
Other Bookmarks
SWITRS GIS Map
By SafeTREC, UC Berkeley
Map SWITRS
Tools
Options
Layers
Basemaps
Print
Help
Rank By Intersection
Rank Intersection # of Coll
1 ASHBY AVE & SAN PABLO AVE 76
2 ASHBY AVE & SHATTUCK AVE 63
3 ASHBY AVE & MARTIN LUTHER KING JR WAY 59
4 ASHBY AVE & SACRAMENTO ST 56
5 SAN PABLO AVE & UNIVERSITY AVE 49
6 MARTIN LUTHER KING JR WAY & UNIVERSITY AVE 45
7 SHATTUCK AVE & UNIVERSITY AVE 44
8 EASTSHORE HWY & GILMAN ST 41
9 ACTON ST & UNIVERSITY AVE 40
9 ASHBY AVE & COLLEGE AVE 40
Results
Selected Factors:
Date 01/01/2011 - 12/31/2022
County Alameda
City Berkeley
Result Summary:
2021 - 2022 data is provisional and subject to change.
6,953 of 7,187 (96.7%) crashes mapped.
500 ft
Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, NGA, USGS
Powered by Esri

Neighbor Appeal, 3000 Shattuck Avenue, ZP#2022-00046 (May 2023)

No.	Distance to Site (ft)	Cited in 1/23 IS/ND Addendum	Address	Existing or Previous Business or Use	Developer	Number of Stories	Number of Units	Number of BMR Units	Approvals and General Status	Commercial Space	Architect
--			**3000 Shattuck**	**Berkeley Gas & Smog**	**NX Ventures**	**10 stories**	**166**	**17**	**Passed DRC, ZAB mtg, May 2023**	**1040 SF**	**Trachtenburg**
1	325'		2001 Ashby ⟐	Cooperative Center Federal Credit Union	Resources for Community Development (RCD)	6 stories	87	87	Approved / Under construction, anticipated completion 2024		MWA Architects
2	350'		2900 / 2920 Shattuck ⟐	Eastern Supply Hardware / Model Garage	NX Ventures	10 stories	221	22	CEQA review pending, April 2023 DRC negative recommendation, March 2023, passed April 2023	4090 SF	Trachtenburg
3	565'		3031 Adeline ⟐	Flacos (restaurant)	Athan Magganas (owner)	7 stories	64	16	Passed DRC Review, January 2023	4030 SF	Dinar and Associates
4	610'		2847 Shattuck ⟐	Direct Line Tele Response	NX Ventures	9 stories	112	11	Application for Density Bonus, submitted January 2023		Trachtenburg
5	670'		2902 Adeline ⊙	AW Pottery	Realtex	6 stories	50	9	Passed Final DRC Review, July 2021		
6	755'	◆	3100 Adeline ⊙	Ashby BART	(Owner: BART / City of Berkeley)	*undetermined*	*undetermined*	*undetermined*			
7	780'		3120 Shattuck ⊙	community and non-profit offices	Northern California Land Trust	7-8 stories	65	100% ? co-op & condo	pre-application, filed December 2022		SCB
8	935'	◆	2801 Adeline ⊙	Walgreens	NX Ventures	7 stories	84	35	Incomplete, pending applicant, November 2021		
9	1700'		3030 Telegraph	Sutter Alta Bates	Riaz Capital	5 stories	144	8	Went to DRC, May 2023	1550 SF	Left Coast
10	1740'		2701 Shattuck	(vacant)	BayRock Multifamily, LLC	5 stories	57	5	Approved / Under construction, anticipated to open 2024		HDO Architects
11	1995'		3031 Telegraph	Berkeley Central Medical Building	Riaz Capital	6 stories	127	9	Passed DRC, February 2023		
12	2465'		2800 Telegraph	Karim Cycle	West Builders	5 stories	16	1	Approved by ZAB, April 2023		Trachtenburg
13	2675'		1708 Harmon	Church parking	Community Housing Development Organization / Ephesian Church of God in Christ	5 stories	80	80	Pre-application filed		Kodama Diseno Architects
14	2750'		2550 Shattuck	Acupuncture and Integrative Medicine	4Terra Investments, Natural Green Corporation	7 stories	72 +	*undetermined*	pre-application, filed April 2023	1520 SF	Kava Massih Architects
15	2915'		2712-2714 Telegraph	Offices / Pacific Center for Human Growth	Panoramic Interests	6 stories	40	3			
16	3050'		2000 Dwight	Medical offices	MorningStar Senior Living /	6 stories	113		Approved (in construction)		Trachtenberg
17	3075	◆	2650 Telegraph	Bachessos	OSM Development	5 stories	45	4	Passed Final DRC Review March 2020		
18	3580'	◆	2440 Shattuck	Dollar Store	Austin Group, LLC	8 stories	40	3	Approved / Under construction, anticipated completion 2024	2700 SF, 2 units	Johnson Lyman Architects
19	3660'		2420 Shattuck	Noodles Fresh / Gio's Pizza	NX Ventures	14 stories	132			2800 SF	Trachtenburg

Legend

◆ Listed in COB Addendum (1/2023) to the 3000 Shattuck IS/ND (Initial Study - Negative Declaration)

⊙ Within 4 blocks of 3000 Shattuck

⟐ Within 1-2 blocks of 3000 Shattuck

RE May 31, 2023 APPEAL of the May 11, 2023 decision of the Zoning Adjustments Board ("ZAB") to issue a Use Permit for the project known as 3000 Shattuck, ZP#2022-00046

Additional 29 signatories to this appeal who own or lease within 300 feet of 3000 Shattuck - please see attached list with handwritten signatures.

Janet Wood, 2071 Emerson Street
Les Shipnuck, 2071 Emerson Street
Tsering Dhundup, 2057 Emerson Street
Dikki Dolkar, 2057 Emerson Street
Marisa Weinstock, 2045 Emerson Street
Katherine Adames, 2070 Emerson Street
Tony Drummond, 2075 Emerson Street
Rebecca Stevens, 2034 Ashby Avenue
Ben Faryna, 2992 Newbury Street
Sara Kaplan, 2992 Newbury Street
Hannah Nilsson, 2920 Newbury Street
Judith Shaw, 3018 Shattuck Avenue
Trisha Mathews, 3018 Shattuck Avenue
Alexa Maturana-Lowe, 2048 Emerson Street
Will Cardia, 2048 Emerson Street
Grace Reinhalter, 2068 Emerson Street
Hergis Nkote, 2070 Emerson Street
Raphael Leonard, 2070 Emerson Street
Daryl Hall, 3011 Shattuck Avenue
Allison Maldonado, 3011 Shattuck Avenue
Rob Seares, 3007 Shattuck Avenue
Chivi Marincola, 3009 Shattuck Avenue
Toby Stewart, 3012 Shattuck Avenue
Thelma Wong, 2109 Emerson Street
Kathy Glaser, 2129 Emerson Street
E. Hope Goodale, 2119 Emerson Street
Jacques Rivers, 2119 Emerson Street
Julie Chan, 3012 Shattuck Avenue
Keith Casilles, 2119 Emerson Street

3000 Shattuck
ZAB Decision 5-11-23

I wish to sign to appeal the ZAB decision as a neighbor living within 300 feet of the proposed project.

Print Name	Print Address	Signature
Janet Wood	2071 Emerson St., Berkeley	
Les Shipnuck	2071 Emerson St, 94703	Les Shipnuck
Tsering Dhundup	2057 Emerson st Berkeley CA	
Marisa Weinstock	2045 Emerson St, BK CA 94703 marisaweinstock99@gmail.com	
Katherine Adames	2070 Emerson St Apt A Berkeley, CA 94703 nietsnie1879@gmail.com	Katherine Adames
Tony Drummond	2075 Emerson St Berkeley, CA 94703 Laxsmio1@gmail.com	
Rebecca Stevens	2034 Ashby Avenue, apartment 2 Berkeley, CA 94703	
Ben Farina & Sara Kaplan	2992 Newbury St Berkeley, CA 94703	
Hannah Nilsson	2920 Newbury St Berkeley, CA 94703	

3000 Shattuck
ZAB Decision 5-11-23

I wish to sign to appeal the ZAB decision as a neighbor living or working within 300 feet of the proposed project.

Print Name	Print Address	Signature
Dikki Dorkar	2057 Emerson St Berkeley	
ALEXIA MATVKANA-LOWE	2048 EMERSON ST BERKELEY	
Will Cacdia	2048 Emerson St Berkeley	
Grace Rembatter	2068 Emerson St Berkeley	
HERGIS NKOTE	2070 Emerson St Berkeley	
Raphael Conard	2071 Emerson St Berkeley	

I wish to sign in support of the appeal of the Zoning Adjustments Board decision on 3000 Shattuck Ave

Name	Address	Signature
Daryl Hall	3011 Shattuck Ave Berkley, CA	
Allison Maldonado	3011 Shattuck ave ca	
Rob Seares	3007 Shattuck	Robert Seares
Chivi Marincola	3009 Shattuck	
Daly Stewart	3012 Shattuck	Daly Stewart
Thelma Wong	2109 Emerson St	Thelma Wong
KATHY GLASER	2129 EMERSON Berkeley	
E Hope Goodale	2119 Emerson Berkeley	Ehopegoodale
Jacques Rivers	2119 Emerson Berkeley	Jacques Rivers
KEITH CARTER	2119 EMERSON Berkeley	
Julie Chan	3012 Shattuck Ave	
Print Name	Address	Signature

I wish to sign in support of the appeal of the Zoning Adjustments Board decision on 3000 Shattuck Ave

Name	Address	Signature
Judith Shaw	3018 Shattuck Ave	
Trisha Mathews	3018 Shattuck Ave	
Print Name	Address	Signature

ADAMS BROADWELL JOSEPH & CARDOZO
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
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SOUTH SAN FRANCISCO, CA 94080-7037
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FAX: (650) 589-5062
kfederman@adamsbroadwell.com

SACRAMENTO OFFICE
520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721
TEL: (916) 444-6201
FAX: (916) 444-6209

KEVIN T. CARMICHAEL
CHRISTINA M. CARO
THOMAS A. ENSLOW
KELILAH D. FEDERMAN
RICHARD M. FRANCO
ANDREW J. GRAF
TANYA A. GULESSERIAN
RACHAEL E. KOSS
AIDAN P. MARSHALL
TARA C. RENGIFO

Of Counsel
MARC D. JOSEPH
DANIEL L. CARDOZO

CITY OF BERKELEY - CITY CLERK
2023 JUN 1 PM4:24

June 1, 2023

Via Email and Hand Delivery

Mark Numainville
City Clerk
City of Berkeley
2180 Milvia Street, 1st Floor
Berkeley, CA 94704
Email: clerk@cityofberkeley.info

Via Email Only

Berkeley City Council
2180 Milvia Street,
Berkeley, CA 94704
Jesse Arreguín, Mayor
Councilmembers: Rashi Kesarwani
Terry Taplin; Ben Bartlett
Kate Harrison; Sophie Hahn
Susan Wengraf; Rigel Robinson
Mark Humbert
Email: council@berkeleyca.gov

Re: Appeal of Zoning Adjustments Board's Approval of 3000 Shattuck Avenue Project Use Permit #ZP2022-0046 and Addendum to the 3000 Shattuck IS/ND (SCH# 2017062025)

Dear Mr. Numainville, Mayor Arreguín, Honorable Councilmembers: Kesarwani, Taplin, Bartlett, Harrison, Hahn, Wengraf, Robinson, and Humbert:

We are writing on behalf of East Bay Residents for Responsible Development ("East Bay Residents" or "Residents") to appeal the Zoning Adjustment Board's ("ZAB") May 11, 2023 approval[1] of the 3000 Shattuck Project ("Project")[2] Use Permit #ZP2022-0046 and approval of the Addendum to the 3000 Shattuck Avenue Project Initial Study Negative Declaration (SCH #2017062025)[3] prepared by the City of Berkeley (the "City") for the Project. The Project is proposed by Mark

[1] City of Berkeley, Zoning Adjustment Board, Notice of Decision (May 11, 2023), https://www.dropbox.com/s/860yr17ya9zcd3a/2023-05-18_ZAB_NOD_3000%20Shattuck.pdf?dl=0.
[2] City of Berkeley, Zoning Adjustment Board, Staff Report for Board Action May 11, 2023, https://berkeleyca.gov/sites/default/files/documents/2023-05-11_ZAB_Item%205_3000%20Shattuck_Combined%20Staff%20Report%20and%20Attachments.pdf (hereinafter "Staff Report").
[3] City of Berkeley, Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (Permit No. ZP2015-0229, SCH # 2017062025) (January 2023), https://www.dropbox.com/s/kr0fme3neozjqyf/2023-01-27_CEQA_Addendum%20to%20IS-ND_3000%20Shattuck.pdf?dl=0 (hereinafter "Addendum").

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Rhoades of the Rhoades Planning Group and Khan Shazada & Farhat (collectively, "Applicant").

The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235 sf of residential space including 166 residential units, 1,095 SF of retail space, and zero parking spaces on the 0.31-acre site. Construction of the Project is anticipated to last eighteen to twenty-one months. The Project site is located at 3000 Shattuck Avenue, Berkeley, CA 94705 (APNs 53-1592-1 & 53-1592-2). The Project site is designated as Avenue Commercial in the City's General Plan and is located in the South Area Commercial (C-SA) zoning district. The original project proposed 32,603 SF of residential uses, with 44 units including 4 affordable units. The current Project proposes 80,235 SF of residential uses, with 166 units including 17 affordable units.[4]

This appeal is filed pursuant to Berkeley Municipal Code Section 23.410.020, which provides that decisions by the Zoning Adjustment Board regarding Use Permits may be appealed by "any person" to the City Council within 14 days of the City's mailing the Notice of Decision.[5] The appeal is taken from the following actions, and is accompanied by payment of the required appeal fee of $1500 pursuant to the City's fee schedule:

1. ZAB's May 11, 2023 adoption of the Addendum to the Initial Study/Negative Declaration and
2. ZAB's May 11, 2023 approval of Use Permit #ZP2022-0046 including the following:
    a. Use Permit pursuant to Berkeley Municipal Code (BMC) Section 23.326.070(A) to demolish a non-residential main building;
    b. Use Permit pursuant to BMC Section 23.204.100(B)(4)(b) to construct a mixed use development of more than 5,000 square-feet;
    c. Use Permit pursuant to BMC Section 23.204.020 to add multi-family dwellings;
    d. Use Permit pursuant to BMC Section 23.204.100(D)(2) to modify the height and stories, setbacks, and lot coverage;
    e. Administrative Use Permit pursuant to BMC Section 23.304.050(A) to allow architectural features over the maximum height limit.[6]

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[4] Addendum p. 3.
[5] Berkeley Municipal Code ("BMC") § 23.410.020.
[6] Staff Report, p. 1.

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I. SUMMARY OF REASONS FOR APPEAL

This Appeal letter, and Residents' attached March 9, 2023 comments to the ZAB[7], demonstrate that the ZAB's decision to approve the Project violated CEQA, land use laws, and the City's municipal codes, and was not supported by substantial evidence in the record.

First, the CEQA Addendum prepared for the Project fails to accurately disclose the extent of the Project's potentially significant air quality, public health, hazardous contamination, land use, and cumulative impacts, which are new or more severe than the impacts analyzed in the original project's 2018 Initial Study/Negative Declaration ("IS/ND") and will not be substantially or fully mitigated by the City's standard conditions of approval. There is substantial evidence to support a fair argument that the Project will result in significant, unmitigated impacts in each of these areas. With respect to hazardous contamination, substantial evidence shows that the site is contaminated with benzene which exceed the 2019 San Francisco Bay Regional Water Quality Control Board's (SFBRWQCB) groundwater vapor intrusion residential environmental screening level.[8] But, the Addendum does not include a new analysis of existing contamination levels and does not include mitigation requiring the site to be cleaned to residential ESLs. Second, the air quality and health risk impacts associated with the larger project size result in Reactive Organic Gas ("ROG") emissions which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold of 54 pounds per day ("lbs/day"), because the Project would result in ROG emissions of 71.55 lbs/day.[9] The changes to the Project result in a 2,285% increase in ROG emissions, far and away exceeding the BAAQMD significance threshold. ROG air pollution and health risk impacts remain significant but neither the Addendum nor the 2018 IS/ND adequately mitigate such impacts. Third, Cumulative impacts associated with construction and operation of the Project constitute new impacts pursuant to Section 15355 because recent development in the Project area was not previously analyzed in the 2018 IS/ND and was not contemplated at the time the 2018 IS/ND was released. The Addendum fails to analyze these new cumulative impacts associated with the Project.

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[7] **Attachment A,** Adams Broadwell Joseph & Cardozo, Comments on Agenda Item 5: 3000 Shattuck Avenue Project Addendum to the Initial Study Negative Declaration (SCH #2017062025), (May 9, 2023).

[8] Addendum, p. ES-2.

[9] SWAPE Comments, p. 5.

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CEQA requires that a subsequent or supplemental environmental impact report ("EIR") be prepared if there are substantial changes in a project which increase the project's impacts; if there are substantial changes in circumstances surrounding the project; or if new information demonstrates that the project will have new or more severe effects than previously analyzed or are subject to new or different mitigation or alternatives.[10] In this case, the Project has been substantially changed from the original 2018 project by more than tripling the number of residential units on site and almost tripling the Project's square footage, resulting in substantially more severe construction and operational impacts than previously analyzed. There is also new information demonstrating that the Project will have potentially significant impacts which require mitigation beyond that previously considered for the original project. The City failed to proceed in the manner required by law by relying on a CEQA addendum and failing to prepare a subsequent or supplemental EIR in those circumstances. These issues were not resolved by the ZAB prior to its approval of the Project.

The City prepared the Addendum in violation of CEQA and the court's holding in *Friends of College of San Mateo Gardens v. San Mateo County Community College District*. There, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[11] Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[12] Here, the changes proposed in the Addendum were not "minor technical changes or additions" but constituted major revisions to the MND based on changes in the Project and new significant environmental effects, thus requiring preparation of an EIR. Substantial evidence supports a fair argument that the Project's potentially significant impacts cannot be adequately mitigated by the measures proposed in the Addendum and 2018 IS/ND. Therefore, a subsequent EIR should have been prepared. The ZAB's decision to approve the Project without preparing a subsequent or supplemental EIR was a violation of CEQA.

The Project may be detrimental to the general welfare of the city, residents, and workers. The significant, unmitigated environmental and public health

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[10] Pub. Res. Code § 21166; 14 Cal. Code Regs. § 15162.
[11] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2022) 11 Cal.App.5th 596, 600.
[12] CEQA Guidelines, § 15164, subd. (b).

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impacts resulting from the City's failure to prepare a subsequent or supplemental are detrimental to the general welfare of the City, its residents, and its workers, in violation of the City's zoning code.[13] The Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce. The Project is therefore likely to be detrimental to City goals and the Berkeley community, particularly to its highly qualified construction workforce, who may not have the opportunity to build much-needed housing in their own community.

The Project is inconsistent with the General Plan because the General Plan provides that the City intends to "[w]ork with job training programs and encourage training for life skills, job readiness, and specific target industries."[14] The Project does not include any commitment to provide construction jobs to Berkeley or East Bay residents, and does not contribute to any apprenticeship or other construction job training programs.

The Project is inconsistent with the General Plan Housing Element because the Project fails to provide the City's required 20% affordable units on-site, contributing to the City's current shortage of affordable units, while at the same time taking a viable project site out of production for those additional affordable units. Although the Project will pay an in-lieu fee, the Project would not be consistent with the Housing Element because it places the burden on the City to identify alternate sites to construct affordable housing units in time to meet its RHNA requirements.[15]

Finally, the ZAB rushed the Project's approval process before complying with CEQA by erroneously concluding that the Project was required to be approved on May 11, 2023 pursuant to the Housing Accountability Act ("HAA").[16] The ZAB incorrectly reasoned that the hearing on May 11, 2023 was the final hearing allowed under the HAA under the Act's five-hearing limit.[17] This was incorrect. The May 11, 2023 hearing was the ***second hearing*** for the Project following the Design Review Committee hearing on January 19, 2023.[18]

East Bay Residents urges the City Council to grant this Appeal and remand the Project to City Staff to prepare a subsequent EIR for the Project. The Project

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[13] Berkeley Municipal Code ("BMC") Sections 23.410.030 and 23.406.040(E).
[14] *Id.*
[15] City of Berkeley, Adopted 2023-2031 Housing Element, p. 107.
[16] Gov. Code. §§ 65589.5, 65589.5(h)(2).
[17] Gov. Code. § 65905.5(a). The HAA limits agencies to five public hearings to consider project approval, including appeals, but excluding hearings related to legislative action and not restricting CEQA compliance.
[18] See the figure below on page 11 from the May 11, 2023 ZAB hearing Staff Report.

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should not be rescheduled for a further public hearing until these issues have been addressed. East Bay Residents reserves the right to submit supplemental comments and evidence at any later hearings and proceedings related to the Project, in accordance with State law.[19]

I. STATEMENT OF INTEREST

East Bay Residents for Responsible Development is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential impacts associated with Project development. The association includes the UA Plumbers and Pipefitters Local 342, International Brotherhood of Electrical Workers Local 595, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, and their members and their families who live and/or work in the City of Berkeley and Alameda County.

The individual members of East Bay Residents and its affiliated labor organizations live, work, and raise their families in Alameda County, including in the City of Berkeley. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will therefore be first in line to be exposed to any health and safety hazards that may exist on the Project site.

The organizational members of East Bay Residents also have an interest in enforcing the City's planning and zoning laws and the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there. Indeed, continued degradation can, and has, caused restrictions on growth that reduce future employment opportunities. Finally, Residents' members are concerned about projects that are built without providing opportunities to improve local recruitment, apprenticeship training, and retention of skilled workforces, and without providing lifesaving healthcare expenditures for the construction workforce.

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[19] Gov. Code § 65009(b); Pub. Resources Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* ("*Bakersfield*") (2004) 124 Cal. App. 4th 1184, 1199-1203; *see Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

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II. THE ZAB'S ACTIONS VIOLATED CEQA

CEQA is designed to inform decision makers and the public about the potential, significant environmental impacts of a project before harm is done to the environment.[20] The EIR is the "heart" of this requirement.[21] The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[22]

When a previously approved project for which an EIR or an ND/MND has been prepared is modified, CEQA requires the lead agency to conduct subsequent or supplemental environmental review when one or more of the following events occur:

(a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report;
(b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or
(c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.[23]

In assessing the need for subsequent or supplemental environmental review, the lead agency must determine, on the basis of substantial evidence in light of the whole record, if one or more of the following events have occurred:

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

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[20] 14 Cal. Code Regs. § 15002(a)(1) ("CEQA Guidelines"); *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal.App.4th 1344, 1354 ("*Berkeley Jets*"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[21] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84.
[22] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[23] Pub. Resources Code § 21166; CEQA Guidelines § 15162.

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effects or a substantial increase in the severity of previously identified significant effects; or

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

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

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

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

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.[24]

Only where ***none*** of the conditions described above calling for preparation of a subsequent or supplemental EIR have occurred may the lead agency consider preparing a subsequent negative declaration, an addendum or no further documentation.[25] In any case, the decision must be supported by substantial evidence.[26] Here, the City's decision not to prepare a subsequent CEQA document for the Project is not supported by substantial evidence.

The City Improperly Prepared an Addendum Instead of a Subsequent EIR
Agencies may prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have

[24] CEQA Guidelines §§ 15162(a)(1)-(3).
[25] CEQA Guidelines § 15162(b).
[26] *Id.* §§ 15162 (a), 15164(e), and 15168(c)(4).

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occurred."[27] "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration," and if no subsequent EIR is required, the agency "shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation."[28] Additionally, CEQA requires preparation of an EIR where "[s]ubstantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects."[29]

Here, the Project changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the 2018 IS/ND based on new significant environmental effects thus requiring the preparation of a negative declaration at a minimum, and a subsequent EIR if the impacts cannot be mitigated. The original project proposed 32,603 SF of residential uses, with 44 units including 4 affordable units. This Project proposes 80,235 SF of residential uses, with 166 units including 17 affordable units. The original project proposed the inclusion of 17 parking spaces for automobiles, this Project proposes zero parking spaces. The Project has been substantially changed from the original 2018 project by more than tripling the number of residential units on site and almost tripling the Project's square footage, resulting in substantially more severe construction and operational impacts than previously analyzed. Also, due to substantial changes in circumstances with respect to hazardous contamination from the 2018 IS/ND, the Project will result in new significant environmental effects from hazards, air quality, and cumulative impacts.

As shown below, and detailed in Residents' prior comments, air quality and hazards expert Matt Hagemann and Paul Rosenfeld of Soil Water Air Protection Enterprise (SWAPE) provided substantial evidence that ROG emissions, and construction and demolition emissions may be significant and were not analyzed or mitigated in the 2018 IS/ND. Moreover, hazards impacts from the Project are more severe than analyzed in the 2018 IS/ND. The cumulative impacts associated with concurrent development in the neighborhood did not exist and were not analyzed at the time the 2018 IS/ND was prepared. These impacts constitute new significant environmental effects requiring preparation of a subsequent EIR.

The California Supreme Court held in *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.*, that if "the project

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[27] CEQA Guidelines, § 15164, subd. (b).
[28] CEQA Guidelines, § 15162, subd. (b).
[29] *Id.* at § 15162, subd. (a)(2).

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modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[30] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[31] The court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[32] The court found that substantial evidence supported a fair argument that the aesthetic impacts of replacing the garden with a parking lot were significant, and the college's choice to rely on an addendum violated CEQA. The court found that the change in the Project as detailed in the Addendum was significant enough to require additional environmental review, and that an Addendum was not the appropriate CEQA document.

Similarly, here, the Project's changes, including tripling the number of housing units, almost tripling the square footage, and doubling of the building height will result insubstantially increased air quality, public health, hazards impacts, and cumulative impacts that are new and more severe than previously analyzed such that an Addendum is inappropriate and a subsequent EIR must be prepared. The City Council must remand the Project to Staff to prepare a legally adequate subsequent EIR for the Project, because substantial evidence supports a fair argument that the changes in the Project require major revisions to the 2018 IS/ND due to new significant environmental effects from hazards, air quality, and cumulative impacts.

Finally, the ZAB rushed approval of this Project out of a false belief that failing to approve it would violate the HAA. The City Council is within the bounds of the HAA to conduct a public hearing on Appeal and remand the Project to Staff to conduct additional CEQA review prior to a final hearing on the Project. The HAA expressly requires lead agencies to comply with CEQA and complete environmental review of a development project before any HAA claims can be made. The HAA states that **nothing "in this section be construed to relieve the local agency**

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[30] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[31] *Id.* at p. 959.
[32] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2022) 11 Cal.App.5th 596.

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from making one or more of the findings required pursuant to [CEQA]."[33] The Appeal asks only that the City comply with CEQA before approving the Project. Upholding the Appeal would result in compliance with CEQA, and would not expose the City to liability under the HAA.

ZONING ADJUSTMENTS BOARD
May 11, 2023

3000 SHATTUCK AVENUE
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Table 3: Project Chronology

Date	Action
December 14, 2021	SB 330 complete preliminary housing development project application submitted
March 29, 2022	Application submitted
May 11, 2022	Application deemed incomplete
July 8, 2022	Revised application materials submitted
August 3, 2022	Application deemed complete
January 19, 2023	Design Review Committee Preliminary Design Review
January 27, 2023	*Addendum to previous Initial Study published*
April 27, 2023	Public hearing notices mailed/posted
May 11, 2023	ZAB hearing

[34]

III. THE PROJECT MAY RESULT IN NEW AND MORE SEVERE HAZARDS IMPACTS REQUIRING PREPARATION OF AN EIR

The Project site is contaminated with hazardous contaminants from its historical use as a service station operated by Atlantic Richfield Company ("ARCO").[35] ARCO later became an affiliate of BP and the site was operated as BP Station No. 00414 until it was sold to Mr. Shahzada Khan on February 25, 2004.[36] The Project site is listed on the State Water Resources Control Board's Geotracker database as Site T0600100094. The site is therefore on a Cortese List per Section 65962.5 of the Government Code. The Project site is currently an operational gas station and smog check location operated by Berkeley Gas & Smog, which contains

[33] Gov. Code, § 65589.5, subd. (e).
[34] Staff Report, p. 9.
[35] Atlantic Richfield Company, Case Closure Summary Report Former British Petroleum Station #00414 City of Berkeley case #27540. 3000 Shattuck Avenue Berkeley, California (June 9, 2010), https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8836282312/T0600100094.PDF p. 2/16 (hereinafter "Case Closure Summary Report").
[36] *Id.*

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three underground storage tanks ("USTs") that contain gasoline, and one waste oil UST.[37]

Impacts from Project construction and operation may be more severe than previously analyzed in the 2018 IS/ND and construction of the Project will require mitigation measures which are considerably different from those analyzed in the 2018 IS/ND (which included no mitigation measures) to substantially residual contamination levels to acceptable residential screening levels.[38] The 2018 IS/ND relied on the site's previous closure to commercial/industrial screening levels, not residential screening levels, and did not include any mitigation measures requiring contamination levels to be cleaned to meet the more health-protective residential environmental screening levels ("ESLs") necessary to ensure that health impacts on construction workers and future residents of the Project are less than significant.

At the time of the site's closure in 2010, "[a] station building [was] present at the site and the entire site [was] paved, with no exposed soil present at the ground surface."[39] At the time of the closure, the "potential for soil vapor intrusion was evaluated by comparing current groundwater concentrations to groundwater ESLs...for the protection of the vapor intrusion pathway in a ***commercial setting***."[40] Following the Project site's closure in 2010, an additional investigation was opened at the Site in December 2012 to address a new release associated with the hydraulic lifts present at the Site.[41] The new release was discovered during groundwater monitoring activities in October 2007, a sample from the impacted well was not collected until first quarter 2008.[42] The release notification, dated December 12, 2012, lists both BP and the current property owner (Shazada Khan) as potential responsible parties ("PRP").[43]

In June 2013, the case involving the potential release associated with the hydraulic lifts was referred to the San Francisco Bay Regional Water Board (Case # 01S0746, RWQCB).[44] Based on results of characterization activities, ARCADIS

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[37] *Id.*
[38] CEQA Guidelines § 15162(a)(3)(D).
[39] Case Closure Summary Report, p. 10/16.
[40] *Id.*
[41] Letter from San Francisco Bay Regional Water Quality Control Board to BP West Coast Products, LLC c/o Ms. Janet Wager, No Further Action, U.S. Smog and Gas, 3000 Shattuck Avenue, Berkeley, Alameda County, (September 3, 2014), https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/2104876458/01S0746%20(US%20Smog)%20-%20NFA%20package%209-3-14.pdf.
[42] *Id.*
[43] *Id.*
[44] *Id.*

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requested case closure on behalf of BP on July 9, 2014.[45] The Water Board concluded that "[b]ased upon the available information, ***including the current land use***, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the pollutant releases at the subject site is required."[46] This conclusion was based on the Water Board's conclusion that the "Most Sensitive Potential Use and Probability of Use" include "municipal, industrial process, industrial service and agricultural are identified in the Basin Plan."[47]

The soil vapor levels and other residual contamination associated with releases of contaminants at the Project site have not been fully analyzed or mitigated for a residential setting and may therefore pose a significant risk to residents and workers of the Project site. The current Project does not include the uses identified under the 2010 or 2014 land use designations, and instead will be converted to residential uses. The 2010 closure summary report identified benzene levels which exceed the 2019 San Francisco Bay Regional Water Quality Control Board's (SFBRWQCB) groundwater vapor intrusion residential environmental screening level.[48] But, the Addendum does not include a new analysis of existing contamination levels and does not include mitigation requiring the site to be cleaned to residential ESLs. The City therefore lacks substantial evidence to conclude that the Project's hazardous materials and health risk impacts are less than significant. Rather, the presence of soil contamination at levels that exceed residential ESLs is substantial evidence demonstrating that these impacts may be significant and will require substantial revisions to the 2018 IS/ND in order to accurately analyze and incorporate mitigation for these impacts.

The 2018 IS/ND relied on the misleading statement that the cleanup case was "closed"[49] to commercial industrial screening levels to conclude that no mitigation was required for the original project. The Addendum similarly fails to address the fact that the residual contamination remaining after the Water Board case closure may exceed residential screening levels, and may therefore result in a potentially significant hazardous materials and health impact to future Project residents unless mitigation us required to remediate existing contamination to residential ESLs. The Addendum relies on the statement that "[t]here are two closed State Water Quality Control Board GeoTracker investigations on the project

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[45] *Id.*
[46] *Id.*
[47] *Id.* at 2.
[48] *Id.* at ES-2.
[49] 2018 IS/ND, https://www.dropbox.com/s/19ieh5spqqet2qb/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0, p. 23.

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site (T0600100094 [closed 2013] and T10000004483 [closed 2014])"[50] to conclude that impacts are less than significant and that no subsequent EIR is required for the Project. However, both of these GeoTracker sites at 3000 Shattuck were closed to commercial industrial standards, and do not provide support for a conclusion that impacts to a residential project would be less than significant.

The City's failure to investigate contamination levels in relation to this Project is apparent in the document. The Addendum includes the Case Closure Summary Report which clearly states that ***"[s]oil vapor samples have not been collected at the site."***[51] The Case Closure Summary was required to include "Cumulative data tables for all soil, groundwater samples, including grab samples, and soil vapor ***must*** be included."[52] Data on soil vapor samples and cumulative data on the potential for soil vapor intrusion was not included in the Case Closure Summary, the Initial Study, or the Addendum, and was not provided in response to Residents' Public Records Act request. Thus, there is no evidence in the City's record to support the ZAB's conclusion that the Project's hazardous materials and health risk impacts from soil contamination were adequately addressed in the Addendum. The ZAB's approval of the Project therefore violated CEQA.

The Project would result in the conversion of the contaminated industrial site to residential use, and may result in significant hazards and health impacts from soil contamination and vapor intrusion. A subsequent EIR is required pursuant to CEQA Guidelines Section 15162.

IV. THE PROJECT MAY RESULT IN NEW AND MORE SEVERE CUMULATIVE IMPACTS REQUIRING PREPARATION OF A SUBSEQUENT OR SUPPLEMENTAL EIR

CEQA requires agencies to analyze whether a project has impacts that are individually limited, but cumulatively considerable.[53] Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects). Cumulative impacts are defined as "two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts."[54] Cumulative impacts

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[50] Addendum p. 22.
[51] Case Closure Summary Report, p. 10/16 (emphasis added).
[52] *Id.* at pdf 83 of 86.
[53] CEQA Guidelines § 15355(b); *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 905.
[54] CEQA Guidelines § 15355.

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associated with construction and operation of the Project constitute new impacts pursuant to Section 15355 because recent development in the Project area was not previously analyzed in the 2018 IS/ND and was not contemplated at the time the 2018 IS/ND was released. The Addendum fails to analyze these new cumulative impacts associated with the Project.

The ZAB approved the Project in violation of CEQA because the Addendum failed to address these new projects and failed to include any analysis supported by substantial evidence to conclude that the Project does not result in new or more severe cumulatively considerable impacts than the 2018 project. In fact, the Addendum only mentioned cumulative impacts for transportation and air quality impacts, but dismissed all other potentially new and significant cumulative impacts outright, without providing substantial evidence to support its conclusions.[55]

The 2018 IS/ND concluded that, because the Project is "an infill location," cumulative impacts are less than significant for all resource areas.[56] The opposite is true. It is precisely because this Project is an infill project located in an area of the City that is currently undergoing rigorous development, that a cumulative analysis of concurrent construction impacts is so critical.

Here, the Project is surrounded by existing sources of pollution and is proposed to be constructed concurrently with numerous other new Berkeley high rise developments in the direct vicinity of the Project site. Both this Project and the concurrent development projects will result in potentially cumulatively significant air quality, hazards, and land use impacts that were not analyzed in the Addendum.

A. The Project May Result in New and More Severe Cumulative Hazards and Construction Impacts

As detailed above and in Resident's prior comments to the ZAB, the Project site is contaminated due to the historical presence of three underground storage tanks ("USTs") that contained gasoline, and one waste oil UST.[57] The Project site is listed on the State Water Resources Control Board's Geotracker database as Site T0600100094.[58] The site is therefore on a Cortese List per Section 65962.5 of the Government Code.

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[55] Addendum p. 13; 28.
[56] 2018 IS/ND, p. 38.
[57] 2018 IS/ND, p. 38.
[58] California State Water Resources Control Board Geotracker, ARCO # 00414 (T0600100094), https://geotracker.waterboards.ca.gov/profile_report?global_id=T0600100094.

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The Project site may be constructed concurrently with numerous developments in the Project vicinity which are also on the Cortese List per Section 65962.5 of the Government Code and require remediation prior to construction. Within 1000 feet of the Project site, there are three Cortese listed sites, including: 1) 2001 Ashby Redevelopment;[59] 2) 2920 Shattuck Avenue;[60] and 3) 2701 Shattuck Avenue, all of which are likely to require removal and remediation of contaminated soil as part of project construction, which would result in extended cumulative construction impacts.[61] All three of these projects were proposed after the 2018 IS/ND was drafted. The concurrent construction of three large Cortese listed projects within 1000 feet may result in potentially significant cumulative hazards and construction impacts that the 2018 IS/ND and the Addendum failed to analyze.

The 2001 Ashby Redevelopment, located within 600 feet of the Project site, will require "remediation and/or off-Site disposal of impacted soil at a permitted disposal facility; extraction, treatment, and discharge of groundwater to the sanitary sewer; and installation of vapor mitigation engineering controls to control potential vapor intrusion to indoor air of the proposed development and migration along new utility corridors."[62] The remediation associated with construction of the 2920 Shattuck Project may include removal of on site hazardous materials which may exceed 55 gallons of liquids, 500 pounds of solids, or 200 cubic feet of compressed gases.[63] Based on evidence in the record demonstrating that contamination levels at the 3000 Shattuck site exceed residential standards, it is likely that that the Project will also require remediation and/or off-site disposal of contaminated soil and installation of vapor mitigation engineering controls to control potential vapor intrusion to indoor air of the proposed development and migration along new utility corridors.

The concurrent remediation and removal of contaminated soil on both project sites within such close proximity may result in potentially significant cumulative hazards, air quality, and traffic impacts which were not analyzed or mitigated in

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[59] California State Water Resources Control Board Geotracker, 2001 Ashby Redevelopment (T10000014891), https://geotracker.waterboards.ca.gov/case_summary?global_id=T10000014891.
[60] California State Water Resources Control Board Geotracker, Southwick Chrysler Plymouth (T0600101310), https://geotracker.waterboards.ca.gov/case_summary?global_id=T0600101310.
[61] California State Water Resources Control Board Geotracker, 2721 Shattuck Ave, Bekins Van Storage (T0600100167), https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100167.
[62] California State Water Resources Control Board Geotracker, 2001 Ashby Redevelopment (T10000014891), https://geotracker.waterboards.ca.gov/case_summary?global_id=T10000014891.
[63] State Water Resources Control Board, Unified Program Consolidated Form Facility Information, FA0000211, The Model Garage Inc, 2920 Shattuck Ave Berkeley, CA 94705, https://www.dropbox.com/s/s484da7bkuism3i/Shattuck%20Avenue%202920_Model_2013%2004%2030_RPT_HMBP_Redacted.pdf?dl=0.

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the 2018 IS/ND nor the Addendum. These cumulative impacts are new information about new significant environmental effects which were not known at the time the 2018 IS/ND was prepared. These impacts require substantial revisions to the IS/ND and therefore must be analyzed and mitigated in a subsequent EIR pursuant to CEQA Guidelines Section 15162 subdivision (a)(3).[64]

B. The Project May Result in New and More Severe Cumulative Air Quality Impacts Than Previously Analyzed

Project construction, over 18 to 21 months, may occur concurrently with numerous developments within 1000 feet including: 2001 Ashby (within 600 feet), 2701 Shattuck (within 1000 feet), and 2920 Shattuck (within 500 feet).[65] Given that these projects were proposed after the 2018 IS/ND was released, and before the Addendum was finalized, the Addendum was required to analyze the potentially significant cumulative air quality and health risk impacts associated with concurrent construction of these new projects. The City failed to do so, and must remedy this deficiency in a subsequent EIR.

The substantial change in the size of this Project will result in an increase in Reactive Organic Gases emissions of 2,285%, according to Residents' air quality expert consultants at SWAPE.[66] The increased size of the Project constitutes a "[s]ubstantial change[] proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects."[67] The air quality and health risk impacts resultant from the increase in size of this Project is also cumulatively considerable in connection with the numerous high-rise developments being built concurrently in the Project vicinity.

As detailed in East Bay Residents' prior comments and those of our air quality expert consultants at SWAPE, the Project would result in significant emissions from Reactive Organic Gas ("ROG") which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold. BAAQMD requires that ROG emissions shall not exceed 54 pounds per day ("lbs/day"), but the Project would result in ROG emissions of 71.55 lbs/day.[68] The 2018 IS/ND made no mention of ROG emissions, but the Addendum states that the ROG emissions would be 3

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[64] CEQA Guidelines § 15162(a)(2).
[65] Google Maps, 2023.
[66] SWAPE Comments, p. 5.
[67] CEQA Guidelines Section 15162(a)(2).
[68] SWAPE Comments, p. 5.

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lbs/day.[69] This conclusion is not supported by substantial evidence. SWAPE found that the changes to the Project result in a 2,285% increase in ROG emissions, far exceeding the BAAQMD significance threshold. Therefore, ROG emissions remain significant but neither the Addendum nor the 2018 IS/ND adequately mitigate such impacts. These emissions also contribute to cumulatively significant air quality impacts in connection with concurrent development within 1000 feet of the Project. The Project's individual and cumulatively significant air quality impacts are the result of substantial changes in the Project design and new project proposals that did not exist at the time the 2018 IS/ND was prepared. The City must therefore analyze these new potentially significant environmental impacts in a subsequent EIR to satisfy CEQA.

V. THE PROJECT RESULTS IN NEW AND MORE SEVERE AIR QUALITY IMPACTS REQUIRING PREPARATION OF A SUBSEQUENT OR SUPPLEMENTAL EIR

The Addendum states that Project construction will last 18 months,[70] and that the original project also included a construction period of 18 months.[71] This is incorrect, as the 2018 IS/ND provided that the construction period will last 20 months.[72] Nevertheless, the Addendum's attempt to compare similarities between the construction timeline for the original and current project does not support a conclusion that the Project's construction emissions are comparable to the original Project because the new Project is twice the size. Construction emissions generated over the same period of time are therefore likely to be substantially higher for the current Project than the original project.

The information in the Addendum is also internally inconsistent, because the Addendum's air quality emissions modeling relies on a 21-month construction period, whereas the text of the Addendum says construction will last 18 months, potentially resulting in an underestimation of the Project's construction emissions. SWAPE concluded that the elongated construction duration results in an underestimation of the daily emissions resulting from construction equipment onsite. SWAPE concluded that the Addendum's analysis improperly relies on the assumption that "there will be less construction activities required per day and, consequently, less pollutants emitted per day."[73] The Addendum's air quality construction emissions calculations underestimate the Project's daily emissions and

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[69] Addendum, p. 14.
[70] Addendum, p. 3.
[71] *Id.*
[72] 2018 IS/ND.
[73] SWAPE Comments, p. 4.

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are therefore not supported by substantial evidence. The City must prepare a legally adequate subsequent EIR which accurately analyzes the Project's daily construction emissions with an accurate construction schedule guiding the analysis.

Further, the Addendum fails as an informational document under CEQA for failing to model the emissions associated with demolition of the existing building on the Project site. SWAPE concluded that the Addendum failed altogether to analyze the demolition phase of construction and inputted zeros into the calculations for square feet being demolished.[74] This is not an accurate assessment of the required demolition of the existing gas station, two gas pump islands, and related infrastructure.[75] Demolition of existing infrastructure will obviously exceed zero square feet of demolition activity, counter to the Addendum's unsupported calculations. SWAPE concluded that the failure to include the demolition emissions presents a significant issue, because by failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, which may be significant and remain unmitigated.[76] These impacts are unique to the Project and were not considered in the prior 2018 IS/ND. They must be analyzed in a subsequent EIR.

Moreover, the Addendum fails as an informational document under CEQA for failing to quantify and analyze the Project's potentially significant air pollution impacts from trucking the modular units potentially hundreds of miles to the Project site. The Addendum fails to quantify the potentially significant air quality, health risk, and cumulative impact associated with trucking the modular units. These modular units may be transported from out of state or hundreds of miles from the Project site. Absent an analysis of the emissions associated with trucking these modular units, the Addendum fails as an informational document under CEQA, and the conclusion that air impacts from Project construction are less than significant was not supported by substantial evidence.

The City Council must remand the Project to Staff to prepare a legally adequate EIR which analyzes and mitigates the Project's potentially significant air quality impacts before the Project can be approved.

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[74] *Id.*
[75] 2018 IS/ND, p. 6.
[76] SWAPE Comments, p. 5. s

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IV. THE PROJECT MAY BE DETRIMENTAL TO THE GENERAL WELFARE OF THE CITY, RESIDENTS, AND WORKERS

The ZAB may not approve a Use Permit under Berkeley Municipal Code Section 23.406.040 unless it finds that the proposed project:

1. Will not be detrimental to the health, safety, peace, morals, comfort, or **general welfare** of persons residing or visiting in the area or neighborhood of the proposed use; and
2. Will not be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City.[77]

Municipal Code Section 22.20.020 defines detrimental impacts to include, *inter alia*, increased demand for workforce housing, training, and benefits: "The increased demand for affordable housing, child care and public services, ***adequate employment training and placement facilities and amenities***, and the other impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare."[78] Under Section 22.20.020, a detriment to the general welfare occurs when the City fails to mitigate the impacts of a development project, including the increased demand for housing, workforce training, and public services that may result from the Project.[79] The ZAB lacked the evidence necessary to approve the requested Use Permit for the Project because substantial evidence demonstrates that the Project will be detrimental to the general welfare due to both the unmitigated environmental and public health impacts discussed herein, and the Project's failure to comply with the General Plan's workforce requirements.

The Project's changes, including the tripling the number of housing units, almost tripling the square footage, and doubling of the building height will result insubstantially increased air quality, public health, hazards impacts, and cumulative impacts that are new and more severe than previously analyzed such that an Addendum is inappropriate and a subsequent EIR must be prepared. The public health and safety impacts that result from the increased size and scope of the Project result in more severe hazardous contamination impacts, air quality, traffic, and noise and may be "detrimental or injurious to property and improvements of

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[77] BMC § 23.406.040.
[78] BMC § 22.20.020(G) (emphasis added).
[79] *Id.*

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the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City" in violation of the Municipal Code.[80]

With regard to workforce, pursuant to Municipal Code Section 22.20.020, the Project may result in detrimental impacts to the general welfare for failure to provide employment training, placement facilities, and amenities.[81] The Project Applicant has not made a commitment to ensure the Project is built with a local skilled and trained workforce, or that the Project will provide apprenticeship training opportunities or healthcare benefits or other workforce benefits or amenities for City of Berkeley or East Bay residents. Without committing to these actions, the Project may be built with low-wage, out-of-area workers who lack the livable wages, health benefits, stability, and basic standard of living that Berkeley has committed to ensuring for all of its workers on all housing developments constructed in the City. If so, the Project would be detrimental to the health, safety, peace, morals, comfort, and general welfare of the City and its residents, especially its local construction workforce who may not have the opportunity to build much-needed housing in their own community.

On May 2, 2023, the City adopted a new ordinance titled Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Ordinance.[82] The Ordinance was enacted to improve the recruitment, training, and retention of skilled construction workers, ensuring larger projects within the City are awarded to contractors that participate in high quality, industry proven apprenticeship programs, and that apprentices working under such contracts are competently trained.[83] The HARD HATS ordinance does not apply to the Project because the Project application was filed before the Ordinance went into effect. However, the evidence and findings which supported the City's adoption of the Ordinance demonstrate that projects which do not provide workforce benefits may be detrimental to the general welfare of the City and its residents.[84] Accordingly, the ZAB recommended (but did not require) that the Applicant comply

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[80] BMC § 23.406.040

[81] BMC § 22.20.020(G).

[82] City of Berkeley, Revised Agenda Material May 2, 2023, Item #1, Adding BMC Chapter 13.107, Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Ordinance, https://berkeleyca.gov/sites/default/files/documents/Supp%203%20Item%201%20HARD%20HATS%20Ordinance.pdf.

[83] *Id.*

[84] City of Berkeley, Agenda, Berkeley City Council, Tuesday September 20, 2022 6:00 PM, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Referral, p. 77. Available at: https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report").

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with the Ordinance. Though the ZAB recommended the Applicant conform with the HARDHATS Ordinance, this does not sufficiently mitigate the risk of detriment to the general welfare, as shown below, because the ZAB condition is a recommendation only, and the Applicant did not commit to providing workforce benefits prior to the ZAB approval.[85] If the Project is constructed without workforce benefits, it would be detrimental to the general welfare of the City and its residents for the reasons described in the findings for the HARD HATS Ordinance.

Municipal Code Section 22.20.020 defines detrimental impacts to include, *inter alia*, increased demand for workforce housing, training, and benefits: "The increased demand for affordable housing, child care and public services, ***adequate employment training and placement facilities and amenities***, and the other impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare."[86] Under Section 22.20.020, a detriment to the general welfare occurs when the City fails to mitigate the impacts of a development project, including the increased demand for housing, workforce training, and public services that may result from the Project.[87] Pursuant to Municipal Code Section 22.20.020, the Project's adverse impacts to the general welfare include failure to provide employment training, placement facilities, and amenities.[88]

The ZAB may approve a Use Permit for demolition of a non-residential building or structure only if the ZAB finds that "demolition will not be materially detrimental to the commercial needs and public interest of any affected Hi neighborhood or the City of Berkeley"[89] Here, the ZAB lacked substantial evidence to make the necessary findings that demolition of the existing structure and construction of the Project is in the public interest, absent community and workforce benefits to promote the general welfare. The City has found that housing projects, like this one, that are constructed with low-wage or uninsured construction workers are detrimental to the health, safety, peace, morals, comfort, and general

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[85] City of Berkeley, Agenda and Staff Report, Berkeley City Council, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS), https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report") (Sept. 20, 2022) p. 7.
[86] BMC § 22.20.020(G) (emphasis added).
[87] *Id.*
[88] BMC § 22.20.020(G).
[89] *Id.* at § 23.326.070(D)(1).

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welfare of persons residing or visiting the City and the Project's Downtown neighborhood, as well as to the general welfare of the City.[90]

Finally, the Municipal Code provides that the "Zoning Ordinance establishes *minimum* requirements to promote the public health, safety, and general welfare."[91] The Municipal Code also provides that, "[t]o the extent possible, it is the government's responsibility to balance the responsibility to ensure the health, safety, and general welfare of the public at large in a fiscally and environmentally sustainable manner."[92] It is therefore the responsibility of the City Council to promote the general welfare beyond the minimum required by law.

The City Council should ask the Applicant to voluntarily agree to include community benefits in the Project including local hire provisions and healthcare standards and benefits in order to promote the general welfare.

A. The Project May Be Detrimental to the General Welfare for Failing to Hire Locally

Absent a commitment from the Applicant to hire locally, the Project may be detrimental to the general welfare of Berkeley residents. The ZAB recommended that the Applicant hire locally in accordance with the HARDHATS Ordinance, but this is not binding.

Local hire commitments are a critical way not only to hire local residents, but to use project hiring needs to target opportunities to low-income residents and people of color who might otherwise not benefit from new development.[93] Local hire programs help address the fragmentation inherent in the development process, establishing better communication among developers, employers, community organizations, local job training resources, and the workforce development system that can provide job readiness and job retention support services.[94]

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[90] City of Berkeley, Agenda, Berkeley City Council, Tuesday September 20, 2022 6:00 PM, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Referral, p. 77. Available at: https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report").
[91] BMC § 22.104.030.
[92] *Id.* at § 2.09.020.
[93] Kathleen Mulligan-Hansel, *Making Development Work for Local Residents: Local Hire Programs and Implementation Strategies that Serve Low-Income Communities,* (July 2008). Available at: https://s3.amazonaws.com/proggov21-uploads/uploads/asset/asset_file/Making_Development_Work_Local_Residents_Mulligan-HanselPWF2008.pdf.
[94] *Id.*

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At the September 20, 2022 HARD HATS hearing, City Councilmembers explained that there is a "shortage of qualified local construction workers" and that is one reason why it is hard to get housing built.[95] Councilmember Hahn explained that Berkeley should "develop more labor, have working conditions, and pay, and benefits that you need to live in the Bay Area."[96] Further Councilmember Hahn asserted that Berkeley needs to expand the available workforce of people who are able to build housing and other projects, and "to ensure they have protections."[97] Mayor Arreguin noted that the "key to addressing the significant shortage of housing is addressing the shortage of a skilled and trained workforce."[98] The Project does not meet this goal of addressing the housing shortage by utilizing local skilled and trained workers and may result in a detriment to the general welfare.

Here, the Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce. The Project is therefore likely to be detrimental to City goals and the Berkeley community, particularly to its highly qualified construction workforce, who may not have the opportunity to build much-needed housing in their own community. The City should request the Applicant commit to providing a local hire percentage of 30 percent as a community benefit for the Project.

B. The Project May Be Detrimental to the General Welfare for Failing to Provide Healthcare Expenditures to Its Construction Workforce

The Applicant has not committed to providing healthcare expenditures for the construction workers building the Project. This may result in a detriment to the general welfare of the City and its residents, including in particular, to its construction worker residents. In adopting the HARD HATS Ordinance, the Council found that health care security is vital for construction workers. If the Project does not provide, or have a prequalified contractor provide, healthcare expenditures for its construction workforces, it would leave the responsibility of providing for the health, safety, and welfare of the Project's construction workforce on the workers themselves, or potentially on taxpayer-funded public assistance, thus externalizing the cost of construction. This would result in a detriment to the general welfare.

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[95] Statement by Councilmember Hahn, Oakland City Council Hearing (September 20, 2022 6 PM).
[96] *Id.*
[97] *Id.*
[98] Statement by Mayor Arreguin, Oakland City Council Hearing (September 20, 2022 6 PM).

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The City's HARD HATS Ordinance Staff Report explained that construction trade workers experience exceptionally high rates of serious injury on the job, especially on sites with inadequately trained workers.[99] For example, one of every five serious workers' compensation insurance claims which involve death, permanent total disability or major permanent partial disability - is related to a construction employee, despite the fact that construction jobs account for less than one out of every 25 California jobs.[100] In authorizing drafting of the HARD HATS Ordinance, the Council reiterated the importance of providing healthcare expenditures for construction workers to support a sustainable construction workforce: "The creation and utilization of apprenticeship along with the commitments to paid healthcare act to both recruit and retain an adequate base of construction workers and to be a pipeline for future supervisors and licensed independent contractors."[101]

The City Council should request the Applicant commit to complying with the provisions of the HARD HATS Ordinance which address healthcare expenditures for the construction workforce.[102]

V. THE PROJECT IS INCONSISTENT WITH THE GENERAL PLAN

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.[103] The Project fails to demonstrate consistency with General Plan economic and employment policies.[104]

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[99] HARD HATS Staff Report at 81.
[100] *Id.*
[101] *Id.* at 77.
[102] HARD HATS Ordinance Section 13.107.050 (Health Care Expenditures).
[103] CEQA Guidelines Appendix G, XI Land Use and Planning.
[104] The Addendum also fails as an informational document under CEQA for failing to analyze the Project's consistency with the General Plan; such inconsistencies constitute significant impacts under CEQA. *Pocket Protectors v. Sacramento* (2005) 124 Cal.App.4th 903 (where a local or regional policy of general applicability, such as an ordinance, is adopted in order to avoid or mitigate environmental effects, a conflict with that policy in itself indicates a potentially significant impact on the environment).

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A. The Project May Be Inconsistent with the General Plan Economic Development & Employment Element

The record lacks substantial evidence demonstrating that the Project would be consistent with the General Plan Economic Development & Employment Element. Thus, the Project should not have been approved until consistency was demonstrated.[105]

The General Plan Economic Development and Employment Element Policy (ED-1) provides that the City must "[i]ncrease the number of jobs that go to Berkeley citizens by coordinating economic development efforts with employment placement."[106] Further, the General Plan provides that the City intends to "[w]ork with job training programs and encourage training for life skills, job readiness, and specific target industries."[107] The Project does not include any commitment to provide construction jobs to Berkeley or East Bay residents, and the Applicant has not committed to contribute to any apprenticeship or other construction job training programs. Housing development projects in the City must also implement the goals and policies of the General Plan, including the following:

1) Ensure that Berkeley has an adequate supply of decent housing, living wage jobs, and businesses providing basic goods and services.
2) New housing will be developed to expand housing opportunities in Berkeley to meet the needs of all income groups.[108]

The City has determined that "it is in the City of Berkeley's economic interest to support a pipeline of skilled workers to accomplish the construction objectives and policies of the Berkeley General Plan."[109] The Project could support this goal by including community benefits such as local hire and healthcare and workforce

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[105] SB 330 requires conformance with applicable, objective general plan and zoning standards. Gov. Code § 65905.5. (a).
[106] Berkeley General Plan Economic Development and Employment Element, p. ED-5. Available at: https://berkeleyca.gov/sites/default/files/documents/12_Economic%20Development%20and%20Employment%20Element-FINAL.pdf.
[107] *Id.*
[108] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[109] City of Berkeley, Agenda and Staff Report, Berkeley City Council, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS), https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report") (Sept. 20, 2022) p. 7.

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benefits. Absent such benefits, the City lacks substantial evidence demonstrating compliance with Policy ED-1.

Moreover, the Applicant's decision to pay an in lieu fee to the City in place of meeting the City's on-site affordable unit recommendations fails to demonstrate consistency with the General Plan's objective that development in the City should ensure an "adequate supply of decent housing" and may contribute to inconsistencies with the General Plan Housing Element (discussed below).[110] The City may allow the Applicant to pay a fee, in lieu of providing an adequate supply of affordable housing on the Project site.[111] However, the payment of in lieu fees defers the production of affordable housing to an indefinite future time. As discussed below, delaying construction of additional affordable units to the future may result in the City being unable to timely meet its Regional Housing Needs Allocation ("RHNA"). The City Council should ask the Applicant to consider adding additional on-site affordable units as a means of increasing compliance with the General Plan.

VI. THE PROJECT IS INCONSISTENT WITH THE CITY'S HOUSING ELEMENT

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.[112] The Project fails to demonstrate consistency with General Plan Housing Element.[113]

The Project proposes to construct a ten-story residential building containing 166 dwelling units (17 Very Low-Income unit).[114] The project is seeking a 50% Density Bonus by providing 15% of the base project units as affordable to very low-income households. The Developer stated in their application for the Project that, in order to "comply with City of Berkeley Affordable Housing rental requirements, the project will also be providing additional Affordable Units and/or/or-in-

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[110] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[111] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.
[112] CEQA Guidelines Appendix G, XI Land Use and Planning.
[113] The Addendum also fails as an informational document under CEQA for failing to analyze the Project's consistency with the General Plan; such inconsistencies constitute significant impacts under CEQA. *Pocket Protectors,* 124 Cal.App.4th 903.
[114] Addendum p. 2.

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combination-with providing an in-lieu Mitigation Fee per the City of Berkeley requirements."[115] More affordable units must be provided for the Project to be consistent with the City's Housing Element and state law.

The RHNA is the State-required process that seeks to ensure cities and counties plan for enough housing in their Housing Element cycle to accommodate all economic segments of the community.[116] Accordingly, the Housing Element of the City's General Plan identifies the City's housing conditions and needs, evaluates the City's ability to meet its RHNA, establishes the goals, objectives, and policies of the City's housing strategy, and provides an array of programs to create mixed-income neighborhoods across the City.[117] The Housing Element, which was amended on February 17, 2023, states that "the City has a remaining RHNA of 5,033 units (1,923 very low income; 852 low income; 1,227 moderate income; and 1,031 above moderate income units)... The City must identify adequate sites capacity for this remaining RHNA."[118] Accordingly, Policy H-1 – Extremely Low, Very Low, Low and Moderate-Income Housing – provides: "Increase the number of housing units affordable to Berkeley residents with lower income levels."[119] Because the City has not produced and is not expected to produce enough affordable housing to meet its RHNA, projects that do not contribute to the City's RHNA are inconsistent with the City's Housing Element, a primary goal of which is to meet the RHNA.

Berkeley Municipal Code Section 23.328.010 provides that residential housing projects constructing five or more dwelling units must include at least 20 percent of the total number of dwelling units within the project as inclusionary units. As an alternative to providing inclusionary units required in an ownership project, the applicant may elect to enter in an agreement with the City to pay fees in-lieu of providing below-market rate units.[120]

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[115] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.

[116] Cal. Gov. Code Section 65580 – 65589.9; *see* City of Berkeley, Adopted 2023-2031 Housing Element, available at https://berkeleyca.gov/sites/default/files/documents/Berkeley_2023-2031%20Housing%20Element_02-17-2023v2_0.pdf.

[117] *Id.*

[118] City of Berkeley, Adopted 2023-2031 Housing Element, p 107.

[119] *Id.* at 15.

[120] Effective July 1, 2022, the fee is set at follows: Paid at Certificate of Occupancy: $46,185 per rental unit; or Paid at building permit: $43,185 per rental unit.

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However, the City has failed to meet its RHNA in previous cycles. Under the 5th RHNA Cycle from 2015-2023, Berkeley was required to plan for 2,959 units.[121] This includes 532 at very low income, 442 at low income, 584 at moderate income, and 1,401 at above moderate income. The Housing Element states that 3,742 units have been built, or 126% of the target. However, the targets for affordable housing were missed, with 309 very low income (58%), 130 low income (29%), and 106 moderate income (18%) units completed. 3,197 units of above moderate, or market rate housing was built, which was 228% of the goal. Thus, the City already has adequate above moderate and market rate housing units to meet its RHNA requirements, but is short on production of affordable units.

Here, the Project fails to provide the City's required 20% affordable units on-site, contributing to the City's current shortage of affordable units, while at the same time taking a viable project site out of production for those additional affordable units. Although the Project will pay an in-lieu fee, the Project would not be consistent with the Housing Element because it places the burden on the City to identify alternate sites to construct affordable housing units in time to meet its RHNA requirements.[122]

The Applicant's proposal to pay in lieu fees instead of providing 20% on-site affordable units for the 3000 Shattuck Project is not unique. The Project is one of at least three concurrent projects proposed by the Applicant, which similarly fail to contribute an adequate percentage of affordable units. The Applicant also proposes to construct the 2900-2920 Shattuck Avenue Project,[123] a ten-story residential building containing 221 dwelling units (22 Very Low-Income unit).[124] The 2920 Shattuck Avenue project is seeking a 46.25% Density Bonus by providing only 14% of the base project units as affordable to very low-income households.[125] The Applicant's 1598 University Project similarly proposes to pay an in lieu fee for the affordable units required by the City in excess of the on-site affordable necessary to qualify for a density bonus. The Applicant's decision not to provide the recommended 20% of on-site affordable units for its pending projects contributes to a cumulative shortage of affordable units that the City Council should address in its consideration of this Appeal.

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[121] City of Berkeley, Adopted 2023-2031 Housing Element, pg. D-8.
[122] City of Berkeley, Adopted 2023-2031 Housing Element, p. 107.
[123] Use Permit #ZP2022-0116 (APN: 053 159000501).
[124] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave. Berkeley CA 94705, APN 053 159000501, (Sept. 4, 2022), https://www.dropbox.com/s/528twax3fw4fw9p/2022-09-04_APP_PCKT_2920%20Shattuck.pdf?dl=0 ("Application Packet"), pdf pg. 2108 of 2143.
[125] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave.

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VII. CONCLUSION

For the reasons stated herein, we urge the City Council to uphold this appeal, vacate the ZAB's approval of the Project, and remand the Project to Staff to prepare a revised environmental analysis in a subsequent EIR, as required by CEQA. The new analysis must identify and implement all feasible mitigation measures available to reduce the Project's potentially significant site-specific impacts to less than significant levels before the City reconsiders approving the Project.

Thank you for your attention to these comments. Please include them in the City's record of proceedings for the Project.

Sincerely,

Kelilah Federman

Kelilah D. Federman

Attachment
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ATTACHMENT A

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May 9, 2023

Via Email and US Mail
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Kimberly Gaffney, Vice Chairperson
Igor Tregub, Member
Michael Thompson, Member
Holly Scheider, Member
Shoshana O'Keefe, Member
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Re: Comments on Agenda Item 5: 3000 Shattuck Avenue Project Addendum to the Initial Study Negative Declaration (SCH #2017062025)

Dear Chairperson Duffy, Vice Chairperson Gaffney, Members: Tregub, Thompson, Schneider, O'Keefe, Kahn, Yung, Sanderson, and Ms. Riemer:

On behalf of East Bay Residents for Responsible Development ("East Bay Residents"), we submit these comments on the Addendum to the 3000 Shattuck Avenue Project Initial Study Negative Declaration (SCH #2017062025) prepared by the City of Berkeley (the "City") for the 3000 Shattuck Avenue Project ("Project") proposed by Mark Rhoades of the Rhoades Planning Group and Khan Shazada & Farhat (collectively, "Applicant").[1] The City adopted the IS/ND ("2018 IS/ND") for the original 3000 Shattuck Avenue Project ("original project") and approved the

[1] City of Berkeley, Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (Permit No. ZP2015-0229, SCH # 2017062025) (January 2023), https://www.dropbox.com/s/kr0fme3neozjqyf/2023-01-27_CEQA_Addendum%20to%20IS-ND_3000%20Shattuck.pdf?dl=0 (hereinafter "Addendum").

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original project on November 27, 2018.[2] These comments precede the hearing of the City of Berkeley Zoning Adjustment Board ("ZAB") on May 11, 2023 at 7:00 pm.[3]

The Project consists of changes to the original project considered in the 2018 IS/ND. The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235 sf of residential space including 166 residential units, 1,095 SF of retail space, and zero parking spaces on the 0.31-acre site. Construction of the Project is anticipated to last eighteen (18) months. The Project site is located at 3000 Shattuck Avenue, Berkeley, CA 94705 (APNs 53-1592-1 & 53-1592-2). The Project site is designated as Avenue Commercial in the City's General Plan and is located in the South Area Commercial (C-SA) zoning district. The original project proposed 32,603 SF of residential uses, with 44 units including 4 affordable units. This Project proposes 80,235 SF of residential uses, with 166 units including 17 affordable units. The original project proposed the inclusion of 17 parking spaces for automobiles, this Project proposes zero parking spaces.[4]

We prepared these comments with the assistance of air quality and hazards expert Matt Hagemann and Paul Rosenfeld of Soil Water Air Protection Enterprise (SWAPE), whose technical comments and curriculum vitae are attached hereto as Exhibit A.[5] Our review of the Addendum and 2018 IS/ND demonstrates that the Project fails to comply with CEQA. As explained more fully below, the Addendum fails to accurately disclose the extent of the Project's potentially significant air quality, public health, hazardous contamination, land use, and cumulative impacts which are new or more severe than the impacts analyzed in the 2018 IS/ND. There is substantial evidence to support a fair argument that the Project will result in significant, unmitigated impacts in each of these areas. Further, the Project fails to comply with the City's General Plan and Housing Element. The City may not approve the Project until the City prepares an EIR that adequately analyzes the Project's potentially significant impacts and incorporates all feasible mitigation measures to avoid or minimize these impacts.

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[2] City of Berkeley, 3000 Shattuck Avenue Mixed Use Project Initial Study–Negative Declaration, https://www.dropbox.com/s/ui1snla3csdgpik/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0 (hereinafter "2018 IS/ND").

[3] City of Berkeley Zoning Adjustments Meeting Agenda, May 11, 2023, https://berkeleyca.gov/sites/default/files/legislative-body-meeting-agendas/2023-05-11_ZAB_Agenda_Linked.pdf.

[4] Addendum p. 3.

[5] See **Exhibit A,** Matt Hagemann, P.G., C.Hg., Paul E. Rosenfeld, Ph.D., Comments on the 3000 Shattuck Mixed-Use Project (SCH No. 2017062025) (April 10, 2023) ("SWAPE Comments").

Moreover, the City prepared the Addendum in violation of CEQA and the court's holding in *Friends of College of San Mateo Gardens v. San Mateo County Community College District*. There, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[6] Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[7] Here, the changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the MND based on new significant environmental effects thus requiring preparation of an Environmental Impact Report ("EIR") if the impacts cannot be mitigated. Substantial evidence supports a fair argument that the Project's potentially significant impacts cannot be adequately mitigated by the measures proposed in the Addendum and 2018 IS/ND.

For the reasons discussed herein, and in the attached expert comments, East Bay Residents urges the City to remedy the deficiencies in the Addendum by preparing a legally adequate EIR and circulating it for public review and comment.[8] East Bay Residents and their expert consultants have identified numerous potentially significant impacts that the Addendum either mischaracterizes, underestimates, or fails to identify.

I. STATEMENT OF INTEREST

East Bay Residents for Responsible Development ("ERRBD" or "Residents") is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential impacts associated with Project development. The association includes the UA Plumbers and Pipefitters Local 342, International Brotherhood of Electrical Workers Local 595, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, and their members and their families who live and/or work in the City of Berkeley and Alameda County.

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[6] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2022) 11 Cal.App.5th 596, 600.

[7] CEQA Guidelines, § 15164, subd. (b).

[8] We reserve the right to supplement these comments at later hearings on this Project. Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199–1203; *see Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

The individual members of EBRRD live, work, and raise their families in the City and in Alameda County. They would be directly affected by the Project's impacts. Individual members may also work on the Project itself. They will therefore be first in line to be exposed to any health and safety hazards that may exist on the Project site.

The organizational members of EBRRD also have an interest in enforcing the City's planning and zoning laws and the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there. Indeed, continued degradation can, and has, caused restrictions on growth that reduce future employment opportunities. Finally, Residents' members are concerned about projects that are built without providing opportunities to improve local recruitment, apprenticeship training, and retention of skilled workforces, and without providing lifesaving healthcare expenditures for the construction workforce.

II. LEGAL BACKGROUND

CEQA is designed to inform decision-makers and the public about the potential, significant environmental effects of a project.[9] "CEQA's fundamental goal [is] fostering informed decision-making."[10] "The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind."[11]

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR, except in certain limited circumstances.[12] The EIR is the very heart of CEQA.[13] The EIR acts like an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return."[14] The EIR aids an agency in identifying, analyzing, disclosing, and, to the extent possible, avoiding a project's significant environmental effects through implementing feasible

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[9] 14 Cal. Code Regs. ("CEQA Guidelines") § 15002, subd. (a)(1).
[10] *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 402.
[11] *Bozung v. LAFCO* (1975) 13 Cal.3d 263, 283.
[12] See, e.g., Pub. Resources Code, § 21100.
[13] *Dunn-Edwards v. Bay Area Air Quality Management Dist.* (1992) 9 Cal.App.4th 644, 652.
[14] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1220.

mitigation measures.[15] The EIR also serves "to demonstrate to an apprehensive citizenry that the [agency] has analyzed and considered the ecological implications of its action."[16] Thus, an EIR "protects not only the environment but also informed self-government."[17]

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment."[18] The EIR aids an agency in identifying, analyzing, disclosing, and, to the extent possible, avoiding a project's significant environmental effects through implementing feasible mitigation measures.[19] In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact. Because "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process" by allowing the agency to dispense with the duty to prepare an EIR, negative declarations are allowed only in cases where there is not even a "fair argument" that the project will have a significant environmental effect.[20]

Under the fair argument standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[21] The phrase "significant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[22] In certain circumstances, a project with potentially significant impacts can be modified by the adoption of mitigation measures to reduce the impacts to a level of insignificance. In such cases, an agency may satisfy its CEQA obligation by preparing a mitigated

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[15] Pub. Resources Code § 21002.1(a); CEQA Guidelines § 15002(a), (f).
[16] *No Oil, Inc. v. City of Richmond* (1974) 13 Cal.3d 68, 86.
[17] *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.
[18] Pub. Resources Code, § 21080, subd. (d) (emphasis added); CEQA Guidelines, § 15064; see also *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927; *Mejia v. City of Richmond* (2005) 13 Cal.App.4th 322.
[19] Pub. Resources Code, § 21002.1, subd. (a); CEQA Guidelines, § 15002, subd. (a) & (f).
[20] *Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440; Pub. Resources Code, §§ 21100, 21064.
[21] Pub. Res. Code §§21080(d), 21082.2(d); 14 Cal. Code Reg. §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Richmond* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.
[22] Pub. Resources Code, § 21068.

negative declaration.[23] A mitigated negative declaration, however, is also subject to the fair argument standard. Thus, an MND is also inadequate, and an EIR is required, whenever substantial evidence in the record supports a "fair argument" that significant impacts may occur, even with the imposition of mitigation measures.

The "fair argument" standard is an exceptionally "low threshold" favoring environmental review in an EIR rather than a negative declaration.[24] The "fair argument" standard requires the preparation of an EIR if any substantial evidence in the record indicates that a project may have an adverse environmental effect.[25] As a matter of law, substantial evidence includes both expert and lay opinion.[26] Even if other substantial evidence supports the opposite conclusion, the agency nevertheless must prepare an EIR.[27] Under the "fair argument" test, CEQA always resolves the benefit of the doubt in favor of the public and the environment.

Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[28] "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration," and if no subsequent EIR is required, the agency "shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation." (CEQA Guidelines, § 15162, subd. (b).) Additionally, CEQA requires preparation of an EIR where "[s]ubstantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects."

Here, the changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the 2018 IS/ND based on new significant environmental effects thus requiring the preparation of a negative

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[23] Pub. Resources Code, § 21064.5; CEQA Guidelines, § 15064, subd. (f)(2).
[24] *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928.
[25] CEQA Guidelines, § 15064, subd. (f)(1); *Pocket Protectors v. City of Sacramento, supra,* 124 Cal.App.4th at 931.
[26] Pub. Resources Code, § 21080, subd. (e)(1); CEQA Guidelines, § 15064, subd. (f)(5).
[27] *Arviv Enterprises v. South Valley Area Planning Comm.* (2002) 101 Cal.App.4th 1333, 1346; *Stanislaus Audubon v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens v. City of Encinitas* (1994) 29 Cal.App.4th 1597.
[28] CEQA Guidelines, § 15164, subd. (b).

declaration at a minimum, and an EIR if the impacts cannot be mitigated. As shown below, SWAPE provided substantial evidence that ROG emissions, and construction and demolition emissions may be significant and were not analyzed or mitigated in the 2018 IS/ND.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[29] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[30]

In *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.*, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[31] In that case, the court found that the change in the Project as detailed in the Addendum was significant enough to require additional environmental review, and that an Addendum was not the appropriate CEQA document. Similarly, here, the Project's changes, including the doubling of its height, increased air quality, public health, and hazards impacts results in new significant impact such that an Addendum is inappropriate and an EIR must be prepared. The ZAB must remand the Project to Staff to prepare a legally adequate EIR for the Project, because substantial evidence supports a fair argument that the Project's changes may result in significant impacts, which have not been avoided through the revisions in the Addendum. Project impacts remain significant and unmitigated, as detailed herein.

Moreover, the ZAB lacks the evidence necessary to approve the requested Use Permit for the Project because substantial evidence demonstrates that the Project will be detrimental to the general welfare. The Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce, or that the Project will provide apprenticeship training opportunities or

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[29] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[30] *Id.* at p. 959.
[31] (2022) 11 Cal.App.5th 596.

healthcare benefits or other workforce benefits for City of Berkeley or East Bay residents. The Project may be built with low-wage, out-of-area workers who lack the livable wages, health benefits, stability, and basic standard of living that Berkeley has committed to ensuring for all of its workers on all housing developments constructed in the City. The Project would therefore be detrimental to the health, safety, peace, morals, comfort, and general welfare of the City and its residents, especially its local construction workforce who may not have the opportunity to build much-needed housing in their own community. The Project is also inconsistent with the workforce and economic requirements of the City of Berkeley General Plan ("General Plan").

The ZAB should remand the Project to Staff to prepare a legally adequate EIR and include conditions of approval requesting community benefits, including local hire provisions, workforce standards, and healthcare benefits for workers, to ensure the Project does not cause a detriment to the general welfare of the City.

III. THE PROJECT'S POTENTIALLY SIGNIFICANT HAZARDS IMPACTS REQUIRE PREPARATION OF AN EIR

The Project site is contaminated with hazardous contaminants from its historical use as a service station operated by Atlantic Richfield Company (ARCO).[32] ARCO later became an affiliate of BP and the site was operated as BP Station No. 00414 until it was sold to Mr. Shahzada Khan on February 25, 2004.[33] The Project site is listed on the State Water Resources Control Board's Geotracker database as Site T0600100094. The site is therefore on a Cortese List per Section 65962.5 of the Government Code. The Project site is currently an operational gas station and smog check location operated by Berkeley Gas & Smog. The Project site contained three underground storage tanks (USTs) that contained gasoline, and one waste oil UST.[34]

The Addendum tiers from the IS which states:

> The site is included on the list of hazardous materials sites compiled pursuant to Government Code 65962.5 (Cortese List) as "closed" cases. As

[32] Atlantic Richfield Company, Case Closure Summary Report Former British Petroleum Station #00414 City of Berkeley case #27540. 3000 Shattuck Avenue Berkeley, California (June 9, 2010), https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8836282312/T0600100094.PDF p. 2/16 (hereinafter "Case Closure Summary Report").
[33] *Id.*
[34] *Id.*

> described in the Environmental Setting, the RWQCB issued a case closure letter for the clean-up case in September 2014, concluding that the current plume is restricted to the site and does not present a current or potential risk to human health or the environment. Therefore, the project would not create a significant hazard to the public or the environment and the impact would be less than significant.[35]

The IS relies on the misleading statement that the cleanup case is "closed."[36] The Addendum then relies on the same misleading proposition. The Addendum states that "[t]here are two closed State Water Quality Control Board GeoTracker investigations on the project site (T0600100094 [closed 2013] and T10000004483 [closed 2014])."[37]

These statements are misleading because the site was closed to commercial/industrial screening levels, "based on the assumption that land use at the site will remain unchanged."[38] The Project site fails to meet the residential ESL levels necessary to place housing on the site. The site must undergo additional soil remediation to remove excess contaminants and reach acceptable residential ESLs because the site is being converted from commercial/industrial to residential use. People will live on the site, their children may play on the grounds, but the site was cleaned only to commercial/industrial screening levels. The contamination that currently remains onsite may result in health risk impacts to the residents and the community.

Moreover, the Addendum includes the Case Closure Summary Report that states that "[s]oil vapor samples have not been collected at the site."[39] The Case Closure Summary was required to include "Cumulative data tables for all soil, groundwater samples, including grab samples, and soil vapor ***must*** be included."[40] Data on soil vapor samples and cumulative data on the potential for soil vapor intrusion was not included in the Case Closure Summary, the Initial Study, or the Addendum and is not available for public review and scrutiny.

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[35] IS, https://www.dropbox.com/s/19ieh5spqqet2qb/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0, p. 23.
[36] *Id.*
[37] Addendum p. 22.
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[39] Case Closure Summary Report, p. 10/16.
[40] *Id.* at pdf 83 of 86.

At the time of the site's closure in 2010, "[a] station building [was] present at the site and the entire site [was] paved, with no exposed soil present at the ground surface."[41] Project construction here, will disrupt and expose soil, potentially exposing dangerous and previously untested levels of soil vapor. At the time of the closure, the "potential for soil vapor intrusion was evaluated by comparing current groundwater concentrations to groundwater ESLs...for the protection of the vapor intrusion pathway in a ***commercial setting***."[42] The soil vapor and potential health risk impacts have not been analyzed for a residential setting and may pose a significant risk to residents of the Project site.

The City must draft an EIR because substantial evidence supports a fair argument that hazardous contamination and soil vapor may result in a significant environmental impact. The courts have repeatedly held that an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact.[43] Here, the City cannot approve the Project based on an Addendum to the Initial Study because project modification results in potentially significant impacts from hazardous contamination and soil vapor which were unstudied at the time of preparation of the 2018 IS/ND.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[44] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[45] The City must prepare an EIR to adequately analyze and mitigate the Project's potentially significant and as yet unstudied impacts from soil vapor and hazardous contamination, before the Project can lawfully be approved.

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[41] Case Closure Summary Report, p. 10/16.
[42] *Id.*
[43] Pub. Resources Code § 21151; CEQA Guidelines § 15064(f); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* ("*CREED*") (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319 ("*CBE v. SCAQMD*").
[44] Friends of College of San Mateo Gardens v. San Mateo County Community College Dist. (2016) 1 Cal.5th 937, 958.
[45] Id. at p. 959.

IV. THE PROJECT RESULTS IN SIGNIFICANT AIR QUALITY IMPACTS REQUIRING PREPARATION OF AN EIR

An EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact.[46] "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[47] An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial."[48] Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact."[49] The Project may result in potentially significant impacts to air quality. Air quality impacts constitute new or increased significant environmental effects "not previously considered in connection with the project as originally approved."[50]

A. The Project Results in Significant ROG Emissions

East Bay Resident's air quality expert consultants at SWAPE found that the Project results in significant emissions from Reactive Organic Gas ("ROG") which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold. BAAQMD provides that ROG emissions shall not exceed 54 pounds per day ("lbs/day"), but the Project would result in ROG emissions of 71.55 lbs/day.[51] The 2018 IS/ND makes no mention of ROG emissions, but the Addendum states that the ROG emissions would be 3 lbs/day.[52] This conclusion is not supported by substantial evidence. SWAPE found that the changes to the Project result in a 2,285% increase in ROG emissions, far and away exceeding the BAAQMD significance threshold. Therefore, ROG emissions remain significant and the Addendum nor the 2018 IS/ND adequately mitigate such impacts. The City must prepare an EIR to satisfy CEQA.

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[46] Pub. Resources Code § 21151; CEQA Guidelines § 15064(f); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* ("*CREED*") (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319 ("*CBE v. SCAQMD*").
[47] Pub. Resources Code § 21068; CEQA Guidelines § 15382; *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1581.
[48] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.
[49] Pub. Resources Code § 21080(e)(1) (emphasis added); *CREED*, 197 Cal.App.4th at 331.
[50] *Friends of College of San Mateo Gardens v. San Mateo Community College District*, *supra*, 1 Cal.5th at 959.
[51] SWAPE Comments, p. 5.
[52] Addendum, p. 14.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[53] Further, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[54]

East Bay Residents present substantial evidence, in these comments and in our expert comments attached, showing that the Project may result in potentially significant ROG emissions, which must be mitigated before the Project can be approved. These impacts were not considered in the prior 2018 IS/ND, and must be analyzed in an EIR. SWAPE's comments present dozens of effective mitigation measures to help reduce Project ROG, construction, and operational air emissions. Such measures should be implemented in an EIR's Mitigation Monitoring and Reporting Program. The City must prepare an EIR to study the previously unstudied and potentially significant air quality impacts from the Project, particularly with respect to ROG emissions, to satisfy CEQA.

B. The Addendum Underestimates the Project's Construction and Demolition Emissions

The Addendum states that Project construction will last 18 months.[55] The Addendum states that the original project included a construction period of 18 months as well.[56] But, the 2018 IS/ND provided that the construction period will last 20 months.[57] Thus, it is particularly troubling, that the Addendum's air quality analysis relies on a 21-month construction period, resulting in an underestimation of the Project's construction emissions. SWAPE concludes that the elongated construction duration results in an underestimation of the daily emissions resultant from construction equipment onsite. SWAPE concludes that the analysis improperly relies on the assumption that "there will be less construction activities

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[53] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[54] Id. at p. 959.
[55] Addendum, p. 3.
[56] *Id.*
[57] 2018 IS/ND.

required per day and, consequently, less pollutants emitted per day."[58] The Addendum's air quality construction emissions calculations underestimate the Project's daily emissions and are therefore not supported by substantial evidence. The City must prepare a legally adequate EIR which accurately analyzes the Project's daily construction emissions with an accurate construction schedule guiding the analysis.

Further, the Addendum fails as an informational document under CEQA for failing to model the emissions associated with demolition of the existing building on the Project site. SWAPE concludes that the Addendum fails altogether to analyze the demolition phase of construction and inputted zeros into the calculations for square feet being demolished.[59] This is not an accurate assessment of the required demolition of the existing gas station, two gas pump islands, and related infrastructure.[60] Demolition of existing infrastructure will obviously exceed zero square feet of demolition activity, counter to the Addendum's unsupported calculations. SWAPE concludes that the failure to include the demolition emissions presents a significant issue, because by failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, which may be significant and remain unmitigated.[61] These impacts were not considered in the prior 2018 IS/ND, and must be analyzed in an EIR.

C. The Addendum Underestimates the Project's Construction Emissions from Trucking the Modular Units

The Addendum fails as an informational document under CEQA for failing to quantify and analyze the Project's potentially significant air pollution impacts from trucking the modular units potentially hundreds of miles to the Project site. The Addendum and 2018 IS/ND failed to quantify the potentially significant air quality, health risk, and cumulative impact associated with trucking the modular units. These modular units may be transported from out of state or hundreds of miles from the Project site. Absent an analysis of the emissions associated with trucking these modular units, the Addendum fails as an informational document under CEQA, and the conclusion that air impacts from Project construction are less than significant is not supported by substantial evidence.

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[58] SWAPE Comments, p. 4.
[59] *Id.*
[60] 2018 IS/ND, p. 6.
[61] SWAPE Comments, p. 5. s

V. THE PROJECT RESULTS IN SIGNIFICANT CUMULATIVE IMPACTS REQUIRING PREPARATION OF AN EIR

CEQA requires agencies to analyze whether a project has impacts that are individually limited, but cumulatively considerable.[62] Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects). Cumulative impacts are defined as "two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts."[63]

The Addendum fails to include any analysis supported by substantial evidence to conclude that the Project does not result in cumulatively considerable impacts. In fact, the Addendum only mentions cumulative impacts for traffic and air quality impacts, but dismisses all other potentially significant cumulative impacts out of hand, without providing substantial evidence to support the conclusions. The 2018 IS/ND concluded that because the Project is "an infill location" cumulative impacts are less than significant for all resource areas.[64] But, it is particularly because this Project is an infill project, that a cumulative analysis of concurrent construction impacts is so critical. Here, the Project is proposed to be constructed concurrently with the 2920 Shattuck Project, just down the street, among other new Berkeley high rise developments. Both this Project and the 2920 Shattuck project will result in potentially cumulatively significant air quality, hazards, and land use impacts that were not analyzed in conjunction with either Project's analysis.

The City must prepare an EIR which accurately analyzes the Project's potentially significant cumulative impacts before the Project can lawfully be approved.

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[62] 14 CCR § 15355(b); *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 905.
[63] 14 CCR § 15355.
[64] 2018 IS/ND, p. 38.

VI. THE PROJECT MAY BE DETRIMENTAL TO THE GENERAL WELFARE OF THE CITY, RESIDENTS, AND WORKERS

In order to approve a Use Permit, under Berkeley Municipal Code Section 23.406.040, the Zoning Adjustments Board must find that the proposed project:

1) Will not be detrimental to the health, safety, peace, morals, comfort, or **general welfare** of persons residing or visiting in the area or neighborhood of the proposed use; and
2) Will not be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City.

Municipal Code Section 22.20.020 defines detrimental impacts to include, *inter alia*, increased demand for workforce housing, training, and benefits: "The increased demand for affordable housing, child care and public services, ***adequate employment training and placement facilities and amenities***, and the other impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare."[65] Under Section 22.20.020, a detriment to the general welfare occurs when the City fails to mitigate the impacts of a development project, including the increased demand for housing, workforce training, and public services that may result from the Project.[66] Pursuant to Municipal Code Section 22.20.020, the Project's impacts to the general welfare for failure to provide employment training, placement facilities, and amenities, require mitigation.[67]

Further, the ZAB may approve a Use Permit for demolition of a non-residential building or structure only if the ZAB finds that "demolition will not be materially detrimental to the commercial needs and public interest of any affected neighborhood or the City of Berkeley"[68] Here, the ZAB cannot make the necessary findings that demolition of the existing structure and construction of the Project is in the public interest, absent community and workforce benefits to promote the general welfare.

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[65] BMC § 22.20.020(G) (emphasis added).
[66] *Id.*
[67] BMC § 22.20.020(G).
[68] *Id.* at § 23.326.070(D)(1).

Housing projects, like this one, that are constructed with low-wage or uninsured construction workers are detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or visiting the City and the Project's Downtown neighborhood, as well as to the general welfare of the City. The City should request the Applicant include community benefits in the Project conditions of approval, including local hire provisions and healthcare standards and benefits in order to promote the general welfare.

A. The Project is Detrimental to the General Welfare for Failing to Hire Locally

Absent a provision requiring the Applicant to hire locally, the Project may be detrimental to the general welfare of Berkeley residents. Local hire commitments are a critical way not only to hire local residents, but to use project hiring needs to target opportunities to low-income residents and people of color who might otherwise not benefit from new development.[69] Local hire programs help address the fragmentation inherent in the development process, establishing better communication among developers, employers, community organizations, local job training resources, and the workforce development system that can provide job readiness and job retention support services.[70] Here, the Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce. The Project is therefore likely to be detrimental to City goals and the Berkeley community – particularly to its highly qualified construction workforce, who may not have the opportunity to build much-needed housing in their own community. The City should request the Applicant provide a local hire percentage of 30 percent as a community benefit for the Project.

B. The Project is Detrimental to the General Welfare for Failing to Provide Healthcare to Construction Workers

Further, the Project has not committed to healthcare standards or benefits for the construction workers building the Project. This results in a detriment to the general welfare of the City and its residents, including in particular, to its construction worker residents. By failing to provide healthcare for its construction

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[69] Kathleen Mulligan-Hansel, *Making Development Work for Local Residents: Local Hire Programs and Implementation Strategies that Serve Low-Income Communities,* (July 2008). Available at: https://s3.amazonaws.com/proggov21-uploads/uploads/asset/asset_file/Making_Development_Work_Local_Residents_Mulligan-HanselPWF2008.pdf.

[70] *Id.*

workers, the Project leaves the responsibility of providing for the health, safety, and welfare of the workers and the community on the workers themselves, or on taxpayer-funded public assistance, thus externalizing the cost of construction. By failing to provide healthcare standards, the Project would perpetuate existing income and healthcare inequities for construction workers, causing a detriment to the general welfare by failing to provide for the health and safety of its workers. The City should request the Applicant provide healthcare benefits as a community benefit of the Project.

Project construction will increase the local demand for a construction workforce. The Project's lack of workforce standards and worker healthcare may exacerbate the existing demand for local affordable housing and public services by construction workers that currently receive low pay without benefits. Without mitigation, these impacts remain significant, and the ZAB cannot make the necessary findings that the Project complies with the General Plan and zoning code. To comply with the General Plan Economic Development and Employment Element, the City must ensure that new housing developments provide jobs that go to Berkeley residents and provide job training programs and job readiness.

Moreover, the Municipal Code provides that the "Zoning Ordinance establishes *minimum* requirements to promote the public health, safety, and general welfare."[71] The Municipal Code also provides that, "[t]o the extent possible, it is the government's responsibility to balance the responsibility to ensure the health, safety, and general welfare of the public at large in a fiscally and environmentally sustainable manner."[72] It is therefore the responsibility of the Zoning Adjustment Board to promote the general welfare beyond the minimum required by law. Here, the ZAB must require the Project to include community benefits like those detailed herein, otherwise, the Project contravenes the Municipal Code and General Plan.

VII. THE PROJECT IS INCONSISTENT WITH THE GENERAL PLAN

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an

[71] BMC § 22.104.030.
[72] *Id.* at § 2.09.020.

environmental effect.[73] The Addendum fails as an informational document under CEQA for failing to analyze the Project's inconsistency with the General Plan.

A. The Project is Inconsistent with the General Plan Economic Development & Employment Element

The Project is inconsistent with the General Plan Economic Development & Employment Element, and thus cannot be approved until consistency is demonstrated.[74] The General Plan Economic Development and Employment Element Policy (ED-1) provides that the City must "[i]ncrease the number of jobs that go to Berkeley citizens by coordinating economic development efforts with employment placement."[75] Further, the General Plan provides that the City intends to "[w]ork with job training programs and encourage training for life skills, job readiness, and specific target industries."[76] The Project does not include any commitment to provide construction jobs to Berkeley or East Bay residents, and does not contribute to any apprenticeship or other construction job training programs. Housing development projects in the City must also implement the goals and policies of the General Plan, including the following:

1) Ensure that Berkeley has an adequate supply of decent housing, living wage jobs, and businesses providing basic goods and services.
2) New housing will be developed to expand housing opportunities in Berkeley to meet the needs of all income groups.[77]

The City has determined that "it is in the City of Berkeley's economic interest to support a pipeline of skilled workers to accomplish the construction objectives and policies of the Berkeley General Plan."[78] The Project must support this goal by

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[73] CEQA Guidelines Appendix G, XI Land Use and Planning.
[74] SB 330 requires conformance with applicable, objective general plan and zoning standards. Gov. Code § 65905.5. (a).
[75] Berkeley General Plan Economic Development and Employment Element, p. ED-5. Available at: https://berkeleyca.gov/sites/default/files/documents/12_Economic%20Development%20and%20Employment%20Element-FINAL.pdf.
[76] *Id.*
[77] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[78] City of Berkeley, Agenda and Staff Report, Berkeley City Council, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS), https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report") (Sept. 20, 2022) p. 7.

including community benefits such as local hire and healthcare and workforce benefits, otherwise the Project is detrimental to the general welfare, violates the General Plan, and may not be approved.

Moreover, the Project's failure to provide sufficient affordable housing onsite contravenes the General Plan's objective that development in the City should ensure an "adequate supply of decent housing."[79] The City may allow the Applicant to pay a fee, in-lieu of providing an adequate supply of affordable housing on the Project site.[80] If the City continues this practice of allowing developers to get away with paying in lieu fees, instead of providing onsite affordable housing, the City will have an insufficient supply of decent affordable housing as required by the General Plan. The Project's failure to provide *onsite* affordable housing for local residents therefore contravenes the General Plan's Economic Development and Employment Element and cannot be approved by ZAB.

VIII. THE PROJECT IS INCONSISTENT WITH THE CITY'S HOUSING ELEMENT

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.[81] The Addendum fails as an informational document under CEQA for failing to analyze the Project's inconsistency with the Housing Element.

The Project proposes to construct a ten-story residential building containing 166 dwelling units (17 Very Low-Income unit).[82] The project is seeking a 50% Density Bonus by providing 15% of the base project units as affordable to very low-income households. The Developer stated in their application for the Project that in order to "comply with City of Berkeley Affordable Housing rental requirements, the project will also be providing additional Affordable Units and/or/or-in-combination-

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[79] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[80] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.
[81] CEQA Guidelines Appendix G, XI Land Use and Planning.
[82] Addendum p. 2.

with providing an in-lieu Mitigation Fee per the City of Berkeley requirements."[83] More affordable units must be provided for the Project to be consistent with the City's Housing Element and state law.

The Regional Housing Needs Assessment is the California State-required process that seeks to ensure cities and counties plan for enough housing in their Housing Element cycle to accommodate all economic segments of the community.[84] Accordingly, the Housing Element of the City's General Plan identifies the City's housing conditions and needs, evaluates the City's ability to meet its Regional Housing Needs Allocation ("RHNA"), establishes the goals, objectives, and policies of the City's housing strategy, and provides an array of programs to create mixed-income neighborhoods across the City.[85] The Housing Element, which was amended on February 17, 2023, states that "the City has a remaining RHNA of 5,033 units (1,923 very low income; 852 low income; 1,227 moderate income; and 1,031 above moderate income units)... The City must identify adequate sites capacity for this remaining RHNA."[86] Accordingly, Policy H-1 – Extremely Low, Very Low, Low and Moderate-Income Housing – provides: "Increase the number of housing units affordable to Berkeley residents with lower income levels."[87] Because the City has not produced and is not expected to produce enough affordable housing to meet its RHNA, projects that do not contribute to the City's RHNA are inconsistent with the City's Housing Element, a primary goal of which is to meet the RHNA.

Berkeley Municipal Code Section 23.328.010 provides that residential housing projects constructing five or more dwelling units must include at least 20 percent of the total number of dwelling units within the project as inclusionary units. As an alternative to providing inclusionary units required in an ownership project, the applicant may elect to enter in an agreement with the City to pay fees in-lieu of providing below-market rate units.[88]

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[83] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.

[84] Cal. Gov. Code Section 65580 – 65589.9; *see* City of Berkeley, Adopted 2023-2031 Housing Element, available at https://berkeleyca.gov/sites/default/files/documents/Berkeley_2023-2031%20Housing%20Element_02-17-2023v2_0.pdf.

[85] *Id.*

[86] City of Berkeley, Adopted 2023-2031 Housing Element, p 107.

[87] *Id.* at 15.

[88] Effective July 1, 2022, the fee is set at follows: Paid at Certificate of Occupancy: $46,185 per rental unit; or Paid at building permit: $43,185 per rental unit.

However, the City has failed to meet its RHNA in previous cycles. Under the 5th RHNA Cycle from 2015-2023, Berkeley was required to plan for 2,959 units.[89] This includes 532 at very low income, 442 at low income, 584 at moderate income, and 1,401 at above moderate income. The Housing Element states that 3,742 units have been built, or 126% of the target. However, the targets for affordable housing were missed, with 309 very low income (58%), 130 low income (29%), and 106 moderate income (18%) units completed. 3,197 units of above moderate, or market rate housing was built, which was 228% of the goal. Thus, the City already has adequate above moderate and market rate housing units to meet its RHNA requirements, but is short on production of affordable units.

Here, the Project fails to provide the City's required 20% affordable units on-site, contributing to the City's current shortage of affordable units, while at the same time taking a viable project site out of production for those additional affordable units. Although the Project will pay an in-lieu fee, the Project would not be consistent with the Housing Element because it places the burden on the City to identify alternate sites to construct affordable housing units in time to meet its RHNA requirements.[90]

The Applicant's proposal to pay in lieu fees instead of providing 20% on-site affordable units for the 3000 Shattuck Project is not unique. The Project is one of at least three concurrent projects proposed by the Applicant, which similarly fail to contribute an adequate percentage of affordable units. The Applicant also proposes to construct the 2900-2920 Shattuck Avenue Project,[91] a ten-story residential building containing 221 dwelling units (22 Very Low-Income unit).[92] The 2920 Shattuck Avenue project is seeking a 46.25% Density Bonus by providing only 14% of the base project units as affordable to very low-income households.[93] The Applicant's 1598 University Project similarly proposes to pay an in lieu fee for the affordable units required by the City in excess of the on-site affordable necessary to qualify for a density bonus. The Applicant's decision not to provide the recommended 20% of on-site affordable units for its pending projects contributes to a cumulative shortage of affordable units that the City should address before considering approval of this Project.

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[89] City of Berkeley, Adopted 2023-2031 Housing Element, pg. D-8.
[90] City of Berkeley, Adopted 2023-2031 Housing Element, p. 107.
[91] Use Permit #ZP2022-0116 (APN: 053 159000501).
[92] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave. Berkeley CA 94705, APN 053 159000501, (Sept. 4, 2022), https://www.dropbox.com/s/528twax3fw4fw9p/2022-09-04_APP_PCKT_2920%20Shattuck.pdf?dl=0 ("Application Packet"), pdf pg. 2108 of 2143.
[93] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave.

IX. CONCLUSION

CEQA requires that an agency prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved may have a significant environmental impact not previously considered in connection with the project as originally approved.[94] As discussed herein, there is substantial evidence supporting a fair argument that the Project would result in significant adverse impacts that were not considered in the prior 2018 IS/ND, and that are not adequately analyzed or mitigated. The Project is detrimental to the general welfare for failing to provide workforce and community benefits.

The Addendum also fails to contain the basic information and analysis required by CEQA, deficiencies which "cannot be dismissed as harmless or insignificant defects."[95] The City's findings regarding Project impacts do not comply with the law and are not supported by substantial evidence. The City cannot approve the Project until it prepares an EIR that resolves these issues and complies with CEQA's requirements.

Thank you for your attention to these comments. Please include them in the record of proceedings for the Project.

Sincerely,

Kelilah D. Federman

KDF:ljl

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[94] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[95] *Bakersfield Citizens for Local Control v. Bakersfield ("Bakersfield")* (2004) 124 Cal. App. 4th 1184, 1220.

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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April 10, 2023

Kelilah Federman
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Subject: Comments on the 3000 Shattuck Mixed-Use Project (SCH No. 2017062025)

Dear Ms. Federman,

We have reviewed the January 2023 Addendum ("Addendum") and the 2018 Final Initial Study and Negative Declaration ("FIS/ND") for the 3000 Shattuck Mixed-Use ("Project") located in the City of Berkeley ("City"). The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235-SF of residential space, as well as 1,095-SF of retail space on the 0.31-acre site.

Our review concludes that the Addendum fails to adequately evaluate the Project's air quality impacts. As a result, emissions associated with construction of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality impacts that the project may have on the environment.

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod").[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's

[1] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected. Regarding the evaluation of the criteria air pollutant emissions associated with Project construction and operation, the Addendum states:

> "Additionally, since the adoption of the 2018 Final IS-ND, a new version (2022.1) of California Emissions Estimator Model (CalEEMod) has been published. Based on these updates, updated emissions estimates for the modified project were calculated for this analysis" (p. 14).

As stated above, the Addendum relies on CalEEMod Version 2022.1 to estimate the Project's emissions. However, this poses a problem as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files.[2] Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix A, pp. 83):

8. User Changes to Default Data

Screen	Justification
Land Use	Project site plans
Construction: Construction Phases	Applicant provided
Operations: Hearths	no fireplaces or woodstoves

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

Thus, the output files associated with CalEEMod Version 2022.1 fail to disclose the exact parameters utilized to calculate Project emissions. To remedy this issue, the Addendum should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[3] Without access to the complete output files, including the specific numeric changes to the

[2] "CalEEMod California Emissions Estimator Model Soft Release." California Air Pollution Control Officers Association (CAPCOA), 2022, *available at:* https://caleemod.com/.

[3] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.

default values, we cannot verify that the Addendum's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, an EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[4]

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the Addendum relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 14).[5] Regardless, when reviewing the Project's CalEEMod output files, provided as Appendix A to the Addendum, we were able to identify several model inputs that are inconsistent with information disclosed in the Addendum. As such, the Project's construction emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction of the Project will have on local and regional air quality.

Incorrect and Unsubstantiated Construction Schedule

Review of the CalEEMod output files demonstrates that the "3000 Shattuck Detailed Report" model includes the following construction schedule (see excerpt below) (Appendix A, pp. 70):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Site Preparation	Site Preparation	7/3/2023	11/15/2023	5.00	98.0
Grading	Grading	11/16/2023	1/1/2024	5.00	33.0
Building Construction	Building Construction	1/2/2024	2/10/2025	5.00	290
Paving	Paving	1/2/2024	7/31/2024	5.00	152
Architectural Coating	Architectural Coating	2/11/2025	3/30/2025	5.00	34.0

According to the "User Changes to Default Data" table, the justification provided for this schedule is:

> "Applicant provided" (Appendix A, pp. 83).

Additionally, regarding Project construction, the Addendum states:

> "Site preparation, construction procedures, and proposed utility connections would remain like the original project. Please refer to the 2018 Final IS-ND for details regarding these project components. Overall construction of the modified project would occur over a similar time span as was anticipated for the original project but would be more intensive due to the height increase" (p. 2).

Furthermore, regarding the Project's anticipated construction duration, the FIS/ND states:

> "The project would include demolition of the existing building and surface parking lot on the site. [...] Construction would take place over an 18-month period" (p. 7).

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[4] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

[5] "CalEEMod Version 2022.1.0." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/.

However, the model's construction schedule is incorrect and unsubstantiated for three reasons.

First, as discussed by the FIS/ND, the construction of the Project is anticipated to occur over 18 months. However, the model includes a 21-month total construction length, and is therefore overestimated by 3 months. By including an overestimated construction schedule, the model is incorrect and inconsistent with information provided by the Addendum and associated documents.

Second, the model does not include a demolition phase of construction. This is incorrect, as the Addendum clearly states that demolition would be required prior to Project construction:

> "Like the original project, the modified project would involve demolition of the existing structures on the site, as detailed in the 2018 Final IS-ND for the original project" (p. 6)

As such, the model's construction schedule is incorrect and inconsistent with information provided by the Addendum and associated documents.

Third, the model's revised construction schedule remains unsubstantiated as the Addendum and associated documents fail to mention the Project's proposed *individual* construction phases whatsoever. This is inconsistent with guidance provided by the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site-or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA."[6]

As the Addendum and associated documents only mention the Project's total construction duration of 18 months, the Addendum fails to provide substantial evidence to support the revised individual construction phase lengths. As such, we cannot verify the changes. Instead, the model should have proportionately altered all phase lengths to match the proposed construction duration of 18 months.[7]

By including an incorrect and overestimated construction schedule, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. As such, the model underestimates the peak daily emissions associated with Project construction and should not be relied upon to determine Project significance.

Failure to Model Demolition

Regarding demolition of the existing building, the Addendum states:

> "Like the original project, the modified project would involve demolition of the existing structures on the site, as detailed in the 2018 Final IS-ND for the original project" (p. 6)

[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide,p. 13,14.

[7] See Attachment A for proportionately altered construction schedule.

However, as previously mentioned, review of the CalEEMod output files demonstrates that the "3000 Shattuck Detailed Report" model fails to include a demolition phase of construction. Furthermore, the model fails to include any amount of demolition debris (see excerpt below) (Appendix A, pp. 72).

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (sq. ft.)
Site Preparation	0.00	0.00	20.5	0.00
Grading	0.00	0.00	15.8	0.00
Paving	0.00	0.00	0.00	0.00

By failing to include any amount of demolition material, the model is inconsistent with the information provided in the Addendum.

This inconsistency presents an issue, as demolition material is used by CalEEMod to determine emissions associated with the demolition phase of construction. The three primary operations that generate dust emission during the demolition phase are mechanical or explosive dismemberment, site removal of debris, and on-site truck traffic on paved and unpaved road.[8] By failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, and should not be relied upon to determine the significance of the Project's air quality impacts.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions we prepared an updated CalEEMod model, using the Project-specific information provided by the Addendum. In our updated model, we included the required amount of demolition and proportionately altered the individual construction phase lengths to match the proposed construction duration of 18 months.[9]

Our updated analysis estimates that the Reactive Organic Gas ("ROG") emissions associated with Project construction exceed the applicable BAAQMD threshold of 54 pounds per day ("lbs/day"), as referenced by the Addendum (p. 14) (see table below).[10]

[8] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 11.
[9] See Attachment B for updated CalEEMod model.
[10] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde, p. 2-2.

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
Addendum	3.0
SWAPE	71.55
% Increase	2,285%
BAAQMD Threshold	**54**
Exceeds?	*Yes*

As demonstrated above, construction-related ROG emissions, as estimated by SWAPE, increase by approximately 2,285% and exceed the applicable BAAQMD significance threshold. Our updated modeling demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed by the Addendum. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project's emissions, we recommend consideration of SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1"):[11]

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.

[11] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.
l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.
q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.
s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.
t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.
u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).
x) As applicable for rail projects, the following measures should be considered...
z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.
bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible: - Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85% - Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%. - Nonroad diesel engines on site shall be Tier 2 or higher. - Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or

CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.

- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
    iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

An EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Proportionately Altered Construction Schedule
Attachment B: Updated CalEEMod Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul Rosenfeld CV

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Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

<u>Policy:</u>

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences.* 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health.* 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry.* Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research.* 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research.* 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research.* 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld.** (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution.* Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America.* Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant.*
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants.*
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

3000 Shattuck Avenue Mixed-Use Project

Responses to Appeal Comments on the 2023 Addendum to the 2018 Initial Study-Negative Declaration

SCH# 2017062025

prepared by

City of Berkeley
1947 Center Street, Second Floor
Berkeley, California 94704
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prepared with the assistance of

Rincon Consultants, Inc.
66 Franklin Street, Suite 300
Oakland, California 94607

March 2025

RINCON CONSULTANTS, INC. SINCE 1994

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Attachment A Updated California Emissions Estimator Model Results

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1 Introduction

1.1 Purpose of the Response to Appeal Comments on the Addendum

This document contains responses to comments received on the Addendum to the 2018 Initial Study-Negative Declaration (IS-ND) prepared for the proposed 3000 Shattuck Mixed-Use Project (proposed project). The comments are associated with an appeal of the Zoning Adjustments Board's (ZAB) 2023 approval of the project.

1.2 Environmental Review Process

The 2018 IS-ND was circulated for public review from June 12, 2017 to July 11, 2017 and was adopted by the ZAB in November 2018, when the project was approved by the Berkeley City Council. An Addendum to the 2018 IS-ND was prepared in 2023 to address subsequent changes to the original project including an increase in building height, removal of all automobile parking spaces, increase in residential units and square footage, increase in affordable units, increase in open space, and decrease in retail square footage. The Addendum was adopted and the project was approved by the ZAB at a hearing on May 11, 2023. The City of Berkeley received three letters in May and June 2023 appealing the approval of the project to the City Council, which included comments on the Addendum. The City directed Rincon to prepare this Responses to Comments document addressing appeal comments related to the Addendum and compliance with the California Environmental Quality Act (CEQA). Copies of the appeal letters are included in Chapter 2 of this document.

1.3 Document Organization

This document consists of the following chapters:

- **Chapter 1: Introduction.** This chapter discusses the purpose and organization of this response to comments document and summarizes the environmental review process for the project.
- **Chapter 2: Written Comments and Responses.** This chapter contains copies of the appeal letters. A written response is provided for each CEQA-related written comment in the letters. Each response is keyed to the corresponding comment.
- **Chapter 3 Revisions to the IS-ND Addendum.** Revisions to the Addendum that have been made in response to the comments received, or to otherwise provide clarity, are contained in this chapter and in the 2025 Revised Addendum, and are shown in underline and strikeout.

2 Comments and Responses

This chapter includes written comments on the 2023 Addendum prepared for the 3000 Shattuck Avenue Mixed-Use Project as part of the appeal of the project approval, and responses to those comments. The commenters and the page number on which each commenter's letter appear are listed below.

Letter No. and Commenter		Page No.
1	Adam Frankel	3
2	Larisa Cummings et al	87
3	Kelilah D. Federman	109

The comment letters and responses follow. The comment letters have been numbered sequentially and each separate issue raised by the commenter, if more than one, has been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue (Response 1.1, for example, indicates that the response is for the first issue raised in comment Letter 1). Responses are not provided to the letters attached to the appeal letters because they were addressed in a memorandum to ZAB on May 11, 2023, or the points are the same as those in the appeal letters.

In some cases, specific changes to the text of the Addendum have been made in response to comments received. In no case do these revisions result in new significant impacts or impacts of a substantially greater severity than those identified in the 2018 IS-ND. Where revisions to the main text are called for, the page and paragraph of the Addendum are shown, followed by the text revision. Added text is indicated with <u>underlining</u> and deleted text is indicated with ~~strikeout~~. Page numbers correspond to the page numbers of the 2025 revised Addendum.

Appeal Letter 1

DRURV T 510:8364200 F 510.836,4205 1939 Harrison Street, St4. 150 Oakland. CA 94612^

Via Email

May 19, 2023

City Clerk Department
Attn: Mark Numainville, City Clerk
City of Berkeley
2180 Milvia Street, 1st Floor
Berkeley, CA 94704
clerk@cityofberkeley.info

Re: Appeal of Zoning Adjustments Board Approval of the Addendum to the 2018 Initial Study-Negative Declaration for the 3000 Shattuck Avenue Project (State Clearinghouse # 2017062025) (Administrative Use Permit # ZP2022-0046)

Dear Mr. Numainville:

1 I am writing on behalf of the Laborers International Union of North America, Local Union 304 and its members living in the City of Berkeley ("LiUNA"), regarding the project known as 3000 Shattuck Avenue (Administrative Use Permit # ZP2022-0046), including all actions related or referring to the proposed development of a 10-story (114 feet) mixed-use building utilizing a Density Bonus, with 166 dwellings, including 17 Very Low-Income units, and 1,043 square-feet of commercial space, located at 3000 Shattuck Avenue in the City of Berkeley, California (the "Project").

2 The Project was approved by the Zoning Adjustments Board ("ZAB") at a public hearing on May 11, 2023. LiUNA wishes to appeal the ZAB's approval to the City Council for further review pursuant to Berkeley Municipal Code Section 23.410.030. LiUNA is concerned by the City's improperuse of an Addendum which, if approved, would violate the California Environmental Quality Act ("CEQA"). This letter incorporates by reference and adopts in their entirety the May 5, 2023 letter and exhibits submitted by LiUNA (attached as **Exhibit A)** and the May 9, 2023 letter and exhibits submitted by East Bay Residents for Responsible Development (attached as **Exhibit B).**

3 In November 2018, the City approved the Project and adopted an Initial Study and Negative Declaration ("2018 IS-ND") for a prior iteration of the Project, which included 44 units and was 5 stories high ("2018 Project"). Now, the City has approved an Addendum to allow the development of a 10-story building with 166 units ("2023 Project"). The 2018 IS-ND did not consider the significant environmental impacts that would result from the increased scale of the new Project nor did it consider new information of substantial importance which LiUNA and

others have presented regarding the Project's significant environmental effects.

3, con't

The use of an Addendum here is improper under CEQA. CEQA prohibits the use of an addendum if a revised Project may have one or more significant impacts that were not discussed in the originating negative declaration. To comply with CEQA, the City should prepare either a mitigated negative declaration ("MND") or an environmental impact report ("EIR") to properly analyze and mitigate the impacts of the proposed Project. LiUNA is specifically concerned by the following issues related to the Project:

4

1. **Indoor air quality:** Interior composite wood materials will off-gas indoor air emissions of formaldehyde, a known human carcinogen, resulting in significant health risks to future residents. Neither the Addendum nor the 2018 IS-ND have considered or mitigated this significant impact. Therefore, this issue must be addressed by an MND or an EIR.

5

2. **Hazardous materials:** The Project site is listed on the State Water Resources Control Board's Geotracker database and is therefore included on a Cortese List pursuant to California Government Code Section 65962.5. The Addendum states that the site's cleanup case is "closed." However, the site was closed because it met commercial/industrial screening levels, a determination which was based on the assumption that the land use at the site would remain unchanged from its current use as a gas station. The site has not been independently determined to meet environmental safety levels for residential development. This is a previously undisclosed significant impact which must be addressed by an MND or an EIR.

6

3. **ROG emissions:** The Project may result in potentially significant Reactive Organic Gas ("ROG") emissions which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold of significance. These impacts were not considered by the 2018 IS-ND and thus constitute a significant impact which must be addressed by an MND or an EIR.

7

4. **Construction and demolition emissions:** The Addendum underestimates the Project's air emissions by inexplicably altering the estimated length of Project construction times and failing to account for emissions from the Project's demolition activities. These significant omissions are not supported by substantial evidence and must be addressed by an MND or an EIR.

8

5. **Trucking emissions:** The Addendum and the 2018 IS-ND fail to analyze or disclose the potentially significant air quality impacts that will result from the trucking of modular units to the Project site. This is a significant air quality impact which must be addressed by an MND or an EIR.

9

6. **Detriment to the General Welfare:** Pursuant to Berkeley Municipal Code Section 22.20.020(F):

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> development projects create individual and cumulative impacts, including changes in, and in many cases deterioration of, the visual environment; an increase in noise, air and water pollution levels; new and increased traffic and parking impacts; power, sewer and other utility demand and consumption; loss of valuable open space; and increased demands on parks, schools, libraries, police, fire and public facilities, services and amenities;...

When such impacts are not mitigated, Municipal Code Section 22.20.020(G) goes on to state that these and other "impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare…." Here, the Addendum violates the Municipal Code because it fails to mitigate the Project's detrimental impacts to air quality.

CONCLUSION

The use of an Addendum to approve the proposed Project violates CEQA. An Addendum is not appropriate "if the proposed modification may produce a significant environmental effect that had not previously been studied." *(Friends of College of San Mateo Gardens* v. *San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.

10

Based on the foregoing, there is a fair argument that the Project will have numerous significant environmental impacts which have not been previously considered. These impacts were not adequately analyzed or mitigated by the Addendum nor by the 2018 IS-ND.

LiUNA therefore respectfully requests that the City Council grant its appeal and overturn the ZAB's approval of the Addendum. Thereafter, the City should return the Project to the Planning and Development Department for further consideration of its environmental impacts, including the necessary preparation and public review of either an MND or an EIR.

Sincerely,

Adam Frankel
LOZEAU | DRURY LLP

EXHIBIT A

LOZEAU DRURY LLP
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Oakland, CA 94612
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Adam@lozeaudrury.com

Via Email

May 5, 2023

Land Use Planning Division
Attn: Samantha Updegrave (Zoning Adjustments Board Secretary)
1947 Center Street, 2nd Floor
Berkeley, CA 94704
zab@cityofberkeley.info

Re: Proposed Addendum to the 2018 Initial Study-Negative Declaration for the 3000 Shattuck Avenue Project (State Clearinghouse # 2017062025) (Administrative Use Permit # ZP2022-0046) (Zoning Adjustments Board, Meeting of May 11, 2023, Agenda Item No. 5)

Dear Honorable Members of the Zoning Adjustments Board:

I am writing on behalf of the Laborers International Union of North America, Local Union 304 and its members living in the City of Berkeley ("LiUNA"), regarding the project known as 3000 Shattuck Avenue (Administrative Use Permit # ZP2022-0046), including all actions related or referring to the proposed development of a 10-story (114 feet) mixed-use building utilizing a Density Bonus, with 166 dwellings, including 17 Very Low-Income units, and 1,043 square-feet of commercial space, located at 3000 Shattuck Avenue in the City of Berkeley, California (the "Project").

LiUNA is concerned by the City's improper use of an Addendum which, if approved, would violate the California Environmental Quality Act ("CEQA"). In November 2018, the City approved the Project and adopted an Initial Study and Negative Declaration ("2018 IS-ND") for a prior iteration of the Project, which included 44 units and was 5 stories high ("2018 Project"). Now, the City proposes an Addendum to allow the development of a 10-story building with 166 units ("2023 Project"). The 2018 IS-ND did not consider the significant environmental impacts that would result from the increased scale of the new Project nor did it consider new information of substantial importance which LiUNA has presented regarding the Project's significant environmental effects.

The use of an Addendum here is improper under CEQA. CEQA prohibits the use of an addendum if a revised Project may have one or more significant impacts that were not discussed in the originating negative declaration. To comply with CEQA, the City should prepare either a

mitigated negative declaration ("MND") or an environmental impact report ("EIR") to properly analyze and mitigate the impacts of the proposed Project.

LEGAL REVIEW OF CEQA ADDENDUM

a. The Addendum Disregards Established Legal Precedent and Violates CEQA

A CEQA addendum must adhere to the courts' guidance informing when, and under what circumstances, its use is legally permissible. The courts have established a detailed, two-step inquiry for reviewing legal challenges to a CEQA addendum. This deliberative process is outlined in two important court decisions arising from the same case, *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016). The first decision was issued by the California Supreme Court and will be referred to here as "*San Mateo Gardens I.*"[1] A subsequent decision in the same case was issued by the Court of Appeal and will be referred to here as "*San Mateo Gardens II.*"[2]

The first step in this two-step analysis is for the reviewing court to determine whether **substantial evidence** supports the lead agency's determination that the original CEQA document, in this case the 2018 IS-ND, "retains some informational value." (*San Mateo Gardens I* at p. 952.) If the court finds that the original document "retains some informational value," it must hold that CEQA's subsequent review provisions apply (*San Mateo Gardens II* at 604-605.)

But this determination is "only the first step" in the court's analysis. (*San Mateo Gardens I* at 956.) "[T]he next—and critical—step is to determine whether the agency has properly determined how to comply with its obligations under those provisions." (*San Mateo Gardens I* at 953.) "[W]hen a project is initially approved by negative declaration, a "major revision" to the initial negative declaration will necessarily be required if the proposed modification *may* produce a significant environmental effect that had not previously been studied. (San Mateo Gardens I, 1 Cal. 5th 937, 958, citing CEQA Guidelines, § 15162.) "Indeed, if the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR." (*Id.*)

The *San Mateo Gardens II* opinion helpfully outlines the analysis required during this second stage of review:

> [O]nce we have determined that the [CEQA] subsequent review provisions apply to a project approved through a negative declaration, **our application of the standard of review changes and is *less deferential to the agency.*** It is less deferential because a negative declaration requires a major revision—i.e., a subsequent EIR or mitigated negative declaration—whenever there is substantial evidence to support a fair argument that proposed changes 'might have a significant environmental impact not previously

[1] 1 Cal.5th 937 (2016).
[2] 11 Cal.App.5th 596 (2017).

> considered in connection with the project as originally approved.' (quoting *San Mateo Gardens I* at 959 [additional citations omitted].)
>
> Proposed changes might have a significant environmental impact when there is some competent evidence to suggest such an impact, even if other evidence suggests otherwise. (See *Friends of "B" Street* (1980) 106 Cal.App.3d 988, 1002.) This means that an agency's determination that a major revision to a negative declaration is not required will necessarily lack substantial evidence when **a fair argument exists that the project might have a previously unstudied significant environmental impact.** (*San Mateo Gardens II* at 607-608 [emph. added].)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors,* 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in their decision making. Ordinarily, public agencies weigh the evidence in the record and reach a decision based on a preponderance of the evidence. [Citation]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact.

(Kostka & Zischke, *Practice Under the California Environmental Quality Act*, §6.37 (2d ed. Cal. CEB 2021).) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with *a preference for resolving doubts in favor of environmental review.*" (*Pocket Protectors*, 124 Cal.App.4th at 928 (emphasis in original).)

In proposing the Addendum, the City seeks to make substantial revisions to the 2018 Project without performing a legally sufficient environmental review or offering appropriate mitigation for the Project's potentially significant environmental effects. The expert evidence which LiUNA presents today constitutes substantial evidence of a fair argument that the expanded Project will have significant environmental effects which the Addendum has not adequately addressed. Therefore, to comply with CEQA, the City should refrain from approving the Addendum and undertake the necessary efforts to prepare an MND or EIR for the Project.

DISCUSSION

I. The Project Will Have Significant Indoor Air Quality Impacts.

Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, has conducted a review of the proposed Project and relevant documents regarding the Project's indoor air emissions. Mr. Offermann concludes that the Project will likely expose future residents of the Project to significant impacts related to indoor air quality, and in particular, emissions of the cancer-causing chemical formaldehyde. Mr. Offermann is a leading expert on indoor air quality and has published extensively on the topic. Mr. Offermann's expert comments and CV are attached as **Exhibit A**.

Mr. Offermann explains that many composite wood products used in building materials and furnishings commonly found in offices, warehouses, residences, and hotels contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states that "[t]he primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. A., pp. 2-3.)

Formaldehyde is a known human carcinogen. Mr. Offermann estimates that future residents of the Project would be exposed to a cancer risk of 120 per million. (Ex. A., p. 4.) This calculation assumes that all materials would be compliant with the California Air Resources Board's ("CARB") Phase 2 formaldehyde airborne toxics control measure ("Phase 2 Formaldehyde ATCM"). (*Id.*, p. 3.) These potential exposure levels exceed the Bay Area Air Quality Management District's ("BAAQMD") CEQA significance threshold for airborne cancer risks of 10 per million. (*Id.*, p. 2.)

Mr. Offermann concludes that these significant environmental impacts should be analyzed in an MND or EIR and that mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (*Id.*, p. 5.) Mr. Offermann identifies mitigation measures that are available to reduce these significant health risks, including the installation of air filters and a requirement that the Applicant use only composite wood materials (e.g., hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins, or ultra-low emitting formaldehyde (ULEF) resins, for all of the buildings' interior spaces. (*Id.*, pp. 11-13.)

Mr. Offermann's comments constitute new information of substantial importance related to the presence of a significant environmental effect which was not discussed by the 2018 IS-ND. Furthermore, they provide substantial evidence of a fair argument that the Project will likely cause significant impacts on human health and indoor air quality. The City must therefore prepare an MND or an EIR to fully evaluate and mitigate these likely impacts to future Project residents.

II. The Increased Size and Height of the Project May Cause Significant Noise Impacts on the Adjacent Residents.

The Addendum asserts that noise impacts from the expanded Project would be less than significant. However, it provides no quantified analysis of the Project's noise impacts to support this assertion. This is a clear oversight. For instance, the significantly increased height of the expanded building will likely require the use of larger construction equipment which may generate more significant noise impacts than would have resulted from construction of the original project. Additionally, operational noise impacts will be distinct from those of the original project because of the building's increased height and the differing angles from which sound will travel to surrounding receptors. The City must prepare an EIR or an MND to fully evaluate the Project's noise impacts and analyze if, and to what extent, these impacts will be greater than those that would have been generated by the original project.

III. The Project's Additional Height May Have Significant Visual Impacts From its Increased Shadow Effects.

The Addendum concedes that "the modified Project could result in potentially greater impacts associated with the increased building height." (Addendum, p. 12.) These potential impacts would be especially significant for the surrounding residences which will experience increased shadow effects from the building's significantly increased height, which itself is much higher than any of the area's surrounding structures. Appendix G of the CEQA Guidelines asks whether a Project would "[s]ubstantially degrade the existing visual character or quality of the site and its surroundings." (CEQA Guidelines, Appen. G, § I, subd. (d).) Here, there is substantial evidence of a fair argument that a Project may have significant aesthetic impacts, thus requiring the preparation of either an MND or an EIR. (*Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 938.)

CONCLUSION

The use of an Addendum to approve the proposed Project violates CEQA. An Addendum is not appropriate "if the proposed modification may produce a significant environmental effect that had not previously been studied" (*San Mateo Gardens*, 1 Cal.5th at 958). Based on the foregoing, there is a fair argument that the Project will have significant health and indoor air quality impacts which have not been previously considered, and that it may have significant noise and aesthetic impacts. These impacts were not adequately analyzed or mitigated by the Addendum.

LiUNA therefore respectfully requests that the Zoning Adjustments Board refrain from taking any action on the Project and instead return the Project to the Planning and Development Department for further consideration of its environmental impacts, including the necessary preparation and public review of either an MND or an EIR.

Sincerely,

Adam Frankel
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EXHIBIT A

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Date: April 26, 2023

To: Michael Lozeau
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From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: 3000 Shattuck Avenue Project, Berkeley, CA
(IEE File Reference: P-4704)

Pages: 19

Indoor Air Quality Impacts

NOTE: This Indoor Air Quality letter contains similar comments as the letter I wrote for 2900-2920 Shattuck Avenue Project, but is specific for a separate adjacent project, 3000 Shattuck Avenue Project.

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek.

Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 μg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 μg is 2 $\mu g/m^3$, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 $\mu g/m^3$. The median indoor formaldehyde concentration was 36 $\mu g/m^3$, and ranged from 4.8 to 136 $\mu g/m^3$, which corresponds to a median exceedance of the 2 $\mu g/m^3$ NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 $\mu g/m^3$, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Bay Area Air Quality Management District (BAAQMD, 2017).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment

(OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 $\mu g/m^3$ to 28% for the Acute REL of 55 $\mu g/m^3$.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood

products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to 3000 Shattuck Avenue Project, Berkeley, CA, the buildings consist of residential spaces and commercial spaces.

The residential occupants will potentially have continuous exposure (e.g. 24 hours per day, 52 weeks per year). These exposures are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residential construction.

Because these residences will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor residential formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020).

Assuming that the residential occupants inhale 20 m^3 of air per day, the average 70-year lifetime formaldehyde daily dose is 482 µg/day for continuous exposure in the residences. This exposure represents a cancer risk of 120 per million, which is more than 12 times the CEQA cancer risk of 10 per million. For occupants that do not have continuous exposure, the cancer risk will be proportionally less but still substantially over the CEQA cancer risk of 10 per million (e.g. for 12/hour/day occupancy, more than 6 times the CEQA cancer risk of 10 per million).

The employees of the commercial spaces are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because the commercial spaces will be constructed with CARB Phase 2 Formaldehyde

ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the employees of commercial spaces work 8 hours per day and inhale 20 m^3 of air per day, the formaldehyde dose per work-day at the offices is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

In addition, we note that the average outdoor air concentration of formaldehyde in California is 3 ppb, or 3.7 $\mu g/m^3$, (California Air Resources Board, 2004), and thus represents an average pre-existing background airborne cancer risk of 1.85 per million. Thus, the indoor air formaldehyde exposures describe above exacerbate this pre-existing risk resulting from outdoor air formaldehyde exposures.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of

formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each

ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the

maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., $\mu g/m^2$-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 $\mu g/m^2$-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 $\mu g/m^2$-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. $\mu g/h$) from the individual formaldehyde emission

rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration ($\mu g/m^3$) from Equation 1 by dividing the total formaldehyde emission rates (i.e. $\mu g/h$) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration ($\mu g/m^3$)

E_{total} = total formaldehyde emission rate ($\mu g/h$) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In

the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

According to the Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (City of Berkeley, 2023), the Project is close to roads with moderate to high traffic (e.g., Shattuck Avenue, Adeline Street, Ashby Avenue, Russell Street, Newbury Street etc.). As a result the Project site is a sound impacted site.

According to the Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (City of Berkeley, 2023), no assessment of the ambient noise levels resulting from the local traffic has been conducted. In order to design the building for this Project such that interior noise levels are acceptable, an acoustic study with actual on site measurements of the existing ambient noise levels and modeled future ambient noise levels needs to be conducted. The acoustic study of the existing ambient noise levels should be conducted over a one-week period and report the dBA CNEL or Ldn. This study will allow for the selection of a building envelope and windows with a sufficient STC such that the indoor noise levels are acceptable. A mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors will also be required. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of $PM_{2.5}$. According to the Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative

Declaration (City of Berkeley, 2023), the Project is located in the San Francisco Bay Area Basin, which is a State and Federal non-attainment area for $PM_{2.5}$.

An air quality analyses should be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence concentration of 35 $\mu g/m^3$, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins

made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the

mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California"*. In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality*" when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California

Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry,

could be used without causing indoor formaldehyde concentrations that result in CEQA cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

EXHIBIT B

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May 9, 2023

Via Email and US Mail
Yes Duffy, Chairperson
Kimberly Gaffney, Vice Chairperson
Igor Tregub, Member
Michael Thompson, Member
Holly Scheider, Member
Shoshana O'Keefe, Member
Charles Kahn, Member
Brandon Yung, Member
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Re: Comments on Agenda Item 5: 3000 Shattuck Avenue Project Addendum to the Initial Study Negative Declaration (SCH #2017062025)

Dear Chairperson Duffy, Vice Chairperson Gaffney, Members: Tregub, Thompson, Schneider, O'Keefe, Kahn, Yung, Sanderson, and Ms. Riemer:

On behalf of East Bay Residents for Responsible Development ("East Bay Residents"), we submit these comments on the Addendum to the 3000 Shattuck Avenue Project Initial Study Negative Declaration (SCH #2017062025) prepared by the City of Berkeley (the "City") for the 3000 Shattuck Avenue Project ("Project") proposed by Mark Rhoades of the Rhoades Planning Group and Khan Shazada & Farhat (collectively, "Applicant").[1] The City adopted the IS/ND ("2018 IS/ND") for the original 3000 Shattuck Avenue Project ("original project") and approved the

[1] City of Berkeley, Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (Permit No. ZP2015-0229, SCH # 2017062025) (January 2023), https://www.dropbox.com/s/kr0fme3neozjqyf/2023-01-27_CEQA_Addendum%20to%20IS-ND_3000%20Shattuck.pdf?dl=0 (hereinafter "Addendum").

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original project on November 27, 2018.[2] These comments precede the hearing of the City of Berkeley Zoning Adjustment Board ("ZAB") on May 11, 2023 at 7:00 pm.[3]

The Project consists of changes to the original project considered in the 2018 IS/ND. The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235 sf of residential space including 166 residential units, 1,095 SF of retail space, and zero parking spaces on the 0.31-acre site. Construction of the Project is anticipated to last eighteen (18) months. The Project site is located at 3000 Shattuck Avenue, Berkeley, CA 94705 (APNs 53-1592-1 & 53-1592-2). The Project site is designated as Avenue Commercial in the City's General Plan and is located in the South Area Commercial (C-SA) zoning district. The original project proposed 32,603 SF of residential uses, with 44 units including 4 affordable units. This Project proposes 80,235 SF of residential uses, with 166 units including 17 affordable units. The original project proposed the inclusion of 17 parking spaces for automobiles, this Project proposes zero parking spaces.[4]

We prepared these comments with the assistance of air quality and hazards expert Matt Hagemann and Paul Rosenfeld of Soil Water Air Protection Enterprise (SWAPE), whose technical comments and curriculum vitae are attached hereto as Exhibit A.[5] Our review of the Addendum and 2018 IS/ND demonstrates that the Project fails to comply with CEQA. As explained more fully below, the Addendum fails to accurately disclose the extent of the Project's potentially significant air quality, public health, hazardous contamination, land use, and cumulative impacts which are new or more severe than the impacts analyzed in the 2018 IS/ND. There is substantial evidence to support a fair argument that the Project will result in significant, unmitigated impacts in each of these areas. Further, the Project fails to comply with the City's General Plan and Housing Element. The City may not approve the Project until the City prepares an EIR that adequately analyzes the Project's potentially significant impacts and incorporates all feasible mitigation measures to avoid or minimize these impacts.

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[2] City of Berkeley, 3000 Shattuck Avenue Mixed Use Project Initial Study–Negative Declaration, https://www.dropbox.com/s/ui1snla3csdgpik/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0 (hereinafter "2018 IS/ND").
[3] City of Berkeley Zoning Adjustments Meeting Agenda, May 11, 2023, https://berkeleyca.gov/sites/default/files/legislative-body-meeting-agendas/2023-05-11_ZAB_Agenda_Linked.pdf.
[4] Addendum p. 3.
[5] See **Exhibit A,** Matt Hagemann, P.G., C.Hg., Paul E. Rosenfeld, Ph.D., Comments on the 3000 Shattuck Mixed-Use Project (SCH No. 2017062025) (April 10, 2023) ("SWAPE Comments").
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Moreover, the City prepared the Addendum in violation of CEQA and the court's holding in *Friends of College of San Mateo Gardens v. San Mateo County Community College District.* There, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[6] Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[7] Here, the changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the MND based on new significant environmental effects thus requiring preparation of an Environmental Impact Report ("EIR") if the impacts cannot be mitigated. Substantial evidence supports a fair argument that the Project's potentially significant impacts cannot be adequately mitigated by the measures proposed in the Addendum and 2018 IS/ND.

For the reasons discussed herein, and in the attached expert comments, East Bay Residents urges the City to remedy the deficiencies in the Addendum by preparing a legally adequate EIR and circulating it for public review and comment.[8] East Bay Residents and their expert consultants have identified numerous potentially significant impacts that the Addendum either mischaracterizes, underestimates, or fails to identify.

I. STATEMENT OF INTEREST

East Bay Residents for Responsible Development ("ERRBD" or "Residents") is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential impacts associated with Project development. The association includes the UA Plumbers and Pipefitters Local 342, International Brotherhood of Electrical Workers Local 595, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, and their members and their families who live and/or work in the City of Berkeley and Alameda County.

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[6] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2022) 11 Cal.App.5th 596, 600.

[7] CEQA Guidelines, § 15164, subd. (b).

[8] We reserve the right to supplement these comments at later hearings on this Project. Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199–1203; *see Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

The individual members of EBRRD live, work, and raise their families in the City and in Alameda County. They would be directly affected by the Project's impacts. Individual members may also work on the Project itself. They will therefore be first in line to be exposed to any health and safety hazards that may exist on the Project site.

The organizational members of EBRRD also have an interest in enforcing the City's planning and zoning laws and the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there. Indeed, continued degradation can, and has, caused restrictions on growth that reduce future employment opportunities. Finally, Residents' members are concerned about projects that are built without providing opportunities to improve local recruitment, apprenticeship training, and retention of skilled workforces, and without providing lifesaving healthcare expenditures for the construction workforce.

II. LEGAL BACKGROUND

CEQA is designed to inform decision-makers and the public about the potential, significant environmental effects of a project.[9] "CEQA's fundamental goal [is] fostering informed decision-making."[10] "The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind."[11]

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR, except in certain limited circumstances.[12] The EIR is the very heart of CEQA.[13] The EIR acts like an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return."[14] The EIR aids an agency in identifying, analyzing, disclosing, and, to the extent possible, avoiding a project's significant environmental effects through implementing feasible

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[9] 14 Cal. Code Regs. ("CEQA Guidelines") § 15002, subd. (a)(1).
[10] *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 402.
[11] *Bozung v. LAFCO* (1975) 13 Cal.3d 263, 283.
[12] See, e.g., Pub. Resources Code, § 21100.
[13] *Dunn-Edwards v. Bay Area Air Quality Management Dist.* (1992) 9 Cal.App.4th 644, 652.
[14] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1220.
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mitigation measures.[15] The EIR also serves "to demonstrate to an apprehensive citizenry that the [agency] has analyzed and considered the ecological implications of its action."[16] Thus, an EIR "protects not only the environment but also informed self-government."[17]

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment."[18] The EIR aids an agency in identifying, analyzing, disclosing, and, to the extent possible, avoiding a project's significant environmental effects through implementing feasible mitigation measures.[19] In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact. Because "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process" by allowing the agency to dispense with the duty to prepare an EIR, negative declarations are allowed only in cases where there is not even a "fair argument" that the project will have a significant environmental effect.[20]

Under the fair argument standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[21] The phrase "significant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[22] In certain circumstances, a project with potentially significant impacts can be modified by the adoption of mitigation measures to reduce the impacts to a level of insignificance. In such cases, an agency may satisfy its CEQA obligation by preparing a mitigated

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[15] Pub. Resources Code § 21002.1(a); CEQA Guidelines § 15002(a), (f).
[16] *No Oil, Inc. v. City of Richmond* (1974) 13 Cal.3d 68, 86.
[17] *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.
[18] Pub. Resources Code, § 21080, subd. (d) (emphasis added); CEQA Guidelines, § 15064; see also *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927; *Mejia v. City of Richmond* (2005) 13 Cal.App.4th 322.
[19] Pub. Resources Code, § 21002.1, subd. (a); CEQA Guidelines, § 15002, subd. (a) & (f).
[20] *Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440; Pub. Resources Code, §§ 21100, 21064.
[21] Pub. Res. Code §§21080(d), 21082.2(d); 14 Cal. Code Reg. §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Richmond* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.
[22] Pub. Resources Code, § 21068.
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negative declaration.[23] A mitigated negative declaration, however, is also subject to the fair argument standard. Thus, an MND is also inadequate, and an EIR is required, whenever substantial evidence in the record supports a "fair argument" that significant impacts may occur, even with the imposition of mitigation measures.

The "fair argument" standard is an exceptionally "low threshold" favoring environmental review in an EIR rather than a negative declaration.[24] The "fair argument" standard requires the preparation of an EIR if any substantial evidence in the record indicates that a project may have an adverse environmental effect.[25] As a matter of law, substantial evidence includes both expert and lay opinion.[26] Even if other substantial evidence supports the opposite conclusion, the agency nevertheless must prepare an EIR.[27] Under the "fair argument" test, CEQA always resolves the benefit of the doubt in favor of the public and the environment.

Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[28] "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration," and if no subsequent EIR is required, the agency "shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation." (CEQA Guidelines, § 15162, subd. (b).) Additionally, CEQA requires preparation of an EIR where "[s]ubstantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects."

Here, the changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the 2018 IS/ND based on new significant environmental effects thus requiring the preparation of a negative

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[23] Pub. Resources Code, § 21064.5; CEQA Guidelines, § 15064, subd. (f)(2).
[24] *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928.
[25] CEQA Guidelines, § 15064, subd. (f)(1); *Pocket Protectors v. City of Sacramento, supra*, 124 Cal.App.4th at 931.
[26] Pub. Resources Code, § 21080, subd. (e)(1); CEQA Guidelines, § 15064, subd. (f)(5).
[27] *Arviv Enterprises v. South Valley Area Planning Comm.* (2002) 101 Cal.App.4th 1333, 1346; *Stanislaus Audubon v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens v. City of Encinitas* (1994) 29 Cal.App.4th 1597.
[28] CEQA Guidelines, § 15164, subd. (b).
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declaration at a minimum, and an EIR if the impacts cannot be mitigated. As shown below, SWAPE provided substantial evidence that ROG emissions, and construction and demolition emissions may be significant and were not analyzed or mitigated in the 2018 IS/ND.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[29] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[30]

In *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.*, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[31] In that case, the court found that the change in the Project as detailed in the Addendum was significant enough to require additional environmental review, and that an Addendum was not the appropriate CEQA document. Similarly, here, the Project's changes, including the doubling of its height, increased air quality, public health, and hazards impacts results in new significant impact such that an Addendum is inappropriate and an EIR must be prepared. The ZAB must remand the Project to Staff to prepare a legally adequate EIR for the Project, because substantial evidence supports a fair argument that the Project's changes may result in significant impacts, which have not been avoided through the revisions in the Addendum. Project impacts remain significant and unmitigated, as detailed herein.

Moreover, the ZAB lacks the evidence necessary to approve the requested Use Permit for the Project because substantial evidence demonstrates that the Project will be detrimental to the general welfare. The Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce, or that the Project will provide apprenticeship training opportunities or

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[29] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[30] *Id.* at p. 959.
[31] (2022) 11 Cal.App.5th 596.
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healthcare benefits or other workforce benefits for City of Berkeley or East Bay residents. The Project may be built with low-wage, out-of-area workers who lack the livable wages, health benefits, stability, and basic standard of living that Berkeley has committed to ensuring for all of its workers on all housing developments constructed in the City. The Project would therefore be detrimental to the health, safety, peace, morals, comfort, and general welfare of the City and its residents, especially its local construction workforce who may not have the opportunity to build much-needed housing in their own community. The Project is also inconsistent with the workforce and economic requirements of the City of Berkeley General Plan ("General Plan").

The ZAB should remand the Project to Staff to prepare a legally adequate EIR and include conditions of approval requesting community benefits, including local hire provisions, workforce standards, and healthcare benefits for workers, to ensure the Project does not cause a detriment to the general welfare of the City.

III. THE PROJECT'S POTENTIALLY SIGNIFICANT HAZARDS IMPACTS REQUIRE PREPARATION OF AN EIR

The Project site is contaminated with hazardous contaminants from its historical use as a service station operated by Atlantic Richfield Company (ARCO).[32] ARCO later became an affiliate of BP and the site was operated as BP Station No. 00414 until it was sold to Mr. Shahzada Khan on February 25, 2004.[33] The Project site is listed on the State Water Resources Control Board's Geotracker database as Site T0600100094. The site is therefore on a Cortese List per Section 65962.5 of the Government Code. The Project site is currently an operational gas station and smog check location operated by Berkeley Gas & Smog. The Project site contained three underground storage tanks (USTs) that contained gasoline, and one waste oil UST.[34]

The Addendum tiers from the IS which states:

> The site is included on the list of hazardous materials sites compiled pursuant to Government Code 65962.5 (Cortese List) as "closed" cases. As

[32] Atlantic Richfield Company, Case Closure Summary Report Former British Petroleum Station #00414 City of Berkeley case #27540. 3000 Shattuck Avenue Berkeley, California (June 9, 2010), https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8836282312/T0600100094.PDF p. 2/16 (hereinafter "Case Closure Summary Report").
[33] *Id.*
[34] *Id.*

> described in the Environmental Setting, the RWQCB issued a case closure letter for the clean-up case in September 2014, concluding that the current plume is restricted to the site and does not present a current or potential risk to human health or the environment. Therefore, the project would not create a significant hazard to the public or the environment and the impact would be less than significant.[35]

The IS relies on the misleading statement that the cleanup case is "closed."[36] The Addendum then relies on the same misleading proposition. The Addendum states that "[t]here are two closed State Water Quality Control Board GeoTracker investigations on the project site (T0600100094 [closed 2013] and T10000004483 [closed 2014])."[37]

These statements are misleading because the site was closed to commercial/industrial screening levels, "based on the assumption that land use at the site will remain unchanged."[38] The Project site fails to meet the residential ESL levels necessary to place housing on the site. The site must undergo additional soil remediation to remove excess contaminants and reach acceptable residential ESLs because the site is being converted from commercial/industrial to residential use. People will live on the site, their children may play on the grounds, but the site was cleaned only to commercial/industrial screening levels. The contamination that currently remains onsite may result in health risk impacts to the residents and the community.

Moreover, the Addendum includes the Case Closure Summary Report that states that "[s]oil vapor samples have not been collected at the site."[39] The Case Closure Summary was required to include "Cumulative data tables for all soil, groundwater samples, including grab samples, and soil vapor ***must*** be included."[40] Data on soil vapor samples and cumulative data on the potential for soil vapor intrusion was not included in the Case Closure Summary, the Initial Study, or the Addendum and is not available for public review and scrutiny.

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[35] IS, https://www.dropbox.com/s/19ieh5spqqet2qb/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0, p. 23.
[36] *Id.*
[37] Addendum p. 22.
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[39] Case Closure Summary Report, p. 10/16.
[40] *Id.* at pdf 83 of 86.
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At the time of the site's closure in 2010, "[a] station building [was] present at the site and the entire site [was] paved, with no exposed soil present at the ground surface."[41] Project construction here, will disrupt and expose soil, potentially exposing dangerous and previously untested levels of soil vapor. At the time of the closure, the "potential for soil vapor intrusion was evaluated by comparing current groundwater concentrations to groundwater ESLs...for the protection of the vapor intrusion pathway in a ***commercial setting***."[42] The soil vapor and potential health risk impacts have not been analyzed for a residential setting and may pose a significant risk to residents of the Project site.

The City must draft an EIR because substantial evidence supports a fair argument that hazardous contamination and soil vapor may result in a significant environmental impact. The courts have repeatedly held that an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact.[43] Here, the City cannot approve the Project based on an Addendum to the Initial Study because project modification results in potentially significant impacts from hazardous contamination and soil vapor which were unstudied at the time of preparation of the 2018 IS/ND.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[44] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[45] The City must prepare an EIR to adequately analyze and mitigate the Project's potentially significant and as yet unstudied impacts from soil vapor and hazardous contamination, before the Project can lawfully be approved.

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[41] Case Closure Summary Report, p. 10/16.
[42] *Id.*
[43] Pub. Resources Code § 21151; CEQA Guidelines § 15064(f); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* ("*CREED*") (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319 ("*CBE v. SCAQMD*").
[44] Friends of College of San Mateo Gardens v. San Mateo County Community College Dist. (2016) 1 Cal.5th 937, 958.
[45] Id. at p. 959.
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IV. THE PROJECT RESULTS IN SIGNIFICANT AIR QUALITY IMPACTS REQUIRING PREPARATION OF AN EIR

An EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact.[46] "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[47] An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial."[48] Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact."[49] The Project may result in potentially significant impacts to air quality. Air quality impacts constitute new or increased significant environmental effects "not previously considered in connection with the project as originally approved."[50]

A. The Project Results in Significant ROG Emissions

East Bay Resident's air quality expert consultants at SWAPE found that the Project results in significant emissions from Reactive Organic Gas ("ROG") which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold. BAAQMD provides that ROG emissions shall not exceed 54 pounds per day ("lbs/day"), but the Project would result in ROG emissions of 71.55 lbs/day.[51] The 2018 IS/ND makes no mention of ROG emissions, but the Addendum states that the ROG emissions would be 3 lbs/day.[52] This conclusion is not supported by substantial evidence. SWAPE found that the changes to the Project result in a 2,285% increase in ROG emissions, far and away exceeding the BAAQMD significance threshold. Therefore, ROG emissions remain significant and the Addendum nor the 2018 IS/ND adequately mitigate such impacts. The City must prepare an EIR to satisfy CEQA.

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[46] Pub. Resources Code § 21151; CEQA Guidelines § 15064(f); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista ("CREED")* (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319 ("*CBE v. SCAQMD*").
[47] Pub. Resources Code § 21068; CEQA Guidelines § 15382; *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1581.
[48] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.
[49] Pub. Resources Code § 21080(e)(1) (emphasis added); *CREED*, 197 Cal.App.4th at 331.
[50] *Friends of College of San Mateo Gardens v. San Mateo Community College District, supra*, 1 Cal.5th at 959.
[51] SWAPE Comments, p. 5.
[52] Addendum, p. 14.
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The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[53] Further, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[54]

East Bay Residents present substantial evidence, in these comments and in our expert comments attached, showing that the Project may result in potentially significant ROG emissions, which must be mitigated before the Project can be approved. These impacts were not considered in the prior 2018 IS/ND, and must be analyzed in an EIR. SWAPE's comments present dozens of effective mitigation measures to help reduce Project ROG, construction, and operational air emissions. Such measures should be implemented in an EIR's Mitigation Monitoring and Reporting Program. The City must prepare an EIR to study the previously unstudied and potentially significant air quality impacts from the Project, particularly with respect to ROG emissions, to satisfy CEQA.

B. The Addendum Underestimates the Project's Construction and Demolition Emissions

The Addendum states that Project construction will last 18 months.[55] The Addendum states that the original project included a construction period of 18 months as well.[56] But, the 2018 IS/ND provided that the construction period will last 20 months.[57] Thus, it is particularly troubling, that the Addendum's air quality analysis relies on a 21-month construction period, resulting in an underestimation of the Project's construction emissions. SWAPE concludes that the elongated construction duration results in an underestimation of the daily emissions resultant from construction equipment onsite. SWAPE concludes that the analysis improperly relies on the assumption that "there will be less construction activities

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[53] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[54] Id. at p. 959.
[55] Addendum, p. 3.
[56] *Id.*
[57] 2018 IS/ND.
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required per day and, consequently, less pollutants emitted per day."[58] The Addendum's air quality construction emissions calculations underestimate the Project's daily emissions and are therefore not supported by substantial evidence. The City must prepare a legally adequate EIR which accurately analyzes the Project's daily construction emissions with an accurate construction schedule guiding the analysis.

Further, the Addendum fails as an informational document under CEQA for failing to model the emissions associated with demolition of the existing building on the Project site. SWAPE concludes that the Addendum fails altogether to analyze the demolition phase of construction and inputted zeros into the calculations for square feet being demolished.[59] This is not an accurate assessment of the required demolition of the existing gas station, two gas pump islands, and related infrastructure.[60] Demolition of existing infrastructure will obviously exceed zero square feet of demolition activity, counter to the Addendum's unsupported calculations. SWAPE concludes that the failure to include the demolition emissions presents a significant issue, because by failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, which may be significant and remain unmitigated.[61] These impacts were not considered in the prior 2018 IS/ND, and must be analyzed in an EIR.

C. The Addendum Underestimates the Project's Construction Emissions from Trucking the Modular Units

The Addendum fails as an informational document under CEQA for failing to quantify and analyze the Project's potentially significant air pollution impacts from trucking the modular units potentially hundreds of miles to the Project site. The Addendum and 2018 IS/ND failed to quantify the potentially significant air quality, health risk, and cumulative impact associated with trucking the modular units. These modular units may be transported from out of state or hundreds of miles from the Project site. Absent an analysis of the emissions associated with trucking these modular units, the Addendum fails as an informational document under CEQA, and the conclusion that air impacts from Project construction are less than significant is not supported by substantial evidence.

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[58] SWAPE Comments, p. 4.
[59] *Id.*
[60] 2018 IS/ND, p. 6.
[61] SWAPE Comments, p. 5. s
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V. THE PROJECT RESULTS IN SIGNIFICANT CUMULATIVE IMPACTS REQUIRING PREPARATION OF AN EIR

CEQA requires agencies to analyze whether a project has impacts that are individually limited, but cumulatively considerable.[62] Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects). Cumulative impacts are defined as "two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts."[63]

The Addendum fails to include any analysis supported by substantial evidence to conclude that the Project does not result in cumulatively considerable impacts. In fact, the Addendum only mentions cumulative impacts for traffic and air quality impacts, but dismisses all other potentially significant cumulative impacts out of hand, without providing substantial evidence to support the conclusions. The 2018 IS/ND concluded that because the Project is "an infill location" cumulative impacts are less than significant for all resource areas.[64] But, it is particularly because this Project is an infill project, that a cumulative analysis of concurrent construction impacts is so critical. Here, the Project is proposed to be constructed concurrently with the 2920 Shattuck Project, just down the street, among other new Berkeley high rise developments. Both this Project and the 2920 Shattuck project will result in potentially cumulatively significant air quality, hazards, and land use impacts that were not analyzed in conjunction with either Project's analysis.

The City must prepare an EIR which accurately analyzes the Project's potentially significant cumulative impacts before the Project can lawfully be approved.

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[62] 14 CCR § 15355(b); *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 905.
[63] 14 CCR § 15355.
[64] 2018 IS/ND, p. 38.
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VI. THE PROJECT MAY BE DETRIMENTAL TO THE GENERAL WELFARE OF THE CITY, RESIDENTS, AND WORKERS

In order to approve a Use Permit, under Berkeley Municipal Code Section 23.406.040, the Zoning Adjustments Board must find that the proposed project:

1) Will not be detrimental to the health, safety, peace, morals, comfort, or **general welfare** of persons residing or visiting in the area or neighborhood of the proposed use; and
2) Will not be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City.

Municipal Code Section 22.20.020 defines detrimental impacts to include, *inter alia*, increased demand for workforce housing, training, and benefits: "The increased demand for affordable housing, child care and public services, ***adequate employment training and placement facilities and amenities***, and the other impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare."[65] Under Section 22.20.020, a detriment to the general welfare occurs when the City fails to mitigate the impacts of a development project, including the increased demand for housing, workforce training, and public services that may result from the Project.[66] Pursuant to Municipal Code Section 22.20.020, the Project's impacts to the general welfare for failure to provide employment training, placement facilities, and amenities, require mitigation.[67]

Further, the ZAB may approve a Use Permit for demolition of a non-residential building or structure only if the ZAB finds that "demolition will not be materially detrimental to the commercial needs and public interest of any affected neighborhood or the City of Berkeley"[68] Here, the ZAB cannot make the necessary findings that demolition of the existing structure and construction of the Project is in the public interest, absent community and workforce benefits to promote the general welfare.

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[65] BMC § 22.20.020(G) (emphasis added).
[66] *Id.*
[67] BMC § 22.20.020(G).
[68] *Id.* at § 23.326.070(D)(1).
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Housing projects, like this one, that are constructed with low-wage or uninsured construction workers are detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or visiting the City and the Project's Downtown neighborhood, as well as to the general welfare of the City. The City should request the Applicant include community benefits in the Project conditions of approval, including local hire provisions and healthcare standards and benefits in order to promote the general welfare.

A. The Project is Detrimental to the General Welfare for Failing to Hire Locally

Absent a provision requiring the Applicant to hire locally, the Project may be detrimental to the general welfare of Berkeley residents. Local hire commitments are a critical way not only to hire local residents, but to use project hiring needs to target opportunities to low-income residents and people of color who might otherwise not benefit from new development.[69] Local hire programs help address the fragmentation inherent in the development process, establishing better communication among developers, employers, community organizations, local job training resources, and the workforce development system that can provide job readiness and job retention support services.[70] Here, the Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce. The Project is therefore likely to be detrimental to City goals and the Berkeley community – particularly to its highly qualified construction workforce, who may not have the opportunity to build much-needed housing in their own community. The City should request the Applicant provide a local hire percentage of 30 percent as a community benefit for the Project.

B. The Project is Detrimental to the General Welfare for Failing to Provide Healthcare to Construction Workers

Further, the Project has not committed to healthcare standards or benefits for the construction workers building the Project. This results in a detriment to the general welfare of the City and its residents, including in particular, to its construction worker residents. By failing to provide healthcare for its construction

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[69] Kathleen Mulligan-Hansel, *Making Development Work for Local Residents: Local Hire Programs and Implementation Strategies that Serve Low-Income Communities,* (July 2008). Available at: https://s3.amazonaws.com/proggov21-uploads/uploads/asset/asset_file/Making_Development_Work_Local_Residents_Mulligan-HanselPWF2008.pdf.

[70] *Id.*

workers, the Project leaves the responsibility of providing for the health, safety, and welfare of the workers and the community on the workers themselves, or on taxpayer-funded public assistance, thus externalizing the cost of construction. By failing to provide healthcare standards, the Project would perpetuate existing income and healthcare inequities for construction workers, causing a detriment to the general welfare by failing to provide for the health and safety of its workers. The City should request the Applicant provide healthcare benefits as a community benefit of the Project.

Project construction will increase the local demand for a construction workforce. The Project's lack of workforce standards and worker healthcare may exacerbate the existing demand for local affordable housing and public services by construction workers that currently receive low pay without benefits. Without mitigation, these impacts remain significant, and the ZAB cannot make the necessary findings that the Project complies with the General Plan and zoning code. To comply with the General Plan Economic Development and Employment Element, the City must ensure that new housing developments provide jobs that go to Berkeley residents and provide job training programs and job readiness.

Moreover, the Municipal Code provides that the "Zoning Ordinance establishes *minimum* requirements to promote the public health, safety, and general welfare."[71] The Municipal Code also provides that, "[t]o the extent possible, it is the government's responsibility to balance the responsibility to ensure the health, safety, and general welfare of the public at large in a fiscally and environmentally sustainable manner."[72] It is therefore the responsibility of the Zoning Adjustment Board to promote the general welfare beyond the minimum required by law. Here, the ZAB must require the Project to include community benefits like those detailed herein, otherwise, the Project contravenes the Municipal Code and General Plan.

VII. THE PROJECT IS INCONSISTENT WITH THE GENERAL PLAN

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an

[71] BMC § 22.104.030.
[72] *Id.* at § 2.09.020.
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environmental effect.[73] The Addendum fails as an informational document under CEQA for failing to analyze the Project's inconsistency with the General Plan.

A. The Project is Inconsistent with the General Plan Economic Development & Employment Element

The Project is inconsistent with the General Plan Economic Development & Employment Element, and thus cannot be approved until consistency is demonstrated.[74] The General Plan Economic Development and Employment Element Policy (ED-1) provides that the City must "[i]ncrease the number of jobs that go to Berkeley citizens by coordinating economic development efforts with employment placement."[75] Further, the General Plan provides that the City intends to "[w]ork with job training programs and encourage training for life skills, job readiness, and specific target industries."[76] The Project does not include any commitment to provide construction jobs to Berkeley or East Bay residents, and does not contribute to any apprenticeship or other construction job training programs. Housing development projects in the City must also implement the goals and policies of the General Plan, including the following:

1) Ensure that Berkeley has an adequate supply of decent housing, living wage jobs, and businesses providing basic goods and services.
2) New housing will be developed to expand housing opportunities in Berkeley to meet the needs of all income groups.[77]

The City has determined that "it is in the City of Berkeley's economic interest to support a pipeline of skilled workers to accomplish the construction objectives and policies of the Berkeley General Plan."[78] The Project must support this goal by

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[73] CEQA Guidelines Appendix G, XI Land Use and Planning.
[74] SB 330 requires conformance with applicable, objective general plan and zoning standards. Gov. Code § 65905.5. (a).
[75] Berkeley General Plan Economic Development and Employment Element, p. ED-5. Available at: https://berkeleyca.gov/sites/default/files/documents/12_Economic%20Development%20and%20Employment%20Element-FINAL.pdf.
[76] *Id.*
[77] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[78] City of Berkeley, Agenda and Staff Report, Berkeley City Council, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS), https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report") (Sept. 20, 2022) p. 7.
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including community benefits such as local hire and healthcare and workforce benefits, otherwise the Project is detrimental to the general welfare, violates the General Plan, and may not be approved.

Moreover, the Project's failure to provide sufficient affordable housing onsite contravenes the General Plan's objective that development in the City should ensure an "adequate supply of decent housing."[79] The City may allow the Applicant to pay a fee, in-lieu of providing an adequate supply of affordable housing on the Project site.[80] If the City continues this practice of allowing developers to get away with paying in lieu fees, instead of providing onsite affordable housing, the City will have an insufficient supply of decent affordable housing as required by the General Plan. The Project's failure to provide *onsite* affordable housing for local residents therefore contravenes the General Plan's Economic Development and Employment Element and cannot be approved by ZAB.

VIII. THE PROJECT IS INCONSISTENT WITH THE CITY'S HOUSING ELEMENT

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.[81] The Addendum fails as an informational document under CEQA for failing to analyze the Project's inconsistency with the Housing Element.

The Project proposes to construct a ten-story residential building containing 166 dwelling units (17 Very Low-Income unit).[82] The project is seeking a 50% Density Bonus by providing 15% of the base project units as affordable to very low-income households. The Developer stated in their application for the Project that in order to "comply with City of Berkeley Affordable Housing rental requirements, the project will also be providing additional Affordable Units and/or/or-in-combination-

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[79] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[80] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.
[81] CEQA Guidelines Appendix G, XI Land Use and Planning.
[82] Addendum p. 2.
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with providing an in-lieu Mitigation Fee per the City of Berkeley requirements."[83] More affordable units must be provided for the Project to be consistent with the City's Housing Element and state law.

The Regional Housing Needs Assessment is the California State-required process that seeks to ensure cities and counties plan for enough housing in their Housing Element cycle to accommodate all economic segments of the community.[84] Accordingly, the Housing Element of the City's General Plan identifies the City's housing conditions and needs, evaluates the City's ability to meet its Regional Housing Needs Allocation ("RHNA"), establishes the goals, objectives, and policies of the City's housing strategy, and provides an array of programs to create mixed-income neighborhoods across the City.[85] The Housing Element, which was amended on February 17, 2023, states that "the City has a remaining RHNA of 5,033 units (1,923 very low income; 852 low income; 1,227 moderate income; and 1,031 above moderate income units)... The City must identify adequate sites capacity for this remaining RHNA."[86] Accordingly, Policy H-1 – Extremely Low, Very Low, Low and Moderate-Income Housing – provides: "Increase the number of housing units affordable to Berkeley residents with lower income levels."[87] Because the City has not produced and is not expected to produce enough affordable housing to meet its RHNA, projects that do not contribute to the City's RHNA are inconsistent with the City's Housing Element, a primary goal of which is to meet the RHNA.

Berkeley Municipal Code Section 23.328.010 provides that residential housing projects constructing five or more dwelling units must include at least 20 percent of the total number of dwelling units within the project as inclusionary units. As an alternative to providing inclusionary units required in an ownership project, the applicant may elect to enter in an agreement with the City to pay fees in-lieu of providing below-market rate units.[88]

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[83] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.

[84] Cal. Gov. Code Section 65580 – 65589.9; *see* City of Berkeley, Adopted 2023-2031 Housing Element, available at https://berkeleyca.gov/sites/default/files/documents/Berkeley_2023-2031%20Housing%20Element_02-17-2023v2_0.pdf.

[85] *Id.*

[86] City of Berkeley, Adopted 2023-2031 Housing Element, p 107.

[87] *Id.* at 15.

[88] Effective July 1, 2022, the fee is set at follows: Paid at Certificate of Occupancy: $46,185 per rental unit; or Paid at building permit: $43,185 per rental unit.

However, the City has failed to meet its RHNA in previous cycles. Under the 5th RHNA Cycle from 2015-2023, Berkeley was required to plan for 2,959 units.[89] This includes 532 at very low income, 442 at low income, 584 at moderate income, and 1,401 at above moderate income. The Housing Element states that 3,742 units have been built, or 126% of the target. However, the targets for affordable housing were missed, with 309 very low income (58%), 130 low income (29%), and 106 moderate income (18%) units completed. 3,197 units of above moderate, or market rate housing was built, which was 228% of the goal. Thus, the City already has adequate above moderate and market rate housing units to meet its RHNA requirements, but is short on production of affordable units.

Here, the Project fails to provide the City's required 20% affordable units on-site, contributing to the City's current shortage of affordable units, while at the same time taking a viable project site out of production for those additional affordable units. Although the Project will pay an in-lieu fee, the Project would not be consistent with the Housing Element because it places the burden on the City to identify alternate sites to construct affordable housing units in time to meet its RHNA requirements.[90]

The Applicant's proposal to pay in lieu fees instead of providing 20% on-site affordable units for the 3000 Shattuck Project is not unique. The Project is one of at least three concurrent projects proposed by the Applicant, which similarly fail to contribute an adequate percentage of affordable units. The Applicant also proposes to construct the 2900-2920 Shattuck Avenue Project,[91] a ten-story residential building containing 221 dwelling units (22 Very Low-Income unit).[92] The 2920 Shattuck Avenue project is seeking a 46.25% Density Bonus by providing only 14% of the base project units as affordable to very low-income households.[93] The Applicant's 1598 University Project similarly proposes to pay an in lieu fee for the affordable units required by the City in excess of the on-site affordable necessary to qualify for a density bonus. The Applicant's decision not to provide the recommended 20% of on-site affordable units for its pending projects contributes to a cumulative shortage of affordable units that the City should address before considering approval of this Project.

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[89] City of Berkeley, Adopted 2023-2031 Housing Element, pg. D-8.
[90] City of Berkeley, Adopted 2023-2031 Housing Element, p. 107.
[91] Use Permit #ZP2022-0116 (APN: 053 159000501).
[92] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave. Berkeley CA 94705, APN 053 159000501, (Sept. 4, 2022), https://www.dropbox.com/s/528twax3fw4fw9p/2022-09-04_APP_PCKT_2920%20Shattuck.pdf?dl=0 ("Application Packet"), pdf pg. 2108 of 2143.
[93] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave.
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IX. CONCLUSION

CEQA requires that an agency prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved may have a significant environmental impact not previously considered in connection with the project as originally approved.[94] As discussed herein, there is substantial evidence supporting a fair argument that the Project would result in significant adverse impacts that were not considered in the prior 2018 IS/ND, and that are not adequately analyzed or mitigated. The Project is detrimental to the general welfare for failing to provide workforce and community benefits.

The Addendum also fails to contain the basic information and analysis required by CEQA, deficiencies which "cannot be dismissed as harmless or insignificant defects."[95] The City's findings regarding Project impacts do not comply with the law and are not supported by substantial evidence. The City cannot approve the Project until it prepares an EIR that resolves these issues and complies with CEQA's requirements.

Thank you for your attention to these comments. Please include them in the record of proceedings for the Project.

Sincerely,

Kelilah D. Federman

KDF:ljl

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[94] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[95] *Bakersfield Citizens for Local Control v. Bakersfield ("Bakersfield")* (2004) 124 Cal. App. 4th 1184, 1220.
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EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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April 10, 2023

Kelilah Federman
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601 Gateway Blvd #1000
South San Francisco, CA 94080

Subject: Comments on the 3000 Shattuck Mixed-Use Project (SCH No. 2017062025)

Dear Ms. Federman,

We have reviewed the January 2023 Addendum ("Addendum") and the 2018 Final Initial Study and Negative Declaration ("FIS/ND") for the 3000 Shattuck Mixed-Use ("Project") located in the City of Berkeley ("City"). The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235-SF of residential space, as well as 1,095-SF of retail space on the 0.31-acre site.

Our review concludes that the Addendum fails to adequately evaluate the Project's air quality impacts. As a result, emissions associated with construction of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality impacts that the project may have on the environment.

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod").[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's

[1] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected. Regarding the evaluation of the criteria air pollutant emissions associated with Project construction and operation, the Addendum states:

> "Additionally, since the adoption of the 2018 Final IS-ND, a new version (2022.1) of California Emissions Estimator Model (CalEEMod) has been published. Based on these updates, updated emissions estimates for the modified project were calculated for this analysis" (p. 14).

As stated above, the Addendum relies on CalEEMod Version 2022.1 to estimate the Project's emissions. However, this poses a problem as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files.[2] Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix A, pp. 83):

8. User Changes to Default Data

Section	Justification
Land Use	Project site plans
Construction: Construction Phases	Applicant provided
Operations: Hearths	no fireplaces or woodstoves

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

Thus, the output files associated with CalEEMod Version 2022.1 fail to disclose the exact parameters utilized to calculate Project emissions. To remedy this issue, the Addendum should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[3] Without access to the complete output files, including the specific numeric changes to the

[2] "CalEEMod California Emissions Estimator Model Soft Release." California Air Pollution Control Officers Association (CAPCOA), 2022, *available at:* https://caleemod.com/.
[3] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.

default values, we cannot verify that the Addendum's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, an EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[4]

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the Addendum relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 14).[5] Regardless, when reviewing the Project's CalEEMod output files, provided as Appendix A to the Addendum, we were able to identify several model inputs that are inconsistent with information disclosed in the Addendum. As such, the Project's construction emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction of the Project will have on local and regional air quality.

Incorrect and Unsubstantiated Construction Schedule

Review of the CalEEMod output files demonstrates that the "3000 Shattuck Detailed Report" model includes the following construction schedule (see excerpt below) (Appendix A, pp. 70):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Site Preparation	Site Preparation	7/3/2023	11/15/2023	5.00	98.0
Grading	Grading	11/16/2023	1/1/2024	5.00	33.0
Building Construction	Building Construction	1/2/2024	2/10/2025	5.00	290
Paving	Paving	1/2/2024	7/31/2024	5.00	152
Architectural Coating	Architectural Coating	2/11/2025	3/30/2025	5.00	34.0

According to the "User Changes to Default Data" table, the justification provided for this schedule is:

> "Applicant provided" (Appendix A, pp. 83).

Additionally, regarding Project construction, the Addendum states:

> "Site preparation, construction procedures, and proposed utility connections would remain like the original project. Please refer to the 2018 Final IS-ND for details regarding these project components. Overall construction of the modified project would occur over a similar time span as was anticipated for the original project but would be more intensive due to the height increase" (p. 2).

Furthermore, regarding the Project's anticipated construction duration, the FIS/ND states:

> "The project would include demolition of the existing building and surface parking lot on the site. [...] Construction would take place over an 18-month period" (p. 7).

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[4] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.
[5] "CalEEMod Version 2022.1.0." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/.

However, the model's construction schedule is incorrect and unsubstantiated for three reasons.

First, as discussed by the FIS/ND, the construction of the Project is anticipated to occur over 18 months. However, the model includes a 21-month total construction length, and is therefore overestimated by 3 months. By including an overestimated construction schedule, the model is incorrect and inconsistent with information provided by the Addendum and associated documents.

Second, the model does not include a demolition phase of construction. This is incorrect, as the Addendum clearly states that demolition would be required prior to Project construction:

> "Like the original project, the modified project would involve demolition of the existing structures on the site, as detailed in the 2018 Final IS-ND for the original project" (p. 6)

As such, the model's construction schedule is incorrect and inconsistent with information provided by the Addendum and associated documents.

Third, the model's revised construction schedule remains unsubstantiated as the Addendum and associated documents fail to mention the Project's proposed *individual* construction phases whatsoever. This is inconsistent with guidance provided by the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site-or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA."[6]

As the Addendum and associated documents only mention the Project's total construction duration of 18 months, the Addendum fails to provide substantial evidence to support the revised individual construction phase lengths. As such, we cannot verify the changes. Instead, the model should have proportionately altered all phase lengths to match the proposed construction duration of 18 months.[7]

By including an incorrect and overestimated construction schedule, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. As such, the model underestimates the peak daily emissions associated with Project construction and should not be relied upon to determine Project significance.

Failure to Model Demolition

Regarding demolition of the existing building, the Addendum states:

> "Like the original project, the modified project would involve demolition of the existing structures on the site, as detailed in the 2018 Final IS-ND for the original project" (p. 6)

[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide,p. 13,14.

[7] See Attachment A for proportionately altered construction schedule.

However, as previously mentioned, review of the CalEEMod output files demonstrates that the "3000 Shattuck Detailed Report" model fails to include a demolition phase of construction. Furthermore, the model fails to include any amount of demolition debris (see excerpt below) (Appendix A, pp. 72).

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (sq. ft.)
Site Preparation	0.00	0.00	20.5	0.00
Grading	0.00	0.00	15.8	0.00
Paving	0.00	0.00	0.00	0.00

By failing to include any amount of demolition material, the model is inconsistent with the information provided in the Addendum.

This inconsistency presents an issue, as demolition material is used by CalEEMod to determine emissions associated with the demolition phase of construction. The three primary operations that generate dust emission during the demolition phase are mechanical or explosive dismemberment, site removal of debris, and on-site truck traffic on paved and unpaved road.[8] By failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, and should not be relied upon to determine the significance of the Project's air quality impacts.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions we prepared an updated CalEEMod model, using the Project-specific information provided by the Addendum. In our updated model, we included the required amount of demolition and proportionately altered the individual construction phase lengths to match the proposed construction duration of 18 months.[9]

Our updated analysis estimates that the Reactive Organic Gas ("ROG") emissions associated with Project construction exceed the applicable BAAQMD threshold of 54 pounds per day ("lbs/day"), as referenced by the Addendum (p. 14) (see table below).[10]

[8] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 11.
[9] See Attachment B for updated CalEEMod model.
[10] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde, p. 2-2.

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
Addendum	3.0
SWAPE	71.55
% Increase	2,285%
BAAQMD Threshold	**54**
Exceeds?	*Yes*

As demonstrated above, construction-related ROG emissions, as estimated by SWAPE, increase by approximately 2,285% and exceed the applicable BAAQMD significance threshold. Our updated modeling demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed by the Addendum. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project's emissions, we recommend consideration of SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1"):[11]

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.

[11] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.
l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.
q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.
s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.
t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.
u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).
x) As applicable for rail projects, the following measures should be considered...
z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.
bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible: - Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85% - Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%. - Nonroad diesel engines on site shall be Tier 2 or higher. - Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or

CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.

- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
    iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

An EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Proportionately Altered Construction Schedule
Attachment B: Updated CalEEMod Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul Rosenfeld CV

Attachment A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989-- 1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

Attachment B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research.* 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology.* 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology.* 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research.* 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution.* 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research.* 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research.* 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld.** (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution.* Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference.* Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust.* Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association.* Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America.* Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant.*
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants.*
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

Letter 1

COMMENTER: Adam Frankel

DATE: May 19, 2023

Response 1.1

The commenter states that he represents the Laborers International Union of North America, Local Union 304 and its members living in the City of Berkeley (LiUNA). This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 1.2

The commenter states that LiUNA wishes to appeal the ZAB's approval of the project to the City Council due to the "improper use of an Addendum."

As discussed in Section 3, *Decision Not to Prepare Subsequent Negative Declaration or EIR*, of the Addendum, pursuant to Section 15164 of the *CEQA Guidelines*, a lead agency may prepare an addendum to a previously certified negative declaration if some changes or additions are necessary, but none of the conditions described in *CEQA Guidelines* Section 15162 calling for preparation of a subsequent EIR or negative declaration have occurred. The Addendum acknowledges that the modified project would result in changes in density and intensity compared to the original project, and explains based on substantial evidence that the modified project would not require major revisions to the 2018 IS-ND due to new or substantially more severe significant environmental impacts that were not identified in the 2018 Final IS-ND, and that there are no substantial changes in the project or circumstances or new information of substantial importance that would cause the project to have significant new impacts or substantially increase previously identified significant impacts. None of the conditions described in *CEQA Guidelines* Section 15162 that would call for preparation of a subsequent EIR or subsequent negative declaration have occurred or would occur because of the modified project. Therefore, the Addendum is the appropriate level of environmental documentation to provide under CEQA.

Response 1.3

The commenter states that the 2018 IS-ND did not consider the significant environmental impacts that would result from the increased scale of the modified project or consider new information of substantial importance which LiUNA and others have presented regarding the modified project's significant environmental effects. The commenter states that to comply with CEQA, an IS-MND or an EIR should have been prepared.

Please refer to Response 1.2.

Response 1.4

The commenter states that interior composite wood materials in the proposed building would emit off-gas indoor air emissions of formaldehyde, resulting in significant health risks to future residents. The commenter states that the Addendum and the 2018 IS-ND did not consider or mitigate this significant impact.

In response to this comment, Section 4.3, *Air Quality*, of the Addendum has been revised to include a discussion of formaldehyde. The revisions are shown in Chapter3 of this document.

Response 1.5

The commenter states that the project site is listed on the State Water Resources Control Board's Geotracker database and is included on a Cortese List pursuant to the California Government Code Section 65962.5. The commenter states that the Addendum incorrectly states the site's cleanup case is "closed" because it only met commercial or industrial screening levels and not residential screening levels.

In response to this comment, Section 4.7, *Hazards and Hazardous Materials*, has been revised to include a discussion of residential screening levels. As discussed therein, the two closed investigations on the site were closed in 2013 and 2014, before the site was considered for residential use. Further research was done after the site closure, including the 2022 Phase II Environmental Site Assessment (ESA). Section 4.7, *Hazards and Hazardous Materials*, now contains additional information, including that concentrations of detected compounds in soil samples were all below their respective residential and commercial/industrial San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) groundwater vapor intrusion environmental screening levels (ESLs), except for arsenic. However, the range of arsenic concentrations found were within regional background concentrations and therefore was determined to be naturally occurring. The revisions are listed in Chapter 3 of this document.

Response 1.6

The commenter states that the modified project may result in potentially significant Reactive Organic Gas (ROG) emissions which would exceed Bay Area Air Quality Management District (BAAQMD) thresholds.

In response to this comment, Section 4.3, *Air Quality*, of the Addendum has been revised to include a discussion of air quality emissions modeling (CalEEMod) methodology and updated ROG emissions. As shown in Table 1, ROG emissions during both construction and operation would be below BAAQMD thresholds of 54 pounds per day. The revisions are listed in Chapter3 of this document.

Response 1.7

The commenter states that the Addendum underestimates the modified project's air emissions by altering the estimated length of construction and failing to account for demolition.

As explained in Section 2, *Project Description*, and Section 4.3, *Air Quality*, of the Addendum, the duration of construction is expected to occur within an 18-month period, which also accounts for the demolition phase. This is also reflected in the updated Appendix A, CalEEMod modeling results, included as Attachment A to this document.

Response 1.8

The commenter states that the Addendum and the 2018 IS-ND did not analyze potentially significant air quality impacts resulting from the trucking of modular units to the project site.

In response to this comment, Section 4.3, *Air Quality*, of the Addendum has been revised to include a discussion of air quality impacts resulting from the trucking of modular units to the project site. Construction modeling for the building construction phase includes 17.9 one-way vendor trips per day, which over a 321-day phase length equates to 5,745 vendor trips and over 48,000 vendor trucking miles during this phase. Long-range trucking was not analyzed in this analysis, as it was

assumed those emissions were considered out of the range of considerable direct or indirect effects. CEQA only requires analysis of impacts that are directly or indirectly attributable to the project under consideration (State CEQA Guidelines, § 15064(d)). There is no indication that long-range trucking beyond that analyzed here would be directly related to or caused by the project.

The included emissions were those reasonably estimated to be related directly or indirectly to the project under consideration. Potential long-range trucking may be necessary for numerous different projects as a result of general market demand, regardless of whether this project would proceed or not. Thus, such emissions may not be "caused by" the project under consideration. Similarly, a lead agency may not be able to require mitigation for emissions that result out of the scope of the project under consideration; mitigation can only be required for emissions that are actually caused by the project (State CEQA Guidelines, § 15126.4(a)(4)). This approach was discussed in detail with the removal of the term "lifecycle" from Appendix F of the CEQA Guidelines in the California Natural Resources Agency's December 2009 *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97.* It is similarly consistent with the "lifecycle" discussion in the California Department of Transportation's February 2019 *CEQA Guidelines Update*.

Therefore, the Addendum is an appropriate informational document under CEQA with regard to air quality emissions. The revisions are listed in Chapter 3 of this document.

Response 1.9

The commenter states that the Addendum violates Berkeley Municipal Code Section 22.20.020(F) because it fails to mitigate the modified project's detrimental impacts to air quality.

As explained in Section 4.3, *Air Quality*, of the Addendum, the modified project's estimated air pollutant emissions would not exceed BAAQMD's thresholds and impacts related to criteria air pollutants or contribution to a cumulative air quality impact would be less than significant. In addition, compliance with the City's standard condition of approval, *Air Quality – Diesel Particulate Matter Controls During Construction,* as well as proximity to alternative transportation would ensure less than significant impacts related to construction and operational toxic air contaminants (TACs). Therefore, impacts related to air quality would be less than significant, like the original project, and no significant new or substantially increased air quality impacts would occur.

Response 1.10

The commenter restates that the use of an Addendum is inappropriate and states, without citing substantial evidence, that there is a fair argument that the modified project would result in significant impacts that have not been previously analyzed. The commenter requests that the City Council grant the appeal and overturn the ZAB's approval of the Addendum.

There is no substantial evidence in support of the commenter's arguments. Please refer to Responses 1.2 – 1.9.

Appeal Letter 2

CITY OF BERKELEY - CITY CLERK
2023 MAY 31 pm2:26

City Council, City of Berkeley
2180 Milvia Street
Berkeley, CA 94704

May 31, 2023
Hand-delivered to City Clerk's Office

Emailed to council@berkelevca.gov:
clerk@citvofberkelev.info

Dear City Council Members:

1 This an appeal of the May 11, 2023 decision of the Zoning Adjustments Board ("ZAB") to issue a Use Permit for the project known as 3000 Shattuck, (ZP#2022-00046! ("Project"), on all the grounds stated in the May 9, 2023 Objections ("Objections", copied below), which were provided to ZAB by a group of neighbors to the Project. The grounds are summarized here with further arguments following the ZAB meeting:

2 There can be no dispute that the City has failed to perform the required *cumulative impact* analysis. City Council must deny the Use Permit and direct the City to perform a proper CEQA analysis as required by law, including, but not limited to, the following.

1. Applicable Law

- State law SB330 expressly requires the City to comply with CEQA per Govt. Code Section 65589.5(e).
- CEQA requires an "Initial Study" per CEQA Guidelines ("Guidelines"), Title 14, California Code of Regulations, Sections 15063-15365.
- The purpose of the Initial Study is to determine whether there may be a significant environmental impact. Id. "Careful judgment […] based on scientific and factual data" is required. Guidelines Section 15064(b)(1). Under Section 15064(b)(2), "[t]hresholds of significance, as defined in Section 15064(a), may assist lead agencies in determining whether a project may cause a significant impact. When using a threshold, the lead agency should briefly explain how compliance with the threshold means that the project's impacts are less than significant. *Compliance with the threshold does not relieve a lead agency of the obligation to consider substantial evidence indicating that the project's environmental effects may still be significant."* (emphasis added)

3

- Under Guidelines Section 15065(a), the City is required to find that a project may have a significant effect on the environment and thereby require an Environmental Impact Report (EIR) to be prepared for the project "where there is

4

substantial evidence, in light of the whole record, that any of the following conditions may occur: [...] (3) The project has possible environmental effects that are individually limited but cumulatively considerable. 'Cumulatively considerable' means that the *incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."* (emphasis added) "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." Guidelines Section 15355. When analyzing the cumulative impacts of a project, the City is required to discuss not only approved projects under construction and approved related projects not yet under construction, but also unapproved projects currently under environmental review and probable projects (e.g., here, Ashby BART) with related impacts or which result in significant cumulative impacts. CEQA requires the City to undertake a legitimate good faith effort in characterizing the future cumulative condition. Performing cumulative impact analyses helps to implement the overall goal of CEQA, which is to insert environmental considerations into the planning process as early as possible and provide a sound basis for government decision-making.

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- Under Guidelines Section 15064(c), the lead agency must consider input from the public as part of its determination of whether to conduct an EIR. "In determining whether an effect will be adverse or beneficial, the lead agency shall consider the views held by members of the public in all areas affected as expressed in the whole record before the lead agency."

5

- Under Guideline Section 15162(b), "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a) [a determination of whether there is substantial evidence of substantial changes or new information of substantial importance having significant effect]. Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation."

6

2. Neither the 2018 Initial Study - Negative Declaration ("Initial Study") nor the January 2023 Addendum to Initial Study - Negative Declaration ("Addendum") contains any analysis or determinations per above, in particular, there is *no analysis* of the Project in connection with other projects, past, current or future. The same omission is true of the CEQA Consultant's May 5, 2023 Supplemental Analysis ("Rincon Supplement") identifying "minor project revisions" without mention of cumulative impacts. *Additionally, the Initial Study, Addendum, and Ricon Supplement each show no evidence of consideration of public input.*

7

With regard to the fifteen projects identified in the Objections, very few were known to the City at the time of the 2018 Initial Study. See attached May 2023 revisions to the spreadsheet submitted with the Objections, including several additional new projects that have been located, beyond fifteen. (2023 COB Multi-family Housing Projects - in/nr S. Berk (revised 5/2023) docs.google.com/document/d/1XJjfwOBuzCHNYv-mm-6vmLFWXVIgVcFan_4DAYsEBgE/)

Per Section 15162(b), these conditions are new information, which requires further determinations:

A) The City listed only four projects in the Addendum, which were not analyzed; and
8 B) More than fifteen projects are currently under development, approved, proposed, or probable within the surrounding area. The impacts are likely to be greater than shown by any relevant, in any event scant, analysis in the Initial Study and the Addendum.

Furthermore, the original project proposed only 32,603 square feet of residential uses, with 44 units including 4 affordable units, whereas the current Project proposes 80,235 square feet of residential uses, with 166 units including 17 affordable units. The original project proposed the inclusion of 17 parking spaces for automobiles, whereas the current Project plans for zero parking spaces (Addendum, p. 3).[1]

3. The Objections include evidence regarding potential construction and traffic impacts in the dangerous Russell-Shattuck-Ashby corridors (including long-standing evidence of one of the highest crash rates in the city), where there are currently five proposed
9 projects, with one currently under construction. This core area, only a couple blocks in size, may become home to the three tallest of the fifteen plus local projects, at 9-10 stories, which will have by far the most units.[2] ***This community is facing myriad***

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[1] Further, the Addendum assesses duration of construction and foundation work to be comparable despite the massive change in the building design since 2018. Addendum, p. 2. This is highly suspect as explained in the Objections.

[2] Indeed, both the CEQA Consultant's Supplement (Rincon Supplement, bottom p. 4) and the Addendum fail to analyze very serious traffic hazards identified in the Objections, and ignore City standards, as described by the City's own Traffic and Parking Requirements for Development Projects | City of Berkeley. See, e.g., City of Berkeley Guidelines for Development of Traffic Impact Reports, pp. 3-4: "Many neighborhoods are located adjacent to major trip generators, and in many cases studies will require analysis of on-street parking in the adjacent area. Developers are encouraged to provide transportation demand management measures; such measures likely will be required if variances are sought in required off-street parking. The City requires the analysis of cumulative conditions for larger projects in order to identify

9, con't ***prospects of very significant environmental effects, without the protection that CEQA is intended to provide.***

4. The City Planner, the City's Consultant, and ZAB members ignored or misinterpreted the Objections below at the May 11, 2023 meeting. The condition of fifteen contemporaneous projects in the vicinity, in particular, was ignored by ZAB. Collectively, the representatives incorrectly made the following statements:

10

a) that it was the Objectors' responsibility - and failure - to identify cumulative impacts regarding the projects;

b) that the Objectors asserted that an automatic finding of significant impact must be made; and,

c) that no further action needed to be performed to meet the requirements of CEQA.

For details, see the transcript of May 11, 2023 meeting (with timestamps):

a) 21:32:41 to 21:35:29. ZAB discussion with City Planner and CEQA Consultant refers to Objections below, and failure of Objectors to identify specific impacts, suggesting, for
11 that reason, that Objections may be ignored and there are no significant impacts. The condition of fifteen contemporaneous projects was ignored.

b) 21:35:06 to 21:35:27. CEQA Consultant asserts to ZAB that the "threshold" to analyze cumulative impact was not met:

> "K. Green: YEAH, DOES REQUIRE COMMUTATIVE [SIC] IMPACT TO GET DISCUSSION BUT NOT IN THIS ONE."

c) 21:43:45 to 21:47:12, and 22:35:06 to 22:36:17. Project architect makes several confusing statements about proposals for a loading zone. One statement describes a potential 35-foot loading zone on Shattuck Avenue beyond the south portion of the building, in front of private residences, where southbound traffic merges from two lanes to one. Another statement describes a potential loading zone in front of the proposed building, where a bus stop may be relocated. The City Planner responds not with clear guidance on the process for making determinations about a loading zone, but only with

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whether mitigations in the future are required and the extent to which the project contributes to unacceptable conditions. [...] The assessment of impacts may be based on one or more of the following factors: counts for bicycle and pedestrian movements, location of bus stops, street width, collision history, transit boardings and alightings, and approved land use and transportation plans and capital improvement projects." Id., p. 8.

guesses. Questions from ZAB members about providing a safe loading zone were not resolved in any meaningful way;

d) 22:03:52 to 22:05:51. Objectors' effort to alert ZAB to requirements of CEQA in light of foregoing misleading discussion;

e) 22:29:14 to 22:31:05. CEQA Consultant falsely states that other projects in the area have been acknowledged in public documents. CEQA Consultant states that no further analysis is necessary, as no automatic finding of significant cumulative impact can be made;

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f) 22:46:05 to 22:46:13. ZAB member makes a motion, which passed under the misinformed belief that the Project must be approved per state law:

> "I AM MAKING A MOTION BECAUSE WE ARE REQUIRED TO APPROVE THIS PROJECT TONIGHT, OR AT LEAST THAT IS MY BELIEF BASED ON MY UNDERSTANDING OF STATE LAW AS IT CURRENTLY STANDS."[3]

See also, further transcript of May 11, 2023 meeting (with timestamps):

20:53:45 to 20:54:44. The City does not clarify to ZAB the Project's unit size and unit type–all studio apartments–although this is clearly stated in the Rincon Supplement. A ZAB member speculates that a family of four earning $42,000 would benefit from housing like this, and thus expresses support for the Project. The City does not inform ZAB or the public how much money this Project would contribute to the Affordable Housing Trust Fund.

> ZAB member: "AND THOSE WOULD BE 21 FAMILIES THAT MAKE THOSE INCOMES THAT WOULD BE ABLE TO MOVE IN."

5. ZAB was misguided in its deliberations and discussion during its May 11 meeting, and thus has overlooked several relevant laws. These oversights place at risk public health and safety through its failure to conduct the required careful judgment analysis. This decision must be reversed.

12

[3]The May 11, 2023 ZAB hearing was only the second hearing on the applicable SB 330 application submitted December 14, 2021. This would allow three more hearings, because SB 330 mandates a maximum of five hearings before project approval. Therefore, the ZAB was incorrect to conclude that the Project was required by SB 330 to be approved on May 11.

13 6. The City Council has no recourse under the law but to deny the Use Permit. The City must conduct a legally compliant further review and analysis under CEQA and demonstrate its consideration of public input under Guideline Section 15064(c).

Sincerely yours,

Larisa Cummings, 2913 Newbury Street, 510-435-9812
Paul Dillingham, 2927 Newbury Street, 510-575-6852
Dave Auerbach, 2907 Newbury Street, 310-954-7102
Les Shipnuck, 2071 Emerson Street, 510-542-4559
Lynn Cooper, 2129 Emerson Street, 510-542-6082

Additional 29 signatories to this appeal who own or lease within 300 feet of 3000 Shattuck - please see attached list with handwritten signatures.

---------- Forwarded message ---------
From: **Larisa Cummings** <pidicummings@gmail.com>
Date: Tue, May 9, 2023 at 4:08 PM
Subject: SUPPLEMENTAL OBJECTIONS TO 3000 SHATTUCK PROJECT PLANS, #ZP2022-00046 5/11/23 ZAB MEETING
To: <zab@cityofberkeley.info>
Cc: Gong, Sharon <SGong@cityofberkeley.info>, Burns, Anne M <ABurns@cityofberkeley.info>, <council@cityofberkeley.info>, Berkeley Mayor's Office <mayor@cityofberkeley.info>

Dear ZAB members:

As neighbors to the proposed plans to develop 3000 Shattuck Avenue, we strenuously object to the project on numerous health and safety grounds, per applicable state law. Far from being merely obstructionist, we bring to your attention that the City is overlooking state laws that exist to protect public health and safety. Further, we are concerned about the obvious inequities at hand; clearly, this part of Berkeley is bearing

the brunt of intensive multi-family housing development, whereas this kind of housing should be spread equitably throughout the city and its transit hubs.

We are asking the ZAB to deny issuance of Use Permit #ZP2022-0046 at the upcoming May 11, 2023 meeting until the concerns below are appropriately addressed:

1. The City's recommendation – that ZAB adopt the Addendum to the Initial Study/Negative Declaration and approve Use Permit #ZP2022-0046 pursuant to BMC Section 23.406.040 – is not in compliance with the California Environmental Quality Act (CEQA). To protect public health and safety, a subsequent Environmental Impact Review pursuant to CEQA is clearly required.

A. State law SB330 expressly requires the City to comply with CEQA per Govt. Code Section 65589.5(e).

The City's January 2023 Addendum to the 3000 Shattuck Avenue Project Initial Study - Negative Declaration largely fails to comply with its obligations under CEQA.

i. No Cumulative Impact Study Has Been Performed

Section 15355 of the State CEQA Guidelines defines a cumulative impact as the condition under which "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." Title 14, California Code of Regulations, Section 15355. Further,

Section 15130 explicitly requires a factual analysis. Section 15332 addresses in-fill development projects and requires a finding that "(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality." Section 15065 lists mandatory findings of significant effect, which must be evaluated. In other words, the City is required to evaluate these potential impacts, including analysis of cumulative impacts of all closely related projects. Note that there are quite a number of closely related current projects.

In its January 2023 Addendum (pp. 11-12) to the 3000 Shattuck Avenue Project Initial Study - Negative Declaration, the City listed only four projects in the vicinity of 3000 Shattuck: 2650 Telegraph, 2801 Adeline, 2440 Shattuck, and Ashby BART. In its January Addendum, the City made no analysis of those sites or impacts, but rather simply listed them in its determination that "The existing environmental conditions on and around the project site are substantially the same under present conditions as those described in the 2018 Final IS-ND, with the exception of two relevant changes described below in Section 4.1." Addendum p. 11. Section 4.1 similarly makes no analysis of the sites or impacts, but simply lists the same four projects. However, a careful recent search of several sources has identified fifteen projects in the vicinity. No comprehensive listing by the City could be located, which makes it very difficult for the public to follow these developments. Note the following developments:

- Five (5) projects are very intensively situated in a one to two block radius. 3000 Shattuck and two more projects are *the tallest (9-10 stories) with the most units* of the 15 projects, in the vulnerable and dangerous Russell-Shattuck-Ashby corridor, and where the Russell Bike Boulevard traverses Shattuck. **None of them provide for onsite loading zones, or any planning for right-of-way improvements or features to facilitate safe loading in an age of intensive loading activity, e.g., ride-hailing, food and commercial deliveries, service**

vehicles, etc., which often double park. For an example of the long-standing traffic hazards, note that the Shattuck/Ashby intersection is second only to San Pablo/Ashby intersection in the City's crash rate for the period from 2011 through 2022 - https://tims.berkeley.edu/tools/gismap/

- Four (4) projects surround these projects within another one to three block radius (including where the Russell Bike Boulevard traverses Adeline),
- the remaining six (6) projects fall within the area covered by the January 2023 Addendum's original listing of four projects. See this appendix:
2023 COB Multi-family Housing Projects - in/nr S. Berk.xlsx

In summary, the City must fully comply with CEQA; the January 2023 Addendum has no analysis of cumulative impacts at all, nor does the 2018 Final Initial Study - Negative Declaration, regarding a much smaller design for 3000 Shattuck.

ii. Erroneous or Misleading Conclusions

In the January 2023 Addendum, Section 2, Project Description, two statements are inaccurate and misleading, overlooking adverse impacts on the surrounding community, including but not limited to, extra traffic congestion, noise, odors, etc. Although they pertain to the construction phase only, they need to be reconsidered or rewritten.

--Duration of construction, estimated to be 18 months to construct the five-story structure in the previously proposed project (see 2018 Final Initial Study - Negative Declaration cited in January 2023 Addendum), is estimated to be the *same length of time to build* out the revised building of ten-stories. This is highly unrealistic. Construction duration can be foreshortened somewhat, by accelerating the work, but not without incurring large amounts of additional costs, raising the overall project budget far beyond levels of competitive pricing. Addendum p. 2 and p. 3, Table 1.

--Foundation work for the ten-story building is similarly projected to be comparable to the foundation's scope for the five-story building. It might be similar in terms of foundation type (spread footings, most likely) but with a doubling of the size of the structure, a stronger type of foundation might be necessitated (drilled pier-and-grade beam) at considerable additional cost. Addendum p. 2. This increases the construction costs and duration, and is dependent on soil-types, and access at the site.

While statements of this type may not devalue the January 2023 Addendum as a whole, they reflect a very casual attitude about construction realities, and as such, raise questions about the accuracy of other assertions in the study.

We ask the ZAB either to deny the issuance of a Use Permit, or to delay issuance of such Use Permit until these and all other related concerns are appropriately addressed by the City, as required by applicable state law. Thank you for your due consideration.

Sincerely yours,

Larisa Cummings (2913 Newbury Street),
Les Shipnuck, retired architect, construction manager (2071 Emerson Street),
Janis Ching (1937 Oregon Street),
Reed Dillingham (2903 Newbury Street),
Paul Dillingham (2927 Newbury Street)

https://tims.berkeley.edu/tools/gismap/
Most Visited
Getting Started
Other Bookmarks
SWITRS GIS Map
By SafeTREC, UC Berkeley
Map SWITRS
Tools
Options
Layers
Basemaps
Print
Help
Rank By Intersection
Rank Intersection # of Coll
1 ASHBY AVE & SAN PABLO AVE 76
2 ASHBY AVE & SHATTUCK AVE 63
3 ASHBY AVE & MARTIN LUTHER KING JR WAY 59
4 ASHBY AVE & SACRAMENTO ST 56
5 SAN PABLO AVE & UNIVERSITY AVE 49
6 MARTIN LUTHER KING JR WAY & UNIVERSITY AVE 45
7 SHATTUCK AVE & UNIVERSITY AVE 44
8 EASTSHORE HWY & GILMAN ST 41
9 ACTON ST & UNIVERSITY AVE 40
9 ASHBY AVE & COLLEGE AVE 40
Results
Selected Factors:
Date 01/01/2011 - 12/31/2022
County Alameda
City Berkeley
Result Summary:
2021 - 2022 data is provisional and subject to change.
6,953 of 7,187 (96.7%) crashes mapped.
600 ft
Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, Intermap, NGA, USGS
Powered by Esri

Neighbor Appeal, 3000 Shattuck Avenue, ZP#2022-00046 (May 2023)

No.	Distance to Site (ft)	Cited in 1/23 IS/ND Addendum	Address	Existing or Previous Business or Use	Developer	Number of Stories	Number of Units	Number of BMR Units	Approvals and General Status	Commercial Space	Architect
--			**3000 Shattuck**	**Berkeley Gas & Smog**	**NX Ventures**	**10 stories**	**166**	**17**	**Passed DRC, ZAB mtg, May 2023**	**1040 SF**	**Trachtenburg**
1	325'		2001 Ashby ⟐	Cooperative Center Federal Credit Union	Resources for Community Development (RCD)	6 stories	87	87	Approved / Under construction, anticipated completion 2024		MWA Architects
2	350'		2900 / 2920 Shattuck ⟐	Eastern Supply Hardware / Model Garage	NX Ventures	10 stories	221	22	CEQA review pending, April 2023 DRC negative recommendation, March 2023, passed April 2023	4090 SF	Trachtenburg
3	565'		3031 Adeline ⟐	Flacos (restaurant)	Athan Magganas (owner)	7 stories	64	16	Passed DRC Review, January 2023	4030 SF	Dinar and Associates
4	610'		2847 Shattuck ⟐	Direct Line Tele Response	NX Ventures	9 stories	112	11	Application for Density Bonus, submitted January 2023		Trachtenburg
5	670'		2902 Adeline ⊙	AW Pottery	Realtex	6 stories	50	9	Passed Final DRC Review, July 2021		
6	755'	◆	3100 Adeline ⊙	Ashby BART	(Owner: BART / City of Berkeley)	*undetermined*	*undetermined*	*undetermined*			
7	780'		3120 Shattuck ⊙	community and non-profit offices	Northern California Land Trust	7-8 stories	65	100% ? co-op & condo	pre-application, filed December 2022		SCB
8	935'	◆	2801 Adeline ⊙	Walgreens	NX Ventures	7 stories	84	35	Incomplete, pending applicant, November 2021		
9	1700'		3030 Telegraph	Sutter Alta Bates	Riaz Capital	5 stories	144	8	Went to DRC, May 2023	1550 SF	Left Coast
10	1740'		2701 Shattuck	(vacant)	BayRock Multifamily, LLC	5 stories	57	5	Approved / Under construction, anticipated to open 2024		HDO Architects
11	1995'		3031 Telegraph	Berkeley Central Medical Building	Riaz Capital	6 stories	127	9	Passed DRC, February 2023		
12	2465'		2800 Telegraph	Karim Cycle	West Builders	5 stories	16	1	Approved by ZAB, April 2023		Trachtenburg
13	2675'		1708 Harmon	Church parking	Community Housing Development Organization / Ephesian Church of God in Christ	5 stories	80	80	Pre-application filed		Kodama Diseno Architects
14	2750'		2550 Shattuck	Acupuncture and Integrative Medicine	4Terra Investments, Natural Green Corporation	7 stories	72 +	*undetermined*	pre-application, filed April 2023	1520 SF	Kava Massih Architects
15	2915'		2712-2714 Telegraph	Offices / Pacific Center for Human Growth	Panoramic Interests	6 stories	40	3			
16	3050'		2000 Dwight	Medical offices	MorningStar Senior Living /	6 stories	113		Approved (in construction)		Trachtenberg
17	3075	◆	2650 Telegraph	Bachessos	OSM Development	5 stories	45	4	Passed Final DRC Review March 2020		
18	3580'	◆	2440 Shattuck	Dollar Store	Austin Group, LLC	8 stories	40	3	Approved / Under construction, anticipated completion 2024	2700 SF, 2 units	Johnson Lyman Architects
19	3660'		2420 Shattuck	Noodles Fresh / Gio's Pizza	NX Ventures	14 stories	132			2800 SF	Trachtenburg

Legend

◆ Listed in COB Addendum (1/2023) to the 3000 Shattuck IS/ND (Initial Study - Negative Declaration)

⊙ Within 4 blocks of 3000 Shattuck

⟐ Within 1-2 blocks of 3000 Shattuck

RE May 31, 2023 APPEAL of the May 11, 2023 decision of the Zoning Adjustments Board ("ZAB") to issue a Use Permit for the project known as 3000 Shattuck, ZP#2022-00046

Additional 29 signatories to this appeal who own or lease within 300 feet of 3000 Shattuck - please see attached list with handwritten signatures.

Janet Wood, 2071 Emerson Street
Les Shipnuck, 2071 Emerson Street
Tsering Dhundup, 2057 Emerson Street
Dikki Dolkar, 2057 Emerson Street
Marisa Weinstock, 2045 Emerson Street
Katherine Adames, 2070 Emerson Street
Tony Drummond, 2075 Emerson Street
Rebecca Stevens, 2034 Ashby Avenue
Ben Faryna, 2992 Newbury Street
Sara Kaplan, 2992 Newbury Street
Hannah Nilsson, 2920 Newbury Street
Judith Shaw, 3018 Shattuck Avenue
Trisha Mathews, 3018 Shattuck Avenue
Alexa Maturana-Lowe, 2048 Emerson Street
Will Cardia, 2048 Emerson Street
Grace Reinhalter, 2068 Emerson Street
Hergis Nkote, 2070 Emerson Street
Raphael Leonard, 2070 Emerson Street
Daryl Hall, 3011 Shattuck Avenue
Allison Maldonado, 3011 Shattuck Avenue
Rob Seares, 3007 Shattuck Avenue
Chivi Marincola, 3009 Shattuck Avenue
Toby Stewart, 3012 Shattuck Avenue
Thelma Wong, 2109 Emerson Street
Kathy Glaser, 2129 Emerson Street
E. Hope Goodale, 2119 Emerson Street
Jacques Rivers, 2119 Emerson Street
Julie Chan, 3012 Shattuck Avenue
Keith Casilles, 2119 Emerson Street

3000 Shattuck
ZAB Decision 5-11-23

I wish to sign to appeal the ZAB decision as a neighbor living within 300 feet of the proposed project.

Print Name	Print Address	Signature
Janet Wood	2071 Emerson St., Berkeley	
Les Shipnuck	2071 Emerson St, 94703	Les Shipnuck
Tsering Dhundup	2057 Emerson st Berkeley CA	
Marisa Weinstock	2045 Emerson St; BK CA 94703 marisaweinstock99@gmail.com	
Katherine Adames	2070 Emerson St Apt A Berkeley, CA 94703 nietsnie1879@gmail.com	Katherine Adames
Tony Drummond	2075 Emerson St Berkeley, CA 94703 Laxsmio1@gmail.com	
Rebecca Stevens	2034 Ashby Avenue, apartment 2 Berkeley, CA 94703	
Ben Faryna & Sara Kaplan	2992 Newbury St Berkeley, CA 94703	
Hannah Nilsson	2920 Newbury St Berkeley, CA 94703	

3000 Shattuck
ZAB Decision 5-11-23

I wish to sign to appeal the ZAB decision as a neighbor living or working within 300 feet of the proposed project.

Print Name	Print Address	Signature
Dikki Dorkar	2057 Emerson St Berkeley	
ALEXIA MATVKANA-LOWE	2048 EMERSON ST BERKELEY	
Will Cacdia	2048 Emerson St Berkeley	
Grace Rembatter	2068 Emerson St Berkeley	
HERGIS NKOTE	2070 Emerson St Berkeley	
Raphael Conard	2071 Emerson St Berkeley	

I wish to sign in support of the appeal of the Zoning Adjustments Board decision on 3000 Shattuck Ave

Name	Address	Signature
Daryl Hall	3011 Shattuck Ave Berkley, CA	
Allison Maldonado	3011 Shattuck ave ca	
Rob Seares	3007 Shattuck	Robert Seares
Chivi Marincola	3009 Shattuck	
Daly Stewart	3012 Shattuck	Daly Stewart
Thelma Wong	2109 Emerson St	Thelma Wong
KATHY GLASER	2129 EMERSON Berkeley	
E Hope Goodale	2119 Emerson Berkeley	Ehopegoodale
Jacques Rivers	2119 Emerson Berkeley	Jacques Rivers
KEITH CARTER	2119 EMERSON Berkeley	
Julie Chan	3012 Shattuck Ave	
Print Name	Address	Signature

I wish to sign in support of the appeal of the Zoning Adjustments Board decision on 3000 Shattuck Ave

Name	Address	Signature
Judith Shaw	3018 Shattuck Ave	
Trisha Mathews	3018 Shattuck Ave	
Print Name	Address	Signature

Letter 2

COMMENTER: Larisa Cummings et al

DATE: May 31, 2023

Response 2.1

The commenter states her intent to appeal the May 11, 2023 decision of the ZAB.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 2.2

The commenter states that the City has failed to perform a cumulative impact analysis and urges the City Council to deny the Use Permit.

In response to this comment, Section 4.15, *Changes in the Environmental Setting and Cumulative Impacts* has been added to the 2025 revised Addendum, which includes an analysis of cumulative impacts. The revisions are shown in Chapter 3 of this document. Section 4.15, *Changes in the Environmental Setting and Cumulative Impacts*, analyzes eight cumulative development projects within 2 miles of the modified project. As discussed in Section 4.15, the modified project would not contribute to cumulatively considerable impacts in any environmental issue area and impacts would be less than significant.

Response 2.3

The commenter states that CEQA requires an Initial Study and provides a summary of the purpose of the Initial Study.

An Initial Study was prepared for the original project in 2018. As discussed in Section 3, *Decision Not to Prepare Subsequent Negative Declaration or EIR*, of the Addendum, pursuant to Section 15164 of the *CEQA Guidelines*, a lead agency shall prepare an addendum to a previously certified negative declaration if some changes or additions are necessary, but none of the conditions described in *CEQA Guidelines* Section 15162 calling for preparation of a subsequent EIR or negative declaration have occurred.

Response 2.4

The commenter states that the City is required to discuss cumulative impacts of the modified project which includes planned and approved projects, mentioning Ashby BART as an example.

Please refer to Response 2.2. 4.15, *Changes in the Environmental Setting and Cumulative Impacts*, added to the Addendum, analyzes eight cumulative development projects within 2 miles of the modified project, including the Ashby BART project. As discussed therein, the modified project would not result in considerable contributions to significant cumulative impacts and impacts would be less than significant.

Response 2.5

The commenter quotes CEQA Guidelines 15064(c) and states that the City must consider input from the public as part of its determination of whether to conduct an EIR.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum. An Initial Study was prepared for the original project in 2018. The 2018 Final IS-ND was circulated for public review from June 12, 2017 to July 13, 2017. The original project was reviewed by the Zoning Adjustments Board (ZAB) in July 2017, May 2018, and June 2018, where the ZAB rejected the application for the original project. The modified project was submitted on December 14, 2021 and a revised Addendum was published on January 27, 2023. Public hearing notices were mailed and posted on April 27, 2023, and the ZAB hearing was on May 11, 2023. As discussed in Section 3, *Decision Not to Prepare Subsequent Negative Declaration or EIR*, of the Addendum, pursuant to Section 15164 of the *CEQA Guidelines*, a lead agency shall prepare an addendum to a previously certified negative declaration if some changes or additions are necessary, but none of the conditions described in *CEQA Guidelines* Section 15162 calling for preparation of a subsequent EIR or negative declaration have occurred.

Response 2.6

The commenter quotes CEQA Guidelines Section 15162(b) and states that if changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR. Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

Please refer to Response 1.2.

Response 2.7

The commenter states that the 2018 IS-ND, Addendum, and May 5, 2023 Supplemental Analysis do not analyze cumulative impacts, and show no evidence of consideration of public input.

Please refer to Response 2.2 and Response 2.5. The 2018 Final IS-ND was circulated for public review from June 12, 2017 to July 13, 2017 and was adopted in November 2018. The 2023 Addendum was available for public review beginning in January 2023, and was attached to the ZAB staff report.

Response 2.8

The commenter states that 15 new projects were identified for cumulative analysis whereas the Addendum only analyzed four. In addition, the modified project proposes an increase in residential square footage and units, and a decrease in parking spaces. The commenter states that these conditions serve as new information.

Please refer to Response 2.2. Section 4.15, *Changes in the Environmental Setting and Cumulative Impacts*, added to the Addendum, analyzes eight cumulative development projects within 2 miles of the modified project, including the Ashby BART project. As discussed therein, the modified project would not result in considerable contributions to significant cumulative impacts and impacts would be less than significant.

The Addendum acknowledges and addresses whether the modified project would result in new or substantially more severe significant impacts due to proposed changes in density and intensity compared to the original project, and explains that the modified project would not introduce new, significant environmental impacts beyond those that have already been identified and characterized in the 2018 Final IS-ND and that there are no substantial changes in the project or circumstances or

substantially important new information that would cause the project to have significant new impacts or substantially increase the severity of previously identified significant impacts.

Response 2.9

The commenter states that the modified project would result in construction and traffic impacts in the Russel-Shattuck-Ashby corridors where there are currently five proposed projects and one under construction. The commenter also states that this area may also become home to the three tallest projects at 9 to 10 stories.

In response to this comment, Section 4.13, *Transportation*, of the Addendum has been revised to include a discussion of construction traffic impacts. The revisions are listed in Chapter 3 of this document. As discussed therein, the modified project would be required to comply with the City's Standard Condition of Approval, *Transportation Construction Plan*, which would require preparation of a Transportation Construction Plan for all phases of construction in order to minimize impacts related to construction traffic.

As outlined in Section 4.3, *Air Quality*, of the Addendum, the modified project would result in less than significant impacts related to construction criteria air pollutants and TACs with compliance with the City's standard condition of approval, *Air Quality – Diesel Particulate Matter Controls During Construction.* As discussed in Section 4.9, *Noise*, of the Addendum, the modified project would result in less than significant impacts related to construction noise and vibration with compliance with the City's standard conditions of approval, *Damage Due to Construction Vibration,* and *Construction Noise Management – Public Notice Required*. Therefore, impacts related to construction would be less than significant.

As outlined in Section 4.2, *Aesthetics*, of the Addendum, the modified project would result in less than significant impacts related to aesthetics since it would be located within 0.5 miles of a major transit stop (Ashby BART station). Because the modified project consists of residential development on an infill site within a transit priority area, aesthetics impacts may not be considered significant impacts on the environment. In addition, as discussed in Section 4.8, *Land Use and Planning*, of the Addendum, although the modified project would include 10 stories, the modified project would qualify for height waivers pursuant to State Density Bonus requirements. The project would comply with all other development standards as well as the City's Inclusionary Housing Ordinance.

Response 2.10

The commenter states that the City's project planner, consultant, and ZAB members incorrectly stated that it was the appellant's responsibility to identify cumulative impacts regarding the project; the appellants asserted that an automatic finding of significant impact must be made; and no further action is needed to meet the requirements of CEQA.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum. Please refer to Response 2.2 and Section 4.15 of the Revised Addendum.

Response 2.11

The commenter provides excerpts s of the May 11, 2023 ZAB hearing transcript.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 2.12

The commenter states that the ZAB was misguided in its deliberations and discussion during the May 11, 2023 meeting and has overlooked several relevant laws, and urges for the decision to be reversed.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 2.13

The commenter requests the City Council to deny the Use Permit and for the City to further review and analyze the modified project under CEQA and demonstrate its consideration of public input.

The modified project is analyzed in the 2018 IS-ND and the 2023 Addendum, as revised. This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Appeal Letter 3

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CITY OF BERKELEY - CITY CLERK
2023 JUN 1pm4:24

June 1, 2023

Via Email and Hand Delivery

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City Clerk
City of Berkeley
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Via Email Only

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Berkeley, CA 94704
Jesse Arreguin, Mayor
Councilmembers: Rashi Kesarwani
Terry Taplin; Ben Bartlett
Kate Harrison; Sophie Hahn
Susan Wengraf; Rigel Robinson
Mark Humbert
Email: council@berkeleyca.gov

Re: Appeal of Zoning Adjustments Board's Approval of 3000 Shattuck Avenue Project Use Permit #ZP2022-0046 and Addendum to the 3000 Shattuck IS/ND (SCH# 2017062025)

Dear Mr. Numainville, Mayor Arreguin, Honorable Councilmembers: Kesarwani, Taplin, Bartlett, Harrison, Hahn, Wengraf, Robinson, and Humbert:

1 We are writing on behalf of East Bay Residents for Responsible Development ("East Bay Residents" or "Residents") to appeal the Zoning Adjustment Board's ("ZAB") May 11, 2023 approval1 of the 3000 Shattuck Project ("Project")2 Use Permit #ZP2022-0046 and approval of the Addendum to the 3000 Shattuck Avenue Project Initial Study Negative Declaration (SCH #2017062025)3 prepared by the City of Berkeley (the "City") for the Project. The Project is proposed by Mark

[1] City of Berkeley, Zoning Adjustment Board, Notice of Decision (May 11, 2023), https.;//w.ww,d.rQpbQx.c.om/s/860yr^^^ya9zcd3a/2023-05-18_ZAB...N.QD._300.Q%20Shat.tucX.pdW=0.
[2] City of Berkeley, Zoning Adjustment Board, Staff Report for Board Action May 11, 2023, https://berkeleyca.gov/sites/default/files/documents/2023-05-11_ZAB_Item%205_3000%20Shattuck_Combined%20Staff%20Report%20and%20Att.achments.pdf (hereinafter "Staff Report").
[3] City of Berkeley, Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (Permit No. ZP2015-0229, SCH# 2017062025) (January 2023), https://www.dropbox.eom/s/kr0fme3neozjqyf/2023-01-27_CEQA_Addendum%20to%20IS-ND_3000%20Shattuck.Ddf?dl=0 (hereinafter "Addendum").

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1, con't | Rhoades of the Rhoades Planning Group and Khan Shazada & Farhat (collectively, "Applicant").

The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235 sf of residential space including 166 residential units, 1,095 SF of retail space, and zero parking spaces on the 0.31-acre site. Construction of the Project is anticipated to last eighteen to twenty-one months. The Project site
2 | is located at 3000 Shattuck Avenue, Berkeley, CA 94705 (APNs 53-1592-1 & 53-1592-2). The Project site is designated as Avenue Commercial in the City's General Plan and is located in the South Area Commercial (C-SA) zoning district. The original project proposed 32,603 SF of residential uses, with 44 units including 4 affordable units. The current Project proposes 80,235 SF of residential uses, with 166 units including 17 affordable units.[4]

This appeal is filed pursuant to Berkeley Municipal Code Section 23.410.020, which provides that decisions by the Zoning Adjustment Board regarding Use Permits may be appealed by "any person" to the City Council within 14 days of the City's mailing the Notice of Decision.[5] The appeal is taken from the following actions, and is accompanied by payment of the required appeal fee of $1500 pursuant to the City's fee schedule:

3 |

1. ZAB's May 11, 2023 adoption of the Addendum to the Initial Study/Negative Declaration and
2. ZAB's May 11, 2023 approval of Use Permit #ZP2022-0046 including the following:
    a. Use Permit pursuant to Berkeley Municipal Code (BMC) Section 23.326.070(A) to demolish a non-residential main building;
    b. Use Permit pursuant to BMC Section 23.204.100(B)(4)(b) to construct a mixed use development of more than 5,000 square-feet;
    c. Use Permit pursuant to BMC Section 23.204.020 to add multi-family dwellings;
    d. Use Permit pursuant to BMC Section 23.204.100(D)(2) to modify the height and stories, setbacks, and lot coverage;
    e. Administrative Use Permit pursuant to BMC Section 23.304.050(A) to allow architectural features over the maximum height limit.[6]

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[4] Addendum p. 3.
[5] Berkeley Municipal Code ("BMC") § 23.410.020.
[6] Staff Report, p. 1.

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I. SUMMARY OF REASONS FOR APPEAL

This Appeal letter, and Residents' attached March 9, 2023 comments to the ZAB[7], demonstrate that the ZAB's decision to approve the Project violated CEQA, land use laws, and the City's municipal codes, and was not supported by substantial evidence in the record.

First, the CEQA Addendum prepared for the Project fails to accurately disclose the extent of the Project's potentially significant air quality, public health, hazardous contamination, land use, and cumulative impacts, which are new or more severe than the impacts analyzed in the original project's 2018 Initial Study/Negative Declaration ("IS/ND") and will not be substantially or fully mitigated by the City's standard conditions of approval. There is substantial evidence to support a fair argument that the Project will result in significant, unmitigated impacts in each of these areas. With respect to hazardous contamination, substantial evidence shows that the site is contaminated with benzene which exceed the 2019 San Francisco Bay Regional Water Quality Control Board's (SFBRWQCB) groundwater vapor intrusion residential environmental screening level.[8] But, the Addendum does not include a new analysis of existing contamination levels and does not include mitigation requiring the site to be cleaned to residential ESLs. Second, the air quality and health risk impacts associated with the larger project size result in Reactive Organic Gas ("ROG") emissions which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold of 54 pounds per day ("lbs/day"), because the Project would result in ROG emissions of 71.55 lbs/day.[9] The changes to the Project result in a 2,285% increase in ROG emissions, far and away exceeding the BAAQMD significance threshold. ROG air pollution and health risk impacts remain significant but neither the Addendum nor the 2018 IS/ND adequately mitigate such impacts. Third, Cumulative impacts associated with construction and operation of the Project constitute new impacts pursuant to Section 15355 because recent development in the Project area was not previously analyzed in the 2018 IS/ND and was not contemplated at the time the 2018 IS/ND was released. The Addendum fails to analyze these new cumulative impacts associated with the Project.

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[7] **Attachment A,** Adams Broadwell Joseph & Cardozo, Comments on Agenda Item 5: 3000 Shattuck Avenue Project Addendum to the Initial Study Negative Declaration (SCH #2017062025), (May 9, 2023).

[8] Addendum, p. ES-2.

[9] SWAPE Comments, p. 5.

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CEQA requires that a subsequent or supplemental environmental impact report ("EIR") be prepared if there are substantial changes in a project which increase the project's impacts; if there are substantial changes in circumstances surrounding the project; or if new information demonstrates that the project will have new or more severe effects than previously analyzed or are subject to new or different mitigation or alternatives.[10] In this case, the Project has been substantially changed from the original 2018 project by more than tripling the number of residential units on site and almost tripling the Project's square footage, resulting in substantially more severe construction and operational impacts than previously analyzed. There is also new information demonstrating that the Project will have potentially significant impacts which require mitigation beyond that previously considered for the original project. The City failed to proceed in the manner required by law by relying on a CEQA addendum and failing to prepare a subsequent or supplemental EIR in those circumstances. These issues were not resolved by the ZAB prior to its approval of the Project.

9

The City prepared the Addendum in violation of CEQA and the court's holding in *Friends of College of San Mateo Gardens v. San Mateo County Community College District*. There, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[11] Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[12] Here, the changes proposed in the Addendum were not "minor technical changes or additions" but constituted major revisions to the MND based on changes in the Project and new significant environmental effects, thus requiring preparation of an EIR. Substantial evidence supports a fair argument that the Project's potentially significant impacts cannot be adequately mitigated by the measures proposed in the Addendum and 2018 IS/ND. Therefore, a subsequent EIR should have been prepared. The ZAB's decision to approve the Project without preparing a subsequent or supplemental EIR was a violation of CEQA.

10

The Project may be detrimental to the general welfare of the city, residents, and workers. The significant, unmitigated environmental and public health

11

[10] Pub. Res. Code § 21166; 14 Cal. Code Regs. § 15162.
[11] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2022) 11 Cal.App.5th 596, 600.
[12] CEQA Guidelines, § 15164, subd. (b).

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impacts resulting from the City's failure to prepare a subsequent or supplemental are detrimental to the general welfare of the City, its residents, and its workers, in violation of the City's zoning code.[13] The Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce. The Project is therefore likely to be detrimental to City goals and the Berkeley community, particularly to its highly qualified construction workforce, who may not have the opportunity to build much-needed housing in their own community.

12

The Project is inconsistent with the General Plan because the General Plan provides that the City intends to "[w]ork with job training programs and encourage training for life skills, job readiness, and specific target industries."[14] The Project does not include any commitment to provide construction jobs to Berkeley or East Bay residents, and does not contribute to any apprenticeship or other construction job training programs.

The Project is inconsistent with the General Plan Housing Element because the Project fails to provide the City's required 20% affordable units on-site, contributing to the City's current shortage of affordable units, while at the same time taking a viable project site out of production for those additional affordable units. Although the Project will pay an in-lieu fee, the Project would not be consistent with the Housing Element because it places the burden on the City to identify alternate sites to construct affordable housing units in time to meet its RHNA requirements.[15]

13

Finally, the ZAB rushed the Project's approval process before complying with CEQA by erroneously concluding that the Project was required to be approved on May 11, 2023 pursuant to the Housing Accountability Act ("HAA").[16] The ZAB incorrectly reasoned that the hearing on May 11, 2023 was the final hearing allowed under the HAA under the Act's five-hearing limit.[17] This was incorrect. The May 11, 2023 hearing was the ***second hearing*** for the Project following the Design Review Committee hearing on January 19, 2023.[18]

14

East Bay Residents urges the City Council to grant this Appeal and remand the Project to City Staff to prepare a subsequent EIR for the Project. The Project

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[13] Berkeley Municipal Code ("BMC") Sections 23.410.030 and 23.406.040(E).
[14] *Id.*
[15] City of Berkeley, Adopted 2023-2031 Housing Element, p. 107.
[16] Gov. Code. §§ 65589.5, 65589.5(h)(2).
[17] Gov. Code. § 65905.5(a). The HAA limits agencies to five public hearings to consider project approval, including appeals, but excluding hearings related to legislative action and not restricting CEQA compliance.
[18] See the figure below on page 11 from the May 11, 2023 ZAB hearing Staff Report.

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14, con't should not be rescheduled for a further public hearing until these issues have been addressed. East Bay Residents reserves the right to submit supplemental comments and evidence at any later hearings and proceedings related to the Project, in accordance with State law.[19]

I. STATEMENT OF INTEREST

East Bay Residents for Responsible Development is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential impacts associated with Project development. The association includes the UA Plumbers and Pipefitters Local 342, International Brotherhood of Electrical Workers Local 595, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, and their members and their families who live and/or work in the City of Berkeley and Alameda County.

The individual members of East Bay Residents and its affiliated labor organizations live, work, and raise their families in Alameda County, including in the City of Berkeley. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project
15 itself. They will therefore be first in line to be exposed to any health and safety hazards that may exist on the Project site.

The organizational members of East Bay Residents also have an interest in enforcing the City's planning and zoning laws and the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there. Indeed, continued degradation can, and has, caused restrictions on growth that reduce future employment opportunities. Finally, Residents' members are concerned about projects that are built without providing opportunities to improve local recruitment, apprenticeship training, and retention of skilled workforces, and without providing lifesaving healthcare expenditures for the construction workforce.

[19] Gov. Code § 65009(b); Pub. Resources Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* ("*Bakersfield*") (2004) 124 Cal. App. 4th 1184, 1199-1203; *see Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

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II. THE ZAB'S ACTIONS VIOLATED CEQA

CEQA is designed to inform decision makers and the public about the potential, significant environmental impacts of a project before harm is done to the environment.[20] The EIR is the "heart" of this requirement.[21] The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[22]

When a previously approved project for which an EIR or an ND/MND has been prepared is modified, CEQA requires the lead agency to conduct subsequent or supplemental environmental review when one or more of the following events occur:

(a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report;
(b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or
(c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.[23]

16

In assessing the need for subsequent or supplemental environmental review, the lead agency must determine, on the basis of substantial evidence in light of the whole record, if one or more of the following events have occurred:

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

[20] 14 Cal. Code Regs. § 15002(a)(1) ("CEQA Guidelines"); *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal.App.4th 1344, 1354 ("*Berkeley Jets*"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[21] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84.
[22] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[23] Pub. Resources Code § 21166; CEQA Guidelines § 15162.

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effects or a substantial increase in the severity of previously identified significant effects; or

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

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

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

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

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.[24]

16, con't

Only where ***none*** of the conditions described above calling for preparation of a subsequent or supplemental EIR have occurred may the lead agency consider preparing a subsequent negative declaration, an addendum or no further documentation.[25] In any case, the decision must be supported by substantial evidence.[26] Here, the City's decision not to prepare a subsequent CEQA document for the Project is not supported by substantial evidence.

The City Improperly Prepared an Addendum Instead of a Subsequent EIR

Agencies may prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have

[24] CEQA Guidelines §§ 15162(a)(1)-(3).
[25] CEQA Guidelines § 15162(b).
[26] *Id.* §§ 15162 (a), 15164(e), and 15168(c)(4).

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occurred."[27] "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration," and if no subsequent EIR is required, the agency "shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation."[28] Additionally, CEQA requires preparation of an EIR where "[s]ubstantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects."[29]

16, con't

Here, the Project changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the 2018 IS/ND based on new significant environmental effects thus requiring the preparation of a negative declaration at a minimum, and a subsequent EIR if the impacts cannot be mitigated. The original project proposed 32,603 SF of residential uses, with 44 units including 4 affordable units. This Project proposes 80,235 SF of residential uses, with 166 units including 17 affordable units. The original project proposed the inclusion of 17 parking spaces for automobiles, this Project proposes zero parking spaces. The Project has been substantially changed from the original 2018 project by more than tripling the number of residential units on site and almost tripling the Project's square footage, resulting in substantially more severe construction and operational impacts than previously analyzed. Also, due to substantial changes in circumstances with respect to hazardous contamination from the 2018 IS/ND, the Project will result in new significant environmental effects from hazards, air quality, and cumulative impacts.

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As shown below, and detailed in Residents' prior comments, air quality and hazards expert Matt Hagemann and Paul Rosenfeld of Soil Water Air Protection Enterprise (SWAPE) provided substantial evidence that ROG emissions, and construction and demolition emissions may be significant and were not analyzed or mitigated in the 2018 IS/ND. Moreover, hazards impacts from the Project are more severe than analyzed in the 2018 IS/ND. The cumulative impacts associated with concurrent development in the neighborhood did not exist and were not analyzed at the time the 2018 IS/ND was prepared. These impacts constitute new significant environmental effects requiring preparation of a subsequent EIR.

18

The California Supreme Court held in *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.*, that if "the project

[27] CEQA Guidelines, § 15164, subd. (b).
[28] CEQA Guidelines, § 15162, subd. (b).
[29] *Id.* at § 15162, subd. (a)(2).

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modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[30] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[31] The court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[32] The court found that substantial evidence supported a fair argument that the aesthetic impacts of replacing the garden with a parking lot were significant, and the college's choice to rely on an addendum violated CEQA. The court found that the change in the Project as detailed in the Addendum was significant enough to require additional environmental review, and that an Addendum was not the appropriate CEQA document.

18, con't

Similarly, here, the Project's changes, including tripling the number of housing units, almost tripling the square footage, and doubling of the building height will result insubstantially increased air quality, public health, hazards impacts, and cumulative impacts that are new and more severe than previously analyzed such that an Addendum is inappropriate and a subsequent EIR must be prepared. The City Council must remand the Project to Staff to prepare a legally adequate subsequent EIR for the Project, because substantial evidence supports a fair argument that the changes in the Project require major revisions to the 2018 IS/ND due to new significant environmental effects from hazards, air quality, and cumulative impacts.

Finally, the ZAB rushed approval of this Project out of a false belief that failing to approve it would violate the HAA. The City Council is within the bounds of the HAA to conduct a public hearing on Appeal and remand the Project to Staff to conduct additional CEQA review prior to a final hearing on the Project. The HAA expressly requires lead agencies to comply with CEQA and complete environmental review of a development project before any HAA claims can be made. The HAA states that **nothing "in this section be construed to relieve the local agency**

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[30] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[31] *Id.* at p. 959.
[32] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2022) 11 Cal.App.5th 596.

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from making one or more of the findings required pursuant to [CEQA]."[33] The Appeal asks only that the City comply with CEQA before approving the Project. Upholding the Appeal would result in compliance with CEQA, and would not expose the City to liability under the HAA.

19, con't

ZONING ADJUSTMENTS BOARD
May 11, 2023

3000 SHATTUCK AVENUE
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Table 3: Project Chronology

Date	Action
December 14, 2021	SB 330 complete preliminary housing development project application submitted
March 29, 2022	Application submitted
May 11, 2022	Application deemed incomplete
July 8, 2022	Revised application materials submitted
August 3, 2022	Application deemed complete
January 19, 2023	Design Review Committee Preliminary Design Review
January 27, 2023	*Addendum to previous Initial Study published*
April 27, 2023	Public hearing notices mailed/posted
May 11, 2023	ZAB hearing

[34]

III. THE PROJECT MAY RESULT IN NEW AND MORE SEVERE HAZARDS IMPACTS REQUIRING PREPARATION OF AN EIR

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The Project site is contaminated with hazardous contaminants from its historical use as a service station operated by Atlantic Richfield Company ("ARCO").[35] ARCO later became an affiliate of BP and the site was operated as BP Station No. 00414 until it was sold to Mr. Shahzada Khan on February 25, 2004.[36] The Project site is listed on the State Water Resources Control Board's Geotracker database as Site T0600100094. The site is therefore on a Cortese List per Section 65962.5 of the Government Code. The Project site is currently an operational gas station and smog check location operated by Berkeley Gas & Smog, which contains

[33] Gov. Code, § 65589.5, subd. (e).
[34] Staff Report, p. 9.
[35] Atlantic Richfield Company, Case Closure Summary Report Former British Petroleum Station #00414 City of Berkeley case #27540. 3000 Shattuck Avenue Berkeley, California (June 9, 2010), https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8836282312/T0600100094.PDF p. 2/16 (hereinafter "Case Closure Summary Report").
[36] *Id.*

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three underground storage tanks ("USTs") that contain gasoline, and one waste oil UST.[37]

Impacts from Project construction and operation may be more severe than previously analyzed in the 2018 IS/ND and construction of the Project will require mitigation measures which are considerably different from those analyzed in the 2018 IS/ND (which included no mitigation measures) to substantially residual contamination levels to acceptable residential screening levels.[38] The 2018 IS/ND relied on the site's previous closure to commercial/industrial screening levels, not residential screening levels, and did not include any mitigation measures requiring contamination levels to be cleaned to meet the more health-protective residential environmental screening levels ("ESLs") necessary to ensure that health impacts on construction workers and future residents of the Project are less than significant.

20, con't

At the time of the site's closure in 2010, "[a] station building [was] present at the site and the entire site [was] paved, with no exposed soil present at the ground surface."[39] At the time of the closure, the "potential for soil vapor intrusion was evaluated by comparing current groundwater concentrations to groundwater ESLs...for the protection of the vapor intrusion pathway in a ***commercial setting***."[40] Following the Project site's closure in 2010, an additional investigation was opened at the Site in December 2012 to address a new release associated with the hydraulic lifts present at the Site.[41] The new release was discovered during groundwater monitoring activities in October 2007, a sample from the impacted well was not collected until first quarter 2008.[42] The release notification, dated December 12, 2012, lists both BP and the current property owner (Shazada Khan) as potential responsible parties ("PRP").[43]

In June 2013, the case involving the potential release associated with the hydraulic lifts was referred to the San Francisco Bay Regional Water Board (Case # 01S0746, RWQCB).[44] Based on results of characterization activities, ARCADIS

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[37] *Id.*
[38] CEQA Guidelines § 15162(a)(3)(D).
[39] Case Closure Summary Report, p. 10/16.
[40] *Id.*
[41] Letter from San Francisco Bay Regional Water Quality Control Board to BP West Coast Products, LLC c/o Ms. Janet Wager, No Further Action, U.S. Smog and Gas, 3000 Shattuck Avenue, Berkeley, Alameda County, (September 3, 2014), https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/2104876458/01S0746%20(US%20Smog)%20-%20NFA%20package%209-3-14.pdf.
[42] *Id.*
[43] *Id.*
[44] *Id.*

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requested case closure on behalf of BP on July 9, 2014.[45] The Water Board concluded that "[b]ased upon the available information, ***including the current land use***, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the pollutant releases at the subject site is required."[46] This conclusion was based on the Water Board's conclusion that the "Most Sensitive Potential Use and Probability of Use" include "municipal, industrial process, industrial service and agricultural are identified in the Basin Plan."[47]

The soil vapor levels and other residual contamination associated with releases of contaminants at the Project site have not been fully analyzed or mitigated for a residential setting and may therefore pose a significant risk to residents and workers of the Project site. The current Project does not include the uses identified under the 2010 or 2014 land use designations, and instead will be converted to residential uses. The 2010 closure summary report identified benzene levels which exceed the 2019 San Francisco Bay Regional Water Quality Control Board's (SFBRWQCB) groundwater vapor intrusion residential environmental screening level.[48] But, the Addendum does not include a new analysis of existing contamination levels and does not include mitigation requiring the site to be cleaned to residential ESLs. The City therefore lacks substantial evidence to conclude that the Project's hazardous materials and health risk impacts are less than significant. Rather, the presence of soil contamination at levels that exceed residential ESLs is substantial evidence demonstrating that these impacts may be significant and will require substantial revisions to the 2018 IS/ND in order to accurately analyze and incorporate mitigation for these impacts.

20, con't

The 2018 IS/ND relied on the misleading statement that the cleanup case was "closed"[49] to commercial industrial screening levels to conclude that no mitigation was required for the original project. The Addendum similarly fails to address the fact that the residual contamination remaining after the Water Board case closure may exceed residential screening levels, and may therefore result in a potentially significant hazardous materials and health impact to future Project residents unless mitigation us required to remediate existing contamination to residential ESLs. The Addendum relies on the statement that "[t]here are two closed State Water Quality Control Board GeoTracker investigations on the project

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[45] *Id.*
[46] *Id.*
[47] *Id.* at 2.
[48] *Id.* at ES-2.
[49] 2018 IS/ND, https://www.dropbox.com/s/19ieh5spqqet2qb/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0, p. 23.

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site (T0600100094 [closed 2013] and T10000004483 [closed 2014])"[50] to conclude that impacts are less than significant and that no subsequent EIR is required for the Project. However, both of these GeoTracker sites at 3000 Shattuck were closed to commercial industrial standards, and do not provide support for a conclusion that impacts to a residential project would be less than significant.

The City's failure to investigate contamination levels in relation to this Project is apparent in the document. The Addendum includes the Case Closure Summary Report which clearly states that ***"[s]oil vapor samples have not been collected at the site."***[51] The Case Closure Summary was required to include "Cumulative data tables for all soil, groundwater samples, including grab samples, and soil vapor ***must*** be included."[52] Data on soil vapor samples and cumulative data on the potential for soil vapor intrusion was not included in the Case Closure Summary, the Initial Study, or the Addendum, and was not provided in response to Residents' Public Records Act request. Thus, there is no evidence in the City's record to support the ZAB's conclusion that the Project's hazardous materials and health risk impacts from soil contamination were adequately addressed in the Addendum. The ZAB's approval of the Project therefore violated CEQA.

20, con't

The Project would result in the conversion of the contaminated industrial site to residential use, and may result in significant hazards and health impacts from soil contamination and vapor intrusion. A subsequent EIR is required pursuant to CEQA Guidelines Section 15162.

IV. THE PROJECT MAY RESULT IN NEW AND MORE SEVERE CUMULATIVE IMPACTS REQUIRING PREPARATION OF A SUBSEQUENT OR SUPPLEMENTAL EIR

CEQA requires agencies to analyze whether a project has impacts that are individually limited, but cumulatively considerable.[53] Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects). Cumulative impacts are defined as "two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts."[54] Cumulative impacts

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[50] Addendum p. 22.
[51] Case Closure Summary Report, p. 10/16 (emphasis added).
[52] *Id.* at pdf 83 of 86.
[53] CEQA Guidelines § 15355(b); *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 905.
[54] CEQA Guidelines § 15355.

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associated with construction and operation of the Project constitute new impacts pursuant to Section 15355 because recent development in the Project area was not previously analyzed in the 2018 IS/ND and was not contemplated at the time the 2018 IS/ND was released. The Addendum fails to analyze these new cumulative impacts associated with the Project.

The ZAB approved the Project in violation of CEQA because the Addendum failed to address these new projects and failed to include any analysis supported by substantial evidence to conclude that the Project does not result in new or more severe cumulatively considerable impacts than the 2018 project. In fact, the Addendum only mentioned cumulative impacts for transportation and air quality impacts, but dismissed all other potentially new and significant cumulative impacts outright, without providing substantial evidence to support its conclusions.[55]

21, con't

The 2018 IS/ND concluded that, because the Project is "an infill location," cumulative impacts are less than significant for all resource areas.[56] The opposite is true. It is precisely because this Project is an infill project located in an area of the City that is currently undergoing rigorous development, that a cumulative analysis of concurrent construction impacts is so critical.

Here, the Project is surrounded by existing sources of pollution and is proposed to be constructed concurrently with numerous other new Berkeley high rise developments in the direct vicinity of the Project site. Both this Project and the concurrent development projects will result in potentially cumulatively significant air quality, hazards, and land use impacts that were not analyzed in the Addendum.

A. The Project May Result in New and More Severe Cumulative Hazards and Construction Impacts

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As detailed above and in Resident's prior comments to the ZAB, the Project site is contaminated due to the historical presence of three underground storage tanks ("USTs") that contained gasoline, and one waste oil UST.[57] The Project site is listed on the State Water Resources Control Board's Geotracker database as Site T0600100094.[58] The site is therefore on a Cortese List per Section 65962.5 of the Government Code.

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[55] Addendum p. 13; 28.
[56] 2018 IS/ND, p. 38.
[57] 2018 IS/ND, p. 38.
[58] California State Water Resources Control Board Geotracker, ARCO # 00414 (T0600100094), https://geotracker.waterboards.ca.gov/profile_report?global_id=T0600100094.

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The Project site may be constructed concurrently with numerous developments in the Project vicinity which are also on the Cortese List per Section 65962.5 of the Government Code and require remediation prior to construction. Within 1000 feet of the Project site, there are three Cortese listed sites, including: 1) 2001 Ashby Redevelopment;[59] 2) 2920 Shattuck Avenue;[60] and 3) 2701 Shattuck Avenue, all of which are likely to require removal and remediation of contaminated soil as part of project construction, which would result in extended cumulative construction impacts.[61] All three of these projects were proposed after the 2018 IS/ND was drafted. The concurrent construction of three large Cortese listed projects within 1000 feet may result in potentially significant cumulative hazards and construction impacts that the 2018 IS/ND and the Addendum failed to analyze.

22, con't

The 2001 Ashby Redevelopment, located within 600 feet of the Project site, will require "remediation and/or off-Site disposal of impacted soil at a permitted disposal facility; extraction, treatment, and discharge of groundwater to the sanitary sewer; and installation of vapor mitigation engineering controls to control potential vapor intrusion to indoor air of the proposed development and migration along new utility corridors."[62] The remediation associated with construction of the 2920 Shattuck Project may include removal of on site hazardous materials which may exceed 55 gallons of liquids, 500 pounds of solids, or 200 cubic feet of compressed gases.[63] Based on evidence in the record demonstrating that contamination levels at the 3000 Shattuck site exceed residential standards, it is likely that that the Project will also require remediation and/or off-site disposal of contaminated soil and installation of vapor mitigation engineering controls to control potential vapor intrusion to indoor air of the proposed development and migration along new utility corridors.

The concurrent remediation and removal of contaminated soil on both project sites within such close proximity may result in potentially significant cumulative hazards, air quality, and traffic impacts which were not analyzed or mitigated in

[59] California State Water Resources Control Board Geotracker, 2001 Ashby Redevelopment (T10000014891), https://geotracker.waterboards.ca.gov/case_summary?global_id=T10000014891.
[60] California State Water Resources Control Board Geotracker, Southwick Chrysler Plymouth (T0600101310), https://geotracker.waterboards.ca.gov/case_summary?global_id=T0600101310.
[61] California State Water Resources Control Board Geotracker, 2721 Shattuck Ave, Bekins Van Storage (T0600100167), https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100167.
[62] California State Water Resources Control Board Geotracker, 2001 Ashby Redevelopment (T10000014891), https://geotracker.waterboards.ca.gov/case_summary?global_id=T10000014891.
[63] State Water Resources Control Board, Unified Program Consolidated Form Facility Information, FA0000211, The Model Garage Inc, 2920 Shattuck Ave Berkeley, CA 94705, https://www.dropbox.com/s/s484da7bkuism3i/Shattuck%20Avenue%202920_Model_2013%2004%2030_RPT_HMBP_Redacted.pdf?dl=0.

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22, con't

the 2018 IS/ND nor the Addendum. These cumulative impacts are new information about new significant environmental effects which were not known at the time the 2018 IS/ND was prepared. These impacts require substantial revisions to the IS/ND and therefore must be analyzed and mitigated in a subsequent EIR pursuant to CEQA Guidelines Section 15162 subdivision (a)(3).[64]

B. The Project May Result in New and More Severe Cumulative Air Quality Impacts Than Previously Analyzed

Project construction, over 18 to 21 months, may occur concurrently with numerous developments within 1000 feet including: 2001 Ashby (within 600 feet), 2701 Shattuck (within 1000 feet), and 2920 Shattuck (within 500 feet).[65] Given that these projects were proposed after the 2018 IS/ND was released, and before the Addendum was finalized, the Addendum was required to analyze the potentially significant cumulative air quality and health risk impacts associated with concurrent construction of these new projects. The City failed to do so, and must remedy this deficiency in a subsequent EIR.

23

The substantial change in the size of this Project will result in an increase in Reactive Organic Gases emissions of 2,285%, according to Residents' air quality expert consultants at SWAPE.[66] The increased size of the Project constitutes a "[s]ubstantial change[] proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects."[67] The air quality and health risk impacts resultant from the increase in size of this Project is also cumulatively considerable in connection with the numerous high-rise developments being built concurrently in the Project vicinity.

As detailed in East Bay Residents' prior comments and those of our air quality expert consultants at SWAPE, the Project would result in significant emissions from Reactive Organic Gas ("ROG") which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold. BAAQMD requires that ROG emissions shall not exceed 54 pounds per day ("lbs/day"), but the Project would result in ROG emissions of 71.55 lbs/day.[68] The 2018 IS/ND made no mention of ROG emissions, but the Addendum states that the ROG emissions would be 3

[64] CEQA Guidelines § 15162(a)(2).
[65] Google Maps, 2023.
[66] SWAPE Comments, p. 5.
[67] CEQA Guidelines Section 15162(a)(2).
[68] SWAPE Comments, p. 5.

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lbs/day.[69] This conclusion is not supported by substantial evidence. SWAPE found that the changes to the Project result in a 2,285% increase in ROG emissions, far exceeding the BAAQMD significance threshold. Therefore, ROG emissions remain significant but neither the Addendum nor the 2018 IS/ND adequately mitigate such impacts. These emissions also contribute to cumulatively significant air quality impacts in connection with concurrent development within 1000 feet of the Project. The Project's individual and cumulatively significant air quality impacts are the result of substantial changes in the Project design and new project proposals that did not exist at the time the 2018 IS/ND was prepared. The City must therefore analyze these new potentially significant environmental impacts in a subsequent EIR to satisfy CEQA.

23, con't

V. THE PROJECT RESULTS IN NEW AND MORE SEVERE AIR QUALITY IMPACTS REQUIRING PREPARATION OF A SUBSEQUENT OR SUPPLEMENTAL EIR

The Addendum states that Project construction will last 18 months,[70] and that the original project also included a construction period of 18 months.[71] This is incorrect, as the 2018 IS/ND provided that the construction period will last 20 months.[72] Nevertheless, the Addendum's attempt to compare similarities between the construction timeline for the original and current project does not support a conclusion that the Project's construction emissions are comparable to the original Project because the new Project is twice the size. Construction emissions generated over the same period of time are therefore likely to be substantially higher for the current Project than the original project.

24 The information in the Addendum is also internally inconsistent, because the Addendum's air quality emissions modeling relies on a 21-month construction period, whereas the text of the Addendum says construction will last 18 months, potentially resulting in an underestimation of the Project's construction emissions. SWAPE concluded that the elongated construction duration results in an underestimation of the daily emissions resulting from construction equipment onsite. SWAPE concluded that the Addendum's analysis improperly relies on the assumption that "there will be less construction activities required per day and, consequently, less pollutants emitted per day."[73] The Addendum's air quality construction emissions calculations underestimate the Project's daily emissions and

[69] Addendum, p. 14.
[70] Addendum, p. 3.
[71] *Id.*
[72] 2018 IS/ND.
[73] SWAPE Comments, p. 4.

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are therefore not supported by substantial evidence. The City must prepare a legally adequate subsequent EIR which accurately analyzes the Project's daily construction emissions with an accurate construction schedule guiding the analysis.

Further, the Addendum fails as an informational document under CEQA for failing to model the emissions associated with demolition of the existing building on the Project site. SWAPE concluded that the Addendum failed altogether to analyze the demolition phase of construction and inputted zeros into the calculations for square feet being demolished.[74] This is not an accurate assessment of the required demolition of the existing gas station, two gas pump islands, and related infrastructure.[75] Demolition of existing infrastructure will obviously exceed zero square feet of demolition activity, counter to the Addendum's unsupported calculations. SWAPE concluded that the failure to include the demolition emissions presents a significant issue, because by failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, which may be significant and remain unmitigated.[76] These impacts are unique to the Project and were not considered in the prior 2018 IS/ND. They must be analyzed in a subsequent EIR.

24, con't

Moreover, the Addendum fails as an informational document under CEQA for failing to quantify and analyze the Project's potentially significant air pollution impacts from trucking the modular units potentially hundreds of miles to the Project site. The Addendum fails to quantify the potentially significant air quality, health risk, and cumulative impact associated with trucking the modular units. These modular units may be transported from out of state or hundreds of miles from the Project site. Absent an analysis of the emissions associated with trucking these modular units, the Addendum fails as an informational document under CEQA, and the conclusion that air impacts from Project construction are less than significant was not supported by substantial evidence.

The City Council must remand the Project to Staff to prepare a legally adequate EIR which analyzes and mitigates the Project's potentially significant air quality impacts before the Project can be approved.

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[74] *Id.*
[75] 2018 IS/ND, p. 6.
[76] SWAPE Comments, p. 5. s

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IV. THE PROJECT MAY BE DETRIMENTAL TO THE GENERAL WELFARE OF THE CITY, RESIDENTS, AND WORKERS

The ZAB may not approve a Use Permit under Berkeley Municipal Code Section 23.406.040 unless it finds that the proposed project:

1. Will not be detrimental to the health, safety, peace, morals, comfort, or **general welfare** of persons residing or visiting in the area or neighborhood of the proposed use; and
2. Will not be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City.[77]

25

Municipal Code Section 22.20.020 defines detrimental impacts to include, *inter alia*, increased demand for workforce housing, training, and benefits: "The increased demand for affordable housing, child care and public services, ***adequate employment training and placement facilities and amenities***, and the other impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare."[78] Under Section 22.20.020, a detriment to the general welfare occurs when the City fails to mitigate the impacts of a development project, including the increased demand for housing, workforce training, and public services that may result from the Project.[79] The ZAB lacked the evidence necessary to approve the requested Use Permit for the Project because substantial evidence demonstrates that the Project will be detrimental to the general welfare due to both the unmitigated environmental and public health impacts discussed herein, and the Project's failure to comply with the General Plan's workforce requirements.

The Project's changes, including the tripling the number of housing units, almost tripling the square footage, and doubling of the building height will result insubstantially increased air quality, public health, hazards impacts, and cumulative impacts that are new and more severe than previously analyzed such that an Addendum is inappropriate and a subsequent EIR must be prepared. The public health and safety impacts that result from the increased size and scope of the Project result in more severe hazardous contamination impacts, air quality, traffic, and noise and may be "detrimental or injurious to property and improvements of

[77] BMC § 23.406.040.
[78] BMC § 22.20.020(G) (emphasis added).
[79] *Id.*

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25, con't

the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City" in violation of the Municipal Code.[80]

26

With regard to workforce, pursuant to Municipal Code Section 22.20.020, the Project may result in detrimental impacts to the general welfare for failure to provide employment training, placement facilities, and amenities.[81] The Project Applicant has not made a commitment to ensure the Project is built with a local skilled and trained workforce, or that the Project will provide apprenticeship training opportunities or healthcare benefits or other workforce benefits or amenities for City of Berkeley or East Bay residents. Without committing to these actions, the Project may be built with low-wage, out-of-area workers who lack the livable wages, health benefits, stability, and basic standard of living that Berkeley has committed to ensuring for all of its workers on all housing developments constructed in the City. If so, the Project would be detrimental to the health, safety, peace, morals, comfort, and general welfare of the City and its residents, especially its local construction workforce who may not have the opportunity to build much-needed housing in their own community.

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On May 2, 2023, the City adopted a new ordinance titled Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Ordinance.[82] The Ordinance was enacted to improve the recruitment, training, and retention of skilled construction workers, ensuring larger projects within the City are awarded to contractors that participate in high quality, industry proven apprenticeship programs, and that apprentices working under such contracts are competently trained.[83] The HARD HATS ordinance does not apply to the Project because the Project application was filed before the Ordinance went into effect. However, the evidence and findings which supported the City's adoption of the Ordinance demonstrate that projects which do not provide workforce benefits may be detrimental to the general welfare of the City and its residents.[84] Accordingly, the ZAB recommended (but did not require) that the Applicant comply

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[80] BMC § 23.406.040
[81] BMC § 22.20.020(G).
[82] City of Berkeley, Revised Agenda Material May 2, 2023, Item #1, Adding BMC Chapter 13.107, Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Ordinance, https://berkeleyca.gov/sites/default/files/documents/Supp%203%20Item%201%20HARD%20HATS%20Ordinance.pdf.
[83] *Id.*
[84] City of Berkeley, Agenda, Berkeley City Council, Tuesday September 20, 2022 6:00 PM, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Referral, p. 77. Available at: https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report").

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with the Ordinance. Though the ZAB recommended the Applicant conform with the HARDHATS Ordinance, this does not sufficiently mitigate the risk of detriment to the general welfare, as shown below, because the ZAB condition is a recommendation only, and the Applicant did not commit to providing workforce benefits prior to the ZAB approval.[85] If the Project is constructed without workforce benefits, it would be detrimental to the general welfare of the City and its residents for the reasons described in the findings for the HARD HATS Ordinance.

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Municipal Code Section 22.20.020 defines detrimental impacts to include, *inter alia*, increased demand for workforce housing, training, and benefits: "The increased demand for affordable housing, child care and public services, ***adequate employment training and placement facilities and amenities***, and the other impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare."[86] Under Section 22.20.020, a detriment to the general welfare occurs when the City fails to mitigate the impacts of a development project, including the increased demand for housing, workforce training, and public services that may result from the Project.[87] Pursuant to Municipal Code Section 22.20.020, the Project's adverse impacts to the general welfare include failure to provide employment training, placement facilities, and amenities.[88]

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The ZAB may approve a Use Permit for demolition of a non-residential building or structure only if the ZAB finds that "demolition will not be materially detrimental to the commercial needs and public interest of any affected Hi neighborhood or the City of Berkeley"[89] Here, the ZAB lacked substantial evidence to make the necessary findings that demolition of the existing structure and construction of the Project is in the public interest, absent community and workforce benefits to promote the general welfare. The City has found that housing projects, like this one, that are constructed with low-wage or uninsured construction workers are detrimental to the health, safety, peace, morals, comfort, and general

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[85] City of Berkeley, Agenda and Staff Report, Berkeley City Council, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS), https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report") (Sept. 20, 2022) p. 7.
[86] BMC § 22.20.020(G) (emphasis added).
[87] *Id.*
[88] BMC § 22.20.020(G).
[89] *Id.* at § 23.326.070(D)(1).

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welfare of persons residing or visiting the City and the Project's Downtown neighborhood, as well as to the general welfare of the City.[90]

Finally, the Municipal Code provides that the "Zoning Ordinance establishes *minimum* requirements to promote the public health, safety, and general welfare."[91] The Municipal Code also provides that, "[t]o the extent possible, it is the government's responsibility to balance the responsibility to ensure the health, safety, and general welfare of the public at large in a fiscally and environmentally sustainable manner."[92] It is therefore the responsibility of the City Council to promote the general welfare beyond the minimum required by law.

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The City Council should ask the Applicant to voluntarily agree to include community benefits in the Project including local hire provisions and healthcare standards and benefits in order to promote the general welfare.

A. The Project May Be Detrimental to the General Welfare for Failing to Hire Locally

Absent a commitment from the Applicant to hire locally, the Project may be detrimental to the general welfare of Berkeley residents. The ZAB recommended that the Applicant hire locally in accordance with the HARDHATS Ordinance, but this is not binding.

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Local hire commitments are a critical way not only to hire local residents, but to use project hiring needs to target opportunities to low-income residents and people of color who might otherwise not benefit from new development.[93] Local hire programs help address the fragmentation inherent in the development process, establishing better communication among developers, employers, community organizations, local job training resources, and the workforce development system that can provide job readiness and job retention support services.[94]

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[90] City of Berkeley, Agenda, Berkeley City Council, Tuesday September 20, 2022 6:00 PM, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Referral, p. 77. Available at: https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report").

[91] BMC § 22.104.030.

[92] *Id.* at § 2.09.020.

[93] Kathleen Mulligan-Hansel, *Making Development Work for Local Residents: Local Hire Programs and Implementation Strategies that Serve Low-Income Communities,* (July 2008). Available at: https://s3.amazonaws.com/proggov21-uploads/uploads/asset/asset_file/Making_Development_Work_Local_Residents_Mulligan-HanselPWF2008.pdf.

[94] *Id.*

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At the September 20, 2022 HARD HATS hearing, City Councilmembers explained that there is a "shortage of qualified local construction workers" and that is one reason why it is hard to get housing built.[95] Councilmember Hahn explained that Berkeley should "develop more labor, have working conditions, and pay, and benefits that you need to live in the Bay Area."[96] Further Councilmember Hahn asserted that Berkeley needs to expand the available workforce of people who are able to build housing and other projects, and "to ensure they have protections."[97] Mayor Arreguin noted that the "key to addressing the significant shortage of housing is addressing the shortage of a skilled and trained workforce."[98] The Project does not meet this goal of addressing the housing shortage by utilizing local skilled and trained workers and may result in a detriment to the general welfare.

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Here, the Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce. The Project is therefore likely to be detrimental to City goals and the Berkeley community, particularly to its highly qualified construction workforce, who may not have the opportunity to build much-needed housing in their own community. The City should request the Applicant commit to providing a local hire percentage of 30 percent as a community benefit for the Project.

B. The Project May Be Detrimental to the General Welfare for Failing to Provide Healthcare Expenditures to Its Construction Workforce

The Applicant has not committed to providing healthcare expenditures for the construction workers building the Project. This may result in a detriment to the general welfare of the City and its residents, including in particular, to its construction worker residents. In adopting the HARD HATS Ordinance, the Council found that health care security is vital for construction workers. If the Project does not provide, or have a prequalified contractor provide, healthcare expenditures for its construction workforces, it would leave the responsibility of providing for the health, safety, and welfare of the Project's construction workforce on the workers themselves, or potentially on taxpayer-funded public assistance, thus externalizing the cost of construction. This would result in a detriment to the general welfare.

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[95] Statement by Councilmember Hahn, Oakland City Council Hearing (September 20, 2022 6 PM).
[96] *Id.*
[97] *Id.*
[98] Statement by Mayor Arreguin, Oakland City Council Hearing (September 20, 2022 6 PM).

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The City's HARD HATS Ordinance Staff Report explained that construction trade workers experience exceptionally high rates of serious injury on the job, especially on sites with inadequately trained workers.[99] For example, one of every five serious workers' compensation insurance claims which involve death, permanent total disability or major permanent partial disability - is related to a construction employee, despite the fact that construction jobs account for less than one out of every 25 California jobs.[100] In authorizing drafting of the HARD HATS Ordinance, the Council reiterated the importance of providing healthcare expenditures for construction workers to support a sustainable construction workforce: "The creation and utilization of apprenticeship along with the commitments to paid healthcare act to both recruit and retain an adequate base of construction workers and to be a pipeline for future supervisors and licensed independent contractors."[101]

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The City Council should request the Applicant commit to complying with the provisions of the HARD HATS Ordinance which address healthcare expenditures for the construction workforce.[102]

V. THE PROJECT IS INCONSISTENT WITH THE GENERAL PLAN

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CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.[103] The Project fails to demonstrate consistency with General Plan economic and employment policies.[104]

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[99] HARD HATS Staff Report at 81.
[100] *Id.*
[101] *Id.* at 77.
[102] HARD HATS Ordinance Section 13.107.050 (Health Care Expenditures).
[103] CEQA Guidelines Appendix G, XI Land Use and Planning.
[104] The Addendum also fails as an informational document under CEQA for failing to analyze the Project's consistency with the General Plan; such inconsistencies constitute significant impacts under CEQA. *Pocket Protectors v. Sacramento* (2005) 124 Cal.App.4th 903 (where a local or regional policy of general applicability, such as an ordinance, is adopted in order to avoid or mitigate environmental effects, a conflict with that policy in itself indicates a potentially significant impact on the environment).

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A. The Project May Be Inconsistent with the General Plan Economic Development & Employment Element

The record lacks substantial evidence demonstrating that the Project would be consistent with the General Plan Economic Development & Employment Element. Thus, the Project should not have been approved until consistency was demonstrated.[105]

The General Plan Economic Development and Employment Element Policy (ED-1) provides that the City must "[i]ncrease the number of jobs that go to Berkeley citizens by coordinating economic development efforts with employment placement."[106] Further, the General Plan provides that the City intends to "[w]ork with job training programs and encourage training for life skills, job readiness, and specific target industries."[107] The Project does not include any commitment to provide construction jobs to Berkeley or East Bay residents, and the Applicant has not committed to contribute to any apprenticeship or other construction job training programs. Housing development projects in the City must also implement the goals and policies of the General Plan, including the following: 33

1) Ensure that Berkeley has an adequate supply of decent housing, living wage jobs, and businesses providing basic goods and services.
2) New housing will be developed to expand housing opportunities in Berkeley to meet the needs of all income groups.[108]

The City has determined that "it is in the City of Berkeley's economic interest to support a pipeline of skilled workers to accomplish the construction objectives and policies of the Berkeley General Plan."[109] The Project could support this goal by including community benefits such as local hire and healthcare and workforce

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[105] SB 330 requires conformance with applicable, objective general plan and zoning standards. Gov. Code § 65905.5. (a).
[106] Berkeley General Plan Economic Development and Employment Element, p. ED-5. Available at: https://berkeleyca.gov/sites/default/files/documents/12_Economic%20Development%20and%20Employment%20Element-FINAL.pdf.
[107] *Id.*
[108] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[109] City of Berkeley, Agenda and Staff Report, Berkeley City Council, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS), https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report") (Sept. 20, 2022) p. 7.

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benefits. Absent such benefits, the City lacks substantial evidence demonstrating compliance with Policy ED-1.

Moreover, the Applicant's decision to pay an in lieu fee to the City in place of meeting the City's on-site affordable unit recommendations fails to demonstrate consistency with the General Plan's objective that development in the City should ensure an "adequate supply of decent housing" and may contribute to inconsistencies with the General Plan Housing Element (discussed below).[110] The City may allow the Applicant to pay a fee, in lieu of providing an adequate supply of affordable housing on the Project site.[111] However, the payment of in lieu fees defers the production of affordable housing to an indefinite future time. As discussed below, delaying construction of additional affordable units to the future may result in the City being unable to timely meet its Regional Housing Needs Allocation ("RHNA"). The City Council should ask the Applicant to consider adding additional on-site affordable units as a means of increasing compliance with the General Plan.

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VI. THE PROJECT IS INCONSISTENT WITH THE CITY'S HOUSING ELEMENT

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.[112] The Project fails to demonstrate consistency with General Plan Housing Element.[113]

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The Project proposes to construct a ten-story residential building containing 166 dwelling units (17 Very Low-Income unit).[114] The project is seeking a 50% Density Bonus by providing 15% of the base project units as affordable to very low-income households. The Developer stated in their application for the Project that, in order to "comply with City of Berkeley Affordable Housing rental requirements, the project will also be providing additional Affordable Units and/or/or-in-

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[110] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[111] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.
[112] CEQA Guidelines Appendix G, XI Land Use and Planning.
[113] The Addendum also fails as an informational document under CEQA for failing to analyze the Project's consistency with the General Plan; such inconsistencies constitute significant impacts under CEQA. *Pocket Protectors,* 124 Cal.App.4th 903.
[114] Addendum p. 2.

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combination-with providing an in-lieu Mitigation Fee per the City of Berkeley requirements."[115] More affordable units must be provided for the Project to be consistent with the City's Housing Element and state law.

The RHNA is the State-required process that seeks to ensure cities and counties plan for enough housing in their Housing Element cycle to accommodate all economic segments of the community.[116] Accordingly, the Housing Element of the City's General Plan identifies the City's housing conditions and needs, evaluates the City's ability to meet its RHNA, establishes the goals, objectives, and policies of the City's housing strategy, and provides an array of programs to create mixed-income neighborhoods across the City.[117] The Housing Element, which was amended on February 17, 2023, states that "the City has a remaining RHNA of 5,033 units (1,923 very low income; 852 low income; 1,227 moderate income; and 1,031 above moderate income units)... The City must identify adequate sites capacity for this remaining RHNA."[118] Accordingly, Policy H-1 – Extremely Low, Very Low, Low and Moderate-Income Housing – provides: "Increase the number of housing units affordable to Berkeley residents with lower income levels."[119] Because the City has not produced and is not expected to produce enough affordable housing to meet its RHNA, projects that do not contribute to the City's RHNA are inconsistent with the City's Housing Element, a primary goal of which is to meet the RHNA.

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Berkeley Municipal Code Section 23.328.010 provides that residential housing projects constructing five or more dwelling units must include at least 20 percent of the total number of dwelling units within the project as inclusionary units. As an alternative to providing inclusionary units required in an ownership project, the applicant may elect to enter in an agreement with the City to pay fees in-lieu of providing below-market rate units.[120]

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[115] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.

[116] Cal. Gov. Code Section 65580 – 65589.9; *see* City of Berkeley, Adopted 2023-2031 Housing Element, available at https://berkeleyca.gov/sites/default/files/documents/Berkeley_2023-2031%20Housing%20Element_02-17-2023v2_0.pdf.

[117] *Id.*

[118] City of Berkeley, Adopted 2023-2031 Housing Element, p 107.

[119] *Id.* at 15.

[120] Effective July 1, 2022, the fee is set at follows: Paid at Certificate of Occupancy: $46,185 per rental unit; or Paid at building permit: $43,185 per rental unit.

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However, the City has failed to meet its RHNA in previous cycles. Under the 5th RHNA Cycle from 2015-2023, Berkeley was required to plan for 2,959 units.[121] This includes 532 at very low income, 442 at low income, 584 at moderate income, and 1,401 at above moderate income. The Housing Element states that 3,742 units have been built, or 126% of the target. However, the targets for affordable housing were missed, with 309 very low income (58%), 130 low income (29%), and 106 moderate income (18%) units completed. 3,197 units of above moderate, or market rate housing was built, which was 228% of the goal. Thus, the City already has adequate above moderate and market rate housing units to meet its RHNA requirements, but is short on production of affordable units.

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Here, the Project fails to provide the City's required 20% affordable units on-site, contributing to the City's current shortage of affordable units, while at the same time taking a viable project site out of production for those additional affordable units. Although the Project will pay an in-lieu fee, the Project would not be consistent with the Housing Element because it places the burden on the City to identify alternate sites to construct affordable housing units in time to meet its RHNA requirements.[122]

The Applicant's proposal to pay in lieu fees instead of providing 20% on-site affordable units for the 3000 Shattuck Project is not unique. The Project is one of at least three concurrent projects proposed by the Applicant, which similarly fail to contribute an adequate percentage of affordable units. The Applicant also proposes to construct the 2900-2920 Shattuck Avenue Project,[123] a ten-story residential building containing 221 dwelling units (22 Very Low-Income unit).[124] The 2920 Shattuck Avenue project is seeking a 46.25% Density Bonus by providing only 14% of the base project units as affordable to very low-income households.[125] The Applicant's 1598 University Project similarly proposes to pay an in lieu fee for the affordable units required by the City in excess of the on-site affordable necessary to qualify for a density bonus. The Applicant's decision not to provide the recommended 20% of on-site affordable units for its pending projects contributes to a cumulative shortage of affordable units that the City Council should address in its consideration of this Appeal.

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[121] City of Berkeley, Adopted 2023-2031 Housing Element, pg. D-8.
[122] City of Berkeley, Adopted 2023-2031 Housing Element, p. 107.
[123] Use Permit #ZP2022-0116 (APN: 053 159000501).
[124] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave. Berkeley CA 94705, APN 053 159000501, (Sept. 4, 2022), https://www.dropbox.com/s/528twax3fw4fw9p/2022-09-04_APP_PCKT_2920%20Shattuck.pdf?dl=0 ("Application Packet"), pdf pg. 2108 of 2143.
[125] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave.

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VII. CONCLUSION

For the reasons stated herein, we urge the City Council to uphold this appeal, vacate the ZAB's approval of the Project, and remand the Project to Staff to prepare a revised environmental analysis in a subsequent EIR, as required by CEQA. The new analysis must identify and implement all feasible mitigation measures available to reduce the Project's potentially significant site-specific impacts to less than significant levels before the City reconsiders approving the Project. 35

Thank you for your attention to these comments. Please include them in the City's record of proceedings for the Project.

Sincerely,

Kelilah Federman

Kelilah D. Federman

Attachment
KDF:acp

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ATTACHMENT A

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May 9, 2023

Via Email and US Mail
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Kimberly Gaffney, Vice Chairperson
Igor Tregub, Member
Michael Thompson, Member
Holly Scheider, Member
Shoshana O'Keefe, Member
Charles Kahn, Member
Brandon Yung, Member
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Re: Comments on Agenda Item 5: 3000 Shattuck Avenue Project Addendum to the Initial Study Negative Declaration (SCH #2017062025)

Dear Chairperson Duffy, Vice Chairperson Gaffney, Members: Tregub, Thompson, Schneider, O'Keefe, Kahn, Yung, Sanderson, and Ms. Riemer:

On behalf of East Bay Residents for Responsible Development ("East Bay Residents"), we submit these comments on the Addendum to the 3000 Shattuck Avenue Project Initial Study Negative Declaration (SCH #2017062025) prepared by the City of Berkeley (the "City") for the 3000 Shattuck Avenue Project ("Project") proposed by Mark Rhoades of the Rhoades Planning Group and Khan Shazada & Farhat (collectively, "Applicant").[1] The City adopted the IS/ND ("2018 IS/ND") for the original 3000 Shattuck Avenue Project ("original project") and approved the

[1] City of Berkeley, Addendum to the 3000 Shattuck Avenue Project Initial Study – Negative Declaration (Permit No. ZP2015-0229, SCH # 2017062025) (January 2023), https://www.dropbox.com/s/kr0fme3neozjqyf/2023-01-27_CEQA_Addendum%20to%20IS-ND_3000%20Shattuck.pdf?dl=0 (hereinafter "Addendum").

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original project on November 27, 2018.[2] These comments precede the hearing of the City of Berkeley Zoning Adjustment Board ("ZAB") on May 11, 2023 at 7:00 pm.[3]

The Project consists of changes to the original project considered in the 2018 IS/ND. The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235 sf of residential space including 166 residential units, 1,095 SF of retail space, and zero parking spaces on the 0.31-acre site. Construction of the Project is anticipated to last eighteen (18) months. The Project site is located at 3000 Shattuck Avenue, Berkeley, CA 94705 (APNs 53-1592-1 & 53-1592-2). The Project site is designated as Avenue Commercial in the City's General Plan and is located in the South Area Commercial (C-SA) zoning district. The original project proposed 32,603 SF of residential uses, with 44 units including 4 affordable units. This Project proposes 80,235 SF of residential uses, with 166 units including 17 affordable units. The original project proposed the inclusion of 17 parking spaces for automobiles, this Project proposes zero parking spaces.[4]

We prepared these comments with the assistance of air quality and hazards expert Matt Hagemann and Paul Rosenfeld of Soil Water Air Protection Enterprise (SWAPE), whose technical comments and curriculum vitae are attached hereto as Exhibit A.[5] Our review of the Addendum and 2018 IS/ND demonstrates that the Project fails to comply with CEQA. As explained more fully below, the Addendum fails to accurately disclose the extent of the Project's potentially significant air quality, public health, hazardous contamination, land use, and cumulative impacts which are new or more severe than the impacts analyzed in the 2018 IS/ND. There is substantial evidence to support a fair argument that the Project will result in significant, unmitigated impacts in each of these areas. Further, the Project fails to comply with the City's General Plan and Housing Element. The City may not approve the Project until the City prepares an EIR that adequately analyzes the Project's potentially significant impacts and incorporates all feasible mitigation measures to avoid or minimize these impacts.

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[2] City of Berkeley, 3000 Shattuck Avenue Mixed Use Project Initial Study–Negative Declaration, https://www.dropbox.com/s/ui1snla3csdgpik/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0 (hereinafter "2018 IS/ND").
[3] City of Berkeley Zoning Adjustments Meeting Agenda, May 11, 2023, https://berkeleyca.gov/sites/default/files/legislative-body-meeting-agendas/2023-05-11_ZAB_Agenda_Linked.pdf.
[4] Addendum p. 3.
[5] See **Exhibit A,** Matt Hagemann, P.G., C.Hg., Paul E. Rosenfeld, Ph.D., Comments on the 3000 Shattuck Mixed-Use Project (SCH No. 2017062025) (April 10, 2023) ("SWAPE Comments").
6154-007j

Moreover, the City prepared the Addendum in violation of CEQA and the court's holding in *Friends of College of San Mateo Gardens v. San Mateo County Community College District*. There, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[6] Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[7] Here, the changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the MND based on new significant environmental effects thus requiring preparation of an Environmental Impact Report ("EIR") if the impacts cannot be mitigated. Substantial evidence supports a fair argument that the Project's potentially significant impacts cannot be adequately mitigated by the measures proposed in the Addendum and 2018 IS/ND.

For the reasons discussed herein, and in the attached expert comments, East Bay Residents urges the City to remedy the deficiencies in the Addendum by preparing a legally adequate EIR and circulating it for public review and comment.[8] East Bay Residents and their expert consultants have identified numerous potentially significant impacts that the Addendum either mischaracterizes, underestimates, or fails to identify.

I. STATEMENT OF INTEREST

East Bay Residents for Responsible Development ("ERRBD" or "Residents") is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential impacts associated with Project development. The association includes the UA Plumbers and Pipefitters Local 342, International Brotherhood of Electrical Workers Local 595, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, and their members and their families who live and/or work in the City of Berkeley and Alameda County.

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[6] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2022) 11 Cal.App.5th 596, 600.
[7] CEQA Guidelines, § 15164, subd. (b).
[8] We reserve the right to supplement these comments at later hearings on this Project. Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199–1203; *see Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.
6154-007j

The individual members of EBRRD live, work, and raise their families in the City and in Alameda County. They would be directly affected by the Project's impacts. Individual members may also work on the Project itself. They will therefore be first in line to be exposed to any health and safety hazards that may exist on the Project site.

The organizational members of EBRRD also have an interest in enforcing the City's planning and zoning laws and the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there. Indeed, continued degradation can, and has, caused restrictions on growth that reduce future employment opportunities. Finally, Residents' members are concerned about projects that are built without providing opportunities to improve local recruitment, apprenticeship training, and retention of skilled workforces, and without providing lifesaving healthcare expenditures for the construction workforce.

II. LEGAL BACKGROUND

CEQA is designed to inform decision-makers and the public about the potential, significant environmental effects of a project.[9] "CEQA's fundamental goal [is] fostering informed decision-making."[10] "The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind."[11]

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR, except in certain limited circumstances.[12] The EIR is the very heart of CEQA.[13] The EIR acts like an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return."[14] The EIR aids an agency in identifying, analyzing, disclosing, and, to the extent possible, avoiding a project's significant environmental effects through implementing feasible

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[9] 14 Cal. Code Regs. ("CEQA Guidelines") § 15002, subd. (a)(1).
[10] *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 402.
[11] *Bozung v. LAFCO* (1975) 13 Cal.3d 263, 283.
[12] See, e.g., Pub. Resources Code, § 21100.
[13] *Dunn-Edwards v. Bay Area Air Quality Management Dist.* (1992) 9 Cal.App.4th 644, 652.
[14] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1220.
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mitigation measures.[15] The EIR also serves "to demonstrate to an apprehensive citizenry that the [agency] has analyzed and considered the ecological implications of its action."[16] Thus, an EIR "protects not only the environment but also informed self-government."[17]

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment."[18] The EIR aids an agency in identifying, analyzing, disclosing, and, to the extent possible, avoiding a project's significant environmental effects through implementing feasible mitigation measures.[19] In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact. Because "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process" by allowing the agency to dispense with the duty to prepare an EIR, negative declarations are allowed only in cases where there is not even a "fair argument" that the project will have a significant environmental effect.[20]

Under the fair argument standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[21] The phrase "significant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[22] In certain circumstances, a project with potentially significant impacts can be modified by the adoption of mitigation measures to reduce the impacts to a level of insignificance. In such cases, an agency may satisfy its CEQA obligation by preparing a mitigated

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[15] Pub. Resources Code § 21002.1(a); CEQA Guidelines § 15002(a), (f).
[16] *No Oil, Inc. v. City of Richmond* (1974) 13 Cal.3d 68, 86.
[17] *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.
[18] Pub. Resources Code, § 21080, subd. (d) (emphasis added); CEQA Guidelines, § 15064; see also *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927; *Mejia v. City of Richmond* (2005) 13 Cal.App.4th 322.
[19] Pub. Resources Code, § 21002.1, subd. (a); CEQA Guidelines, § 15002, subd. (a) & (f).
[20] *Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440; Pub. Resources Code, §§ 21100, 21064.
[21] Pub. Res. Code §§21080(d), 21082.2(d); 14 Cal. Code Reg. §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Richmond* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.
[22] Pub. Resources Code, § 21068.
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negative declaration.[23] A mitigated negative declaration, however, is also subject to the fair argument standard. Thus, an MND is also inadequate, and an EIR is required, whenever substantial evidence in the record supports a "fair argument" that significant impacts may occur, even with the imposition of mitigation measures.

The "fair argument" standard is an exceptionally "low threshold" favoring environmental review in an EIR rather than a negative declaration.[24] The "fair argument" standard requires the preparation of an EIR if any substantial evidence in the record indicates that a project may have an adverse environmental effect.[25] As a matter of law, substantial evidence includes both expert and lay opinion.[26] Even if other substantial evidence supports the opposite conclusion, the agency nevertheless must prepare an EIR.[27] Under the "fair argument" test, CEQA always resolves the benefit of the doubt in favor of the public and the environment.

Agencies are permitted to prepare an addendum to an adopted MND, rather than a subsequent EIR or negative declaration, if only "minor technical changes or additions are necessary or none of the conditions described in [CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."[28] "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration," and if no subsequent EIR is required, the agency "shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation." (CEQA Guidelines, § 15162, subd. (b).) Additionally, CEQA requires preparation of an EIR where "[s]ubstantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects."

Here, the changes proposed in the Addendum are not "minor technical changes or additions" but constitute major revisions to the 2018 IS/ND based on new significant environmental effects thus requiring the preparation of a negative

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[23] Pub. Resources Code, § 21064.5; CEQA Guidelines, § 15064, subd. (f)(2).
[24] *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928.
[25] CEQA Guidelines, § 15064, subd. (f)(1); *Pocket Protectors v. City of Sacramento, supra,* 124 Cal.App.4th at 931.
[26] Pub. Resources Code, § 21080, subd. (e)(1); CEQA Guidelines, § 15064, subd. (f)(5).
[27] *Arviv Enterprises v. South Valley Area Planning Comm.* (2002) 101 Cal.App.4th 1333, 1346; *Stanislaus Audubon v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens v. City of Encinitas* (1994) 29 Cal.App.4th 1597.
[28] CEQA Guidelines, § 15164, subd. (b).
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declaration at a minimum, and an EIR if the impacts cannot be mitigated. As shown below, SWAPE provided substantial evidence that ROG emissions, and construction and demolition emissions may be significant and were not analyzed or mitigated in the 2018 IS/ND.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[29] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[30]

In *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.*, the court held that the Community College District improperly prepared an addendum to an MND, because there was substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment.[31] In that case, the court found that the change in the Project as detailed in the Addendum was significant enough to require additional environmental review, and that an Addendum was not the appropriate CEQA document. Similarly, here, the Project's changes, including the doubling of its height, increased air quality, public health, and hazards impacts results in new significant impact such that an Addendum is inappropriate and an EIR must be prepared. The ZAB must remand the Project to Staff to prepare a legally adequate EIR for the Project, because substantial evidence supports a fair argument that the Project's changes may result in significant impacts, which have not been avoided through the revisions in the Addendum. Project impacts remain significant and unmitigated, as detailed herein.

Moreover, the ZAB lacks the evidence necessary to approve the requested Use Permit for the Project because substantial evidence demonstrates that the Project will be detrimental to the general welfare. The Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce, or that the Project will provide apprenticeship training opportunities or

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[29] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[30] *Id.* at p. 959.
[31] (2022) 11 Cal.App.5th 596.
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healthcare benefits or other workforce benefits for City of Berkeley or East Bay residents. The Project may be built with low-wage, out-of-area workers who lack the livable wages, health benefits, stability, and basic standard of living that Berkeley has committed to ensuring for all of its workers on all housing developments constructed in the City. The Project would therefore be detrimental to the health, safety, peace, morals, comfort, and general welfare of the City and its residents, especially its local construction workforce who may not have the opportunity to build much-needed housing in their own community. The Project is also inconsistent with the workforce and economic requirements of the City of Berkeley General Plan ("General Plan").

The ZAB should remand the Project to Staff to prepare a legally adequate EIR and include conditions of approval requesting community benefits, including local hire provisions, workforce standards, and healthcare benefits for workers, to ensure the Project does not cause a detriment to the general welfare of the City.

III. THE PROJECT'S POTENTIALLY SIGNIFICANT HAZARDS IMPACTS REQUIRE PREPARATION OF AN EIR

The Project site is contaminated with hazardous contaminants from its historical use as a service station operated by Atlantic Richfield Company (ARCO).[32] ARCO later became an affiliate of BP and the site was operated as BP Station No. 00414 until it was sold to Mr. Shahzada Khan on February 25, 2004.[33] The Project site is listed on the State Water Resources Control Board's Geotracker database as Site T0600100094. The site is therefore on a Cortese List per Section 65962.5 of the Government Code. The Project site is currently an operational gas station and smog check location operated by Berkeley Gas & Smog. The Project site contained three underground storage tanks (USTs) that contained gasoline, and one waste oil UST.[34]

The Addendum tiers from the IS which states:

> The site is included on the list of hazardous materials sites compiled pursuant to Government Code 65962.5 (Cortese List) as "closed" cases. As

[32] Atlantic Richfield Company, Case Closure Summary Report Former British Petroleum Station #00414 City of Berkeley case #27540. 3000 Shattuck Avenue Berkeley, California (June 9, 2010), https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8836282312/T0600100094.PDF p. 2/16 (hereinafter "Case Closure Summary Report").
[33] *Id.*
[34] *Id.*
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> described in the Environmental Setting, the RWQCB issued a case closure letter for the clean-up case in September 2014, concluding that the current plume is restricted to the site and does not present a current or potential risk to human health or the environment. Therefore, the project would not create a significant hazard to the public or the environment and the impact would be less than significant.[35]

The IS relies on the misleading statement that the cleanup case is "closed."[36] The Addendum then relies on the same misleading proposition. The Addendum states that "[t]here are two closed State Water Quality Control Board GeoTracker investigations on the project site (T0600100094 [closed 2013] and T10000004483 [closed 2014])."[37]

These statements are misleading because the site was closed to commercial/industrial screening levels, "based on the assumption that land use at the site will remain unchanged."[38] The Project site fails to meet the residential ESL levels necessary to place housing on the site. The site must undergo additional soil remediation to remove excess contaminants and reach acceptable residential ESLs because the site is being converted from commercial/industrial to residential use. People will live on the site, their children may play on the grounds, but the site was cleaned only to commercial/industrial screening levels. The contamination that currently remains onsite may result in health risk impacts to the residents and the community.

Moreover, the Addendum includes the Case Closure Summary Report that states that "[s]oil vapor samples have not been collected at the site."[39] The Case Closure Summary was required to include "Cumulative data tables for all soil, groundwater samples, including grab samples, and soil vapor ***must*** be included."[40] Data on soil vapor samples and cumulative data on the potential for soil vapor intrusion was not included in the Case Closure Summary, the Initial Study, or the Addendum and is not available for public review and scrutiny.

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[35] IS, https://www.dropbox.com/s/19ieh5spqqet2qb/IS-ND%20with%20appendices_3000%20Shattuck.pdf?dl=0, p. 23.
[36] *Id.*
[37] Addendum p. 22.
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[39] Case Closure Summary Report, p. 10/16.
[40] *Id.* at pdf 83 of 86.
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At the time of the site's closure in 2010, "[a] station building [was] present at the site and the entire site [was] paved, with no exposed soil present at the ground surface."[41] Project construction here, will disrupt and expose soil, potentially exposing dangerous and previously untested levels of soil vapor. At the time of the closure, the "potential for soil vapor intrusion was evaluated by comparing current groundwater concentrations to groundwater ESLs...for the protection of the vapor intrusion pathway in a ***commercial setting***."[42] The soil vapor and potential health risk impacts have not been analyzed for a residential setting and may pose a significant risk to residents of the Project site.

The City must draft an EIR because substantial evidence supports a fair argument that hazardous contamination and soil vapor may result in a significant environmental impact. The courts have repeatedly held that an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact.[43] Here, the City cannot approve the Project based on an Addendum to the Initial Study because project modification results in potentially significant impacts from hazardous contamination and soil vapor which were unstudied at the time of preparation of the 2018 IS/ND.

The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[44] Thus, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[45] The City must prepare an EIR to adequately analyze and mitigate the Project's potentially significant and as yet unstudied impacts from soil vapor and hazardous contamination, before the Project can lawfully be approved.

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[41] Case Closure Summary Report, p. 10/16.
[42] *Id.*
[43] Pub. Resources Code § 21151; CEQA Guidelines § 15064(f); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* ("*CREED*") (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319 ("*CBE v. SCAQMD*").
[44] Friends of College of San Mateo Gardens v. San Mateo County Community College Dist. (2016) 1 Cal.5th 937, 958.
[45] Id. at p. 959.
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IV. THE PROJECT RESULTS IN SIGNIFICANT AIR QUALITY IMPACTS REQUIRING PREPARATION OF AN EIR

An EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact.[46] "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[47] An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial."[48] Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact."[49] The Project may result in potentially significant impacts to air quality. Air quality impacts constitute new or increased significant environmental effects "not previously considered in connection with the project as originally approved."[50]

A. The Project Results in Significant ROG Emissions

East Bay Resident's air quality expert consultants at SWAPE found that the Project results in significant emissions from Reactive Organic Gas ("ROG") which exceed the Bay Area Air Quality Management District ("BAAQMD") threshold. BAAQMD provides that ROG emissions shall not exceed 54 pounds per day ("lbs/day"), but the Project would result in ROG emissions of 71.55 lbs/day.[51] The 2018 IS/ND makes no mention of ROG emissions, but the Addendum states that the ROG emissions would be 3 lbs/day.[52] This conclusion is not supported by substantial evidence. SWAPE found that the changes to the Project result in a 2,285% increase in ROG emissions, far and away exceeding the BAAQMD significance threshold. Therefore, ROG emissions remain significant and the Addendum nor the 2018 IS/ND adequately mitigate such impacts. The City must prepare an EIR to satisfy CEQA.

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[46] Pub. Resources Code § 21151; CEQA Guidelines § 15064(f); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* ("*CREED*") (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319 ("*CBE v. SCAQMD*").
[47] Pub. Resources Code § 21068; CEQA Guidelines § 15382; *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1581.
[48] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.
[49] Pub. Resources Code § 21080(e)(1) (emphasis added); *CREED*, 197 Cal.App.4th at 331.
[50] *Friends of College of San Mateo Gardens v. San Mateo Community College District*, *supra*, 1 Cal.5th at 959.
[51] SWAPE Comments, p. 5.
[52] Addendum, p. 14.
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The California Supreme Court held that if "the project modification introduces previously unstudied and potentially significant environmental effects that cannot be avoided or mitigated through further revisions to the project plans, then the appropriate environmental document would no longer be a negative declaration at all, but an EIR."[53] Further, "an agency [must] prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved might have a significant environmental impact not previously considered in connection with the project as originally approved, and courts must enforce that standard."[54]

East Bay Residents present substantial evidence, in these comments and in our expert comments attached, showing that the Project may result in potentially significant ROG emissions, which must be mitigated before the Project can be approved. These impacts were not considered in the prior 2018 IS/ND, and must be analyzed in an EIR. SWAPE's comments present dozens of effective mitigation measures to help reduce Project ROG, construction, and operational air emissions. Such measures should be implemented in an EIR's Mitigation Monitoring and Reporting Program. The City must prepare an EIR to study the previously unstudied and potentially significant air quality impacts from the Project, particularly with respect to ROG emissions, to satisfy CEQA.

B. The Addendum Underestimates the Project's Construction and Demolition Emissions

The Addendum states that Project construction will last 18 months.[55] The Addendum states that the original project included a construction period of 18 months as well.[56] But, the 2018 IS/ND provided that the construction period will last 20 months.[57] Thus, it is particularly troubling, that the Addendum's air quality analysis relies on a 21-month construction period, resulting in an underestimation of the Project's construction emissions. SWAPE concludes that the elongated construction duration results in an underestimation of the daily emissions resultant from construction equipment onsite. SWAPE concludes that the analysis improperly relies on the assumption that "there will be less construction activities

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[53] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[54] Id. at p. 959.
[55] Addendum, p. 3.
[56] *Id.*
[57] 2018 IS/ND.
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required per day and, consequently, less pollutants emitted per day."[58] The Addendum's air quality construction emissions calculations underestimate the Project's daily emissions and are therefore not supported by substantial evidence. The City must prepare a legally adequate EIR which accurately analyzes the Project's daily construction emissions with an accurate construction schedule guiding the analysis.

Further, the Addendum fails as an informational document under CEQA for failing to model the emissions associated with demolition of the existing building on the Project site. SWAPE concludes that the Addendum fails altogether to analyze the demolition phase of construction and inputted zeros into the calculations for square feet being demolished.[59] This is not an accurate assessment of the required demolition of the existing gas station, two gas pump islands, and related infrastructure.[60] Demolition of existing infrastructure will obviously exceed zero square feet of demolition activity, counter to the Addendum's unsupported calculations. SWAPE concludes that the failure to include the demolition emissions presents a significant issue, because by failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, which may be significant and remain unmitigated.[61] These impacts were not considered in the prior 2018 IS/ND, and must be analyzed in an EIR.

C. The Addendum Underestimates the Project's Construction Emissions from Trucking the Modular Units

The Addendum fails as an informational document under CEQA for failing to quantify and analyze the Project's potentially significant air pollution impacts from trucking the modular units potentially hundreds of miles to the Project site. The Addendum and 2018 IS/ND failed to quantify the potentially significant air quality, health risk, and cumulative impact associated with trucking the modular units. These modular units may be transported from out of state or hundreds of miles from the Project site. Absent an analysis of the emissions associated with trucking these modular units, the Addendum fails as an informational document under CEQA, and the conclusion that air impacts from Project construction are less than significant is not supported by substantial evidence.

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[58] SWAPE Comments, p. 4.
[59] *Id.*
[60] 2018 IS/ND, p. 6.
[61] SWAPE Comments, p. 5. s
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V. THE PROJECT RESULTS IN SIGNIFICANT CUMULATIVE IMPACTS REQUIRING PREPARATION OF AN EIR

CEQA requires agencies to analyze whether a project has impacts that are individually limited, but cumulatively considerable.[62] Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects). Cumulative impacts are defined as "two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts."[63]

The Addendum fails to include any analysis supported by substantial evidence to conclude that the Project does not result in cumulatively considerable impacts. In fact, the Addendum only mentions cumulative impacts for traffic and air quality impacts, but dismisses all other potentially significant cumulative impacts out of hand, without providing substantial evidence to support the conclusions. The 2018 IS/ND concluded that because the Project is "an infill location" cumulative impacts are less than significant for all resource areas.[64] But, it is particularly because this Project is an infill project, that a cumulative analysis of concurrent construction impacts is so critical. Here, the Project is proposed to be constructed concurrently with the 2920 Shattuck Project, just down the street, among other new Berkeley high rise developments. Both this Project and the 2920 Shattuck project will result in potentially cumulatively significant air quality, hazards, and land use impacts that were not analyzed in conjunction with either Project's analysis.

The City must prepare an EIR which accurately analyzes the Project's potentially significant cumulative impacts before the Project can lawfully be approved.

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[62] 14 CCR § 15355(b); *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 905.
[63] 14 CCR § 15355.
[64] 2018 IS/ND, p. 38.
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VI. THE PROJECT MAY BE DETRIMENTAL TO THE GENERAL WELFARE OF THE CITY, RESIDENTS, AND WORKERS

In order to approve a Use Permit, under Berkeley Municipal Code Section 23.406.040, the Zoning Adjustments Board must find that the proposed project:

1) Will not be detrimental to the health, safety, peace, morals, comfort, or **general welfare** of persons residing or visiting in the area or neighborhood of the proposed use; and
2) Will not be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City.

Municipal Code Section 22.20.020 defines detrimental impacts to include, *inter alia*, increased demand for workforce housing, training, and benefits: "The increased demand for affordable housing, child care and public services, ***adequate employment training and placement facilities and amenities***, and the other impacts generated by development projects, unless mitigated, are detrimental to the City's public health, safety and general welfare."[65] Under Section 22.20.020, a detriment to the general welfare occurs when the City fails to mitigate the impacts of a development project, including the increased demand for housing, workforce training, and public services that may result from the Project.[66] Pursuant to Municipal Code Section 22.20.020, the Project's impacts to the general welfare for failure to provide employment training, placement facilities, and amenities, require mitigation.[67]

Further, the ZAB may approve a Use Permit for demolition of a non-residential building or structure only if the ZAB finds that "demolition will not be materially detrimental to the commercial needs and public interest of any affected neighborhood or the City of Berkeley"[68] Here, the ZAB cannot make the necessary findings that demolition of the existing structure and construction of the Project is in the public interest, absent community and workforce benefits to promote the general welfare.

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[65] BMC § 22.20.020(G) (emphasis added).
[66] *Id.*
[67] BMC § 22.20.020(G).
[68] *Id.* at § 23.326.070(D)(1).
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Housing projects, like this one, that are constructed with low-wage or uninsured construction workers are detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or visiting the City and the Project's Downtown neighborhood, as well as to the general welfare of the City. The City should request the Applicant include community benefits in the Project conditions of approval, including local hire provisions and healthcare standards and benefits in order to promote the general welfare.

A. The Project is Detrimental to the General Welfare for Failing to Hire Locally

Absent a provision requiring the Applicant to hire locally, the Project may be detrimental to the general welfare of Berkeley residents. Local hire commitments are a critical way not only to hire local residents, but to use project hiring needs to target opportunities to low-income residents and people of color who might otherwise not benefit from new development.[69] Local hire programs help address the fragmentation inherent in the development process, establishing better communication among developers, employers, community organizations, local job training resources, and the workforce development system that can provide job readiness and job retention support services.[70] Here, the Project Applicant has not made a commitment to ensure the Project is built with local skilled and trained workforce. The Project is therefore likely to be detrimental to City goals and the Berkeley community – particularly to its highly qualified construction workforce, who may not have the opportunity to build much-needed housing in their own community. The City should request the Applicant provide a local hire percentage of 30 percent as a community benefit for the Project.

B. The Project is Detrimental to the General Welfare for Failing to Provide Healthcare to Construction Workers

Further, the Project has not committed to healthcare standards or benefits for the construction workers building the Project. This results in a detriment to the general welfare of the City and its residents, including in particular, to its construction worker residents. By failing to provide healthcare for its construction

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[69] Kathleen Mulligan-Hansel, *Making Development Work for Local Residents: Local Hire Programs and Implementation Strategies that Serve Low-Income Communities,* (July 2008). Available at: https://s3.amazonaws.com/proggov21-uploads/uploads/asset/asset_file/Making_Development_Work_Local_Residents_Mulligan-HanselPWF2008.pdf.

[70] *Id.*

workers, the Project leaves the responsibility of providing for the health, safety, and welfare of the workers and the community on the workers themselves, or on taxpayer-funded public assistance, thus externalizing the cost of construction. By failing to provide healthcare standards, the Project would perpetuate existing income and healthcare inequities for construction workers, causing a detriment to the general welfare by failing to provide for the health and safety of its workers. The City should request the Applicant provide healthcare benefits as a community benefit of the Project.

Project construction will increase the local demand for a construction workforce. The Project's lack of workforce standards and worker healthcare may exacerbate the existing demand for local affordable housing and public services by construction workers that currently receive low pay without benefits. Without mitigation, these impacts remain significant, and the ZAB cannot make the necessary findings that the Project complies with the General Plan and zoning code. To comply with the General Plan Economic Development and Employment Element, the City must ensure that new housing developments provide jobs that go to Berkeley residents and provide job training programs and job readiness.

Moreover, the Municipal Code provides that the "Zoning Ordinance establishes *minimum* requirements to promote the public health, safety, and general welfare."[71] The Municipal Code also provides that, "[t]o the extent possible, it is the government's responsibility to balance the responsibility to ensure the health, safety, and general welfare of the public at large in a fiscally and environmentally sustainable manner."[72] It is therefore the responsibility of the Zoning Adjustment Board to promote the general welfare beyond the minimum required by law. Here, the ZAB must require the Project to include community benefits like those detailed herein, otherwise, the Project contravenes the Municipal Code and General Plan.

VII. THE PROJECT IS INCONSISTENT WITH THE GENERAL PLAN

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an

[71] BMC § 22.104.030.
[72] *Id.* at § 2.09.020.
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environmental effect.[73] The Addendum fails as an informational document under CEQA for failing to analyze the Project's inconsistency with the General Plan.

A. The Project is Inconsistent with the General Plan Economic Development & Employment Element

The Project is inconsistent with the General Plan Economic Development & Employment Element, and thus cannot be approved until consistency is demonstrated.[74] The General Plan Economic Development and Employment Element Policy (ED-1) provides that the City must "[i]ncrease the number of jobs that go to Berkeley citizens by coordinating economic development efforts with employment placement."[75] Further, the General Plan provides that the City intends to "[w]ork with job training programs and encourage training for life skills, job readiness, and specific target industries."[76] The Project does not include any commitment to provide construction jobs to Berkeley or East Bay residents, and does not contribute to any apprenticeship or other construction job training programs. Housing development projects in the City must also implement the goals and policies of the General Plan, including the following:

1) Ensure that Berkeley has an adequate supply of decent housing, living wage jobs, and businesses providing basic goods and services.
2) New housing will be developed to expand housing opportunities in Berkeley to meet the needs of all income groups.[77]

The City has determined that "it is in the City of Berkeley's economic interest to support a pipeline of skilled workers to accomplish the construction objectives and policies of the Berkeley General Plan."[78] The Project must support this goal by

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[73] CEQA Guidelines Appendix G, XI Land Use and Planning.
[74] SB 330 requires conformance with applicable, objective general plan and zoning standards. Gov. Code § 65905.5. (a).
[75] Berkeley General Plan Economic Development and Employment Element, p. ED-5. Available at: https://berkeleyca.gov/sites/default/files/documents/12_Economic%20Development%20and%20Employment%20Element-FINAL.pdf.
[76] *Id.*
[77] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[78] City of Berkeley, Agenda and Staff Report, Berkeley City Council, Council Consent Item 14 Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS), https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-09-20%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf ("HARD HATS Staff Report") (Sept. 20, 2022) p. 7.
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including community benefits such as local hire and healthcare and workforce benefits, otherwise the Project is detrimental to the general welfare, violates the General Plan, and may not be approved.

Moreover, the Project's failure to provide sufficient affordable housing onsite contravenes the General Plan's objective that development in the City should ensure an "adequate supply of decent housing."[79] The City may allow the Applicant to pay a fee, in-lieu of providing an adequate supply of affordable housing on the Project site.[80] If the City continues this practice of allowing developers to get away with paying in lieu fees, instead of providing onsite affordable housing, the City will have an insufficient supply of decent affordable housing as required by the General Plan. The Project's failure to provide *onsite* affordable housing for local residents therefore contravenes the General Plan's Economic Development and Employment Element and cannot be approved by ZAB.

VIII. THE PROJECT IS INCONSISTENT WITH THE CITY'S HOUSING ELEMENT

CEQA requires an agency to analyze whether a project conforms with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.[81] The Addendum fails as an informational document under CEQA for failing to analyze the Project's inconsistency with the Housing Element.

The Project proposes to construct a ten-story residential building containing 166 dwelling units (17 Very Low-Income unit).[82] The project is seeking a 50% Density Bonus by providing 15% of the base project units as affordable to very low-income households. The Developer stated in their application for the Project that in order to "comply with City of Berkeley Affordable Housing rental requirements, the project will also be providing additional Affordable Units and/or/or-in-combination-

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[79] Berkeley General Plan Economic Development and Employment Element, p. ED-5.
[80] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.
[81] CEQA Guidelines Appendix G, XI Land Use and Planning.
[82] Addendum p. 2.
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with providing an in-lieu Mitigation Fee per the City of Berkeley requirements."[83] More affordable units must be provided for the Project to be consistent with the City's Housing Element and state law.

The Regional Housing Needs Assessment is the California State-required process that seeks to ensure cities and counties plan for enough housing in their Housing Element cycle to accommodate all economic segments of the community.[84] Accordingly, the Housing Element of the City's General Plan identifies the City's housing conditions and needs, evaluates the City's ability to meet its Regional Housing Needs Allocation ("RHNA"), establishes the goals, objectives, and policies of the City's housing strategy, and provides an array of programs to create mixed-income neighborhoods across the City.[85] The Housing Element, which was amended on February 17, 2023, states that "the City has a remaining RHNA of 5,033 units (1,923 very low income; 852 low income; 1,227 moderate income; and 1,031 above moderate income units)... The City must identify adequate sites capacity for this remaining RHNA."[86] Accordingly, Policy H-1 – Extremely Low, Very Low, Low and Moderate-Income Housing – provides: "Increase the number of housing units affordable to Berkeley residents with lower income levels."[87] Because the City has not produced and is not expected to produce enough affordable housing to meet its RHNA, projects that do not contribute to the City's RHNA are inconsistent with the City's Housing Element, a primary goal of which is to meet the RHNA.

Berkeley Municipal Code Section 23.328.010 provides that residential housing projects constructing five or more dwelling units must include at least 20 percent of the total number of dwelling units within the project as inclusionary units. As an alternative to providing inclusionary units required in an ownership project, the applicant may elect to enter in an agreement with the City to pay fees in-lieu of providing below-market rate units.[88]

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[83] City of Berkeley Planning and Development, Zoning Project Application, 3000 Shattuck Ave. Berkeley CA 94705 (March 14, 2022), https://www.dropbox.com/s/n987ldxqb6pesmp/2022-03-29_APP_PCKT_3000%20Shattuck%20%281%29.pdf?dl=0.

[84] Cal. Gov. Code Section 65580 – 65589.9; *see* City of Berkeley, Adopted 2023-2031 Housing Element, available at https://berkeleyca.gov/sites/default/files/documents/Berkeley_2023-2031%20Housing%20Element_02-17-2023v2_0.pdf.

[85] *Id.*

[86] City of Berkeley, Adopted 2023-2031 Housing Element, p 107.

[87] *Id.* at 15.

[88] Effective July 1, 2022, the fee is set at follows: Paid at Certificate of Occupancy: $46,185 per rental unit; or Paid at building permit: $43,185 per rental unit.

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However, the City has failed to meet its RHNA in previous cycles. Under the 5th RHNA Cycle from 2015-2023, Berkeley was required to plan for 2,959 units.[89] This includes 532 at very low income, 442 at low income, 584 at moderate income, and 1,401 at above moderate income. The Housing Element states that 3,742 units have been built, or 126% of the target. However, the targets for affordable housing were missed, with 309 very low income (58%), 130 low income (29%), and 106 moderate income (18%) units completed. 3,197 units of above moderate, or market rate housing was built, which was 228% of the goal. Thus, the City already has adequate above moderate and market rate housing units to meet its RHNA requirements, but is short on production of affordable units.

Here, the Project fails to provide the City's required 20% affordable units on-site, contributing to the City's current shortage of affordable units, while at the same time taking a viable project site out of production for those additional affordable units. Although the Project will pay an in-lieu fee, the Project would not be consistent with the Housing Element because it places the burden on the City to identify alternate sites to construct affordable housing units in time to meet its RHNA requirements.[90]

The Applicant's proposal to pay in lieu fees instead of providing 20% on-site affordable units for the 3000 Shattuck Project is not unique. The Project is one of at least three concurrent projects proposed by the Applicant, which similarly fail to contribute an adequate percentage of affordable units. The Applicant also proposes to construct the 2900-2920 Shattuck Avenue Project,[91] a ten-story residential building containing 221 dwelling units (22 Very Low-Income unit).[92] The 2920 Shattuck Avenue project is seeking a 46.25% Density Bonus by providing only 14% of the base project units as affordable to very low-income households.[93] The Applicant's 1598 University Project similarly proposes to pay an in lieu fee for the affordable units required by the City in excess of the on-site affordable necessary to qualify for a density bonus. The Applicant's decision not to provide the recommended 20% of on-site affordable units for its pending projects contributes to a cumulative shortage of affordable units that the City should address before considering approval of this Project.

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[89] City of Berkeley, Adopted 2023-2031 Housing Element, pg. D-8.
[90] City of Berkeley, Adopted 2023-2031 Housing Element, p. 107.
[91] Use Permit #ZP2022-0116 (APN: 053 159000501).
[92] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave. Berkeley CA 94705, APN 053 159000501, (Sept. 4, 2022), https://www.dropbox.com/s/528twax3fw4fw9p/2022-09-04_APP_PCKT_2920%20Shattuck.pdf?dl=0 ("Application Packet"), pdf pg. 2108 of 2143.
[93] City of Berkeley, Zoning Project Application, 2920 Shattuck Ave.
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IX. CONCLUSION

CEQA requires that an agency prepare an EIR whenever there is substantial evidence that the changes to a project for which a negative declaration was previously approved may have a significant environmental impact not previously considered in connection with the project as originally approved.[94] As discussed herein, there is substantial evidence supporting a fair argument that the Project would result in significant adverse impacts that were not considered in the prior 2018 IS/ND, and that are not adequately analyzed or mitigated. The Project is detrimental to the general welfare for failing to provide workforce and community benefits.

The Addendum also fails to contain the basic information and analysis required by CEQA, deficiencies which "cannot be dismissed as harmless or insignificant defects."[95] The City's findings regarding Project impacts do not comply with the law and are not supported by substantial evidence. The City cannot approve the Project until it prepares an EIR that resolves these issues and complies with CEQA's requirements.

Thank you for your attention to these comments. Please include them in the record of proceedings for the Project.

Sincerely,

Kelilah D. Federman

KDF:ljl

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[94] *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 958.
[95] *Bakersfield Citizens for Local Control v. Bakersfield ("Bakersfield")* (2004) 124 Cal. App. 4th 1184, 1220.
6154-007j

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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April 10, 2023

Kelilah Federman
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Subject: Comments on the 3000 Shattuck Mixed-Use Project (SCH No. 2017062025)

Dear Ms. Federman,

We have reviewed the January 2023 Addendum ("Addendum") and the 2018 Final Initial Study and Negative Declaration ("FIS/ND") for the 3000 Shattuck Mixed-Use ("Project") located in the City of Berkeley ("City"). The Project proposes to demolish the existing 1,163-square-foot ("SF") gas station and construct 80,235-SF of residential space, as well as 1,095-SF of retail space on the 0.31-acre site.

Our review concludes that the Addendum fails to adequately evaluate the Project's air quality impacts. As a result, emissions associated with construction of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality impacts that the project may have on the environment.

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod").[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's

[1] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected. Regarding the evaluation of the criteria air pollutant emissions associated with Project construction and operation, the Addendum states:

> "Additionally, since the adoption of the 2018 Final IS-ND, a new version (2022.1) of California Emissions Estimator Model (CalEEMod) has been published. Based on these updates, updated emissions estimates for the modified project were calculated for this analysis" (p. 14).

As stated above, the Addendum relies on CalEEMod Version 2022.1 to estimate the Project's emissions. However, this poses a problem as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files.[2] Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix A, pp. 83):

8. User Changes to Default Data

Screen	Justification
Land Use	Project site plans
Construction: Construction Phases	Applicant provided
Operations: Hearths	no fireplaces or woodstoves

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

Thus, the output files associated with CalEEMod Version 2022.1 fail to disclose the exact parameters utilized to calculate Project emissions. To remedy this issue, the Addendum should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[3] Without access to the complete output files, including the specific numeric changes to the

[2] "CalEEMod California Emissions Estimator Model Soft Release." California Air Pollution Control Officers Association (CAPCOA), 2022, *available at:* https://caleemod.com/.

[3] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.

default values, we cannot verify that the Addendum's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, an EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[4]

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the Addendum relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 14).[5] Regardless, when reviewing the Project's CalEEMod output files, provided as Appendix A to the Addendum, we were able to identify several model inputs that are inconsistent with information disclosed in the Addendum. As such, the Project's construction emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction of the Project will have on local and regional air quality.

Incorrect and Unsubstantiated Construction Schedule

Review of the CalEEMod output files demonstrates that the "3000 Shattuck Detailed Report" model includes the following construction schedule (see excerpt below) (Appendix A, pp. 70):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Site Preparation	Site Preparation	7/3/2023	11/15/2023	5.00	98.0
Grading	Grading	11/16/2023	1/1/2024	5.00	33.0
Building Construction	Building Construction	1/2/2024	2/10/2025	5.00	290
Paving	Paving	1/2/2024	7/31/2024	5.00	152
Architectural Coating	Architectural Coating	2/11/2025	3/30/2025	5.00	34.0

According to the "User Changes to Default Data" table, the justification provided for this schedule is:

> "Applicant provided" (Appendix A, pp. 83).

Additionally, regarding Project construction, the Addendum states:

> "Site preparation, construction procedures, and proposed utility connections would remain like the original project. Please refer to the 2018 Final IS-ND for details regarding these project components. Overall construction of the modified project would occur over a similar time span as was anticipated for the original project but would be more intensive due to the height increase" (p. 2).

Furthermore, regarding the Project's anticipated construction duration, the FIS/ND states:

> "The project would include demolition of the existing building and surface parking lot on the site. [...] Construction would take place over an 18-month period" (p. 7).

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[4] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

[5] "CalEEMod Version 2022.1.0." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/.

However, the model's construction schedule is incorrect and unsubstantiated for three reasons.

First, as discussed by the FIS/ND, the construction of the Project is anticipated to occur over 18 months. However, the model includes a 21-month total construction length, and is therefore overestimated by 3 months. By including an overestimated construction schedule, the model is incorrect and inconsistent with information provided by the Addendum and associated documents.

Second, the model does not include a demolition phase of construction. This is incorrect, as the Addendum clearly states that demolition would be required prior to Project construction:

> "Like the original project, the modified project would involve demolition of the existing structures on the site, as detailed in the 2018 Final IS-ND for the original project" (p. 6)

As such, the model's construction schedule is incorrect and inconsistent with information provided by the Addendum and associated documents.

Third, the model's revised construction schedule remains unsubstantiated as the Addendum and associated documents fail to mention the Project's proposed *individual* construction phases whatsoever. This is inconsistent with guidance provided by the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site-or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA."[6]

As the Addendum and associated documents only mention the Project's total construction duration of 18 months, the Addendum fails to provide substantial evidence to support the revised individual construction phase lengths. As such, we cannot verify the changes. Instead, the model should have proportionately altered all phase lengths to match the proposed construction duration of 18 months.[7]

By including an incorrect and overestimated construction schedule, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. As such, the model underestimates the peak daily emissions associated with Project construction and should not be relied upon to determine Project significance.

Failure to Model Demolition

Regarding demolition of the existing building, the Addendum states:

> "Like the original project, the modified project would involve demolition of the existing structures on the site, as detailed in the 2018 Final IS-ND for the original project" (p. 6)

[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide,p. 13,14.

[7] See Attachment A for proportionately altered construction schedule.

However, as previously mentioned, review of the CalEEMod output files demonstrates that the "3000 Shattuck Detailed Report" model fails to include a demolition phase of construction. Furthermore, the model fails to include any amount of demolition debris (see excerpt below) (Appendix A, pp. 72).

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (sq. ft.)
Site Preparation	0.00	0.00	20.5	0.00
Grading	0.00	0.00	15.8	0.00
Paving	0.00	0.00	0.00	0.00

By failing to include any amount of demolition material, the model is inconsistent with the information provided in the Addendum.

This inconsistency presents an issue, as demolition material is used by CalEEMod to determine emissions associated with the demolition phase of construction. The three primary operations that generate dust emission during the demolition phase are mechanical or explosive dismemberment, site removal of debris, and on-site truck traffic on paved and unpaved road.[8] By failing to include any amount of required demolition, the model underestimates the emissions associated with fugitive dust, debris removal, as well as exhaust from hauling trucks traveling to and from the site, and should not be relied upon to determine the significance of the Project's air quality impacts.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions we prepared an updated CalEEMod model, using the Project-specific information provided by the Addendum. In our updated model, we included the required amount of demolition and proportionately altered the individual construction phase lengths to match the proposed construction duration of 18 months.[9]

Our updated analysis estimates that the Reactive Organic Gas ("ROG") emissions associated with Project construction exceed the applicable BAAQMD threshold of 54 pounds per day ("lbs/day"), as referenced by the Addendum (p. 14) (see table below).[10]

[8] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 11.
[9] See Attachment B for updated CalEEMod model.
[10] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde, p. 2-2.

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
Addendum	3.0
SWAPE	71.55
% Increase	2,285%
BAAQMD Threshold	**54**
Exceeds?	*Yes*

As demonstrated above, construction-related ROG emissions, as estimated by SWAPE, increase by approximately 2,285% and exceed the applicable BAAQMD significance threshold. Our updated modeling demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed by the Addendum. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project's emissions, we recommend consideration of SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1"):[11]

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.

[11] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.
l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.
q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.
s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.
t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.
u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).
x) As applicable for rail projects, the following measures should be considered...
z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.
bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible: - Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85% - Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%. - Nonroad diesel engines on site shall be Tier 2 or higher. - Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or

CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.

- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
    iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

An EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Proportionately Altered Construction Schedule
Attachment B: Updated CalEEMod Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul Rosenfeld CV

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Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

<u>Policy:</u>

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences.* 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health.* 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry.* Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research.* 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research.* 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research.* 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld.** (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution.* Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association.* Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America.* Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America.* Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant.*
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants.*
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

Letter 3

COMMENTER: Kelilah D. Federman

DATE: June 1, 2023

Response 3.1

The commenter states her intent to appeal the ZAB's May 11, 2023 approval of the 2000 Shattuck Project on behalf of East Bay Residents for Responsible Development (East Bay Residents).

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.2

The commenter summarizes the description of the project.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.3

The commenter states her intent to appeal ZAB's May 11, 2023 decision to adopt the Addendum to the 2018 IS-ND and approve the Use Permit.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.4

The commenter states that the ZAB's decision to approve the modified project violated CEQA, land use laws, and the City's municipal codes, and was not supported by substantial evidence in the record.

As discussed in Section 4.8, *Land Use and Planning*, of the Addendum, the modified project would not alter the land uses proposed in the original project and would be consistent with the Avenue Commercial designation, which is characterized by "pedestrian-oriented commercial development and multifamily residential structures" and General Plan policies. The modified project would comply with State Density Bonus requirements and therefore qualifies for waivers for height, setbacks, and FAR. It also complies with all other development standards, and would comply with the City's Inclusionary Housing Ordinance. Therefore, the modified project would be consistent with land use plans, policies, and regulations such as General Plan policies and the BMC.

Response 3.5

The commenter states that the Addendum does not accurately disclose the extent of the modified project's potentially significant air quality, public health, hazardous contamination, land use, and cumulative impacts, which are new or more severe than impacts analyzed in the 2018 IS-ND, and will not be substantially mitigated by the City's standard conditions of approval.

Please refer to Response 1.9 regarding air quality impacts; Response 2.2 regarding cumulative impacts; and Response 3.4 regarding land use impacts.

With regard to hazardous materials impact, as explained in Response 1.5 and in Section 4.7, *Hazards and Hazardous Materials*, of the Addendum, according to the Phase I and Phase II Environmental Site Assessment (ESA) Reports prepared by GEM Group, Inc on April 20, 2022 and October 10, 2022 (Appendix C), respectively, concentrations of compounds detected in soil samples were all below their respective residential and commercial/industrial San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) groundwater vapor intrusion environmental screening levels. In addition, the modified project would be required to comply with Berkeley's standard condition of approval for hazardous materials, *Toxics,* which requires preparation of a Soil and Groundwater Management Plan to address health and safety, proper handling, and disposal of USTs and/or contaminated soil if encountered during site redevelopment. Therefore, impacts related to hazardous materials would be less than significant.

Response 3.6

The commenter states that the site is contaminated with benzene which exceeds the 2019 San Francisco Bay Regional Water Quality Control Board's (SFBRWQCB) groundwater vapor intrusion residential environmental screening levels.

As discussed in the Phase II ESA Report prepared by GEM Group, Inc. on October 10, 2022 (Appendix C), a 2010 closure summary report for the project site identified benzene as the only constituent that slightly exceeded its ESL. The closure summary report indicated that the one groundwater sample in which benzene was detected at a concentration exceeding its ESL was collected from a groundwater monitoring well located offsite, approximately 150 feet west of the project site; the most recent groundwater samples collected from onsite groundwater wells did not contain benzene at concentrations above the laboratory reporting limit. According to the closure summary report, "remediation through site upgrades, equipment removal and associated over-excavations, and natural attenuation have proven to be effective for removing on-site contamination" (ARCADIS 2010). Soil samples were analyzed as part of the Phase II ESA Report, which found that concentrations of detected compounds in soil samples were all below their respective residential and commercial/industrial ESLs except for arsenic. However, the range of arsenic concentrations found were within regional background concentrations and therefore was determined to be naturally occurring. In addition, the modified project would be required to comply [1]with Berkeley's standard condition of approval for hazardous materials, *Toxics,* which requires preparation of a Soil and Groundwater Management Plan to address health and safety, proper handling, and disposal of USTs and/or contaminated soil if encountered during site redevelopment. The Soil and Groundwater Management Plan that is required with the building permit will address any issues relating to benzene in soil vapor if such issues are encountered during development. Therefore, impacts related to benzene would be less than significant.

Response 3.7

The commenter states that the project's ROG emissions (71.55 pounds per day) would exceed BAAQMD's threshold of 54 pounds per day.

As shown in Table 2 under Section 4.3, *Air Quality*, of the Addendum, the modified project would result in construction ROG emissions of 3.5 pounds per day, which would not exceed BAAQMD thresholds of 54 pounds per day.

[1] ARCADIS. 2010. Case Closure Summary Report. Former British Petroleum Station #00414. June 9, 2010 https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8836282312/T0600100094.PDF

Response 3.8

The commenter states that cumulative impacts associated with construction and operation constitute new impacts because recent development were not previously analyzed in the 2018 IS-ND.

Please refer to Response 2.2 regarding cumulative impacts. In addition, as explained in Response 1.9, BAAQMD states in its CEQA Air Quality Guidelines that the project-level thresholds of significance for criteria air pollutants, "are the levels at which the Air District has determined that an individual project's contribution to the cumulative impact (non-attainment) is cumulatively considerable." Therefore, because the modified project's estimated air pollutant emissions are below BAAQMD's thresholds of significance, the modified project's contribution to a cumulative air quality impact would be less than significant.

Response 3.9

The commenter states that the modified project has been substantially changed from the original project by more than tripling the number of residential units and square footage, resulting in more severe construction and operational impacts.

The Addendum acknowledges that the modified project would result in changes in density and intensity compared to the original project, and explains that the modified project would not introduce new, significant environmental impacts beyond those that have already been identified and characterized in the 2018 Final IS-ND and that there are no substantial changes in the project or circumstances or new information of substantial importance that would require major revisions of the IS-ND due to significant new impacts or substantially more severe impacts than were previously identified.

Response 3.10

The commenter states that the Addendum was prepared in violation of CEQA and the court's holding in Friends of College of San Mateo Gardens v. San Mateo County Community College District, which the court held that an Addendum was improperly prepared due to substantial evidence to support a fair argument that the project changes may result in a significant effect on the environment, and that a subsequent EIR should have been prepared.

Please refer to Response 1.2 for an explanation of the City's decision not to prepare a subsequent EIR.

Response 3.11

The commenter states that the modified project may be detrimental to the general welfare of the city, residents, and workers, and has not made a commitment to ensure the modified project is built with local skilled and trained force.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.12

The commenter states that the modified project is inconsistent with the General Plan because it does not include a commitment to provide construction jobs to Berkeley or East Bay residents and does not contribute to any apprenticeship or other construction job training programs.

The commenter states that the project is inconsistent with the City's Housing Element because the modified project does not provide 20 percent affordable units on-site. The commenter acknowledges that the modified project will pay an in-lieu fee but states that this places a burden on the City to identify adequate sites to construct affordable housing.

The comment regarding apprenticeship or construction jobs does not pertain to adequacy of the information, analysis, or conclusions in the Addendum.

The modified project would be consistent with the City's Housing Element because although the modified project would not provide 20 percent affordable units on-site, pursuant to BMC Section 23.328.010(B)(1), in lieu of providing some or all of the affordable units required under Section 23.328.010 (including any fractional units), an applicant may elect to pay a fee, the amount of which the City Council may establish by resolution ("In-Lieu Fee"). The modified project would also add 166 units to the City's housing stock, which would help the city satisfy its 2023-2031 Housing Element Regional Housing Needs Assessment (RHNA).

Response 3.13

The commenter states that the ZAB incorrectly stated that the May 11, 2023 hearing was the final hearing allowed under the Housing Accountability Act's (HAA) five-hearing limit and states that it was the second hearing.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.14

The commenter requests for the City Council to grant the appeal and requests preparation of a subsequent EIR.

Please refer to Response 1.2 for an explanation behind the decision not to prepare a subsequent EIR.

Response 3.15

The commenter provides a statement of interest and states that the East Bay Residents will be directly affected by environmental and health and safety impacts.

As discussed throughout the Addendum, the modified project would result in less than significant impacts for all environmental issue areas, similar to the original project. There are no substantial changes in the project or circumstances or substantially important new information that would cause the project to have significant new impacts or substantially increase previously identified significant impacts. The modified project would be required to comply with the same City standards of conditions, General Plan policies, and BMC regulations as outlined in the 2018 IS-ND. Impacts to the environment and health and safety would be less than significant.

Response 3.16

The commenter cites the CEQA Guidelines and states that the City improperly prepared an Addendum instead of a subsequent EIR. The commenter states that the changes in the modified project constitute major revisions to the 2018 IS-ND since the number of residential units and square footage have been tripled. The commenter states that the modified project would result in

new significant environmental impacts related to hazardous materials, air quality, and cumulative impacts.

Please refer to Responses 1.9, 2.2, and 3.5.

Response 3.17

The commenter states that the Soil Water Air Protection Enterprise (SWAPE) provided substantial evidence that ROG emissions and construction and demolition may be significant and were not analyzed or mitigated in the 2018 IS-ND. In addition, the commenter states that hazards impacts from the modified project are more severe and cumulative impacts associated with development in the neighborhood that did not exist were not analyzed at the time the 2018 IS-ND was prepared.

Please refer to Response 1.6 regarding ROG emissions. SWAPE states that the modified project would result in a 2,285 percent increase in ROG emissions. However, they have not provided substantial evidence to support this number and did not include CalEEMod output files in the letter.

Please refer to Response 3.5 regarding hazardous materials. The modified project and future development in the project vicinity would be required to comply with the City's Standard Condition of Approval for hazardous materials, *Toxics*. This Standard Condition of Approval requires preparation of a Soil and Groundwater Management Plan to address health and safety, proper handling, and disposal of underground storage tanks (USTs) and/or contaminated soil if encountered during site redevelopment. Therefore, cumulative impacts related to hazardous materials contamination would be less than significant.

Response 3.18

The commenter states that tripling the number of housing units and square footage and doubling the building height would result in substantially increased air quality, public health, hazards, and cumulative impacts, and a subsequent EIR should be prepared.

Please refer to Responses 1.9, 2.2, and 3.5.

Response 3.19

The commenter states that the ZAB rushed approval of the modified project out of false belief that failing to approve it would violate the HAA.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.20

The commenter states that the project would result in substantially more severe impacts related to hazardous materials since the 2018 IS-ND, which relied on the site's previous closure to commercial or industrial screening levels and not residential screening levels, and did not include mitigation measures requiring contamination levels to be cleaned to meet the residential environmental screening levels (ESLs). The commenter states that soil vapor levels and other residual contamination associated with releases of contaminants at the project site have not been fully analyzed or mitigated for a residential setting and may pose a significant risk to residents and workers. The commenter states that a subsequent EIR should be required.

Please refer to Response 3.6. Soil vapor levels and other residual contamination associated with releases of contaminants at the project site were analyzed in the Phase I and Phase II ESA Reports

prepared for the project site by GEM Group, Inc on April 20, 2022 and October 10, 2022 (Appendix C), respectively. As explained in the Phase II ESA, according to the 2010 closure summary report, benzene was the only constituent that slightly exceeded its ESL. However, the closure summary report indicated that remediation through site upgrades, equipment removal and associated over-excavations, and natural attenuation have proven to be effective for removing on-site contamination. In addition, as explained in the Phase II ESA, concentrations of detected compounds in soil samples were all below their respective residential and commercial/industrial ESLs except for arsenic. However, because the range of arsenic concentrations found were within regional background concentrations, and the arsenic was determined to be naturally occurring. Therefore, impacts related to soil contaminants would be less than significant.

Response 3.21

The commenter states that the Addendum only analyzed cumulative impacts for transportation and air quality. The commenter states that cumulative impacts associated with construction and operation of the modified project constitute new impacts because recent development in the project area was not previously analyzed in the 2018 IS-ND, and states that the modified project and concurrent development projects would result in potentially cumulatively significant air quality, hazards, and land use impacts that were not analyzed in the Addendum.

Please refer to Response 2.2. A discussion of cumulative impacts has been included in Section 4.15, *Changes in the Environmental Setting and Cumulative Impacts*, of the Addendum. As discussed therein, the modified project would not result in cumulatively significant contributions to impacts related to air quality, hazards, or land use.

Response 3.23

The commenter states that the modified project may be constructed concurrently with numerous developments in the project vicinity that are also on the Cortese List and require remediation prior to construction. The commenter states that concurrent remediation and removal of contaminated soil on project sites may result in potentially significant cumulative hazards, air quality, and traffic impacts which were not analyzed or mitigated in the 2018 IS-ND or Addendum. The commenter states these potential cumulative impacts constitute new information and that a subsequent EIR should be prepared.

Please refer to Response 2.2, which includes an analysis of cumulative impacts. As discussed, the modified project would not result in cumulatively significant impacts related to air quality, hazards, or land use, and impacts would be less than significant. In addition, similar to the modified project, future development in the project vicinity would also be required to comply with the City's standard condition of approval for hazardous materials, *Toxics,* when warranted by site conditions or location that identifies handling and disposal of pollutants, which requires preparation of a Soil and Groundwater Management Plan to address health and safety, proper handling, and disposal of USTs and/or contaminated soil if encountered during site redevelopment. Cumulative development on hazardous materials sites would be subject to their own regulatory processes related to clean up of each individual site and would not impact the modified project since impacts related to hazards are generally site-specific and would include specific protective measures as determined by the relevant regulatory agency, such as a soil management plan. Therefore, the project's contribution to cumulative impacts related to hazardous contamination would not be cumulatively considerable.

Response 3.23

The commenter states that project construction may occur concurrently with numerous developments within 1,000 feet and that the Addendum fails to analyze potentially significant cumulative air quality and health risks impacts associated with the concurrent construction of new projects. The commenter states that the change in size of the modified project would result in an increase in ROG emissions of 2,285 percent, which would exceed BAAQMD thresholds. The commenter states that a subsequent EIR should be prepared.

Please refer to Response 2.2, which includes a discussion of cumulative impacts, as well as Response 3.8, which explains that the modified project's contribution to a cumulative air quality impact would be less than significant. The commenter states that the modified project would result in an increase in ROG emissions of 2,285 percent; this statement is incorrect. As discussed in Section 4.3, *Air Quality*, of the Addendum, construction and operational emissions were quantified using CalEEMod. Construction activities would result in maximum average daily ROG emissions of 3.5 pounds per day, which would not exceed the BAAQMD construction ROG threshold of 54 pounds per day; operation would result in maximum average daily ROG emissions of 4.8 pounds per day, which would not exceed the BAAQMD operational ROG threshold of 54 pounds per day.

Response 3.24

The commenter states that the duration of project construction in the Addendum's CalEEMod and Project Description are inconsistent, which potentially resulted in the underestimation of construction emissions. The commenter requests that the City prepare a subsequent EIR that accurately analyzes the modified project's daily construction emissions with an accurate construction schedule. The commenter also states that the CalEEMod fails to include demolition of the existing building on site, and therefore does not take into account emissions associated with fugitive dust, debris removal, and exhaust from hauling trucks travelling to and from the project site. The commenter states that the Addendum also fails to analyze potentially significant air pollution impacts from trucking the modular units potentially hundreds of miles to the project site. The commenter states that a subsequent EIR should be prepared.

Please refer to Response 1.6. Section 4.3, *Air Quality*, of the Addendum has been revised to include a discussion of CalEEMod methodology and revisions to the CalEEMod to include a demolition phase and an 18-month construction duration consistent with the Project Description. As discussed in Section 4.3, the modified project was modeled using conservative assumptions and both construction and operational air quality emissions were determined not to exceed BAAQMD thresholds. Therefore, impacts related to air quality would be less than significant.

Please refer to Response 1.8 regarding air quality impacts from trucking modular units to the project site.

Response 3.25

The commenter states that substantial evidence supports that the modified project would be detrimental to the general welfare due to unmitigated environmental and public health impacts

This is an issue related to compliance with findings for approval contained in the Berkeley Municipal Code, not with CEQA.

As discussed throughout the Addendum, the modified project would result in less than significant impacts for all issue areas, similar to the original project. There are no changes in the project or

circumstances or substantial new information that would cause the project to have new significant impacts or substantially increase previously identified significant impacts. The modified project would be required to comply with the same City Standard Conditions, General Plan policies, and Berkeley Municipal Code (BMC) regulations as outlined in the 2018 IS-ND. Impacts to the environmental and health and safety would be less than significant.

Please refer to Responses 1.9, 2.2, and 3.5 regarding general welfare as it relates to potential environmental impacts.

Response 3.26

The commenter states that the project applicant has not made a commitment to ensure the modified project is built with a local skilled and trained workforce, or that the modified project will provide apprenticeship training opportunities, or healthcare benefits, or other workforce benefits or amenities for the City or for East Bay residents.

CEQA does not require an analysis of workforce requirements. This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.27

The commenter cites the City's Helping Achieve Responsible Development with Healthcare and Apprenticeship Training Standards (HARD HATS) Ordinance, and acknowledges that it does not apply to the modified project since the application was filed before the Ordinance went into effect. The commenter states that evidence and findings show that projects that do not provide workforce benefits may be detrimental to the general welfare of the City and its residents.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.28

The commenter cites BMC Section 22.20.020 and states that the modified project's adverse impacts to the general welfare include failure to provide employment training, placement facilities, and amenities.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.29

The commenter states that the ZAB lacked substantial evidence to make the necessary findings that demolition of the existing structure and construction of the modified project is in the public interest, absent community and workforce benefits to promote the general welfare. The commenter states that the modified project is detrimental to general welfare, and requests City Council to ask the applicant to voluntarily agree to include community benefits including local hire provisions and healthcare standards and benefits.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.30

The commenter states that the modified project may be detrimental to the general welfare of residents absent a commitment from the applicant to hire locally. The commenter requests the applicant to commit to providing a local hire percentage of 30 percent as a community benefit.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.31

The commenter states that the modified project may be detrimental to the general welfare of residents since the applicant has not committed to providing healthcare expenditures for construction workers building the project. The commenter requests that the applicant commit to complying with provisions of HARD HATS Ordinance which address healthcare expenditures for the construction workforce.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.32

The commenter states that the modified project fails to demonstrate consistency with General Plan economic and employment policies.

CEQA does not require an analysis of impacts on the economy or employment. This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.33

The commenter states that the modified project fails to demonstrate consistency with General Plan economic and employment policies, and that the modified project should not be approved until consistency is demonstrated. The commenter also states that the applicant's decision to pay an in-lieu fee to the City in place of meeting the on-site affordable unit recommendations fails to demonstrate consistency with the Housing Element's goal to provide an adequate supply of affordable housing. The commenter requests that the applicant add additional on-site affordable units as a means of increasing compliance with the General Plan.

Please refer to Response 3.13 regarding in-lieu fees.

CEQA does not require an analysis of impacts on the economy or employment. This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

Response 3.34

The commenter states that more affordable units should be provided to be consistent with the City's Housing Element and State law. The commenter also cites BMC Section 23.328.010 which requires residential projects with five or more dwelling units to include at least 20 percent affordable units or pay in-lieu fees. The commenter states that the applicant's decision to pay in-lieu fees places a burden on the City to identify alternate sites to construct affordable housing units to meet RHNA requirements. This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum as it pertains to compliance with CEQA.

The commenter is correct in stating that BMC Section 23.328.010 requires residential projects with five or more dwelling units to include at least 20 percent affordable units or pay in-lieu fees. The applicant has elected to provide 17 very low-income units housing units in conjunction with payment of in-lieu fees.

Response 3.35

The commenter concludes by requesting for the City Council to uphold the appeal, vacate the ZAB's approval of the modified project, and prepare a subsequent EIR.

This comment does not pertain to the adequacy of the information, analysis, or conclusions in the Addendum.

3 Revisions to the Addendum

Chapter 3 presents specific revisions to the text of the Addendum that are being made in response to comments received or to make corrections. In no case do these revisions result in a new impact or impacts of a substantially greater severity than those identified in the Addendum. Where revisions to the main text are called for, the page and paragraph of the Addendum are shown, followed by the appropriate revision. Added text is indicated with underlining and deleted text is indicated with ~~strikeout~~. Page numbers correspond to the page numbers of the Addendum. The City has prepared a Revised Addendum that includes the following revisions to the text.

The following revision has been made to Pages 14 to 16 of Section 4.3, *Air Quality*, of the Addendum:

Methodology

The project's construction and operational emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1, and attached to this report as Appendix A. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses, and location, to estimate a project's construction and operational emissions.

Construction emissions modeled include emissions generated by construction equipment used on the site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. The construction schedule and hauling capacity of trucks (12 cubic yards) were based on applicant-provided data, and default CalEEMod construction equipment was used. It was assumed that project construction would comply with all applicable regulatory standards, including BAAQMD Regulation 8, Rule 3 requirements related to architectural coatings. Project construction is expected to last approximately 18 months.

Operational emissions modeled include mobile source emissions (i.e., vehicle emissions) and area source emissions. Mobile source emissions consist of emissions generated by vehicle trips to and from the project site. CalEEMod default trip generation rates were used. Default trip rates from CalEEMod are likely a conservative estimate for project trips, because the location of the project site allows for easy access to mass transit options such as the Ashby BART station and therefore the modified project would result in less vehicle trips compared to if the modified project were located far from transit. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings. To be conservative, CalEEMod did not take into account a solar energy system, which is required pursuant to BMC Chapter 12.80.

Impacts of the Modified Project

The results of the modified project's CalEEMod modeling are provided in Table 1 and in Appendix A. ~~To be conservative, the air quality modeling did not include a solar energy system and building electrification, both of which are required pursuant to BMC Chapter 12.80 and would be included in the project.~~ As shown in the table and in Appendix A, the conservatively modeled modified project's air quality emissions would not exceed BAAQMD construction thresholds, like the original project. Therefore, impacts would remain less than significant.

In terms of cumulative air quality impacts, BAAQMD states in their CEQA Air Quality Guidelines that the project-level thresholds of significance for criteria air pollutants, "are the levels at which the Air District has determined that an individual project's contribution to the cumulative impact (non-attainment) is cumulatively considerable." Therefore, since the modified project's estimated air pollutant emissions are below BAAQMD's thresholds of significance, the modified project's contribution to a cumulative air quality impact would be less than significant. Impacts would remain less than significant. ~~Impacts would remain less than significant.~~

Table 1 Modified Project Air Quality Emissions

	ROG	NOx	PM_{10}	$PM_{2.5}$
Construction Emissions (maximum average daily lb/day)	3.5	4.4	0.2	0.2
BAAQMD Threshold (lb/day)	54	54	82	54
Exceed Threshold?	**No**	**No**	**No**	**No**
Project Operational Emissions (tpy)	1	0.5	<0.1	<0.1
Operational Emissions (maximum average daily lb/day)	4.8	2.5	0.1	0.1
BAAQMD Threshold (tpy)	10	10	15	10
BAAQMD Threshold (lb/day)	54	54	82	54
Exceed Threshold?	**No**	**No**	**No**	**No**

ROG = reactive organic gases; NOx = nitrous oxides; CO = carbon monoxide; PM_{10} = particulate matter less than 10 microns in diameter; $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter; lb/day = pounds per day; tpy = tons per year

Source: Appendix A

From a construction standpoint, exhaust emissions from construction equipment would be similar to or reduced as compared to the original project due to the use of newer and more efficient equipment. Construction equipment would be equipped with Tier 2 or higher engines and the most effective Verified Diesel Emission Control Strategies available (likely Tier 4) pursuant to standard condition of approval, *Air Quality – Diesel Particulate Matter Controls During Construction*. The proposed building under the modified project would have ten floors, as compared to five floors under the original project. Despite the increased building height, the construction period for the modified project would be roughly the same as the original project (18 months). Although ~~M~~modular construction may be employed for the modified project, ~~but~~ site preparation and air quality would still be substantially the same as for traditional construction. Construction modeling for the building construction phase includes 17.9 one-way vendor trips per day, which over a 321-day phase length equates to 5,745 vendor trips and over 48,000 vendor trucking miles during this phase. Long-range trucking was not analyzed in this analysis, as it was assumed those emissions were considered out of the range of considerable direct or indirect effects. CEQA only requires analysis of impacts that are directly or indirectly attributable to the project under consideration. (State CEQA Guidelines, § 15064(d).) There is no indication that any long-range trucking beyond that analyzed here would be directly related to or caused by the project. The included emissions were those reasonably estimated to be related directly or indirectly to the project under consideration. Any potential long-range trucking may be necessary for numerous different projects as a result of general market demand, regardless of whether this project would proceed or not. Thus, such emissions may not be "caused by" the project under consideration. Similarly, a lead agency may not be able to require mitigation for emissions that result out of the scope of the project under consideration; mitigation can only be required for emissions that are actually caused by the project (State CEQA Guidelines, § 15126.4(a)(4).). This approach was discussed in detail in with the removal of the term "lifecycle"

from Appendix F of the CEQA Guidelines in the California Natural Resources Agency's December 2009 *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97.* It is similarly consistent with the "lifecycle" discussion in the California Department of Transportation's February 2019 *CEQA Guidelines Update*. Therefore, impacts related to trucking of modular units to the project site would be less than significant. In addition, fugitive dust generated during construction would be similar to the amount estimated under the original project, considering that the project site and area of grading would be the same size.

The following revision has been made to Pages 16 to 17 of Section 4.3, *Air Quality*, of the Addendum:

The California Air Resources Board (CARB) has authority over the issue of exposure to formaldehyde, and has stated that the approved control measures for reducing emissions, including formaldehyde, from composite wood products provide a level of control that protects health and safety. CARB states directly in its Frequently Asked Questions for Consumers on Reducing Emissions from Composite Wood Products (CWP) that, "from a public health standpoint, the CWP Regulation's emission standards are set at low levels intended to protect public health. The first emission standards (Phase 1) went into effect in 2009. The more stringent Phase 2 standards are now in effect for all composite wood panels and finished goods sold in California. Prior to the CWP Regulation, formaldehyde emissions were often ten to twenty-fold higher than the current allowable levels." (CARB 2024) The regulation also includes provisions to encourage the use of no-added formaldehyde and ultra-low emitting formaldehyde-based resins in composite wood products. In addition, BAAQMD Regulation 8 Rule 32 (Formaldehyde Emissions Estimates and Reporting Requirements for Wood Products Coatings) requires the manufacturing industry to implement necessary reductions in formaldehyde emissions from wood coatings to protect public health. The modified project would be required to comply with all applicable City, State, and federal requirements pertaining to the use of indoor building materials. As the modified project will be built to the 2022 version of the Title 24 standards, which requires the implementation of MERV 13 or higher HVAC systems, evidence demonstrates that compliance with applicable regulations will be effective in reducing indoor formaldehyde concentrations to levels that are acceptable to CARB for the protection of public health (CARB 2024). Therefore, the modified project would have less than significant impacts on formaldehyde.

The following revision has been made to Pages 23 to 24 of Section 4.7, *Hazards and Hazardous Materials*, of the Addendum:

As discussed in the Phase I ESA, there were no recognized environmental conditions (RECs)[2] or vapor encroachment condition (VEC)[3] at the project site. Like the original project, no hazardous materials were identified above environmental screening levels in the Phase II ESA. As shown in Table 1 of the Phase II ESA, concentrations of detected compounds in soil samples were all below their respective residential and commercial/industrial San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) groundwater vapor intrusion environmental screening levels

[2] According to the Phase I ESA, a REC refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release to the environment; under conditions indicative of a release to the environment; or under conditions that pose as a material threat of future release to the environment.
[3] According to the Phase I ESA, VEC is the presence or likely presence of volatile and toxic vapors in the vadose zone of the project site caused by the release of vapors from contaminated soil and/or groundwater either on or near the project site.

(ESLs), except for arsenic. However, the range of arsenic concentrations found were within regional background concentrations and therefore was determined to be naturally occurring.

The following revision has been made to Page 26 of Section 4.9, *Noise*, of the Addendum:

On-site stationary noise sources would be similar as under the original project, such as rooftop mechanical equipment (shielded by a rooftop parapet wall) and landscaping activities. The taller height of the modified project would increase the distance between the operational equipment (i.e., roof-mounted HVAC) to the nearest sensitive receptors and would result in greater noise attenuation. Overall, the modified project would generate similar on- and off-site noise as the original project.

Construction techniques under the modified project would be similar to those under the original project. Modular construction may be employed for the modified project, but site preparation and noise would be substantially the same as for traditional construction. The increased height of the modified project would not result in use of larger equipment, as the fleet of construction equipment would be substantially similar to the original project, though the construction period may be slightly extended.

The following revision has been made to Page 31 of Section 4.13, *Transportation*, of the Addendum:

Like the original project, the modified project would not incorporate hazardous design features or modify emergency access routes. No significant new or substantially increased transportation impacts would occur compared to the original project. In addition, the modified project would be required to comply with the City's standard condition of approval, *Transportation Construction Plan*, which would require preparation of a Transportation Construction Plan for all phases of construction in order to minimize impacts related to construction traffic. No significant new or substantially increased transportation impacts would occur compared to the original project.

Section 4.15, *Changes in the Environmental Setting and Cumulative Impacts*, has been added to Pages 33 to 37 of the Addendum:

4.15 Changes in the Environmental Setting and Cumulative Impacts

Impacts of the Proposed Project

Cumulatively Considerable Impacts

Cumulative impacts could occur if the construction of other projects occurs at the same time as the modified project and in the same geographic area, such that the effects of similar impacts of multiple projects combine to create greater levels of impact than would occur at the project-level. For example, if the construction of other projects in the area occurs at the same time as project activities, combined air quality and noise impacts may be greater than at the project level. Since approval of the 2018 Final IS-ND, the cumulative setting has changed due to projects that have been completed as well as new projects that have been proposed. This analysis uses the list of projects approach authorized by CEQA Guidelines section 15130(b)(1)(A). Table 2 includes a list of nearby development projects within 2 miles producing related or cumulative effects.

Table 2 Cumulative Development Projects

No.	Project Location	Project Components	Status	Distance to Project Site
1	2001 Ashby Avenue	Affordable rental building with 87 apartments.	Under construction	0.1 miles
2	2920 Shattuck Avenue	10-story mixed-use project with 221 apartments.	Under Review	0.1 miles
3	3100 Adeline Street	Redeveloping the Ashby BART station to include housing, open space, and community amenities.	Planning	0.6 miles
4	2733 San Pablo Avenue	Demolition of existing non-landmarked structures. Construction of a new 8-story mixed-use residential development with 152 dwelling units, and commercial space.	Under Review	1.5 miles
5	2601 San Pablo Avenue	Eight-story mixed-use building with 223 dwelling units over a 1,940 square-foot commercial space.	Under Review	1.7 miles
6	1461 University Avenue	42-unit supportive housing project.	Design	2.0 miles
7	700/742 Grayson Street	2.5-acre industrial site with a research and development and manufacturing building.	Recently entitled	1.9 miles
8	2527 San Pablo Avenue	6-story, mixed use building with 63 dwelling units, commercial space, and ground level parking.	Under construction	1.7 miles

Source: City of Berkeley 2024

As determined in the analysis in Section 4.16, *Other Impacts*, the project would not result in significant impacts with regard to the following topics, and, do not need to be discussed in terms of cumulative impacts, because they cannot combine with other cumulative projects to result in cumulative impacts: agriculture/forestry resources, biological resources, geology and soils, hydrology and water quality, tribal cultural resources, and wildfire. Other issues (e.g., cultural resources, hazards and hazardous materials, and land use) are site-specific by nature, and impacts at one location do not contribute to impacts at other locations. Thus, the potential for the modified project to contribute to cumulative impacts would be limited to the following issue areas:

- **Aesthetics.** Cumulative projects could result in changes to scenic vistas, visual character, and light and glare. As described in Section 4.2, *Aesthetics*, Senate Bill 743 (California Public Resources Code Section 21099) passed in 2013, made changes to the CEQA for projects located in transit-oriented development areas. Among these changes are that a project's aesthetic impacts are no longer considered significant impacts on the environment if the project is a residential, mixed-use residential, or employment center project and if the project is located on an infill site within a TPA. Therefore, aesthetic impacts related to the modified project are not considered significant contributions to a cumulative impact because it is an infill project. Cumulative projects would also be subject to the City's design standards and BMC regulations regarding light and glare (e.g. BMC Section 23.304 which requires buildings in and adjacent to residential zones to shield and direct downward exterior lighting). Therefore, the modified project's contribution to cumulative aesthetic impacts would not be considerable.

- **Air Quality.** Because the BAAQMD is in non-attainment for the state and federal ozone standards, the state and federal $PM_{2.5}$ (particulate matter up to 2.5 microns in size) standards and the state PM_{10} (particulate matter up to 10 microns in size) standards, cumulative air quality impacts currently exist for these pollutants, and BAAQMD is required to prepare a plan for improvement. As discussed in Section 4.3, *Air Quality,* the modified project construction and operation would not generate emissions of these air pollutants in excess of BAAQMD regional or localized significance thresholds, which are intended to assess whether a project's contribution to existing cumulative air quality impacts is considerable. Therefore, the modified project's contribution to existing cumulative air quality impacts would not be considerable.
- **Biological Resources.** As discussed in Section 4.16, *Other Impacts*, of the Addendum, the project site does not contain riparian areas, wetlands, or other habitat suitable for special-status species. Most cumulative impacts related to biological resources occur when a disproportionate number of cumulative projects occur at once and regionally impact a local population of a special-status species, riparian habitat, sensitive natural communities, wetlands, or other locally protected biological resources. In this case, the cumulative projects would occur in previously developed areas. Several of the development projects near the project site would be required to undergo CEQA review, which would identify the extent of biological resource impacts and require appropriate mitigation of those impacts. Projects exempt from CEQA would be subject to existing BMC requirements and standard conditions of approval to reduce potential impacts to biological resources to a less-than-significant level such that project-level impacts would not result in a cumulatively considerable contribution to this cumulative impact.
- **Energy.** Cumulative projects would be required to comply with applicable state and local regulations and standards that require efficient energy use. Development projects in the City would also be reviewed for consistency with the General Plan and CAP. Cumulative development of projects listed in Table 2 would not exceed growth planned by the City. Therefore, cumulative energy impacts would be less than significant, and the modified project would not result in a considerable contribution to this impact.
- **Greenhouse Gas Emissions.** GHG impacts are assessed in a cumulative context since generally no single project can cause a discernible change to the climate. Therefore, cumulative significance is based on the same thresholds as the modified project. In the absence of an adopted numeric threshold by the BAAQMD or the City of Berkeley, the significance of the modified project's GHG emissions is evaluated based on consistency with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. As discussed in Section 4.6, *Greenhouse Gas Emissions*, the modified project would be consistent with Berkeley's CAP and other climate goals the city has in place and would therefore not result in a cumulatively considerable contribution to this cumulative impact.
- **Noise.** Overlapping construction activities associated with cumulative development projects in conjunction with modified project activities could result in cumulative noise impacts related to a temporary increase in ambient noise levels at the same noise-sensitive receivers located throughout the area, especially during construction activities. However, the modified project would be subject to the City's standard condition of approval for Use Permits in non-residential zones, and cumulative development projects would be subject to compliance with the noise level limits established in the BMC Section 13.40.070 or the City's standard conditions of approval. Given the discussion in Section 4.9 *Noise*, the modified

project would not result in a cumulatively considerable contribution to a significant cumulative impact..

- **Population and Housing.** As described in Section 4.10, *Population and Housing*, the modified project would result in 360 new residents. Although this is an additional 265 residents compared to the original project, the growth would not exceed growth anticipated by regional growth projections and the City's General Plan and Housing Element. Cumulative projects near the project site could result in up to approximately 788 new dwelling units, development from these cumulative projects would not exceed the 8,934 units planned by the City[4].
- **Public Services and Recreation.** As described in Section 4.11, *Public Services*, and Section 4.12, *Recreation*, the modified project would not require new public facilities or services because the project site is already served by existing services and would not exceed planned growth. Several of the cumulative development projects would be required to undergo their own CEQA review, which would identify the extent of police, fire, schools, and recreation impacts and provide suitable mitigation, if warranted. Projects exempt from CEQA would be subject to existing BMC requirements and standard conditions of approval to reduce potential impacts. Similar to the modified project, cumulative projects would be subject to applicable school fees.
- **Transportation.** Overlapping construction schedules associated with other cumulative projects in conjunction with project activities could result in cumulative transportation impacts, such as impacts related to VMT and emergency access during construction. Cumulative projects would be required to be evaluated with the City's VMT thresholds to be screened out from a VMT analysis or be required to complete a VMT analysis to determine the project's potential impacts. Projects would also be subject to State requirements to achieve a reduction in project-generated VMT. As discussed in Section 4.13, *Transportation*, the modified project would decrease net ADT by 75 ADT when compared to the existing use; would not incorporate hazardous design features; and would not modify emergency access routes. The modified project is located near public transportation, and based on its size, the modified project is not anticipated to generate a significant number of transit trips such that service or overall capacity of public transportation would be adversely affected. Impacts would be less than significant. Therefore, cumulative construction-related and operational transportation impacts would be less than significant, and the modified project would not result in a considerable contribution to this impact.
- **Utilities and Service Systems**. The analysis included in Section 4.14, *Utilities and Service Systems*, is cumulative in nature due to the fact that it analyzes the utility infrastructure available throughout the city and the remaining capacity of the utility systems accounting for all current development in the city and projected growth within the city. As discussed in Section 4.14, *Utilities and Service Systems*, the modified project would not result in demand for water, wastewater, electricity, or stormwater infrastructure that would exceed the remaining capacity of these systems in the City. The modified project also would not result in solid waste in excess of the remaining capacity of the Altamont Landfill or the Vasco Road Sanitary Landfill. Cumulative projects would also be required to comply with the City's standard condition of approval and prepare a Waste Diversion Report. The modified project would not exceed development planned by the City, which has already undergone

[4] The City of Berkeley was assigned a RHNA of 8,934 units for the 2023 to 2031 planning period.

environmental review for the City's General Plan and 2023-2031 Housing Element, and would not result in a considerable contribution to this impact.

Given the above discussion, the modified project would not result in a cumulatively considerable contribution to a significant cumulative impact with mitigation incorporated.

Effects and Mitigation Measures

No new or substantially more severe significant effects would occur to cumulatively considerable impacts, and no new mitigation measures are necessary.

Conclusion

Impacts would be less than significant, like the original project and no significant new or substantially increased cumulative impacts would occur compared to the original project.

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Attachment A

Updated California Emissions Estimator Model Results

3000 Shattuck Detailed Report

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7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	3000 Shattuck
Construction Start Date	7/3/2023
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	17.0
Location	3000 Shattuck Ave., Berkeley, CA 94705, USA
County	Alameda
City	Berkeley
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1522
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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 Mid Rise	166	Dwelling Unit	0.29	80,235	4,043	—	468	—

Strip Mall	1.09	1000sqft	0.03	1,095	0.00	—	—	—

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.	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Unmit.	1.31	12.6	12.6	0.60	0.55
Daily, Winter (Max)	—	—	—	—	—
Unmit.	71.6	7.04	12.0	0.29	0.27
Average Daily (Max)	—	—	—	—	—
Unmit.	3.45	4.42	7.62	0.18	0.16
Annual (Max)	—	—	—	—	—
Unmit.	0.63	0.81	1.39	0.03	0.03
Exceeds (Daily Max)	—	—	—	—	—
Threshold	54.0	54.0	0.00	82.0	54.0
Unmit.	Yes	No	Yes	No	No
Exceeds (Average Daily)	—	—	—	—	—
Threshold	54.0	54.0	0.00	82.0	54.0
Unmit.	No	No	Yes	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	ROG	NOx	CO	PM10E	PM2.5E

Daily - Summer (Max)	—	—	—	—	—
2023	1.31	12.6	12.6	0.60	0.55
2024	1.00	6.50	12.2	0.26	0.24
Daily - Winter (Max)	—	—	—	—	—
2023	1.03	7.04	12.0	0.29	0.27
2024	71.6	6.62	11.6	0.26	0.24
2025	71.5	0.96	1.96	0.03	0.03
Average Daily	—	—	—	—	—
2023	0.33	2.41	3.69	0.10	0.09
2024	3.45	4.42	7.62	0.18	0.16
2025	0.28	< 0.005	0.01	< 0.005	< 0.005
Annual	—	—	—	—	—
2023	0.06	0.44	0.67	0.02	0.02
2024	0.63	0.81	1.39	0.03	0.03
2025	0.05	< 0.005	< 0.005	< 0.005	< 0.005

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.	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Unmit.	5.15	2.37	19.1	0.06	0.06
Daily, Winter (Max)	—	—	—	—	—
Unmit.	5.01	2.71	19.4	0.06	0.06
Average Daily (Max)	—	—	—	—	—
Unmit.	4.82	2.46	17.4	0.06	0.06
Annual (Max)	—	—	—	—	—
Unmit.	0.88	0.45	3.17	0.01	0.01
Exceeds (Annual)	—	—	—	—	—

Threshold	10.0	10.0	—	15.0	10.0
Unmit.	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	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Mobile	3.08	2.00	19.0	0.03	0.03
Area	2.05	—	—	—	—
Energy	0.02	0.37	0.16	0.03	0.03
Water	—	—	—	—	—
Waste	—	—	—	—	—
Refrig.	—	—	—	—	—
Total	5.15	2.37	19.1	0.06	0.06
Daily, Winter (Max)	—	—	—	—	—
Mobile	2.93	2.34	19.3	0.03	0.03
Area	2.05	—	—	—	—
Energy	0.02	0.37	0.16	0.03	0.03
Water	—	—	—	—	—
Waste	—	—	—	—	—
Refrig.	—	—	—	—	—
Total	5.01	2.71	19.4	0.06	0.06
Average Daily	—	—	—	—	—
Mobile	2.74	2.09	17.2	0.03	0.03
Area	2.05	—	—	—	—
Energy	0.02	0.37	0.16	0.03	0.03
Water	—	—	—	—	—
Waste	—	—	—	—	—

Refrig.	—	—	—	—	—
Total	4.82	2.46	17.4	0.06	0.06
Annual	—	—	—	—	—
Mobile	0.50	0.38	3.14	0.01	< 0.005
Area	0.37	—	—	—	—
Energy	< 0.005	0.07	0.03	0.01	0.01
Water	—	—	—	—	—
Waste	—	—	—	—	—
Refrig.	—	—	—	—	—
Total	0.88	0.45	3.17	0.01	0.01

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM2.5E
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	0.54	4.99	5.91	0.21	0.20
Demolition	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Off-Road Equipment	0.05	0.44	0.52	0.02	0.02
Demolition	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.09	< 0.005	< 0.005

Demolition	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	0.04	0.03	0.45	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.13	0.05	< 0.005	< 0.005
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.3. Site Preparation (2023) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM2.5E
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	0.54	5.02	5.57	0.27	0.25
Dust From Material Movement	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	0.02	0.01	0.22	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2023) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM2.5E
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	1.28	12.6	11.4	0.60	0.55
Dust From Material Movement	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.19	0.01	0.01
Dust From Material Movement	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.03	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	0.03	0.02	0.33	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2023) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM2.5E

Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	0.58	5.93	7.00	0.28	0.26
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Off-Road Equipment	0.58	5.93	7.00	0.28	0.26
Onsite truck	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Off-Road Equipment	0.14	1.45	1.71	0.07	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.31	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	0.45	0.33	5.34	0.00	0.00
Vendor	0.02	0.63	0.28	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Worker	0.43	0.45	4.73	0.00	0.00
Vendor	0.02	0.67	0.29	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Worker	0.10	0.10	1.12	0.00	0.00
Vendor	< 0.005	0.16	0.07	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	0.02	0.02	0.20	0.00	0.00

Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2024) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM2.5E
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	0.56	5.60	6.98	0.26	0.23
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Off-Road Equipment	0.56	5.60	6.98	0.26	0.23
Onsite truck	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Off-Road Equipment	0.35	3.55	4.42	0.16	0.15
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	0.06	0.65	0.81	0.03	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	0.43	0.30	4.97	0.00	0.00
Vendor	0.01	0.61	0.27	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Worker	0.41	0.38	4.38	0.00	0.00
Vendor	0.01	0.64	0.28	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—
Worker	0.26	0.24	2.69	0.00	0.00
Vendor	0.01	0.40	0.17	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	0.05	0.04	0.49	0.00	0.00
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2024) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM2.5E
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Off-Road Equipment	0.53	4.52	5.32	0.21	0.19
Paving	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.23	0.01	0.01
Paving	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.04	< 0.005	< 0.005
Paving	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—
Worker	0.06	0.06	0.64	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2024) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM2.5E
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	0.03	0.03
Architectural Coatings	71.3	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.04	< 0.005	< 0.005
Architectural Coatings	2.79	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005

Architectural Coatings	0.51	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Worker	0.08	0.08	0.88	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2025) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM2.5E
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	0.03	0.03
Architectural Coatings	71.3	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

Architectural Coatings	0.28	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.05	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Worker	0.08	0.07	0.82	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	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	ROG	NOx	CO	PM10E	PM2.5E

Daily, Summer (Max)	—	—	—	—	—
Apartments Mid Rise	2.91	1.86	17.6	0.03	0.03
Strip Mall	0.17	0.13	1.32	< 0.005	< 0.005
Total	3.08	2.00	19.0	0.03	0.03
Daily, Winter (Max)	—	—	—	—	—
Apartments Mid Rise	2.77	2.19	18.0	0.03	0.03
Strip Mall	0.16	0.16	1.27	< 0.005	< 0.005
Total	2.93	2.34	19.3	0.03	0.03
Annual	—	—	—	—	—
Apartments Mid Rise	0.47	0.36	2.94	< 0.005	< 0.005
Strip Mall	0.03	0.02	0.20	< 0.005	< 0.005
Total	0.50	0.38	3.14	0.01	< 0.005

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	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—
Annual	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—

Strip Mall	—	—	—	—	—
Total	—	—	—	—	—

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	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Apartments Mid Rise	0.02	0.37	0.16	0.03	0.03
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Total	0.02	0.37	0.16	0.03	0.03
Daily, Winter (Max)	—	—	—	—	—
Apartments Mid Rise	0.02	0.37	0.16	0.03	0.03
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Total	0.02	0.37	0.16	0.03	0.03
Annual	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.07	0.03	0.01	0.01
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Total	< 0.005	0.07	0.03	0.01	0.01

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	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Consumer Products	1.74	—	—	—	—
Architectural Coatings	0.31	—	—	—	—
Total	2.05	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—
Consumer Products	1.74	—	—	—	—
Architectural Coatings	0.31	—	—	—	—
Total	2.05	—	—	—	—
Annual	—	—	—	—	—
Consumer Products	0.32	—	—	—	—
Architectural Coatings	0.06	—	—	—	—
Total	0.37	—	—	—	—

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	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—
Annual	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—

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	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—
Annual	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—

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	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—

Total	—	—	—	—	—
Annual	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—
Strip Mall	—	—	—	—	—
Total	—	—	—	—	—

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	ROG	NOx	CO	PM10E	PM2.5E
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	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Total	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Total	—	—	—	—	—
Annual	—	—	—	—	—

Total	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Total	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Total	—	—	—	—	—
Annual	—	—	—	—	—
Total	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Total	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Total	—	—	—	—	—
Annual	—	—	—	—	—
Total	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Total	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Total	—	—	—	—	—
Annual	—	—	—	—	—
Total	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	PM10E	PM2.5E
Daily, Summer (Max)	—	—	—	—	—
Avoided	—	—	—	—	—
Subtotal	—	—	—	—	—
Sequestered	—	—	—	—	—
Subtotal	—	—	—	—	—
Removed	—	—	—	—	—
Subtotal	—	—	—	—	—
—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—
Avoided	—	—	—	—	—
Subtotal	—	—	—	—	—
Sequestered	—	—	—	—	—
Subtotal	—	—	—	—	—
Removed	—	—	—	—	—
Subtotal	—	—	—	—	—
—	—	—	—	—	—
Annual	—	—	—	—	—

Avoided	—	—	—	—	—
Subtotal	—	—	—	—	—
Sequestered	—	—	—	—	—
Subtotal	—	—	—	—	—
Removed	—	—	—	—	—
Subtotal	—	—	—	—	—
—	—	—	—	—	—

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	7/3/2023	8/15/2023	5.00	32.0	—
Site Preparation	Site Preparation	8/16/2023	8/18/2023	5.00	3.00	—
Grading	Grading	8/21/2023	8/28/2023	5.00	6.00	—
Building Construction	Building Construction	8/29/2023	11/19/2024	5.00	321	—
Paving	Paving	11/20/2024	12/11/2024	5.00	16.0	—
Architectural Coating	Architectural Coating	12/12/2024	1/2/2025	5.00	16.0	—

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	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73

Site Preparation	Tractors/Loaders/Back	Diesel	Average	1.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	120	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	17.9	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	24.0	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Demolition	—	—	—	—
Demolition	Worker	10.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	1.46	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

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)
Architectural Coating	162,476	54,159	1,643	548	0.00

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,000	—
Site Preparation	0.00	0.00	20.5	0.00	—
Grading	0.00	0.00	15.8	0.00	—
Paving	0.00	0.00	0.00	0.00	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%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005

2025	0.00	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 Mid Rise	903	815	679	313,337	4,857	4,383	3,651	1,685,134
Strip Mall	48.5	46.0	22.4	16,219	405	384	187	135,264

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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)
162475.875	54,159	1,643	548	—

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 Mid Rise	566,301	204	0.0330	0.0040	1,461,476
Strip Mall	9,357	204	0.0330	0.0040	6,240

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	5,894,801	56,141
Strip Mall	81,109	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	123	—
Strip Mall	1.15	—

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 Mid 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 Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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

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
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	7.10	annual days of extreme heat
Extreme Precipitation	7.50	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	3.12
AQ-PM	41.3
AQ-DPM	71.9
Drinking Water	4.21
Lead Risk Housing	64.9
Pesticides	0.00
Toxic Releases	57.1
Traffic	60.1
Effect Indicators	—
CleanUp Sites	50.3
Groundwater	78.9
Haz Waste Facilities/Generators	64.8
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	43.9

Cardio-vascular	10.5
Low Birth Weights	59.2
Socioeconomic Factor Indicators	—
Education	7.82
Housing	50.3
Linguistic	11.3
Poverty	48.6
Unemployment	82.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	63.35172591
Employed	86.50070576
Median HI	51.39227512
Education	—
Bachelor's or higher	91.67201335
High school enrollment	100
Preschool enrollment	70.537662
Transportation	—
Auto Access	7.314256384
Active commuting	98.42166046
Social	—
2-parent households	42.60233543
Voting	67.21416656
Neighborhood	—
Alcohol availability	4.516874118

Park access	81.35506224
Retail density	76.22225074
Supermarket access	85.74361607
Tree canopy	53.0347748
Housing	—
Homeownership	28.53843193
Housing habitability	41.30630053
Low-inc homeowner severe housing cost burden	28.02515078
Low-inc renter severe housing cost burden	47.18336969
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	78.89131272
Arthritis	67.1
Asthma ER Admissions	41.3
High Blood Pressure	69.1
Cancer (excluding skin)	40.8
Asthma	51.9
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	84.4
Life Expectancy at Birth	60.6
Cognitively Disabled	30.7
Physically Disabled	30.9
Heart Attack ER Admissions	93.1
Mental Health Not Good	76.1
Chronic Kidney Disease	79.8
Obesity	62.5
Pedestrian Injuries	98.1

Physical Health Not Good	87.1
Stroke	75.8
Health Risk Behaviors	—
Binge Drinking	14.4
Current Smoker	77.7
No Leisure Time for Physical Activity	90.4
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	90.9
Elderly	64.7
English Speaking	85.1
Foreign-born	12.2
Outdoor Workers	91.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	18.7
Traffic Density	46.0
Traffic Access	87.4
Other Indices	—
Hardship	16.6
Other Decision Support	—
2016 Voting	67.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	35.0
Healthy Places Index Score for Project Location (b)	85.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Project site plans
Construction: Construction Phases	Adjusted construction schedule assumptions to be consistent with applicant provided information
Operations: Hearths	no fireplaces or woodstoves
Construction: Dust From Material Movement	BAAQMD BMPS
Construction: Trips and VMT	Based on aerial Google Earth measurements, approx. 7,663 sf of asphalt would be removed during demolition phase. Assued 4 inch depth.
Construction: On-Road Fugitive Dust	Based on BAAQMD CEQA Guidelines

ZONING ADJUSTMENTS BOARD

STAFF REPORT

FOR BOARD ACTION
MAY 11, 2023

3000 Shattuck Avenue

Use Permit #ZP2022-0046 to demolish the existing gas station, and construct a 10-story (114 feet) mixed-use building utilizing a Density Bonus, with 166 dwellings, including 17 Very Low-Income units, and 1,043 square-feet of commercial space.

I. Background

A. Land Use Designations:

- General Plan: AC – Avenue Commercial
- Zoning: C-SA – South Area Commercial District

B. Zoning Permits Required:

- Use Permit pursuant to Berkeley Municipal Code (BMC) Section 23.326.070(A) to demolish a non-residential main building
- Use Permit pursuant to BMC Section 23.204.100(B)(4)(b) to construct a mixed-use development of more than 5,000 square-feet
- Use Permit pursuant to BMC Section 23.204.020 to add multi-family dwellings
- Use Permit pursuant to BMC Section 23.204.100(D)(2) to modify the height and stories, setbacks, and lot coverage
- Administrative Use Permit pursuant to BMC Section 23.304.050(A) to allow architectural features over the maximum height limit

C. Concessions and Waivers and Pursuant to State Density Bonus Law (CA Gov't. Code Section 65915)

- Waiver of BMC Section 23.204.100(D)(1) to exceed the Floor Area Ratio (FAR) limit – to be 6, where 4 is the maximum
- Waiver of BMC Section 23.204.100(D)(1) to exceed building height limits – to be 113 feet 10 inches and 10 stories, where 36 feet and 3 stories is the limit
- Waiver of BMC Section 23.204.100(D)(1) to reduce the required front setback from 15 feet to 2 feet 6 inches
- Waiver of BMC Section 23.204.100(D)(1) to reduce the required rear setback from 15 feet to 11 feet 3 inches

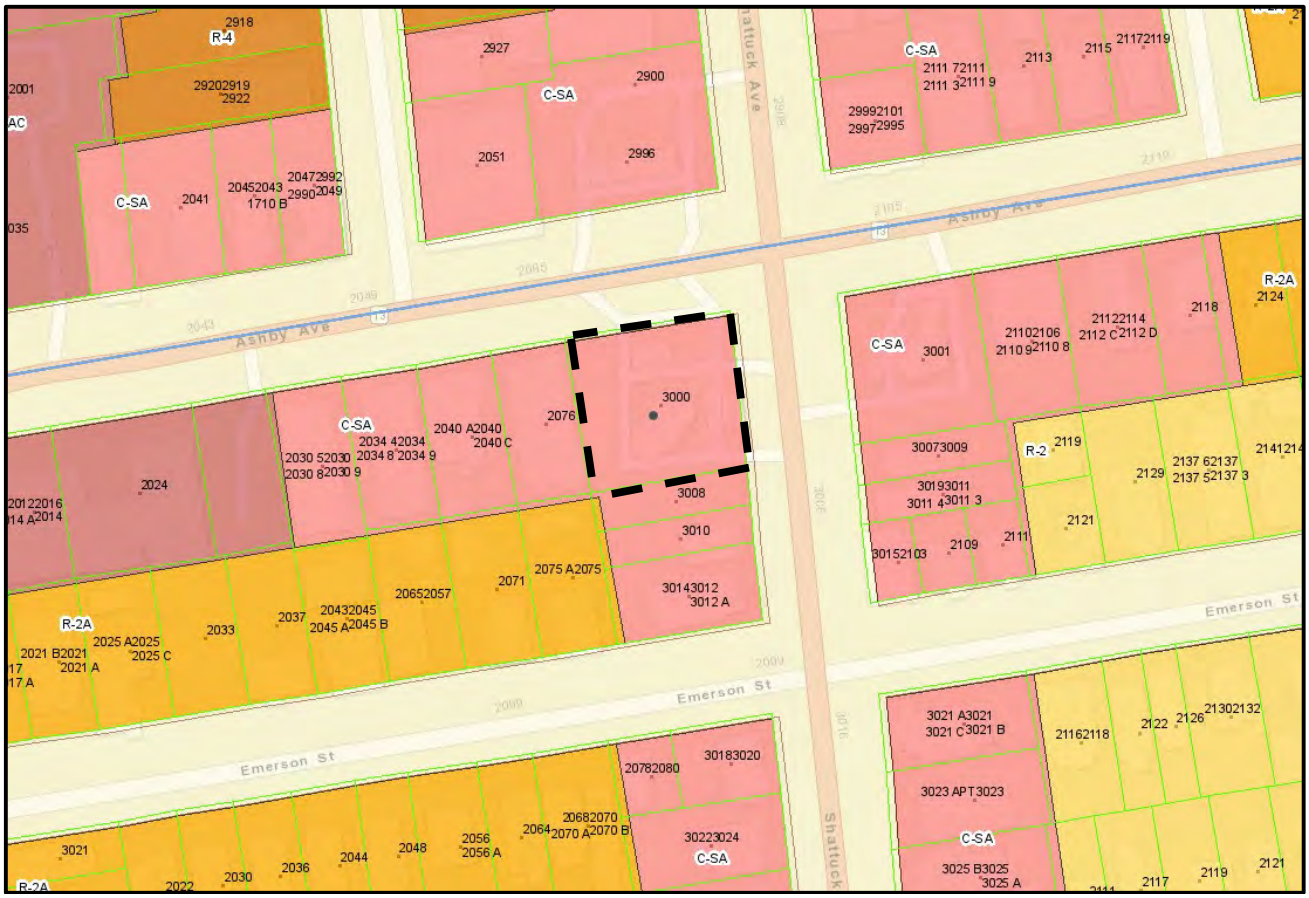
- Waiver of BMC Section 23.204.100(D)(1) to reduce the required street side (left side) setback from 6 feet to 15 feet (varies by story) to 0 to 6 feet 9 inches
- Waiver of BMC Section 23.204.100(D)(1) to reduce the required interior side (right side) setback from 4 feet to 12 feet (varies by story) to 5 feet 7 inches
- Waiver of BMC Section 23.204.100(D)(1) to exceed the lot coverage limit – to be 62 percent, where 40 percent is the maximum

D. CEQA Recommendation: It is staff's recommendation that the Zoning Adjustments Board (ZAB) adopt the Addendum to the 3000 Shattuck Initial Study/Negative Declaration (IS/ND) (SCH# 2017062025) pursuant to the California Environmental Quality Act (CEQA). The Addendum are attached to this staff report (see Attachment 3). See Section V for further discussion of the project's CEQA review.

E. Parties Involved:

- Applicant — Isaiah Stackhouse, 2421 Fourth Street, Berkeley
- Property Owner — 3000 Shattuck Avenue, LLC, 2343 Stuart Street, Berkeley

Figure 1: Zoning Map



Legend
Zoning

C-SA:	South Area Commercial
R-2:	Restricted Two-Family Residential
R-2A:	Restricted Multiple-Family Residential
R-4:	Multi-Family Residential

Figure 2: Site Plan/Ground Floor Plan

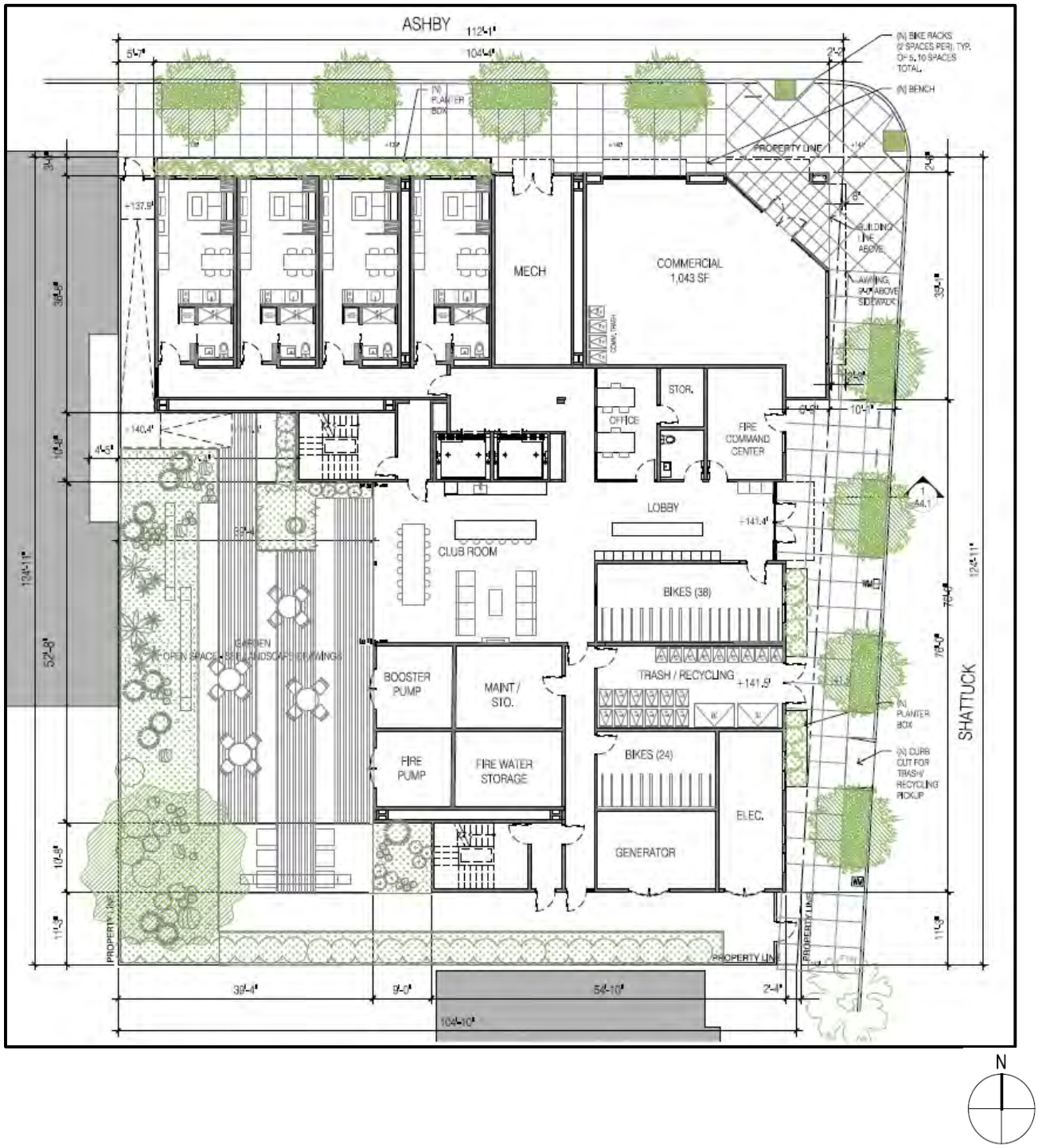


Figure 3: Shattuck Avenue Elevation (East)

Figure 4: Ashby Avenue Elevation (North)

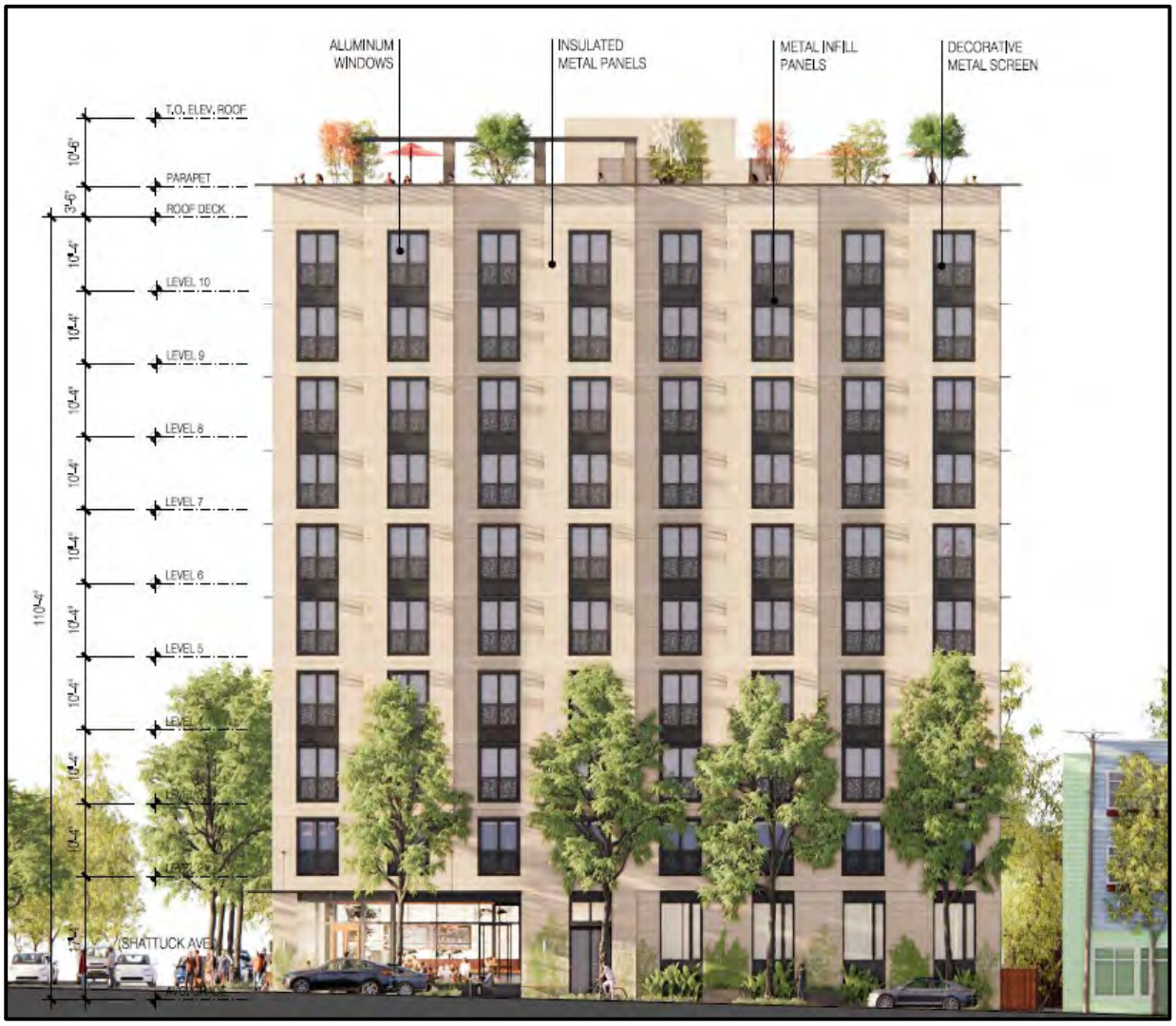


Table 1: Land Use Information

Location		Existing Use	Zoning District	General Plan Designation
Subject Property		Gas Station	C-SA	Avenue Commercial (AC)
Surrounding Properties	North	Gas Station		Neighborhood Commercial (NC)
	South	Residential		Avenue Commercial (AC)
	East	Car Rental		Neighborhood Commercial (NC)
	West	Commercial/Multi-Family Residential		Avenue Commercial (AC)

Table 2: Special Characteristics

Characteristic	Applies to Project?	Explanation
Affordable Child Care Fee for qualifying non-residential projects (Per Resolution 66,618-N.S. Affordable Housing Fee for qualifying non-residential projects (Per Resolution 66,617-N.S.)	No	The proposed net new non-residential floor area is less than7,500 square feet and therefore this project is not subject to these resolutions.
Affordable Housing Mitigations for rental housing projects (Per BMC 22.20.065)[1]	Yes	Project would provide 17 Below Market Rate (BMR) units at the Very Low-Income (VLI) rate and pay a fee to satisfy the requirements of BMC Section 22.20.065(D).
Alcohol Sales/Service	No	The applicant is not proposing alcohol sales or service with this permit.
Creeks	No	The site is not near a mapped creek or a creek culvert.
Density Bonus	Yes	The project would provide 17 Very Low-Income units, or 15 percent of the Base Project units, and qualifies for a 50 percent density bonus, or 56 bonus units (55 taken) under State Density Bonus law. See Section VI.C below.
Historic Resources	No	In May 2016 the property was referred to the Landmarks Preservation Commission (LPC), and the LPC took no action to designate the building. See Section IV.C for additional discussion on the Landmarks review of this property.
Housing Accountability Act (Gov't Code Section 65589.5(j))	Yes	The project is a mixed-use building that meets the definition of a "Housing Development Project" per Government Code Section 65589.5(h)(2)[2]. The base project complies with applicable, objective general plan and zoning standards, and thus

[1] Project vested under SB 330 on/before March 31, 2023, prior to effective date of new inclusionary housing requirements and is therefore subject to the Affordable Housing Mitigations in BMC 22.20.065 that was in effect at the time of vesting.
[2]Government Code Section 65589.5(h)(2) "Housing development project" means a use consisting of any of the following: (A) residential units only, (B) mixed-use developments consisting of residential and nonresidential uses in which at least two-thirds of the square footage is designated for residential use, and (C) transitional or supportive housing.

		section (j) of the Housing Accountability Act applies. See Section VI.B of this report for additional discussion on compliance with the Housing Accountability Act.
Housing Crisis Act of 2019 (SB330)	Yes	The project is a mixed-use building that meets the definition of a "Housing Development Project" per Government Code Section 65589.5(h)(2)[3]. See Section VI.A of this report for additional discussion on the sections of SB 330 that apply to the project.
Natural Gas Prohibition (Per BMC 12.80.020)	Yes	This application is for new construction and was submitted after January 1, 2020, and is therefore subject to the Natural Gas Prohibition.
Oak Trees	No	There are no oak trees on the project site.
Percent for Art (BMC Chapter 23.316)	Yes	The project is subject to the City's Public Art on Private Projects ordinance. The applicant has indicated that they would provide the artwork on site (valued at 1.75 percent of total building permit valuation).
Rent Controlled Units	No	The project would involve the demolition of non-residential structures; no rent-controlled units would be demolished.
Residential Preferred Parking (RPP)	No	The site is not located in an RPP zone. Also, newly constructed dwellings would not be eligible to participate in the RPP program.
Seismic Hazards (SHMA)	No	The site is not located within an area susceptible to liquefaction, fault rupture, or landslides as shown on the State Seismic Hazard Zones map.
Soil/Groundwater Contamination	Yes	The project site is located within the City's Environmental Management Area. The project site is listed on the Cortese List, and Phase I and Phase II reports were prepared. The Toxics Management Division will refer this project during building permit review for sign off from the Regional Water Quality Control Board, Department of Toxic Substances Control, or the Alameda County Department of Environmental Health. Also, standard Conditions of Approval related to hazardous materials would apply (COA #23).
Transit	Yes	The project site is located on the southwest corner of Shattuck Avenue and Ashby Avenue, is served by multiple bus lines (local and Transbay), and is 0.3 miles from the Ashby BART Station. In addition, the Bike Boulevard on Milvia Street is within 0.3 miles.

[3] See footnote 1

Table 3: Project Chronology

Date	Action
December 14, 2021	SB 330 complete preliminary housing development project application submitted
March 29, 2022	Application submitted
May 11, 2022	Application deemed incomplete
July 8, 2022	Revised application materials submitted
August 3, 2022	Application deemed complete
January 19, 2023	Design Review Committee Preliminary Design Review
January 27, 2023	Addendum to previous Initial Study published
April 27, 2023	Public hearing notices mailed/posted
May 11, 2023	ZAB hearing

Table 4: Development Standards

Commercial Corridor (C-SA) Standards BMC Sections 23.204.100		Existing	Proposed	Permitted/ Required
Lot Area (sq. ft.)		13,561	13,561	n/a
Gross Floor Area (sq. ft.)		1,180	81,552	n/a
Floor Area Ratio		0.09	6	4 (modifiable with Use Permit)
Dwelling Units	Total	0	166	n/a
	Affordable	0	17	n/a
Building Height	Maximum (ft.)	14’	113’-10”	36’ (modifiable with Use Permit)
	Stories	1	10	3 (modifiable with Use Permit)
Building Setbacks (ft.)	Front (Ashby)	35’	2’-6” to 3’	15’ (modifiable with Use Permit)
	Rear	41’	11’-3” to 85’-2”	15’ (modifiable with Use Permit)
	Left Side Street (East/Shattuck)	35’	0’ to 6’-8”	6’-15’ (modifiable with Use Permit)
	Right Side (West)	26’	5’-7” to 39’-4”	4’-12’ (modifiable with Use Permit)
Lot Coverage (%)		9	62	40 (modifiable with Use Permit)
Usable Open Space (sq. ft.) per Dwelling Unit		n/a	7,879	6,640
Parking	Car	11	0	0
	Bike Commercial (1,043 sq. ft.)	0	2	1 (1 space/2,000 sq. ft.)
	Bike Residential (long-term)	0	55	55 (1 space/3 bedrooms)
	Bike Residential (short-term)	0	5	4 (1 space/40 bedrooms, or 2)
	Total Bike Parking	0	62	61

= Waiver, pursuant to State Density Bonus Law, requested to modify the district standard.

II. Project Setting

A. Neighborhood/Area Description: The project site is located on the southwest corner of Ashby Avenue and Shattuck Avenue. The surrounding area consists of a mix of commercial and residential development ranging from one to three stories in height. The Ashby BART station is 0.3 miles to the west. In addition, bus service is available via AC Transit routes 18 and 800.

B. Site Conditions: The 13,561-square-foot project site comprises two parcels, and is currently developed with a gas station that includes a mini-market with an office, car repair services, smog test center, two gas station canopies with pump islands, and surface parking for 11 automobiles. Access to the site is provided from both Ashby and Shattuck Avenues.

III. Project Description

A. Proposed Project: The project would demolish the existing commercial buildings, remove the existing paving and the curb cuts, and construct a new ten-story mixed-use building with the following primary components:

- 166 dwelling units (all studios) for a total of 166 bedrooms;
- Commercial space: 1,043 square feet in area, for one tenant on the ground floor at the northwest corner of the property;
- Two bicycle storage rooms, one for 38 bicycles, the other for 24 bicycles on the ground floor, and five short-term bicycle parking spaces along Shattuck Avenue and Ashby Avenue;
- Residential access from Shattuck Avenue;
- Residential amenities on the ground floor including club room, and property management and leasing offices;
- Laundry rooms within each unit;
- New street trees along Shattuck Avenue and Ashby Avenue;
- Useable open space totaling 8,516 square feet consisting of ground level space and a roof deck;
- Roof deck areas containing plantings, a pergola, seating, and an outdoor kitchen;

B. Base Project and Density Bonus: The applicant has requested a density bonus under the State Density Bonus Law. Under the City's density bonus procedures, the "base project"[4] is 111 units, as the maximum allowable density for the site. The six-story Base Project and the resulting ten-story Proposed Project both have an average unit size of 485 square feet. The Density Bonus calculations are provided in more detail, below:

[4] Per the City's Density Bonus Procedures (DBP), the Base Project is the largest project allowed on the site that is fully compliant with district development standards (i.e. height, setbacks, usable open space, parking, etc.), or, the *maximum allowable density* for the site. The City uses the DBP to calculate the maximum allowable density for a site where there is no density standard in the zoning district, and to determine the number of units in the Proposed Project, which is the number of Base Project units plus the number of density bonus units that can be added according to the percentage of BMR units proposed, per Government Code, Section 65915(f).

Table 5: Density Bonus

Base Project Units*	Qualifying Units	Percent Density Bonus	Number of Density Bonus Units*	Proposed Project Units
111	17 VLI (15% of base project)	50%	56 (50%x111)	166
*Per Gov't Code 65915(q), all unit calculations are rounded up to the nearest whole number.				

By providing 17 Very Low Income (VLI) Below Market Rate (BMR) units on site (15 percent of the 111-unit base density), the project is eligible for a 50 percent density bonus, or 56 additional units. Therefore, the applicant proposes 55 additional units above the base density for a total of 166 dwelling units.

To accommodate the additional units, the project would use seven waivers/ modifications:

1) Exceed the Floor Area Ratio (FAR) limit from 4.0 to 6.0
2) Exceed the building height limit from 36 feet and 3 stories to 113 feet 10 inches and 10 stories
3) Reduce the required front setback from 15 feet to 2 feet 6 inches
4) Reduce the required rear setback from 15 feet to 11 feet 3 inches
5) Reduce the required street side (left side) setback from 6 feet to 15 feet (varies by story) to 0 feet
6) Reduce the required interior side (right side) setback from 4 feet to 12 feet (varies by story) to 5 feet 7 inches
7) Exceed the lot coverage limit from 40 percent to 62 percent

IV. Community Discussion

A. Neighbor/Community Concerns: Prior to submitting this application to the city, the applicant invited interested neighborhood organizations as well as owners and occupants within 300 feet of the project to a project preview meeting. The meeting was held on March 14, 2022, and attended by nine people (meeting minutes are included as Attachment 4). A pre-application poster was erected by the applicant in March 2022. On April 27, 2023, the City mailed public hearing notices to property owners and occupants, and to interested neighborhood organizations and the City posted notices within the neighborhood in three locations. At the time of this writing, staff has not received any communications regarding the project, other than inquiries about the status of the project.

B. Design Review Committee: On January 19, 2023, the Design Review Committee (DRC) reviewed the project design for 3000 Shattuck Avenue, gave a favorable recommendation on the design as presented, and provided conditions and direction for Final Design Review (FDR) (Attachment 5).

C. **Landmarks Preservation Commission (LPC):** The project involves the demolition of an existing commercial building that is over 40 years in age. As detailed in a Historic Resource Evaluation completed by Bridget Maley in November 2015, and discussed in the addendum to the Initial Study-Negative Declaration, the building proposed for demolition does not meet the criteria for the California Register or a City of Berkeley Landmark. Pursuant to BMC Section 23.326.070(C), the proposed demolition was referred to the LPC in May 2016 for review prior to the consideration of the prior Use Permit. The LPC reviewed the demolition referral and took no action.

V. Environmental Review

A. **CEQA Approach:** Pursuant to Section 15164 of the CEQA Guidelines, codified in Sections 15000 et seq. of Title 14 of the California Code of Regulations, a lead agency shall prepare an addendum to a previously adopted negative declaration if some changes or additions are necessary but none of the conditions described in Section 15612 calling for preparation of a subsequent negative declaration have occurred. Under Section 15162 (a), where a negative declaration has been adopted for a project, no subsequent environmental impact report (EIR) or negative declaration (ND) shall be prepared for the project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, that there are substantial changes in the project or circumstances or substantially important new information that will cause the project to have significant new impacts or substantially increase previously identified significant impacts.

Table 6 below compares the previously approved project and the revised project. As discussed in detail in the Addendum, potential impacts associated with the modified project (the proposed changes compared to the project evaluated in the negative declaration) currently before the ZAB would be consistent with potential impacts discussed in the negative declaration. Although the addendum includes an analysis of energy and wildfire, which were not included in the negative declaration, no significant impacts were found to occur regarding these resource areas. Substantive revisions to the negative declaration are not necessary because no new significant impacts would occur. Thus, the conditions outlined in CEQA Guidelines Section 15162 requiring preparation of a subsequent EIR or ND would not be met and an addendum is the appropriate CEQA document.

Table 6: Changes to Previously Approved Project

Project Characteristic	Previously Approved Project	Updated Project
Total Floor Area	**38,828 sf**	**81,552 sf**
Lot Coverage	83%	62%
Residential[1]	32,603 sf	80,509 sf
Retail	6,225 sf	1,043 sf
Building Height	56 feet and 11 inches; 5 stories	113 feet and 10 inches; 10 stories
Total Residential Units	**44 units[1]**	**166 units[2]**
Affordable Units	4 units	17 units
Open Space		
Roof Deck	N/A	4,488 sf
Ground Level Open Space	N/A	3,391 sf
Usable Open Space	2,092 sf	7,879 sf
Parking		
Automobile	17 spaces	0 spaces
Bicycle	62 spaces	62 spaces[3]
Construction		
Length	18 months	18 months

[1]Includes 4 studios (430 sf on average), 31 1-bedrooms (616 sf on average), and 8 2-bedrooms (902 sf on average).

[2]All units would be studios.

[3]Includes 55 long-term residential spaces, 5 short-term residential spaces, and 2 short-term commercial spaces

sf = square feet

B. **Initial Study/Negative Declaration Addendum:** An Addendum to the 3000 Shattuck IS/ND, which was adopted in November 2018, was prepared to evaluate the potentially significant environmental impacts of the proposed project, pursuant to CEQA. The Addendum considered the IS/ND and evaluated the modified project, i.e., the proposed project currently before the ZAB. Impacts related to implementation of the proposed project would remain less than significant.

VI. Issues and Analysis

A. SB 330 – Housing Crisis Act of 2019: The Housing Crisis Act, also known as Senate Bill 330, seeks to boost homebuilding throughout the State with a focus on urbanized zones by expediting the approval process for and suspending or eliminating restrictions on housing development. Housing development is defined as a project that is: all residential; a mixed-use project with at least two-thirds of the square-footage residential; or for transitional or supportive housing. Sections of SB 330 that apply to the proposed project include the following:

1. Government Code §65905.5(a) states that if a proposed housing development project complies with the applicable, objective general plan and zoning standards

in affect at the time an application is deemed complete, then the city shall not conduct more than five hearings in connection with the approval of that housing development project. This includes all public hearings in connection with the approval of the housing development project and any continuances of such public hearings. The city must consider and either approve or disapprove the project at any of the five hearings consistent with applicable timelines under the Permit Streamlining Act (Chapter 4.5 (commencing with §65920)).

The project application was deemed complete on August 3, 2022. The DRC meeting on January 19, 2023 was the first public hearing, and the May 11, 2023 ZAB hearing is the second for the proposed project since the project was deemed complete. The City can hold up to three additional public hearings on this project, if needed. One of those hearings must be reserved for any possible appeal to the City Council.

2. Government Code §65913.10(a) requires that the City determine whether the proposed development project site is a historic site at the time the application for the housing development project is deemed complete. The determination as to whether the parcel is a historic site must remain valid during the pendency of the housing development project, unless any archaeological, paleontological, or tribal cultural resources are encountered during any grading, site disturbance, or building alteration activities.

   As discussed in the Addendum, the property does not appear to be historically significant and therefore is not eligible for listing on the California Register of Historical Resources or as a City of Berkeley Landmark or Structure of Merit. The demolition referral was heard at the May 5, 2016, Landmark Preservation Commission meeting, and no action was taken. Therefore, it was determined the site is not a historic resource. Further, standard conditions of approval have been included to halt work in case of any unanticipated discovery of archeological, paleontological, or tribal cultural resources.

3. Government Code §65950(a)(4) requires a public agency to approve or disapprove a project within 60 days from the date of adoption by the lead agency of the negative declaration for a housing development project. A negative declaration for the original use permit on the project site was adopted on November 27, 2018. The modified project was deemed complete on August 3, 2022. Staff determined on August 3, 2022 that the appropriate level of CEQA review was preparation of an Addendum to the negative declaration, in order to evaluate the modified project's potential impacts on the environment. (See Section V for details on the CEQA Approach and Addendum.) Therefore, Section 65950(a)(4) does not apply to the project. However, should ZAB adopt the Addendum at the May 11, 2023 public hearing, the application must be approved or disapproved by July 10, 2023.

B. Housing Accountability Act Analysis: The Housing Accountability Act (HAA), California Government Code Section 65589.5(j), requires that when a proposed housing development complies with the applicable, objective general plan and zoning

standards, but a local agency proposes to deny the project or approve it only if the density is reduced, the agency must base its decision on written findings supported by substantial evidence that:

1. The development would have a specific adverse impact[5] on public health or safety unless disapproved, or approved at a lower density; and
2. There is no feasible method to satisfactorily mitigate or avoid the specific adverse impact, other than the disapproval, or approval at a lower density.

The Base Project, including the extension of height to 65 feet and six stories, allowed by Use Permits[6], complies with applicable, objective general plan and zoning standards. Further, Section 65589.5(j)(3) provides that a request for a density bonus "shall not constitute a valid basis on which to find a proposed housing development project is inconsistent, not in compliance, or not in conformity, with an applicable plan, program, policy, ordinance, standard, requirement, or other similar provision specified in this subdivision." Therefore, the City may not deny the Base Project or density bonus request or reduce the density with respect to those units without basing its decision on the written findings under Section 65589.5(j), above. Staff is aware of no specific adverse impacts that could occur with the construction of the Base Project or the density bonus units. Therefore, Section 65589.5(j) *does apply* to the Proposed Project. All findings discussed below are subject to the requirements of Government Code Section 65589.5.

C. Density Bonus Concessions and Waivers: The project is entitled to three concessions (or incentives) under Government Code Section 65915(d), and an unlimited number of waivers under Section 65915(e).

Concessions. A concession is a modification of a development standard that reduces the cost of providing affordable housing. The applicant is not requesting any concessions for the project.

Waiver. A waiver is a modification of a development standard that would otherwise physically preclude the construction of the project with the permitted density bonus and concessions. The applicant is requesting seven waivers from the following development standards: 1) to exceed the maximum floor area ratio (FAR) from 4.0 to 6; 2) exceed the height limit of 36 feet/3 stories and propose 113 feet 10 inches/10 stories; 3) Reduce the required front setback from 15 feet to 2 feet 6 inches; 4) Reduce the required rear setback from 15 feet to 11 feet 3 inches; 5) Reduce the required street side (left side) setback from 6 feet to 15 feet (varies by story) to 0 feet; 6) Reduce

[5] A "specific, adverse impact" means "a significant, quantifiable, direct, and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete".

[6] The City has determined that the "protections afforded by the HAA and the definition of a base project for density bonus calculations apply to a housing development project up to and including the maximum development allowed with use permits and/or administrative use permits". Therefore, the use permits to allow height to 50 feet and 4 stories are included in the Base Project for the purpose of determining the applicability of Section 65589.5(j).

the required interior side (right side) setback from 4 feet to 12 feet (varies by story) to 5 feet 7 inches;7) Exceed the lot coverage limit from 40 percent to 62 percent. The waivers are requested because they are necessary to physically accommodate the additional 56 units (55 taken) as allowed under the density bonus project on the site.

The City may only deny the waivers if it finds that the waivers would have a specific adverse impact upon public health and safety, or the physical environment, or on any real property listed in the California Register of Historical Resources, and there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact without rendering the development unaffordable to low-income, very-low income, and moderate-income households, or if the waiver would be contrary to State or Federal law. Staff believes such a finding cannot be made.[7]

D. **Use Permit to Demolish Non-residential Buildings:** The proposed project includes the demolition of the gas station and associated structures on the site. Pursuant to BMC Section 23.326.070, the demolition of a non-residential building requires ZAB approval. In addition, pursuant to BMC Section 23.326.070(C), an application for a permit to demolish a non-residential building or structure which is 40 or more years old must be forwarded to the LPC for review prior to the consideration of the use permit. As noted above in Section IV.C, at a duly noticed hearing, the LPC reviewed the demolition referral and took no action to initiate a local historic designation.

Pursuant to BMC 23.326.070(D), the demolition of the non-residential building would not be materially detrimental to the commercial and public interest of any affected neighborhood in the city. The new mixed-use building would replace the existing gas station with a new 81,522 square-foot building, 166 dwelling units (studios), and 1,043 square-feet of commercial space. The proposed project includes a mixed-use building which would provide new dwelling units and commercial space in the C-SA District, and thus would be compatible with adjacent and nearby commercial and residential uses.

Therefore, staff believes that ZAB can make the required finding that demolition would be necessary to allow construction of the proposed mixed-use building, subject to the condition of approval allowing demolition of the existing buildings only after complete construction plans are submitted to the City for the replacement buildings.

VII. Other Zoning and Land Use Considerations

The analyses of conformance with district purposes, use permit findings for non-detriment, and the South Berkeley Area Plan (adopted 1990) and 2002 General Plan goals and policies are provided for Board consideration. The proposed project is HAA-compliant. The following permits have been determined by the City to be included in the Base Project of the proposal, and are subject to Section 65589.5(j) of the HAA. See section VI.B for discussion of the HAA.

[7] See Footnote 4.

All permits are subject to the C-SA District permit findings and General Non-Detriment findings discussed in sections VII.A and VII.B.

A. Findings for Use Permits in the C-SA District: Pursuant to BMC Section 23.204.100(E), in order to approve any Use Permit in the district, the Board must make the findings that the proposed use or structure:

1) Is compatible with the purposes of the district: The project is a higher-density development in proximity to regional transit, shops, and amenities, that is compatible with the purposes of the zoning district and the surrounding uses and buildings. The project site is located within the South Area Commercial District (C-SA) and is designated Avenue Commercial in the City's General Plan. It would create 166 new studio dwelling units. Seventeen of the units would be deed restricted as affordable housing units for very-low-income residents.

   The proposal also includes 1,043 square feet of commercial space and a total of 62 secure bicycle parking spaces (short-term and long-term) on the ground floor. The project site is well served by public transportation, including a BART station less than half-mile to the southwest. The surrounding commercial area includes retail sales, restaurants, personal services, and multi-family residential uses; the project would add to these commercial and residential uses and add population to support these uses.

2) Is compatible in design and character with the district and the adjacent residential neighborhoods: The project site currently includes automotive uses. The proposed project would change uses on the site to ground-floor commercial, with residential uses on all floors. The project would not introduce new land uses that do not already exist in the area. The design would be residential mixed-use, and would be consistent with the character of the commercial corridors of Shattuck Avenue and Ashby Avenue.

3) Will not result in the domination of one type of commercial/retail use in any one area of the district: The project includes 1,043 square feet of ground floor commercial space, and would not result in the domination of one type of commercial use in this portion of the C-SA District.

B. General Non-Detriment Finding: BMC Section 23.406.040 states that before the ZAB approves an application for a Use Permit, it must find that the project, under the circumstances of this particular case existing at the time at which the application is granted, would not be detrimental to the health, safety, peace, morals, comfort, and general welfare of the persons residing or working in the neighborhood of such proposed use or be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood, or to the general welfare of the City.

Shadows: According to the shadow studies submitted for the project (See Attachment 2, Project Plans – Sheets A0.4A-A0.4C), new shadows would affect dwellings at the following locations:

- Newbury Street, northwest of the site, casting new shadows on the winter solstice two hours after sunrise.
- The northeast intersection of Ashby Avenue and Shattuck Avenue, casting new shadows on the winter solstice two hours before sunset.
- Ashby Avenue, west of the project site, casting new shadows on the summer solstice two hours after sunrise.
- Shattuck Avenue, southeast of the project site, casting new shadows on the summer solstice two hours before sunset.

Shadow impacts on adjacent dwellings are to be expected, because the subject site is located in the C-SA district, which allows a Use Permit to exceed the 36 foot/3 story height limit, with no limitation on the height, and is allowed to be included in the density bonus base project. A waiver to height and stories is allowed to accommodate the density bonus units (see section VI.D for a discussion of waivers). Because the impacts to neighboring properties would occur on limited areas, and would only partially shade neighboring buildings for a limited time during the year, and only for a few hours of the day, the building would not result in a significant loss of direct sunlight on abutting dwellings, and these shading impacts are not deemed detrimental.

Non-Detriment: The project is subject to the City's standard conditions of approval regarding construction noise and air quality, waste diversion, toxics, and stormwater requirements, thereby ensuring the project would not be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in the area or neighborhood of such proposed use or be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood or to the general welfare of the City. These standard conditions would ensure that the project would satisfy this finding.

C. Use Permit to Modify the Height and Stories, Setbacks, and Lot Coverage: Pursuant to BMC Section 23.204.100(D)(2) ZAB may modify development standards in the C-SA District for mixed-use projects, including height and stories, setbacks, and lot coverage, upon making one of the following findings:

a. The project encourages utilization of public transit and existing off-street parking facilities in the area of the proposed building;
b. The modification allows consistency with the building setbacks existing in the immediate area where a residential building setback would not serve a useful purpose;
c. The modification facilitates the construction of affordable housing as defined by the U.S. Department of Housing and Urban Development (HUD) Guidelines; or
d. The modification provides consistency with the purposes of the district as listed in Section 23.204.100.A (District Purpose).

The proposed project is served by multiple bus lines (local and Transbay), is 0.3

miles from the Ashby BART Station, and the Bike Boulevard on Milvia Street is within 0.3 miles. Car parking is not required and will not be provided, but secure bike parking is required.

The reduction in the setbacks is greatest along the Shattuck and Ashby frontages, where it will have less of an impact on nearby dwelling units, and minimal street side and front setbacks are typical for commercial corridors.

The modification of height and stories, setbacks, and lot coverage supports the location of on-site affordable housing.

D. Administrative Use Permit for Roof-Top Projections: BMC Section 23.304.050(A) requires an Administrative Use Permit for roof-top projections, such as mechanical penthouses, elevator equipment rooms or stair towers, that would exceed the maximum height limit. Such projections are limited to no more than 15 percent of the average floor area of all of the building's floors and cannot be used as habitable space or for commercial purposes. With a gross floor area of 81,522 square feet, the average floor area for ten floors is 8,152 square feet, and 15 percent of the average floor area is 1,223 square feet. The proposed features occupy 1,020 square feet, which complies with the limit.

E. 1990 South Berkeley Area Plan Consistency:

A. Housing Element Policy 3.7: Encourage the construction of new affordable housing units.

B. Housing Element Policy 3.10: Locate higher density housing in area with easy access to retail activity, the workplace, and public transportation.

Staff Analysis: The project would provide 17 units affordable to Very Low-Income households. The project is located in the Shattuck Corridor that is within walking distance to Ashby BART station, several bus lines, and the Berkeley Bowl market.

C. Housing Element Policy 5.2: Ensure that usable open space improvements are integrated into new housing and mixed-use developments.

Staff Analysis: The project provides 7,879 square feet of usable open space at the ground level and roof deck and this area includes landscaping and seating.

D. Land Use Policy A. 1: Preserve the character and quality of life of residential areas.

E. Land Use Policy C.1.2: Regulate mixed development to ensure compatibility with adjacent residential neighborhoods.

Staff Analysis: The building is concentrated toward the corner of Ashby and Shattuck with the greatest setbacks at the rear and sides near the adjacent R-2A District, and the rooftop elevator penthouse and stair overrun near the center of the building, generally aware from the R-2A District.

F. 2002 General Plan Consistency:

1. Policy LU-3–Infill Development: Encourage infill development that is architecturally and environmentally sensitive, embodies principles of sustainable planning and construction, and is compatible with neighboring land uses and architectural design and scale.
2. Policy LU-7–Neighborhood Quality of Life, Action A: Require that new development be consistent with zoning standards and compatible with the scale, historic character, and surrounding uses in the area.
3. Policy H-33 – Regional Housing Needs: Encourage housing production adequate to meet City needs and the City's share of regional housing needs.
4. Policy UD-24–Area Character: Regulate new construction and alterations to ensure that they are truly compatible with and, where feasible, reinforce the desirable design characteristics of the particular area they are in.
5. Policy H-12 – Transit-Oriented New Construction: Encourage construction of new medium- and high-density housing on major transit corridors and in proximity to transit stations consistent with zoning, applicable area plans, design review guidelines, and the Climate Action Plan.
6. Policy T-43 – Bicycle Network, Action C: Encourage, and when appropriate, require new multi-family residential developments to provide secure locker space for resident bicycles.
7. Policy UD-32–Shadows: New buildings should be designed to minimize impacts on solar access and minimize detrimental shadows.

   The project would improve the utilization of the site with development that is of appropriate intensity, that is compatible with the existing surrounding development, and that would further improve the neighborhood character and quality of life by providing new housing and a new commercial space. The project site is served by multiple bus lines (local and Transbay), and is 0.3 miles from the Ashby BART Station. In addition, the Bike Boulevard on Milvia Street is within 0.3 miles.

8. Policy UD-33–Sustainable Design: Promote environmentally sensitive and sustainable design in new buildings.
9. Policy EM-5–"Green" Buildings: Promote and encourage compliance with "green" building standards. (Also see Policies EM-8, EM-26, EM-35, EM-36, and UD-6.)

   The project would help Berkeley meet its regional housing needs by adding 166 new housing units, including 17 VLI units. The project would be subject to standard conditions of approval that promote sustainable building design, including conditions for solar PV systems, water efficient landscaping, and natural gas prohibitions.

VIII. Recommendation

Because of the project's consistency with the Zoning Ordinance and General Plan, and minimal impact on surrounding properties, staff recommends that the Zoning Adjustments Board:

A. **ADOPT** the Addendum to the 3000 Shattuck Initial Study-Negative Declaration.

B. **APPROVE** Use Permit ZP2022-0046, pursuant to BMC Section 23.406.040 and subject to the attached Findings and Conditions (see Attachment 1).

Attachments:
1. Findings and Conditions
2. Project Plans, received May 2, 2023
3. Addendum to the 3000 Shattuck Initial Study-Negative Declaration, dated January 27, 2023
4. Neighborhood Meeting Notes
5. Design Review Committee Summary, January 19, 2023
6. Notice of Public Hearing
7. 3000 Shattuck Initial Study-Negative Declaration, adopted November 27, 2018
8. Communications

Staff Planner:
Allison Riemer, ariemer@cityofberkeley.info, (510) 981-7433

3000 Shattuck Avenue Mixed Use Project

Initial Study – Negative Declaration

prepared by

City of Berkeley
Department of Planning & Development, Land Use Division
1947 Center Street, 2nd Floor
Berkeley, California 94704
Contact: Layal Nawfal, Project Planner, (510) 981-7424

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Appendices

Appendix A Environmental Review Letter & Site Closure Letters
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1. BACKGROUND

1.	**Project Title:**	3000 Shattuck Avenue
2.	**Lead Agency:**	City of Berkeley Land Use Planning Division 1947 Center Street, 2nd Floor Berkeley, CA 94704
3.	**Contact Person:**	Layal Nawfal Associate Planner 510-981-7424 Lnawfal@cityofberkeley.info
4.	**Project Location:**	3000 Shattuck Avenue Berkeley, CA 94705
5.	**Project Sponsor Name and Addresses:**	3000 Shattuck Avenue LLC. 1958A University Avenue Berkeley, CA 94704
6.	**General Plan Designation :**	Avenue Commercial
7.	**Zoning:**	South Area Commercial (C-SA)
8.	**Description of Project:**	See the “Project Description” section
9.	**Surrounding Land Uses and Settings:**	See the “Project Description” section
10.	**Other public agencies whose approval is required:**	Caltrans encroachment permit for construction of sidewalk on Ashby Avenue (State Route 13)
11.	**Have California Native American tribes traditionally and cultural affiliated with the project area requested consultation?**	The City notified Andrew Galvan of The Ohlone Tribe Inc. on May 9, 2017, who alerted the City of Berkeley on May 19, 2017 that no consultation was requested.

2. PROJECT DESCRIPTION

2.1 INTRODUCTION

This Initial Study evaluates the potential environmental effects of demolition of an existing 1-story commercial building and related site improvements and construction of a 5-story mixed-use building, with commercial and residential uses, located at 3000 Shattuck Avenue, Berkeley, CA.

2.2 ENVIRONMENTAL ANALYSIS

In accordance with CEQA Guidelines Section 15070, this Initial Study identifies that there is no substantial evidence, in light of the whole record before the agency that the project may have a significant effect on the environment. This Initial Study consists of an environmental checklist, an evaluation of potential project impacts for each topic in the checklist, and a Negative Declaration.

2.3 PROJECT LOCATION

Project Site

This project is located on the southwest corner of Ashby and Shattuck Avenues in the Lorin District neighborhood, as shown in Figure 1. The project site includes two relatively flat and contiguous parcels, totaling 13,561 square feet. The corner property is currently developed with a smog test center, car repair and gas station office, within one building, and two gas station canopies/pump islands. Regulatory-compliant double-walled storage tanks are located underground. A paved surface lot covers the remainder of the project site.

Setting and Surrounding Land Uses and Area

The project site is surrounded by a gas station across Ashby Avenue to the north, car rental business across Shattuck Avenue to the east, residences to the south and west. The surrounding neighborhood is composed of ground-floor commercial uses, single-family and multi-family dwellings units, and mixed use buildings with ground-floor retail or office and residential units above. Surrounding buildings are generally 2- and 3-stories in height.

Ashby Avenue (State Route 13), which is operated by Caltrans, runs east-west adjacent to the north boundary of the project site. AC Transit bus stops for the 49 and 18 bus lines are located adjacent to the project site. The site is also located .23 miles from the Ashby BART Station where BART runs at least every 15 minutes during commute hours. The Station also has AC Transit stops for the 12, 18, 49, 800 and F (transbay) lines and access to the West Berkeley Shuttle.

Figure 1: Project Location

Figure 2: Project Site

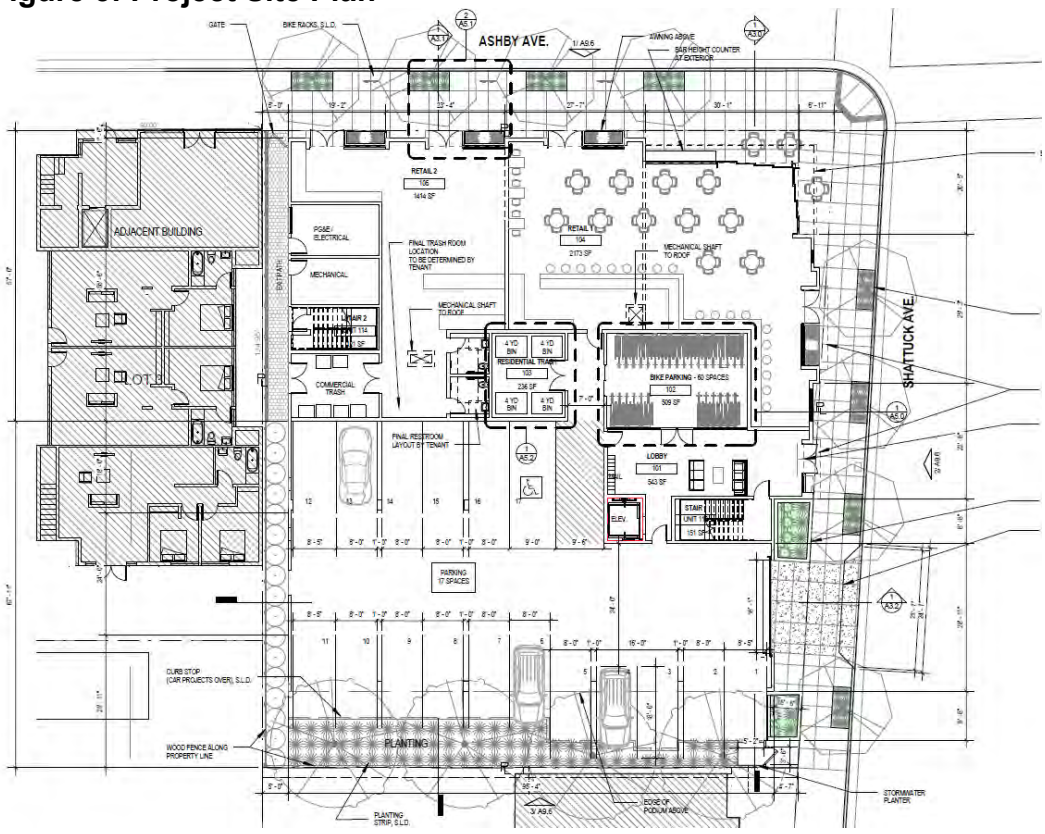
2.4 PROJECT DESCRIPTION

The project proposes demolition of one 1-story building, two gas pump islands, and related site improvements; removal of the regulatory-compliant underground storage tanks (USTs); and the construction of a 5-story, mixed-use building with ground-floor retail uses and residential dwelling units on the upper 4 stories. The site plan is provided in Figure 3. The total floor area of the project, per the Berkeley Zoning Ordinance definition, is 38,828 square feet.

The project includes the following components:

- 44 dwelling units
- 6,225 square feet of commercial retail and/or restaurant space
- Parking for 62 bicycles (where two are required) and 17 vehicles at the ground level, including carshare spaces; additional bike racks will be provided at the sidewalks on Ashby and Shattuck Avenues.
- 2,092 square feet of private or common open space
- Green building features including future installation of solar hot water or solar PV panels, extensive bicycle facilities, and flow-through stormwater planters.
- Garage access via a curb cut on Shattuck Avenue.

Figure 3: Project Site Plan



The project would include demolition of the existing building and surface parking lot on the site. Construction debris, such as old foundations, pavement, and structures, would be collected and hauled off site for disposal. The USTs would be removed in accordance with City and State laws, as described further in the analysis sections below. Demolition waste would be minimal given the low intensity of the site's current development and would be disposed of in accordance with all Berkeley, state and federal requirements, including waste diversion and recycling. Construction activities would also include excavation, utility trenching, mat foundations, vertical construction, and installation of pavement and landscaping. No impact pile driving would occur as part of the project. Construction would take place over an 18-month period.

2.5 PLAN AND ZONING CONSISTENCY

The project site is in an area designated as Avenue Commercial in the City's General Plan General Plan and is located in the C-SA, South Area Commercial zoning district. The proposed uses are consistent with these use designations. The project proposes an average building height of 56 feet 11 inches and 5 stories (where 36 feet and 3 stories are permitted, respectively); and a lot coverage of 83% where 40% is permitted. With the issuance of use permits for setbacks, building height, number of stories, and lot coverage, the project would be consistent with the C-SA zoning district. Per the requirements of the C-SA district, the project is subject to the following Use Permits:

- Demolition of a non-residential building
- Construction of gross floor area more than 3,000 square feet
- Mixed Use Development (Residential/Commercial) of 5,000 sq. ft. or more
- Quick/Full Service Restaurant under 5,000 sq. ft.
- Reduction of front and side yard setbacks
- Exceedance of the maximum height requirement of 36 feet, 3 stories for mixed use buildings
- Exceedance of 40% lot coverage
- Reduction in the required off-street parking ratio
- Installation of rooftop mechanical equipment

3. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Tribal Cultural Resources	☐ Utilities/Service Systems
☐ Mandatory Findings of Significance		

4. DETERMINATION

On the basis of this initial evaluation:

[x] I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

[ ] I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

[ ] I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

[ ] I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

[ ] I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Date

5. ENVIRONMENTAL CHECKLIST

The following section contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist.

For this project, the following designations are used:

- **Potentially Significant Impact:** An impact that could be significant and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.
- **Less Than Significant With Mitigation Incorporated:** An impact for which mitigation has been identified to reduce the impact to a less-than-significant level.
- **Less Than Significant:** Any impact that would not be considered significant under CEQA relative to existing standards.
- **No Impact:** Any impact that does not apply to the project.

5.1. AESTHETICS

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The project site is located in an urbanized area, surrounded primarily by 2- and 3-story commercial and residential uses.

DISCUSSION

a) The Berkeley General Plan identifies scenic resources including the San Francisco Bay, the hills, and significant landmarks such as the Golden Gate Bridge. The following policy from the General Plan seeks to protect views of these natural assets:

> Policy UD-31 Views: Construction should avoid blocking significant views, especially ones toward the Bay, the hills, and significant landmarks such as the Campanile, Golden Gate Bridge, and Alcatraz Island. Whenever possible, new buildings should enhance a vista or punctuate or clarify the urban pattern.

Partial views of the Berkeley hills, framed by development along Ashby Avenue, are visible from the public sidewalk. The project would not significantly alter views of the Berkeley hills from a public viewpoints, nor would they degrade public views of other visual resources identified in the Policy UD-31. From an urban design perspective, the proposed architectural design and infill nature of the project would improve views to the site as compared to the existing gas station. Therefore, the project would result in a less-than-significant impact with respect to scenic vistas.

b) The project site is not designated as a scenic resource or state scenic highway. Therefore, the project would result in no impact with respect to scenic resources within a State scenic highway.

c) The visual character of the site would change with the introduction of a 5-story building in place of a 1-story commercial building and surface parking lot. The project would provide commercial and residential uses in a new mixed-use building, consistent with the types of uses found in the surrounding neighborhood. Materials including smooth cement plaster, aluminum windows, and metal and wood details, would provide a visual change to the character of the street when viewed from both Shattuck and Ashby Avenues compared with existing conditions, but would be consistent with materials found in the neighborhood. The project would maintain a setback at the street edge, consistent with the abutting uses to the west and south. New sidewalks, landscaping, streets, and street trees would continue the pattern of development, circulation, and landscaping found in the neighborhood. Therefore, the existing visual character and quality of the site and its surroundings would be improved and not degraded, and the resulting impact would be less than significant.

d) Lighting at the existing commercial building and parking lot consists primarily of exterior building lights and street lighting. The project would introduce new sources of light and glare as a result of building materials and lighting. New sources of lighting are not anticipated to be substantial in the context of existing light sources. Glare from window glazing would be obstructed by existing surrounding buildings during much of the day and therefore is not expected to be substantial. Additionally, the proposed project would be subject to the City's standard conditions of approval which require light sources to be shielded and directed away from adjacent properties, as stated in the General Plan:

> Policy EM-42: Outdoor lighting should be chosen to avoid glare and provide an attractive nighttime environment with "fully shielded" fixtures to limit light rays emitted above the horizontal plane.

Therefore, adjacent uses would not be adversely affected by new light sources at the project site. As such, the project would result in less-than-significant light and glare impacts and the potential impact would be less than significant.

5.2. AGRICULTURAL AND FORESTRY RESOURCES

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located in an urbanized area and is not currently being used for farmland, agricultural production, or forestry. The California State Department of Conservation designates the subject property as “Urban and Built-Up Land.”[1]

DISCUSSION

a)-e) No agricultural or forestry land is located on the site. The project would not result in the conversion of any farmland and the subject property is not zoned for agricultural use and does not have a Williamson contract in place. No loss or conversion of forest land would occur as a result of the project. Therefore, the project would result in no impact with respect to agricultural resources.

[1] California Department of Conservation, “Alameda County Important Farmland 2014.” Map published December 2016.

5.3. AIR QUALITY

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The Bay Area Air Quality Management District (BAAQMD) regulates air quality in the Bay Area Region through its permit authority over stationary emission sources and through planning and review activities.

DISCUSSION

a) BAAQMD's 2010 Clean Air Plan (CAP) contains district-wide control measures to reduce ozone precursor emissions, particulate matter, and greenhouse gas emissions. The primary goals of the Plan are to: attain air quality standards; reduce population exposure to air pollutants; protect public health in the Bay Area; reduce greenhouse gas emissions; and protect the climate. Consistency with the Plan can be determined if the project support's the Plan's goals, includes applicable control measures, and would not disrupt implementation of the Plan's control measures.

The project contains features that would benefit regional air quality and support the goals of the CAP, including accommodation for future solar hot water or photovoltaic panels, water-efficient landscaping, installation of ENERGY STAR fans and appliances, and use of efficient lighting systems. Additionally, the infill project location provides for dwelling units proximate to high-frequency transit, bike lanes and routes, sidewalks, and neighborhood commercial uses within walking distance of the project site—all of which may reduce greenhouse gas emissions.

The 2010 CAP includes 55 control measures that aim to reduce air pollution from stationary, area, and mobile sources. The control measures are organized into five categories; the project's consistency with each control measure category is described below:

1. Stationary source measures: Since the project would not be a permitted BAAQMD facility, these measures are not applicable to the project.

2. Mobile source measures are generally statewide-programs implemented by CARB that aim to reduce vehicle emissions by accelerating the replacement of older, dirtier vehicles and equipment. Consistent with the mobile source measures, heavy-duty diesel vehicles used during project construction would be required to comply with the CARB's Off-Road Diesel Vehicle Regulation.

3. Transportation control measures are strategies to reduce vehicle trips, use, miles traveled, idling, or traffic congestion for the purpose of reducing motor vehicle emissions. Project-specific measures include developing land use patterns that facilitate alternative commutes, such as walking, bicycling and transit. The project would be consistent with these measures by providing access to existing and improved sidewalks, bicycle lanes and routes; AC Transit buses and BART; and on-site carshare vehicles.

4. Land use and local impact measures are designed to promote mixed-use, compact development to reduce motor vehicle travel and emissions, and ensure that growth is planned in a way that protects people from exposure to air pollution from stationary and mobile sources of emissions. The project would provide mixed-use infill development in an existing mixed-use and transit-oriented neighborhood, further contributing to compact development that promotes pedestrian access to goods and services.

5. Energy and climate measures are designed to reduce ambient concentrations of criteria pollutants, reduce emissions of carbon dioxide, and protect the climate by promoting energy conservation, renewable energy production, reductions in "urban heat island" effects, and tree plantings. The project would be consistent with the energy and climate measures by complying with the City's green building requirements. The project demonstrates 146 points on the GreenPoint Rated New Home Multifamily Checklist, where a minimum 50 points are required. The project would also plant new street trees and landscaping on-site, where no landscaping currently exists.

Based on the analysis above, according to BAAQMD's CEQA Air Quality Guidelines, the project would have a less-than-significant impact on the implementation of the applicable air quality plan.

b) During operation of the project, air quality impacts would come primarily from vehicle emissions. As described in Section 5.16(a), redevelopment of the site from a gas station to a mixed-use building would result in a net reduction in vehicle trips, compared with the

trips generated by the existing uses. As a result, the project would not exceed emissions thresholds, as specified by BAAQMD.

The project is expected to generate short-term impacts related to construction activities. BAAQMD has established standard measures for reducing fugitive dust emissions (PM2.5 and PM10), including the use of water or other soil stabilizers. Construction equipment would also be required to meet all current exhaust standards for emissions. With the implementation of standard conditions for construction measures, such as frequent watering (e.g., two times per day at a minimum), fugitive dust emissions from construction activities would not result in adverse air quality impacts. These requirements would be conditions of project approval and would reduce potential air quality impacts to less-than-significant levels.

c) Air pollution in the region is generally a cumulative impact and therefore future development projects contribute to the region's adverse air quality impacts on a cumulative basis. As discussed under Section 5.3(b), above, emissions during the construction, demolition, and operational phases of the project would not exceed the emissions thresholds. Therefore, the cumulative impact of ozone precursors and particulate matter from the project would be less than significant.

d) Land uses such as residences, particularly when occupied by children or older adults, are considered to be sensitive receptors to poor air quality. The project would not generate emissions that would expose sensitive receptors to substantial pollutant concentrations. Additionally, there are no known stationary source emissions within the vicinity of the project site. The project site is located at the intersection of two major roadways—Ashby and Shattuck Avenues—which represent mobile source of emissions which could expose sensitive receptors to potential pollutant concentrations. However, consistent with existing Building Code regulations, design measures (e.g., types of windows, ventilation requirements) would be determined and implemented during the Building plan check review phase in order to meet Title 24 interior noise and air quality standards. As a result, the potential impact on sensitive receptors would be less than significant.

e) The project is not anticipated to create objectionable odors affecting a substantial number of people during construction or operation. Therefore, this impact would be less than significant.

5.4. BIOLOGICAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	X	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?	☐	☐	X	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	X	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	X	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	X	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	X

ENVIRONMENTAL SETTING

The project site is located within an urban area and has no natural vegetation, habitat for special-status species, wetlands, or riparian habitats.

DISCUSSION

a-d) There are no rare, endangered, or threatened species of flora or fauna known to inhabit the property site. In addition, there is no existing stream, river, lake, drainage channel, or other water body/course on or adjacent to the project site. The project site is

immediately surrounded by developed area with no significant vegetation. Therefore, the potential impact would be less than significant.

e) The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The project would add drought-tolerant landscaping on-site and street trees, where none currently exists, consistent with City Arborist requirements and recommendations. Therefore, the potential impact would be less than significant.

f) No Habitat Conservation Plan, Natural Community Conservation Plan, or other conservation plans apply to the project site. Therefore, there would be no impact.

5.5. CULTURAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	X	☐
c) Directly or indirectly destroy a unique Paleontological resource or site or unique geologic feature?	☐	☐	X	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	X	☐

ENVIRONMENTAL SETTING

The project site is not located in an area identified as having site-specific archeological, paleontological, or geologic features or resources.

DISCUSSION

a) The existing structure on the project site does not appear to be eligible for the California Register of Historical Resources under any of the criteria of evaluation at the national, state or local level of significance. The project came before the City's Landmark Preservation Commission at their May 2016 meeting where no action was taken to designate the building. Therefore, there would be no impact with respect to historic resources.

b-d) There are no known archaeological or paleontological sites identified on the subject site. It is possible (though unlikely) that archaeological resources could be identified on the site during ground disturbance activities. Should potential subsurface resources or human remains be found upon excavation, all work would be halted and the City would be

immediately notified. Necessary measures, such as consulting with an archaeologist, would take place prior to construction resuming. These measures are required by State law. As a result, the potential impact on cultural resources and human remains would be less than significant.

5.6. GEOLOGY AND SOILS

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	X	☐
ii) Strong seismic ground shaking?	☐	☐	X	☐
Iii) Seismic-related ground failure, including liquefaction?	☐	☐	X	☐
iv) Landslides?	☐	☐	X	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	X	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	X	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	X	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	X

ENVIRONMENTAL SETTING

The project site is relatively flat, with limited grading required to excavate for utilities and construct the drainage, landscaping, and structure on the site.

DISCUSSION

a) The project site is located outside of the Alquist-Priolo Earthquake Fault Zone and outside of liquefaction and landslide zones, as identified by the California Geological Survey.[2] However, as is the case for most of California, people and property in Berkeley are subject to risks from seismic activity. The Hayward fault line is the most active fault near the project site. Based on an existing regulatory framework that addresses earthquake safety issues and adherence to the requirements of the California Building Code, seismically-induced ground shaking would not be a substantial hazard on this site. As a condition of approval, the project would be required to comply with the recommendations of the project's geotechnical consultant, including designing foundation and drainage geotechnical aspects of the project to ensure that the recommended measures have been properly incorporated into the project. Therefore, the potential impact on exposing people or structures to substantial adverse effects would be less than significant.

b) Grading, excavation and trenching for utility lines, would disturb soils, which could increase the rate of erosion if controls or best management practices were not in place. As a standard condition of approval, the project would be required to meet the requirements for stormwater erosion control measures during design, construction and implementation phases of the project. Therefore, potential erosion impacts would be less than significant.

c-d) There are no known geologic hazards on the site and minimal risk of landslide, lateral spreading, subsidence, liquefaction or collapse. The State of California provides minimum standards for building design through the California Building Code, including specific seismic safety requirements. State earthquake protection law requires that buildings be designed to resist stresses produced by lateral forces caused by earthquakes. The project would be required to comply with the applicable codes and standards to provide earthquake resistant design to meet or exceed current seismic requirements and mitigate any specific soil condition concerns. The geotechnical report is required by the City of Berkeley at the time of building plan check and would include an assessment of soil properties and recommendations to reduce adverse effects associated with expansive soils to a less-than-significant level. Therefore, potential soil instability impacts would be categorized as less than significant.

e) No septic systems or alternative wastewater disposal systems are proposed as part of the project; therefore, the project would have no impact.

[2] California Department of Conservation, California Geological Survey, Oakland West Quadrangle. http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps. Accessed March 14, 2017.

5.7. GREENHOUSE GAS EMISSIONS

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	X	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	X	☐

ENVIRONMENTAL SETTING

Assembly Bill (AB) 32 mandates local governments adopt strategies to reduce greenhouse gas (GHG) emissions. Consistent with the objectives of AB 32, the City has adopted a Climate Action Plan (CAP) to outline strategies to reduce Berkeley's community-wide global warming emissions 33 percent by 2020 relative to 2000 levels. The City's CAP is not a qualified GHG Reduction Strategy, since it precedes the BAAQMD CEQA Air Quality Guidelines which can allow for streamlined environmental review on new development projects. Still, the CAP does represent the City's policy for GHG reduction.

DISCUSSION

a-b) The project is designed to meet the City's CAP. It represents a transit-oriented residential project that proposes well-designed housing less than ¼ mile from a BART Station and adjacent to numerous AC Transit lines. The project would incorporate a landscape plan that meets the State of California's Model Water Efficient Landscape Ordinance and Bay Friendly Basics requirements for water-saving and drought-resistant planting. It also meets green building and energy efficiency measures consistent with the State's Green Building Standards Code (CALGreen). The project demonstrates 146 points on the GreenPoint Rated New Home Multifamily Checklist, where a minimum 50 points are required. The project would also accommodate solar hot water or PV panels, and plant new street trees and landscaping on-site, where no landscaping currently exists. These project features would be expected to reduce GHG emissions and assist the City in meeting the goals of AB 32.

The primary source of GHG emissions during operation of the project would be from mobile sources (i.e., vehicle trips). However, as described in Section 5.16(a), redevelopment of the site from a gas station to a mixed-use building would result in a net reduction in vehicle trips. As a result, the project would not generate significant greenhouse gas emissions nor conflict with the City's CAP. Additionally, per the BAAQMD CEQA Guidelines the proposed project (mid-rise apartment building between 3 and 10 levels) as would result in a less-than-

significant impact as projects of this size generate emissions under the significance thresholds.[3] Therefore, this potential impact would be less than significant.

5.8. HAZARDS AND HAZARDOUS MATERIALS

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	X	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	X	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	X	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	X	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	X

[3] Bay Area Air Quality Management District CEQA Guidelines Updated May 2011, http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines%20May%202011.ashx?la=en. Accessed March 30, 2017.

ENVIRONMENTAL SETTING

The project site is a retail service station and smog inspection facility, which historically has been characterized and remediated for constituents related to releases from the former underground storage tanks (USTs). In 1997, a 200-gallon waste oil tank was removed. In 2000, three 12,000-gallon gasoline USTs were removed and replaced with new regulatory-compliant USTs. Approximately 1,415 tons of soil was removed and disposed off-site when the USTs and associated product lines were replaced in 2000. In February 2013, the local lead agency confirmed completion of investigation and corrective action, and granted no further action for the release associated with the USTs.[4]

An additional investigation was opened at the site in December 2012 to address a potential new release presumably associated with the hydraulic lifts at the site. The new release was discovered during groundwater monitoring activities in October 2007; a sample was collected from the impacted well in January 2008. In February and March of 2013, groundwater samples were collected from impacted well A-2 and downgradient well AR-1. Investigations indicated that the nature and extent of hydraulic fluid contamination has been adequately characterized, and the associated plume was decreasing in size.

The Regional Water Quality Control Board (RWQCB) issued case closure for this case in September 2014, concluding that the current plume is restricted to the site and does not present a current or potential risk to human health or the environment. The closure letter did not include any site management requirements for the residual impact.

DISCUSSION

a,b) Available site data indicates that very limited, if any, residual gasoline-related impact is present at the site. The most recent subsurface data includes groundwater data from all program monitoring wells in January 2008, from select program wells in March 2010, and, in March 2014, from one well (AR-1) immediately downgradient of the current USTs and dispensers and one well (A-2) downgradient of the building and underground hoist area. No TPHg or BTEX compounds were detected in the onsite wells in 2008, 2010 and 2014.[4] The only residual impact in groundwater is very low concentrations of the former gasoline additive MTBE (MTBE use was banned after 2004) and limited oil range impact, apparently related to a prior release of hydraulic oil. The depth to water has ranged from approximately 5 to 11 feet depth below grade surface.

No hazardous materials are proposed as part of operation of the project. As a condition of approval the project would be required to complete a hazard and safety plan consistent with the City of Berkeley's broadly applicable condition designed for circumstances such as this. During construction, potentially hazardous liquid materials such as oil, diesel fuel, gasoline, and hydraulic fluid may be used at the site, related to construction activities. If spilled, these substances could pose a risk to the environment and to human health.

[4] Environmental Review for Purchase and Site Redevelopment, "Environmental Review for Purchase and Site Redevelopment." Letter to Mr. Xin Jin, December 13, 2014

During UST removal, the condition of the UST would be examined, evidence of soil contamination would be observed and soil testing would be required. Impacted soil around the UST could possibly be removed as part of the UST closure. Based on this process, the ultimate disposition of impacts from the UST would be evaluated by the UST removal consultant.

The City has in place a Local Hazard Mitigation Plan should a spill or a hazardous event take place. In the event of a hazardous materials event, the Fire Department is the first responder and has access to chemical inventories, locations and emergency planning. The Department of Public Works manages the City's hazardous materials emergency response to spills on the right-of-way and also manages the hazardous materials emergency response contractor.[5]

Many areas in the City of Berkeley are known or suspected to have groundwater contamination. The project site is located in one of these Environmental Management Areas (EMA). Given this location, as a standard condition of approval, the City would require preparation of a Soil and Groundwater Management Plan to identify procedures for soil and groundwater management including identification of pollutants and disposal methods. The SGMP would identify permits required and comply with all applicable local, state and regional requirements. The SGMP would provide guidance on managing odors during excavation. The SGMP would also require notification to the City's Toxics Management Division of any hazardous materials found in soils and groundwater during development. Additionally, the proposed project would be subject to the City's standard conditions of approval by the Toxics Management Division.

As a result of the conditions and policies described above, this potential impact would be less than significant.

c) There are no schools located within ¼-mile from the project site. As a result, this would be categorized as no impact.

d) The site is included on the list of hazardous materials sites compiled pursuant to Government Code 65962.5 (Cortese List) as "closed" cases.[6] As described in the Environmental Setting, the RWQCB issued a case closure letter for the clean-up case in September 2014, concluding that the current plume is restricted to the site and does not present a current or potential risk to human health or the environment. Therefore, the project would not create a significant hazard to the public or the environment and the impact would be less than significant.

e) The project is not located within a public airport land use plan or within two miles of a public use airport. As a result, this would be categorized as no impact.

[5] City of Berkeley, 2014 Local Hazard Mitigation Plan, June 1, 2014.
[6] State Water Resources Control Board. http://geotracker.waterboards.ca.gov. Accessed March 14, 2017.

f) The project site is not located within the vicinity of a private airstrip. Therefore, this would be categorized as no impact.

g) The proposed project would not interfere with emergency and evacuation plans, as specified in the City's 2014 Local Hazard Mitigation Plan. Therefore, this impact would be less than significant.

h) Wildlands do not exist within or adjacent to the project site. Therefore, this would be categorized as no impact.

5.9. HYDROLOGY AND WATER QUALITY

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	X	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	X	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	X	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	X	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	X	☐
f) Otherwise substantially degrade water quality?	☐	☐	X	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	X

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	X	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	X

ENVIRONMENTAL SETTING

The project site does not contain creeks, wetlands, or other water bodies and is located in Zone X, outside the 100-year flood zone. The project reduces impervious areas (which currently cover the entirety of the site) by approximately 1,500 square feet.

DISCUSSION

a,f) Compliance with the Alameda Countywide Clean Water Program NPDES Permit, including C.3 provisions and implementation of Best Management Practices (BMPs) appropriate to activities conducted on-site would limit the discharge of pollutants to the City's storm drainage system and reduce potential water quality impacts. Since the project would replace more than 10,000 square feet of impervious area, as a standard condition of approval, the project would incorporate stormwater controls to enhance water quality. This would include: 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 & M (Operations and Maintenance) agreement for all stormwater treatment devices and installations; and e) engineering calculations for all stormwater devices (both mechanical and biological). These measures would filter contaminants from the stormwater before entering San Francisco Bay.

As described in the Environmental Setting in Section 5.6, the gas station and smog test center includes USTs and previous releases presumably associated with hydraulic lifts at the site. RWQCB issued a case closure letter for this case in September 2014, concluding that the current plume is restricted to the site and does not present a current or potential risk to human health or the environment. The closure letter did not include any site management requirements for the residual impact.

During operation of the project, the project is required, by standard conditions, to collect and convey all stormwater entering and/or originating from the development to an adequate downstream drainage facility. The project proposes to install stormwater planters along the street edge and courtyards to manage and treat runoff. Therefore, these potential impacts would be less than significant.

b) The project would not use groundwater to provide water for this project. Therefore, this would be categorized as a less-than-significant impact.

c-e) The existing site is covered completely by impervious surfaces without any stormwater controls. The project would remove approximately 1,500 square feet of impervious

surfaces and provide stormwater planters and other open spaces to manage and treat stormwater runoff. As a result, the project would not alter the existing drainage pattern of the site, such that substantial erosion or siltation would result or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site, or exceed storm drain capacity. Therefore, this impact would be categorized as less than significant.

g-h) Housing would not be placed within a 100-year flood hazard area. The project would not expose people or structures to a significant risk of loss, injury or death involving flooding. Therefore, this would be categorized as no impact.

i) The project site is not located within a mapped dam failure inundation area. Therefore, this impact would be less than significant.

j) No enclosed large surface water bodies, which might be subject to potential impacts from seiches, are located in the project vicinity. The project site, at an elevation of 140 feet above sea level, would generally not be subject to coastal hazards (tsunami, sea level rise, or extreme high tides). Therefore, this potential impact would be less than significant.

5.10. LAND USE PLANNING

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project is located within an urbanized area.

DISCUSSION

a) The project site is an existing commercial property located in an urbanized area of Berkeley. The proposed project does not involve street closures, linear features or development that would separate land uses or neighborhoods. Redevelopment of the

project site would not physically divide an established community. There would be no impact.

b) The site is designated as Avenue Commercial in the City's General Plan and is located in the C-SA zoning district, which is generally intended for community-serving and regional-serving businesses, residential and mixed uses, and development and amenities that support pedestrian-oriented uses. The proposed use is consistent with the intent of the C-SA district and the Avenue Commercial designation, and generally consistent with Genera Plan policies. The project includes use permit requests to exceed the maximum height requirement of 36 feet and 3 stories for mixed use buildings and to exceed 40% lot coverage in the C-SA District, under BMC Section 23E.52.070.D.7. Therefore, the potential impact would be categorized as less than significant.

c) The project site is not located within any habitat conservation plan or natural community conservation plan area. As a result, the proposed project would not conflict with existing land use or planning policies of the community.

5.11. MINERAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	X

ENVIRONMENTAL SETTING

The project site is urbanized and is not known to contain any mineral resources.

DISCUSSION

a-b) The project site is not known to contain any mineral resources and thus would not result in the loss of locally important mineral resources. Therefore, there would be no impact with respect to mineral resources.

5.12. NOISE

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	X	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	X	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	X	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	X	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X

ENVIRONMENTAL SETTING

External noise sources in the vicinity of the project site are primarily generated by vehicles.

DISCUSSION

a,c,d) The City's Community Noise Ordinance (Chapter 13.40 of the Municipal Code) establishes maximum permissible day and night noise levels based on the zoning district of the property subject to the noise. In commercial districts where the project site is located, the Ordinance generally allows noise levels up to 65 dBa between 7am and 10pm, and 60 dBa between 10pm and 7am. If the ambient noise levels in an area are greater than the permissible noise levels, then the maximum permissible noise level is to be adjusted to the ambient noise level.

The project would generate added noise, such as vehicle travel, rooftop mechanical equipment, and landscape maintenance activities. However, as described in Section 5.16(a), vehicle trips are expected to decrease as a result of redevelopment of the project site. Therefore, noise levels are not expected to change substantially from those currently

experienced in the area. Ambient noise levels could decrease for some of the adjacent properties, particularly further south of Ashby Street and west of Shattuck Avenue, due to the shielding of traffic noise by the proposed building. As required by Title 24 Building Code requirements, rooms where windows need to be closed to reach interior noise goals would need to include ventilation or air-conditioning units.

Short-term construction noise would be generated at the project site. Conditions of approval for the project allow construction hours from 8:00 a.m. and 6:00 p.m. on Monday through Friday, and between 9:00 a.m. and noon on Saturday. As a result, this potential impact during operation of the project and during construction would be less than significant.

b) Construction activities could contribute to short-term increases in vibration due to construction equipment, earthmoving, and vertical construction activities. No excessive vibration is anticipated during operation of the project. Therefore, vibration impacts would be less than significant.

e,f) The project site is located outside of an airport land use plan area, and not within the vicinity of a private airstrip. Therefore, this would be categorized as no impact.

5.13. POPULATION AND HOUSING

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	X	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X

ENVIRONMENTAL SETTING

The project site is currently occupied by a gas station and smog test center, with a surface parking lot. The project site is an infill site, surrounded by commercial and residential development.

DISCUSSION

a) The project would add 44 multi-family dwellings to the City's housing stock, which would contribute to the local population. However, the project is generally consistent with the General Plan and Zoning Ordinance, and population growth would not be substantial. Public streets and other infrastructure are readily available within the vicinity of the project site. Therefore, the project would not constitute direct or indirect growth inducing impacts for the City of Berkeley and the potential impact would be less than significant.

b-c) The project site is currently occupied by commercial uses and therefore would not displace any existing housing or residents. Therefore, these issues would be categorized as no impact.

5.14. PUBLIC SERVICES

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	X	☐
ii) Police protection?	☐	☐	X	☐
iii) Schools?	☐	☐	X	☐
iv) Parks?	☐	☐	X	☐
v) Other public facilities?	☐	☐	X	☐

ENVIRONMENTAL SETTING

Fire and police protection are provided by the Berkeley Fire Department and Berkeley Police departments, respectively. Berkeley Unified School District (BUSD) provides school services for children in grades K through 12. Berkeley Unified School District has 3 preschools, 11 elementary schools, 3 middle schools, a comprehensive high school, a continuation high school and an Adult School. The City of Berkeley's Department of Parks, Recreation, and Waterfront manages approximately 235 acres of parks and marinas.

DISCUSSION

a.i-ii) The project may result in an incremental increase in police and fire service calls due to the addition of 44 households and commercial uses, but this would not result in substantial adverse physical impacts that would require new or expanded facilities. The site is an infill site, within an existing residential neighborhood, located approximately 0.4 miles from Fire Station No. 5, located at 2680 Shattuck Avenue. Adequate access to the project is provided for police, fire, and other emergency vehicles, from Ashby and Shattuck Avenues. Moreover, buildings are designed to meet the requirements of the California Building Code and other applicable City codes and all new buildings would be equipped with automatic fire suppression systems (sprinklers). Police and Fire service capacities exist to adequately serve the project and therefore the potential impact would be less than significant.

a.iii) The project site falls within BUSD's Southeast Zone for elementary schools, which encompasses Emerson, John Muir, LeConte, and Malcolm X. The site is located within the zone for Willard Middle School located at 2425 Stuart Street. Berkeley High School would accommodate high-school age public school students from the project. BUSD has not formally adopted a ratio to estimate the number of students that would be generated by housing units within the City. However, BUSD generally uses a ratio of 0.5 students per housing unit as an appropriate generation rate for multi-family housing. Using this rate, the project could generate up to 22 students. As a required impact fee, the project sponsor would pay a fee to BUSD to offset the project's impact to school facilities. As a result, the potential impact would be less than significant.

a.iv-v)The project may result in an incremental increase in the use of parks and public facilities, such as libraries, but would not result in substantial adverse effects or require the construction of new facilities. Moreover, the project includes over 2,000 square feet of open space area for use by residents. As a result, the potential impact would be less than significant.

5.15. RECREATION

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The project site is within ½ mile of parks at Malcolm X and Le Conte schools, and the MLK Jr. Youth Services Center.

DISCUSSION

a) The project would result in an incremental increase in the use of existing neighborhood and regional parks and other recreational facilities. However, the addition of 44 households and commercial uses are not expected to result in substantial physical deterioration of these facilities. Moreover, the project includes over 2,000 square feet of open space area for use by residents. As a result, the potential impact would be less than significant.

b) The project includes landscape improvements along the sidewalk and frontage of the project, but does not include any recreational facilities. Therefore, the potential impact would be less than significant.

5.16. TRANSPORTATION AND TRAFFIC

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	X	☐
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	X	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location those results in substantial safety risks?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	X	☐

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	X	☐

ENVIRONMENTAL SETTING

Access to the project site garage by vehicle would be provided on Shattuck Avenue. AC Transit bus stops for the 49 and 18 bus lines are located adjacent at the intersection abutting the project site. The site is also located .23 miles from the Ashby BART Station.

DISCUSSION

a) The City's level of service (LOS) standard states that an impact is significant when the criteria are reduced from LOS A, B, C, or D to LOS E (with the addition of 2 seconds of average delay) for signalized intersections. Intersections that exceed this service level threshold are considered to be impacted and should be considered for mitigation. For unsignalized intersections, additional considerations are involved, including the number of vehicles on the critical approach, vehicles contributed by the proposed project, and signal warrant analysis. At an unsignalized intersection, mitigation is required if a movement is LOS F, the peak hour signal warrant is met, and a minimum of 10 vehicles are added to the critical movement.

Three intersections were evaluated for potential impacts as a result of the project: Shattuck Avenue at Ashby Avenue, Emerson Street, and the project entrance. All of the intersections currently operate at acceptable levels of service (LOS D or better) and would continue to have acceptable conditions (LOS D or better) during the weekday AM and PM peak hours, with implementation of the project.[7]

Trip generation rates were assessed based on the 9th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual and reduced by 19%[8] to account for traffic conditions in this part of Berkeley. The project would generate approximately 40 vehicle trips during the AM peak hour and 41 trips during the PM peak hour. However, traffic counts for the current gas station on the site indicate that it generates more than twice the traffic that is forecast to be generated by the proposed project. Redevelopment of the site would result in a net reduction by approximately half in traffic on the surrounding roadway system: approximately 16 peak hour trips during the AM peak hour and about 44 trips during the PM peak hour.

As result, there would be no significant transportation impacts according to established standards and no off-site traffic or mitigations would be required. Therefore, the project would not conflict with an applicable plan, ordinance, or policy establishing measures of

[7] Abrams Associates, "Transportation Impact Analysis: 3000 Shattuck Avenue Mixed Use Project." May 31, 2017.
[8] Reduction based on data from the Alameda County Transportation Commission's Travel Demand Model, trip generation surveys compiled by ITE and the San Diego Association of Governments (SANDAG), and census data on vehicle ownership and travel patterns in this part of Berkeley.

effectiveness for the performance of the circulation system and the potential impact would be less than significant.

b) The project would not create 100 or more new peak hour trips, and the project would not exceed, either individually or cumulatively, an LOS standard established by the Alameda County Congestion Management Agency for designated roads or highways. As a result, Alameda County Congestion Management Agency's Congestion Management Program analysis is not required. Therefore, the project impact would be less than significant.

c) The project site is located 9 miles from the closest airport and therefore would not interfere with air traffic patterns nor increase air traffic levels. Therefore, the project would have no impact.

d-e) The project's sidewalks and emergency access have been designed to City standards and would provide adequate sight distances to accommodate the safe turning radius of emergency vehicles and passenger vehicles entering and exiting the driveway. The project would remove three of the four existing curb cuts, potentially reducing conflicts between modes. Therefore, the potential impact would be less than significant.

f) The project may incrementally increase the use of BART and bus transit, but is not expected to conflict with or decrease the performance of the existing transit system. There are existing bike lanes (Class II) on Adeline Street and one block to the north Russell Street is a Class III bike route and is designated as a bicycle boulevard. The project would improve the existing sidewalk by removing curb cuts and adding landscaping, and would add 60 bike parking spaces, which may increase the use of pedestrian and bicycle facilities, but not to the extent that would decrease the performance of these facilities. Therefore, the project would not conflict with adopted City policies supporting alternative transportation and the potential impact would be less than significant.

5.17. TRIBAL CULTURAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	X	☐
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	X	☐

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

ENVIRONMENTAL SETTING

The project is located in an urbanized area with no known cultural resources.

DISCUSSION

a.i-ii) The project site has no known features with cultural value to a California Native American tribe and is not considered eligible for listing with the California Register of Historic Resources. Additionally, California Assembly Bill 52 of 2014 (AB 52) was enacted on July 1, 2015, and establishes a formal consultation process for California tribes regarding tribal cultural resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency. The City of Berkeley prepared and sent a formal notification in accordance with the provisions of AB 52 to Andrew Galvan, of The Ohlone Tribe Inc. on May 9, 2017, who alerted the City on May 19, 2017 that no consultation was requested. As a result, the project would have a less-than-significant impact with respect to tribal cultural resources.

5.18. UTILITIES AND SERVICE SYSTEMS

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	X	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	X	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	X	☐

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	X	☐
e) Result in a determination by the wastewater treatment provided which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	X	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	X	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	X	☐

ENVIRONMENTAL SETTING

The project site is an urban area served by existing infrastructure and utilities.

DISCUSSION

a,e) In compliance with a July 28, 2014 Consent Decree, the City has implemented a long-term mandated Sanitary Sewer Capital Improvement Program to eliminate Sanitary Sewer Overflows and reduce storm water infiltration and inflow (I/I) into the sanitary sewer system. Under this program, the City utilizes a comprehensive asset management approach based on complex and evolving hydrologic and hydraulic modeling and condition assessments to repair, replace, or upgrade the City's portion of the sanitary sewer system, ultimately to aid EBMUD in eliminating discharges from their Wet Weather Facilities by the end of 2035.

The project would generate an incremental increase in domestic wastewater, which would be treated by EBMUD treatment facilities. In addition, the project would use an incremental portion of EBMUD's wet weather treatment capacity. EBMUD is required to meet applicable Regional Water Board treatment requirements. Wastewater discharges that may occur at the project site would be required to comply with the terms of the permit requirements and may be subject to monitoring by EBMUD to ensure that the development's sewage discharge does not impair the ability to meet wastewater treatment objectives and requirements. Therefore, the impact to wastewater treatment requirements would be less than significant.

b) Development of the project on an infill site would not substantially increase water demand or wastewater generation compared to existing conditions, such that new or expanded water or wastewater treatment facilities would be required. The project would connect to EBMUD's existing water delivery and sanitary sewer systems within the vicinity of the site. It is anticipated that these pipelines would have sufficient capacity to support project water and wastewater flows. Therefore, the impact would be less than significant.

c) The project would include new connections to existing stormwater infrastructure. The existing site is a parking lot and is entirely paved. Development of the project would result

in a decrease of impervious surfaces by 1,500 square feet. Runoff would be treated in accordance with C.3 requirements, before flowing to the City's storm drain system. The project would include drought-tolerant landscaping; stormwater treatment planters; and water-efficient fixtures in residential and commercial kitchens and bathrooms to reduce the demand for and impacts to stormwater infrastructure. This system would manage and treat stormwater runoff from the project and is designed to filter pollutants, regulate flows, and allow infiltration. It would not necessitate the construction or expansion of storm drain facilities off-site that would result in significant environmental effects. As a result, the potential impact would be less than significant.

d) EBMUD owns, operates and maintains the water distribution system in the City. Both supply and demand vary seasonally and become critical during drought periods which can last several years. For planning purposes and looking to the year 2040, EBMUD's current water supply is sufficient to meet customer needs during normal years and single dry years.[9] EBMUD is pursuing a range of strategies to reduce demand and increase supply (including during multiple dry years), such as public outreach, leak fixes, water storage, infrastructure improvements and water conservation measures. EBMUD also imposes a system capacity charge on new developments to fund system maintenance and the development of new water sources. The project sponsor would be required to pay this fee and undertake water conservation measures. In addition, the project would be required to comply with Section 31 of EBMUD's Water Service Regulations, which require water-efficiency measures and appliances to be installed.[10] The project would also be required to coordinate with EBMUD and the City of Berkeley Fire Department to assess fire flow requirements and comply with them as part of the project. As result, the potential impact would be less than significant.

f-g) The City of Berkeley provides curbside recycling and refuse collection services to the project site. There are two permitted landfills in Alameda County with the capacity to accommodate solid waste generated in Berkeley: Altamont Landfill and the Vasco Road Sanitary Landfill. The combined permitted capacity of waste for these two landfills is 95 million cubic yards, which the project would not exceed.

The proposed project's demolition represents a lower level of material than most projects are required to do in Berkeley, given the low intensity of uses on the site. The existing building's 1-story footprint and that of the gasoline pump islands is a relatively small component of the site. All demolition and construction waste would be recycled to the extent feasible, and consistent with the Berkeley Green Code (Chapter 19.37 of the Municipal Code). A Waste Diversion Report, with receipts or weigh slips documenting debris disposal or recycling during all phases of the project, would be required as a standard condition of approval. The project would be required to comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, these issues would be categorized as less-than-significant impacts.

[9] East Bay Municipal Utility District. "Water Supply Management Program 2040 Plan." April 2012.
[10] East Bay Municipal Utility District. "Section 31: Water Efficiency Requirements." July 15, 2015.

5.19. MANDATORY FINDINGS OF SIGNIFICANCE

Issues	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	X	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	X	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	X	☐

DISCUSSION

a) The project is located on an infill site that is completely paved and therefore not supportive of significant habitat or fish, wildlife, or plant species. There are no existing water bodies, or rare, endangered, or threatened species known to inhabit the subject property, nor are there historic resources. Therefore, the project would have a less-than-significant impact on biological and cultural resources.

b) Constructing this project would incrementally increase impacts to certain environmental factors as detailed in the preceding sections. However, given that the site is an infill location, surrounded by residential and commercial development and served by existing utilities and public facilities and services, the increases would not be cumulatively considerable. Therefore, this potential impact would be less than significant.

c) The project would not include any activities or uses causing substantial adverse effects on human beings either directly or indirectly or on the environment. The project has been designed to substantially comply with City of Berkeley General Plan and Zoning regulations and would incorporate conditions of approval to meet local codes and regulations, and mitigate potential impacts. The project design, existing regulations, and conditions of approval reduce potential impacts to less-than-significant levels.

Bibliography

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City of Berkeley, 2014 Local Hazard Mitigation Plan, June 1, 2014.

East Bay Municipal Utility District, "Water Supply Management Program 2040 Plan." April 2012.

East Bay Municipal Utility District, "Section 31: Water Efficiency Requirements." July 15, 2015.

Pangea Environmental Services, Inc, Environmental Review for Purchase and Site Redevelopment, Letter to Mr. Xin Jin, December 13, 2014.

State Water Resources Control Board. http://geotracker.waterboards.ca.gov/. Accessed March 14, 2017.

December 13, 2014

Mr. Xin Jin
3000 Shattuck, LLC
1958A University Ave
Berkeley, 94704

Re: **Environmental Review for Purchase and Site Redevelopment**
U.S. Smog and Gas
3000 Shattuck Avenue
Berkeley, California

Dear Mr. Jin:

As requested, Pangea Environmental Services, Inc (Pangea) has prepared this letter summarizing subsurface environmental conditions and regulatory oversight status to assist with your property transaction and planned future site redevelopment for the subject site. This summary is based on our understanding of site conditions from prior site work, a site inspection, review of information on the State Water Board's Geotracker database, and our experience with the California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB), the California UST Cleanup Fund (Cleanup Fund), the City of Berkeley's Toxics Management Division (TMD), and the City of Berkeley Department of Planning and Development. This letter also describes potential environmental costs associated with future site redevelopment.

BACKGROUND AND CORRECTIVE ACTION HISTORY

The Site is a retail service station and smog inspection facility, which historically has been characterized and remediated for constituents related to releases from the former underground storage tanks (USTs). In 1997, a 200-gallon waste oil tank was removed. In 2000, three 12,000-gallon gasoline USTs were removed and replaced with new double-walled USTs. Approximately 1,415 tons of soil was removed and disposed off site when the USTs and associated product lines were replaced in 2000. In February 2013, the local lead agency (TMD) confirmed completion of investigation and corrective action, and granted no further action for the release associated with the USTs (case #27540; City of Berkeley, 2013).

An additional investigation was opened at the site in December 2012 to address a potential new release presumably associated with the hydraulic lifts at the site. The new release was discovered during groundwater monitoring activities in October 2007; a sample was collected from the impacted well (A-2) in January 2008. A release notification dated December 12, 2012, listed both BP and property owner Shazada Khan as potential responsible parties. In February and March of 2013, groundwater samples were collected from impacted well A-2 and downgradient well AR-1. Investigations indicated that the nature and extent of hydraulic fluid contamination has been adequately characterized, and the associated plume is decreasing in size.

The RWQCB issued case closure for this case in September 2014. The RWQCB's closure summary, included in Attachment A, concluded that the 'current plume is restricted to the site and does not present a current or potential risk to human health or the environment.' The closure letter did not include any site management requirements for the residual impact.

REDUCED REGULATORY CONCERN FOR UST SITES

The State Water Resources Control Board recently commenced implementation of a *Low Threat Closure Policy* (LTCP) in November 2012. The LTCP, acknowledging that petroleum hydrocarbon releases have tended not to pose significant concern at most sites, established general and media-specific criteria for closing low-threat cases. This policy has drastically reduced the amount of corrective action performed for hydrocarbon release sites. In the event of a new authorized release at this site, the new LTCP policy would result in less corrective action than required previously.

CALIFORNIA UST CLEANUP FUNDS

Pangea understands that retail gasoline operations will resume following completion of the property transaction and securing a new tenant. In the event of a future unauthorized release from the UST system, the owner and/or operator of the system can apply to the Cleanup Fund for reimbursement of up to $1MM of corrective action costs. The UST Fund has been reauthorized until December 31, 2024.

SITE CONDITION EVALUATION

Available site data indicates that very limited, if any, residual gasoline-related impact is present at the site. The most recent subsurface data includes groundwater data from all program monitoring wells in January 2008, from select program wells in March 2010, and, in March 2014, from one well (AR-1) immediately downgradient of the current USTs and dispensers and one well (A-2) downgradient of the building and underground hoist area. No TPHg or BTEX compounds were detected in the onsite wells in 2008, 2010 and 2014. The only residual impact in groundwater is very low concentrations of the former gasoline additive MTBE (MTBE use was banned after 2004) and limited oil range impact, apparently related to a prior release of hydraulic oil. The depth to water has ranged from approximately 5 to 11 ft depth below grade surface.

Compliance testing of the fueling facilities was performed recently. Pangea is not aware of any recent releases at the site.

REDEVELOPMENT ISSUES

Pangea understands that prospective future redevelopment will involve only limited subsurface work to install site utilities and the building foundation; no other subgrade development is planned. In conjunction with future redevelopment, the City of Berkeley may require a soil and groundwater management plan to ensure proper handling and disposal of material during construction. If significant hydrocarbon impact is found during UST removal or redevelopment activities, some soil removal and subsurface soil and soil gas sampling may be required by the oversight agencies. To help mitigate potential vapor intrusion from any residual hydrocarbon impact, the local agencies may require mitigation measures such as a passive ventilation system and/or vapor barrier. Estimated cost for these mitigation measures, if implemented during redevelopment, ranges from $10,000 to $100,000. The oil range impact does not represent a significant vapor intrusion concern. However, the estimated cost to excavate the oil impact, if performed during redevelopment, ranges from $10,000 to $50,000.

CONCLUSIONS

Based on the above information, Pangea concludes the following:

- The local agencies have issued regulatory case closure for two site cases in 2013 and 2014, concluding that the plume is restricted to the site and does not present a current or potential risk to human health or the environment. The closure letter did not include any site management requirements for the residual impact.

- Groundwater data from March 2014 immediately downgradient of the USTs and dispensers indicates that no new unauthorized release of gasoline at that time. Since March 2014 compliance testing has been performed to further evaluate the potential for hydrocarbon release.

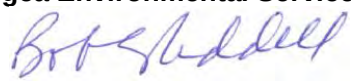
- In the event of a future unauthorized release from the UST system, the owner and/or operator of the system can apply to the California UST Cleanup Fund for reimbursement of up to $1MM of corrective action costs; the UST Fund has been reauthorized until December 31, 2024.

- Based on future redevelopment plans, construction activity is not anticipated to extend to groundwater (5 to 11 ft depth) where limited residual hydrocarbon may be present.

- If significant hydrocarbon impact is found during UST removal or redevelopment activities, soil removal and soil/soil gas sampling may be required by the oversight agencies. To help mitigate potential vapor intrusion from any residual hydrocarbon impact, the local agencies may require mitigation measures such as a passive ventilation system and/or vapor barrier. Estimated cost for these mitigation measures, if implemented during redevelopment, ranges from $10,000 to $100,000. The oil range impact does not represent a significant vapor intrusion concern. However, the estimated cost to excavate the oil impact, if performed during redevelopment, ranges from $10,000 to $50,000.

Pangea hopes this letter provides valuable information. If you have any questions, please feel free to contact me at (510) 435-8664 or briddell@pangeaenv.com.

Sincerely,
Pangea Environmental Services, Inc.



Bob Clark-Riddell, P.E.
Principal Engineer

Attachments: A - Case Closure Letters and Recent Groundwater Data

ATTACHMENT A

Case Closure Letters and Recent Groundwater Data

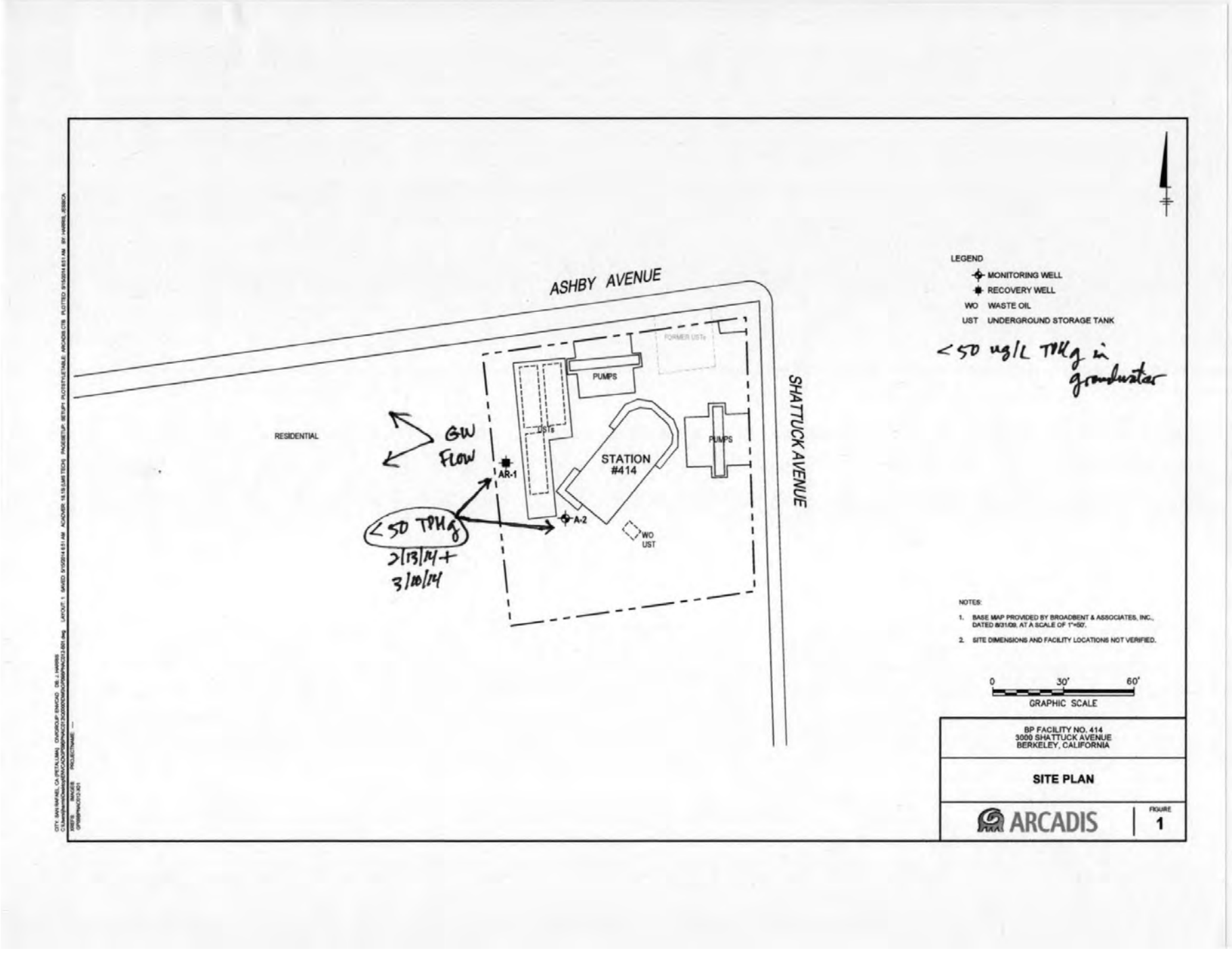
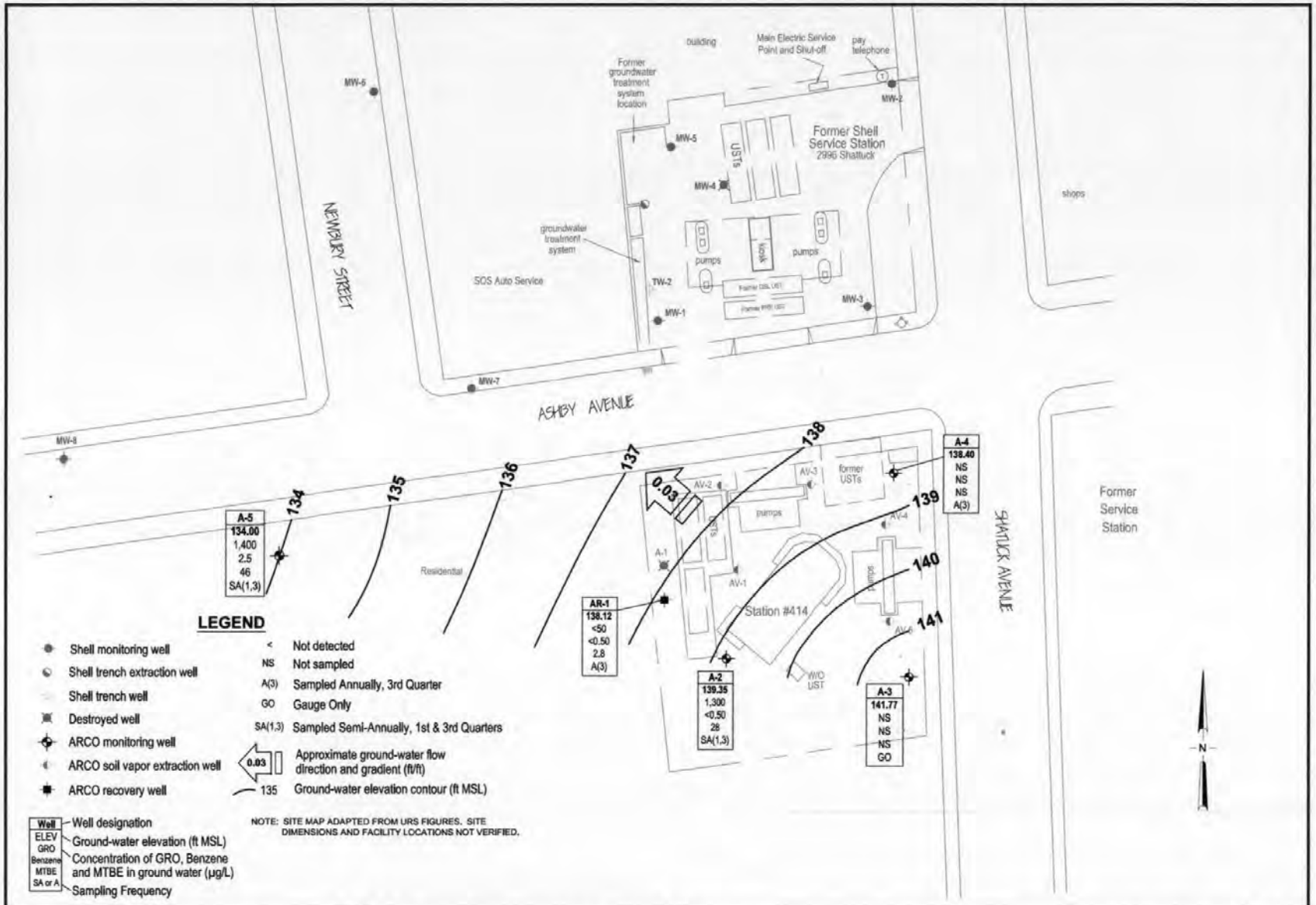

ASHBY AVENUE
SHATTUCK AVENUE
RESIDENTIAL
GW FLOW
AR-1
A-2
PUMPS
USTs
FORMER USTs
STATION #414
PUMPS
WO
UST
< 50 TPHg
2/13/14 +
3/10/14
LEGEND
MONITORING WELL
RECOVERY WELL
WO WASTE OIL
UST UNDERGROUND STORAGE TANK
< 50 ug/L TPHg in groundwater
NOTES:
1. BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, INC., DATED 8/31/09, AT A SCALE OF 1"=50'.
2. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.
0
30'
60'
GRAPHIC SCALE
BP FACILITY NO. 414
3000 SHATTUCK AVENUE
BERKELEY, CALIFORNIA
SITE PLAN
ARCADIS
FIGURE
1

Table 1
Summary Of Groundwater Monitoring Data
3000 Shattuck Avenue, Berkeley, California

Well ID	Date	TPHg (µg/L)	MTBE (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	Mineral Oil (µg/L)	Hydraulic Oil (µg/L)	Transmission Oil (µg/L)	Jet A (µg/L)
A-2	1/31/2008	1,300	28	1,900	<1,900	3,500	3,300	3,700	470
	2/13/2014	<50	--	270	330	350	--	--	--
	3/10/2014	<50	6.9	410 Y	360	410 Y	790 Y	670 Y	<50
AR-1	1/31/2008	<50	2.8	100	<470	--	--	--	--
	2/13/2014	<50	--	86	<100	--	--	--	--
	3/10/2014	<50	1.6	130 Y	<300	<300	310	<300	<50

Notes: TPHg - total petroleum hydrocarbons as gasoline range organics
TPHd - total petroleum hydrocarbons as diesel range organics
TPHmo - total petroleum hydrocarbons as motor oil range organics
Y - sample exhibits chromatographic pattern which does not resemble standard
µg/L - micrograms per liter


building
Main Electric Service Point and Shut-off
pay telephone
Former groundwater treatment system location
MW-6
MW-2
MW-5
Former Shell Service Station
2996 Shattuck
USTs
MW-4
shops
NEWBURY STREET
groundwater treatment system
pumps
wash
pumps
SOS Auto Service
TW-2
MW-1
MW-3
MW-7
ASHBY AVENUE
MW-8
134
135
136
137
138
139
140
141
0.03
AV-2
AV-3
former USTs
pumps
AV-4
A-1
AV-1
Residential
Station #414
SHATTUCK AVENUE
Former Service Station
A-5
134.00
1,400
2.5
46
SA(1,3)
A-4
138.40
NS
NS
NS
A(3)
AR-1
138.12
<50
<0.50
2.8
A(3)
A-2
139.35
1,300
<0.50
28
SA(1,3)
W/O UST
A-3
141.77
NS
NS
NS
GO
N
LEGEND
Shell monitoring well
Shell trench extraction well
Shell trench well
Destroyed well
ARCO monitoring well
ARCO soil vapor extraction well
ARCO recovery well
< Not detected
NS Not sampled
A(3) Sampled Annually, 3rd Quarter
GO Gauge Only
SA(1,3) Sampled Semi-Annually, 1st & 3rd Quarters
0.03 Approximate ground-water flow direction and gradient (ft/ft)
135 Ground-water elevation contour (ft MSL)
Well Well designation
ELEV Ground-water elevation (ft MSL)
GRO Benzene MTBE Concentration of GRO, Benzene and MTBE in ground water (µg/L)
SA or A Sampling Frequency
NOTE: SITE MAP ADAPTED FROM URS FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.
0 50 100
SCALE (ft)
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California
Project No.: 06-08-603 Date: 2/28/08
Station #414
3000 Shattuck Avenue
Berkeley, California
Ground-Water Elevation Contour and Analytical Summary Map
31 January 2008
Drawing
1

Planning and Development Department
Toxics Management Division
February 14, 2013

British Petroleum
c/o Janet Wager
BP Remediation Management
201 Helios Way
Houston, Texas 77079

Subject: **Approval of Request for No Further Action**
Arco # 00414, Berkeley Case No 27540;
RWQCB No. 01-0102 3000 Shattuck Avenue, Berkeley, California 94702

Dear Ms. Wager,

This letter confirms the completion of a site investigation and corrective action for the underground storage tank formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank is greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety code and with the corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release at the site is required. This notice is issued pursuant to subdivision (g) of Section 25296.1 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Geoffery Fiedler
Hazardous Materials Specialist, II

Cc: Shazada Khan, U.S. Smog and Gas, 3000 Shattuck Avenue Berkeley, California 94705

2118 Milvia Street, Suite 200, Berkeley, California 94704 TEL: (510) 981-7460 TDD: (510) 981-6903 FAX: (510) 981-7470

CALIFORNIA Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

September 3, 2014
File No. 01S0746 (RL)

BP West Coast Products, LLC
c/o Ms. Janet Wager
BP Remediation Management
201 Helios Way
Houston, Texas 77079

SUBJECT: No Further Action, U.S. Smog and Gas, 3000 Shattuck Avenue, Berkeley, Alameda County

Dear Ms. Wager:

This letter confirms the completion of site investigation and remedial action for the pollutant releases at the subject site. The attached Case Closure Summary describes remedial activities and our case-closure rationale.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the pollutant releases at the subject site is required.

If you have any questions concerning this letter, please contact Randy Lee of my staff at (510) 622-2375, [e-mail: rylee@waterboards.ca.gov].

Sincerely,

Bruce H. Wolfe
Executive Officer

Attachment: Case Closure Summary
cc w/attach: Mailing List (next page)

Mailing List:

Nabil Al-Hadithy
Manager
City of Berkeley
2118 Milvia Street, Suite 200
Berkeley, California 94704

U.S. Smog and Gas
3000 Shattuck Avenue
Berkeley, CA, 947054

Hollis Phillips
Arcadis US Inc.,
100 Montgomery Street, Suite 300
San Francisco, CA 94539
Hollis.Phillips@arcadis-us.com

Khan Shazada & Farhat
47856 Avalon Heights Terrace
Fremont, CA 94539

CASE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: 9/3/2014

Agency Name: SF Bay Regional Water Quality Control Board	Address: 1515 Clay Street, Suite 1400
City/State/Zip: Oakland, CA 94612	Phone: 510-622-2300
Responsible Staff Person: Randy Lee	Title: Water Resource Control Engineer

II. SITE INFORMATION

Site Facility Name: U.S. Smog and Gas (a.k.a. ARCO # 00414)		
Site Facility Address: 3000 Shattuck Ave Berkeley		
RB Case No.: 01S0746 (aka 01-0102)	Local Case No.: 27540	Priority:
Responsible Parties (include addresses and phone numbers)		
Jim Smith BP Remediation Management, 201 Helios Way, Houston, Texas, 77079		
(713) 323-4153		

Tank No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
1*	200	waste oil	removed	11/19/1997
2*	12,000	gasoline	removed	8/11/2000
3*	12,000	gasoline	removed	8/11/2000
4*	12,000	gasoline	removed	8/11/2000
(* Closed by City of Berkeley on 2/14/2013)				

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: leakage from USTs and hydraulic lifts		
Site characterization complete? yes	Date Approved by Oversight Agency: 2/14/2013	
Monitoring wells installed? yes	Number: 6	Proper screened interval? yes
Highest GW Depth Below Ground Surface: 11.28 ft bgs	Lowest Depth: 4.61 ft bgs	Flow Direction: ranged from northwest to southwest, with the predominant direction to the west
Most Sensitive Current Use: municipal, industrial process, industrial service and agricultural are identified in the Basin Plan		
Most Sensitive Potential Use		

and Probability of Use : municipal, industrial process, industrial service and agricultural are identified in the Basin Plan	
Are drinking water wells affected? no	Aquifer Name: n/a
Is surface water affected? no	Nearest surface water name: San Francisco Bay
Off-Site Beneficial Use Impacts (Addresses/Locations): none	
Report(s) on file? yes	Where is report(s) filed? GeoTracker

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tanks	4	1 waste oil tank - 11/19/1997- unknown 3 gasoline USTs -8/11/2000- Disposal (Mid-Valley Landfill)	11/19/1997 & 8/11/2000
Piping	unknown	Disposal (Mid-Valley Landfill)	8/11/2000
Free Product	400 gallon	Disposal (DeMeeno/Kerdoon in Compton CA)	8/11/2000
Soil	1,416 ton	Disposal (Forward Landfill, Manteca, CA)	8/11/2000
Groundwater	1,200 gallon	Disposal (Seaport Environmental Facility, Redwood City, CA)	8/11/2000
Barrels			

MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP

POLLUTANT	Soil (ppm)		Water (ppb)		POLLUTANT	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPHg 27540-closed)	8,410	n/a	31,000	<50	TPHg (*01S0746*)	n/a	n/a	1,300	<50
Benzene (27540-closed)	3.44	n/a	5,900	<0.5	MTBE (*01S0746*)	n/a	n/a	28	6.9
Toluene (27540-closed)	136	n/a	6,500	<0.5	TPHd (*01S0746*)	n/a	n/a	1,900	410
Ethylbenzene (27540-closed)	127	n/a	620	<0.5	TPHmo (*01S0746*)	n/a	n/a	<1,900	360
Xylenes (27540-closed)	531	n/a	4,600	<0.5	Mineral oil (*01S0746*)	n/a	n/a	3,500	410
MTBE (27540-closed)	19.8	n/a	8,400	2,130	Hydraulic oil (*01S0746*	n/a	n/a	3,300	790

TPHd (27540-closed)	1,920	n/a	n/a	100	Transmission Oil (*01S0746*)	n/a	n/a	3,700	670
Lead (27540-closed)	<7.5	n/a	n/a	n/a	Jet A (*01S0746*)	n/a	n/a	470	<50

Comments (Depth of Remediation, etc.):

- GRI removed an oil/water separator in June 1992.
- GSI conducted vapor extraction tests on August 18 and November 19, 1992, using vapor extraction wells AV-1 through AV-6. Based on the results of the two tests, vapor extraction was deemed a suitable remedy based on an estimated radius of influence of 20 to 30 feet (GSI 1992c).There is no available documentation stating that recovery well AR-1 or the six vapor extraction wells were ever used for full-scale remediation purposes.
- Oxygen release compound (ORC) socks were used at wells AR-1 and A-1 through A-4 for various time periods from the third quarter 1996 to the first quarter 1997.
- Cambria removed three fiberglass USTs in August 2000 and installed new tanks.
- Cambria removed approximately 1,415 tons of soil and disposed of the soil off site in 2000 when the tanks and associated product lines were excavated.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? yes		
Does corrective action protect public health for current land use? yes		
Site Management Requirements: none		
Monitoring Wells Decommissioned: A-1	Number Decommissioned: 1	Number Retained: 5 (to be destroyed upon closure)
List Enforcement Actions Taken: none		
List Enforcement Actions Rescinded: none		

V. TECHNICAL REPORTS, CORRESPONDENCE, ETC., THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON

Case Closure Summary Report	6/9/2010
Approval of Request for No Further Action	2/14/2013
BP414 Summary of Investigation Results	7/9/14

VI. ADDITIONAL COMMENTS, DATA, ETC.

The Site is an operational service station, which historically has been characterized and remediated for constituents related to releases from the former USTs. In February 2013, confirmation of completion of investigation and corrective action was given for the Site, and no further action was granted for the release associated with the USTs (case #27540; City of Berkeley, 2013).

However, an additional investigation was opened at the Site in December 2012 prior to closure of the original case to address a potential new release likely associated with the hydraulic lifts present at the Site. The new release was discovered during groundwater monitoring activities in October 2007, a sample from the impacted well was not collected until first quarter 2008. The release notification, dated December 12, 2012, lists both BP and the current property owner (Shazada Khan) as potential responsible parties (PRP). In February and March of 2013, groundwater samples were collected from the impacted well and the downgradient wells. The investigations indicate that the nature and extent of hydraulic fluid contamination has been adequately characterized, and the associated plume is decreasing in size.

In June 2013, the case involving the potential release associated with the hydraulic lifts was referred to the San Francisco Bay Regional Water Board (Case # 01S0746, RWQCB). The current plume is restricted to the Site and does not present a current or potential risk to human health or the environment. Based on results of characterization activities, ARCADIS requested case closure on behalf of BP on July 9, 2014. This case closure summary prepared by the Regional Water Board, although included prior information related to the UST releases, is intended to close investigation associated with the potential release associated with the hydraulic lifts.

This document and the related CASE CLOSURE LETTER shall be retained by the lead agency as part of the official site file.

Transportation Impact Analysis

3000 SHATTUCK AVENUE MIXED USE PROJECT

City of Berkeley

Prepared by:
Abrams Associates
1875 Olympic Boulevard, Suite 210
Walnut Creek, CA 94596

Abrams Associates
TRAFFIC ENGINEERING, INC.

MAY 31, 2017

Abrams Associates
TRAFFIC ENGINEERING, INC.

3000 Shattuck Avenue Mixed Use Project
in the
City of Berkeley

TRANSPORTATION AND CIRCULATION

1) EXECUTIVE SUMMARY

The 3000 Shattuck Avenue mixed use project is proposed to include 44 apartment units and 4,015 of retail/restaurant space. **Figure 1** shows the location of the project and the surrounding roadway network and **Figure 2** shows the ground floor site plan for the project**.** Based on the trip generation forecasts the project would result in a net reduction in traffic on the surrounding street system. Traffic counts of the current gas station on the site indicate it generates more than twice the traffic that is forecast to be generated by the proposed project. The project itself is forecast to generate approximately 40 vehicle trips during the AM peak hour and 41 trips during the PM peak hour. However, please note these numbers do not take into account removal of the trips from the service station that currently operates on the site. Again, if the removal of traffic from the existing service station is accounted for then the implementation of the proposed project results in a reduction in traffic on the surrounding roadway system.

Based on a detailed analysis conducted according to City's guidelines there would be no significant transportation impacts according to established standards and no off-site traffic or transportation mitigations would be required.[1] The City's base code requirement for the project is 43 parking spaces and the project is proposing to accommodate its parking demand by providing 17 parking spaces which would include 5 car share spaces. The project would exceed the requirements for on-site bicycle parking by providing parking for 48 bicycles and is located less than four blocks from the Ashby BART Station.

2) INTRODUCTION

This transportation impact analysis describes the existing and future conditions for transportation and circulation both with and without the proposed project. The study presents information on the regional and local roadway networks, the pedestrian and transit conditions, and provides an analysis of the effects on transportation facilities associated with the project.

This study also describes the regulatory setting; the criterion used for determining the significance of environmental impacts; and summarizes potential environmental impacts and appropriate mitigation measures when necessary. This study has been conducted in accordance with the requirements and methodologies set forth by the City of Berkeley, Alameda County, Caltrans, and the applicable provisions of CEQA.

3) ENVIRONMENTAL SETTING

This section of the report describes the roadways, traffic conditions and other existing transportation characteristics in the vicinity of the project. The primary basis for the traffic operations portion of the analysis is the peak hour level of service at the key study intersections. In this report, these peak commute hours will be identified as the AM and PM peak hours.

[1] *Guide for Development of Traffic Impact Reports*, City of Berkeley Office of Transportation, Berkeley, CA, January, 2009.

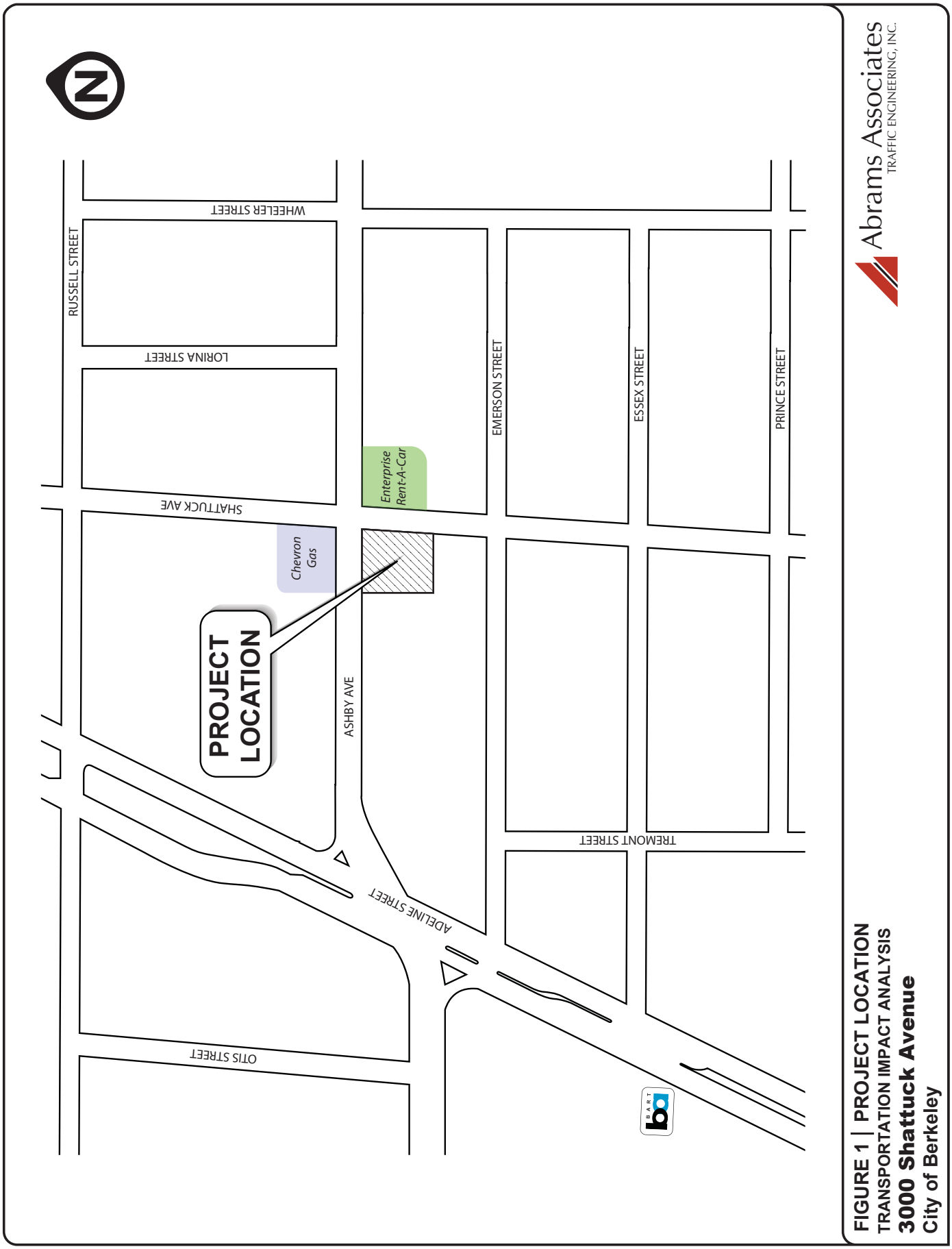


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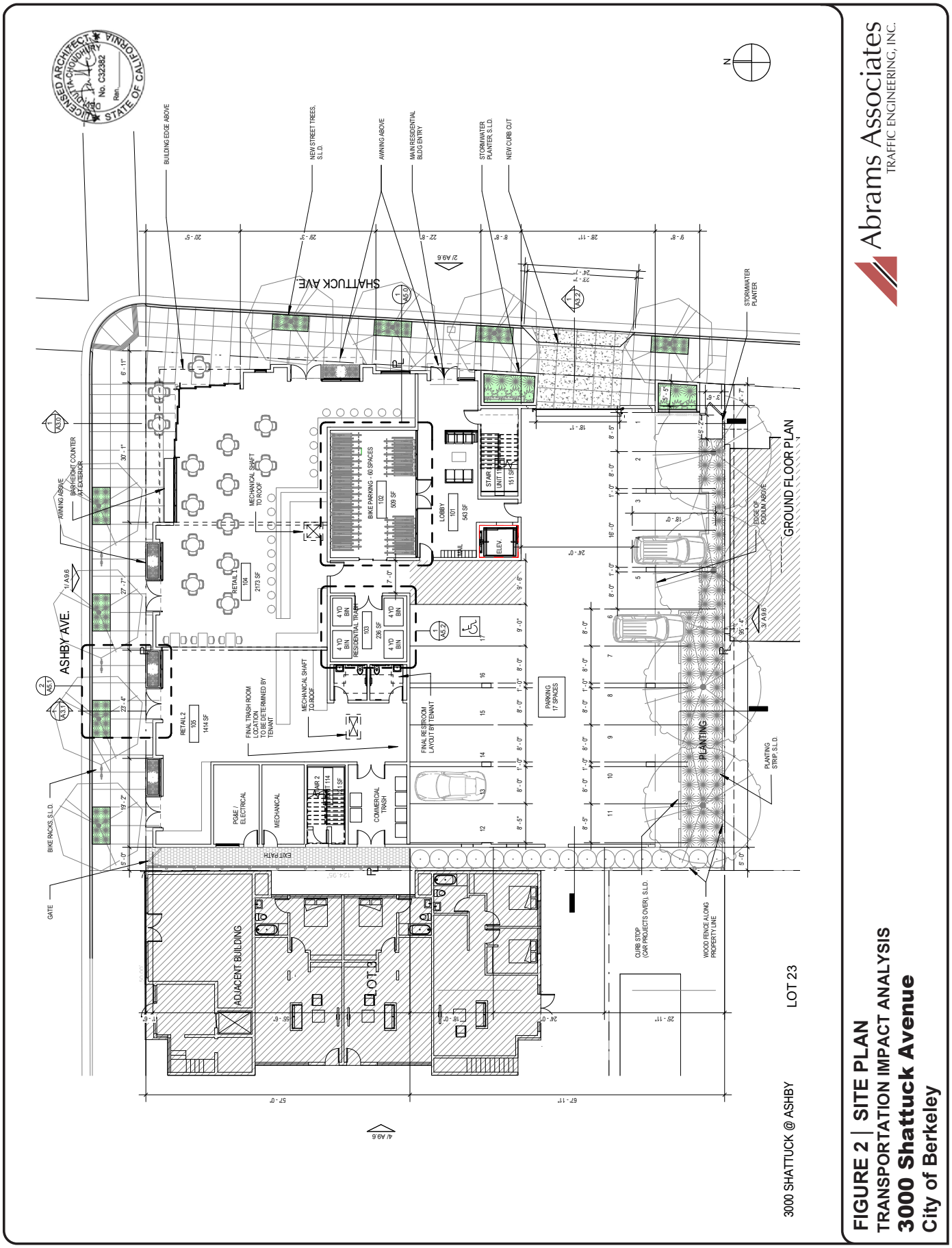
FIGURE 1 | PROJECT LOCATION
TRANSPORTATION IMPACT ANALYSIS
3000 Shattuck Avenue
City of Berkeley


LICENSED ARCHITECT
DEBASHIS CHOUDHURY
No. C32382
Exp.
STATE OF CALIFORNIA
Abrams Associates
TRAFFIC ENGINEERING, INC.
GROUND FLOOR PLAN
SHATTUCK AVE
ASHBY AVE.
ADJACENT BUILDING
LOT 3
LOT 23
3000 SHATTUCK @ ASHBY
BUILDING EDGE ABOVE
NEW STREET TREES, S.L.D.
AWNING ABOVE
MAIN RESIDENTIAL BLDG ENTRY
STORMWATER PLANTER, S.L.D.
NEW CURB CUT
STORMWATER PLANTER
AWNING ABOVE
BAR HEIGHT COUNTER W/ EXTERIOR
MECHANICAL SHAFT TO ROOF
BIKE PARKING - 60 SPACES
102
909 SF
LOBBY
101
543 SF
START UNIT TYPE
151 SF
ELEV.
EDGE OF PODIUM ABOVE
RETAIL 1
104
2173 SF
4 YD BIN
4 YD BIN
4 YD BIN
RESIDENTIAL TRASH
103
226 SF
RETAIL 2
105
1414 SF
FINAL TRASH ROOM LOCATION TO BE DETERMINED BY TENANT
MECHANICAL SHAFT TO ROOF
FINAL RESTROOM LAYOUT BY TENANT
PARKING (7 SPACES)
PLANTING
PLANTING STRIP, S.L.D.
BIKE RACKS, S.L.D.
GATE
EXIT PATH
POS&E / ELECTRICAL
MECHANICAL
COMMERCIAL TRASH
CURB STOP (CAR PROJECTS OVER), S.L.D.
WOOD FENCE ALONG PROPERTY LINE
FIGURE 2 | SITE PLAN
TRANSPORTATION IMPACT ANALYSIS
3000 Shattuck Avenue
City of Berkeley

3.1 Project Study Intersections

Based on the project's trip generation and the potential for traffic impacts an analysis of the intersections of Shattuck Avenue with Ashby Avenue, Emerson Street, and the project entrance was required. **Figure 1** presents the location of the project study intersections where a detailed level of service analysis was prepared.

3.2 Traffic Analysis Scenarios

The study intersections were evaluated for the following six scenarios:

- Scenario 1: *Existing Conditions* – Level of Service (LOS) based on existing peak hour volumes and existing intersection configurations.
- Scenario 2: *Existing Plus Project* – Existing traffic volumes plus trips from the proposed project.
- Scenario 3: *Baseline (No Project) Conditions* – The Baseline scenario is based on the existing volumes plus growth in background traffic (for two years) plus the traffic from all reasonably foreseeable developments that could substantially affect the volumes at the project study intersection.
- Scenario 4: *Baseline Plus Project Conditions* – This scenario is based on the Baseline traffic volumes plus the trips that would be generated by the proposed project.

3.3 Existing Roadway Network

As shown on **Figure 1**, the roads that would be primarily affected by the project are Shattuck Avenue, Ashby Avenue and Emerson Street. The following is a brief description of these roadways:

- **Shattuck Avenue –** Shattuck Avenue is a four lane arterial roadway extending south from Vine Street to terminate to the south at Telegraph Avenue in the City of Oakland. It serves school, residential and commercial traffic and is an important north-south travel route. It is designated as a major street and a primary transit route in the City's General Plan.
- **Ashby Avenue –** Ashby Avenue is a two lane roadway extending east from I-80 to terminate to the west at Tunnel Road. It is also designated as State Route 13 in the City of Berkeley. It serves school, residential and commercial traffic and is an important east-west travel route.
- **Emerson Street –** Emerson Street is a two-lane local residential roadway in the City of Berkeley that extends west from Webster Street and terminates at Adeline Street. These roadways serve school, residential and commercial traffic.

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3.4 Intersection Analysis Methodology

Existing operational conditions at the study intersection was evaluated according to the requirements set forth by the City of Berkeley. Analysis of traffic operations was conducted using the 2010 *Highway Capacity Manual* (*HCM*) Level of Service (LOS) methodology with Synchro software.[1]

Level of service is an expression, in the form of a scale, of the relationship between the capacity of an intersection (or roadway segment) to accommodate the volume of traffic moving through it at any given time. The level of service scale describes traffic flow with six ratings ranging from A to F, with "A" indicating relatively free flow of traffic and "F" indicating stop-and-go traffic characterized by traffic jams.

As the amount of traffic moving through a given intersection or roadway segment increases, the traffic flow conditions that motorists experience rapidly deteriorate as the capacity of the intersection or roadway segment is reached. Under such conditions, there is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays that lead to traffic congestion. This near-capacity situation is labeled level of service (LOS) E.

Beyond LOS E, the intersection or roadway segment capacity has effectively been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. **Table 1** summarizes the relationship between LOS, average control delay, and the volume to capacity ratio at signalized intersections. **Table 2** summarizes the relationship between LOS and delay at unsignalized intersections

For signalized intersections, The City of Berkeley's LOS standards are based on the average delay for the entire intersection. The *HCM* methodology determines the capacity of each lane group approaching the intersection. The LOS is then based on average control delay (in seconds per vehicle) for the various movements within the intersection. A combined weighted average control delay and LOS are presented for the intersection. A summary of the HCM results and copies of the detailed HCM LOS calculations are included in the appendix to this report.

For unsignalized (all-way stop controlled and two-way stop controlled) intersections, the average control delay and LOS operating conditions are calculated by approach (e.g., northbound) and movement (e.g., northbound left-turn) for those movements that are subject to delay. Operating conditions for unsignalized intersections are presented for the worst approach.

[1] *2010 Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2011

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TABLE 1
SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (sec/veh)	Volume to Capacity Ratio
A	Insignificant Delays: No approach phase is fully used and no vehicle waits longer than one red indication.	≤ 10	< 0.60
B	Minimal Delays: An occasional approach phase is fully used. Drivers begin to feel restricted.	> 10 to 20	> 0.61 to 0.70
C	Acceptable Delays: Major approach phase may become fully used. Most drivers feel somewhat restricted.	> 20 to 35	> 0.71 to 0.80
D	Tolerable Delays: Drivers may wait through no more than one red indication. Queues may develop but dissipate rapidly without excessive delays.	> 35 to 55	> 0.81 to 0.90
E	Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues from upstream.	> 55 to 80	> 0.91 to 1.00
F	Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80	> 1.00

SOURCES: 2010 *Highway Capacity Manual*, Transportation Research Board, 2011.

TABLE 2
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (seconds/vehicle)
A	No delay for stop-controlled approaches.	0 to 10
B	Operations with minor delays.	> 10 to 15
C	Operations with moderate delays.	> 15 to 25
D	Operations with some delays.	> 25 to 35
E	Operations with high delays and long queues.	> 35 to 50
F	Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50

SOURCE: 2010 *Highway Capacity Manual*, Transportation Research Board, 2011.

3.5 Existing Intersection Capacity Conditions

The existing intersection geometry at the project study intersections is presented in **Figure 3**. The existing traffic volumes at these intersections for the weekday AM and PM peak hours are presented in **Figure 4**. Traffic counts at the intersection were conducted in August, 2014. **Table 3** summarizes the associated LOS computation results for the existing weekday AM and PM peak hour conditions at these intersections. As shown in **Table 3**, all of the study intersections currently have acceptable conditions (LOS D or better) during the weekday AM and PM peak hours. Please note the detailed LOS calculations are included in the technical appendix to this report**.**

3.6 Pedestrian and Bicycle Facilities

Bicycle paths, lanes and routes are typical examples of bicycle transportation facilities, which are defined by Caltrans as being in one of the following three classes:

Class I – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.
Class II – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted.
Class III – Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.

There are existing bike lanes (Class II) on Adeline Street and one block to the north Russell Street is a Class III bike route and is designated as an official bicycle boulevard with signage and pavement markings encouraging motorists to share the road with bicyclists.

TABLE 3
EXISTING INTERSECTION LEVEL OF SERVICE CONDITIONS

	INTERSECTION	CONTROL	PEAK HOUR	EXISTING	
				Delay	LOS
1	SHATTUCK AVENUE AT ASHBY AVENUE	Signalized	AM	13.3	B
			PM	13.8	B
2	SHATTUCK AVENUE AT THE PROJECT ENTRANCE	Side Street Stop	AM	N/A	N/A
			PM	N/A	N/A
3	SHATTUCK AVENUE AT EMERSON STREET	Side Street Stop	AM	15.4	B
			PM	23.3	C

SOURCE: Abrams Associates, 2015
NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle.

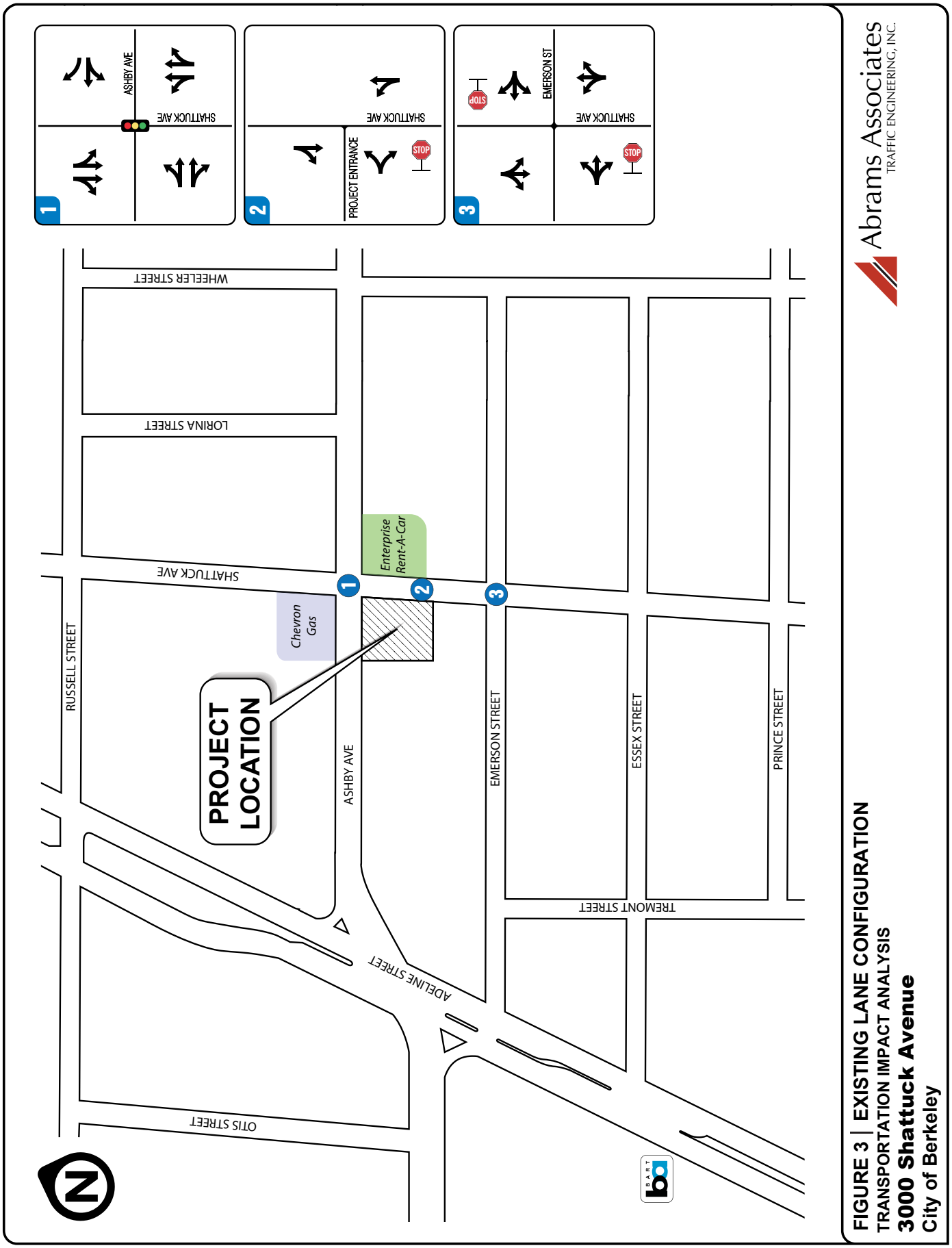

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FIGURE 3 | EXISTING LANE CONFIGURATION
TRANSPORTATION IMPACT ANALYSIS
3000 Shattuck Avenue
City of Berkeley

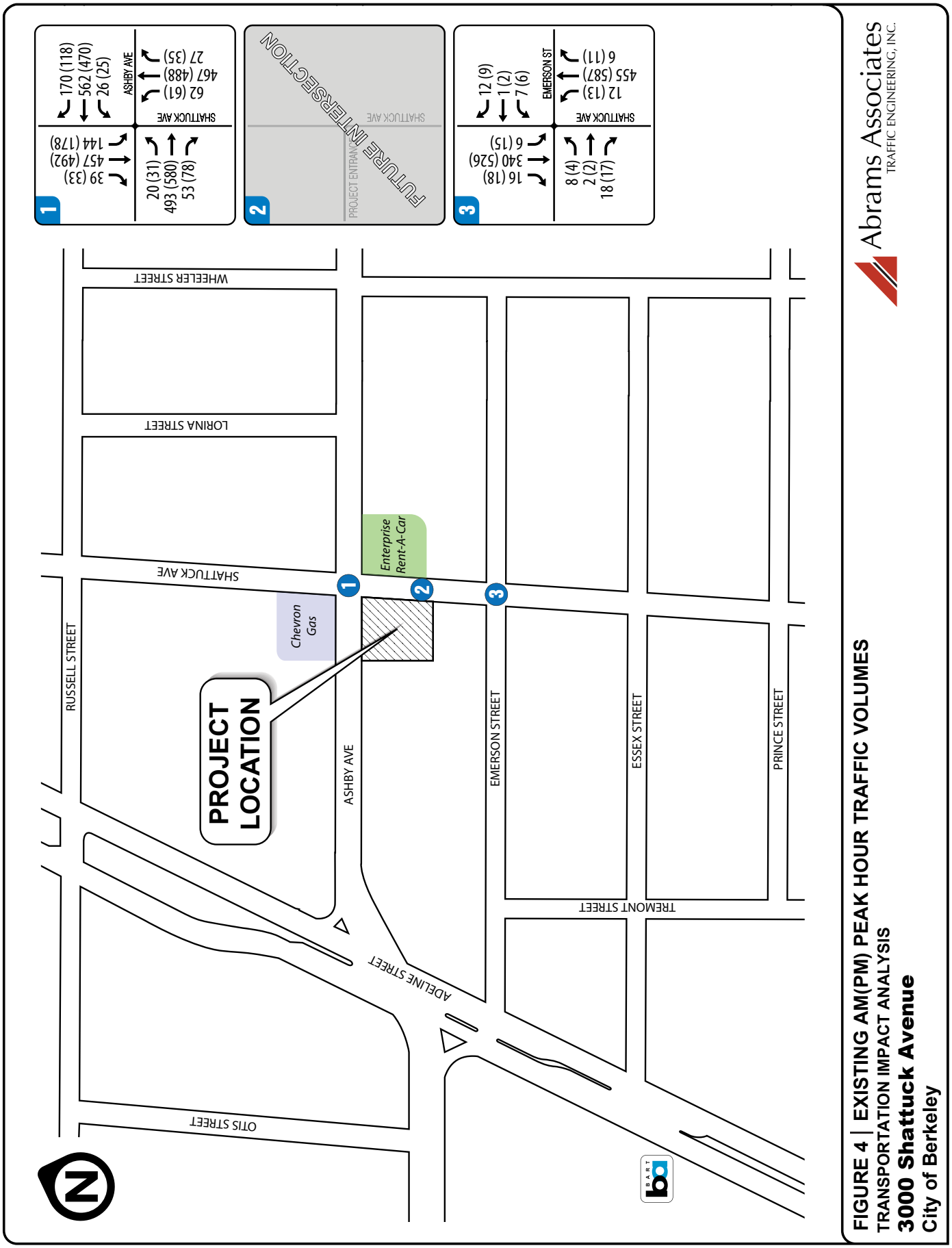

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FIGURE 4 | EXISTING AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION IMPACT ANALYSIS
3000 Shattuck Avenue
City of Berkeley

3.7 Transit Service

The Ashby Avenue Berkeley BART station is located on Adeline Street at Ashby, which is just a little more than a block from the project site. This station is located on the Richmond-Fremont Line which connects to other destinations in the Bay Area, including San Francisco, at the MacArthur Station.

There is also extensive bus transit service provided by Alameda-Contra Costa County (AC) Transit at the BART Station. The following lines operate either adjacent to the site on Ashby Avenue or a block from the project on Adeline Street:

> **18:** Downtown Albany, Downtown Berkeley, Downtown Oakland, and Montclair via Shattuck Avenue, Martin Luther King Blvd, Broadway, and Park Boulevard.
> **49:** Downtown Berkeley BART to Rockridge BART via Dwight Way, Ashby Avenue, College Avenue. Returns via Claremont Avenue and Durant Avenue.
> **800:** (All Nighter) Richmond BART to Market St. and Van Ness Ave, S.F., via Macdonald Ave, San Pablo Ave, University Ave, Telegraph Ave and downtown Oakland. Returns via Market St. and West Oakland BART.
> **F:** (Transbay) UC Campus to Transbay Temporary Terminal, San Francisco via Shattuck Ave, Adeline St and 40th St.

Please note the nearest bus stops for Routes 18, 49, and 800 are directly adjacent to the site. Bus stops with access to the transbay F line are located two blocks away at Ashby Avenue and Adeline Street.

4) REGULATORY CONTEXT

Existing policies, laws and regulations that apply to the proposed project are summarized below.

4.1 State

The California Department of Transportation (Caltrans) has jurisdiction over State highways. Any improvements to these roadways would require Caltrans' approval. This project will not have any effect on State Highways.

4.2 Local

City of Berkeley General Plan **-** The Transportation and Circulation Element the City of Berkeley General Plan addresses the location and extent of existing and planned transportation routes, terminals, and other local public utilities and facilities. The General Plan identifies roadway and transit goals and policies that have been adopted to ensure that the transportation system of the City will have adequate capacity to serve planned growth. These goals and policies are intended to provide a plan and implementation measures for an integrated, multi-modal transportation system that will safely and efficiently meet the transportation needs of all economic and social segments of the City.

4.3 Significance Criteria

The City's level of service standard states that an impact is significant when the criteria are reduced from LOS A, B, C, or D to LOS E (with the addition of two (2) seconds of average delay) for signalized intersections. Intersections that exceed this service level threshold are considered to be impacted and should be considered for mitigation. Exceptions to the LOS D

standard arise when the project is not expected to add more than two seconds at an intersection going from LOS D to LOS E or more than three seconds of delay at an intersection that is already operating at LOS E. In addition, it would also be considered a significant impact if a project would increase the volume to capacity (V/C) ratio by more than 0.01 at an intersection that is already operating at LOS F.

For unsignalized intersections, additional considerations are involved, including the number of vehicles on the critical approach, vehicles contributed by the proposed project, and signal warrant analysis. At an unsignalized intersection, mitigation is required if a movement is LOS F, the peak hour signal warrant is met, and a minimum of 10 vehicles are added to the critical movement.

According to CEQA guidelines, a project would also have a significant impact if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit.
- Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards, and travel demand measures, or other standards established by a county congestion management agency for designated roadways.
- Result in inadequate emergency vehicle access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
- Result in an internal circulation system design that does not meet City standards.

5) IMPACTS AND MITIGATION MEASURES

5.1 Project Trip Generation

The vehicle trip generation for the project is shown in **Table 4**. The trip generation rates are based on the ITE rates for an office building (Land Use 710) taken from the 9th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. The rates have been adjusted (as described below) to account for traffic conditions in this part of Downtown Berkeley.

Berkeley Residential Trip Generation **-** Since the project is located in an urban area with BART access and numerous bus connections the vehicle trip rate per unit is less than would be generated by a typical apartment building. Please note the project is less than four blocks from the Ashby BART station which is less than a 5 minute walk.

For this project, a trip reduction of 19% has been applied to the unfiltered trip generation rate to account for conditions in the vicinity of the Ashby BART Station. The ITE trip generation rates are based on surveys of primarily suburban locations and this reduction intended to account for walk, bicycle, and transit trips as well as shared trips with the residential component of the project. The 19% reduction was based on data from the Alameda County Transportation Commission's Travel Demand Model, trip generation surveys compiled by ITE and the San Diego Association of Governments (SANDAG), and census data on vehicle ownership and travel patterns in this part of the City of Berkeley.

TABLE 4
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	220		6.65	0.10	0.41	0.51	0.40	0.22	0.62
Apartment Trip Generation		44 Units	256	3	16	19	15	8	23
Reduction for Non-Auto Trips (19%)			49	1	3	4	3	1	4
Subtotals for the Apartments			*207*	*3*	*13*	*16*	*12*	*7*	*19*
ITE Restaurant Rates - Trips per ksf	932		127.15	5.62	5.19	10.81	5.81	4.04	9.85
Restaurant Trip Generation		4,015 sq. ft.	511	22	21	43	23	16	39
Reduction for Pass-By/Non-Auto Trips (43%)			220	10	9	19	10	7	17
Subtotals for the Restaurant			*291*	*12*	*12*	*24*	*13*	*9*	*22*
Subtotals from the New Land Uses			**498**	**15**	**25**	**40**	**25**	**16**	**41**
Existing Service Station with Smog Inspection and Mini Mart		8 fueling stations	590	29	27	56	41	44	85
Net New Trip Generation for the Project			**-92**	**-14**	**-2**	**-16**	**-16**	**-28**	**-44**

SOURCE: Institute of Transportation Engineers Trip Generation Manual (9th Edition) and the Trip Generation Handbook (2nd Edition)

Based on the trip generation forecasts the project would actually result in a reduction in traffic on the surrounding street system. Traffic counts of the current gas station on the site indicate it generates more than twice the traffic that is forecast to be generated by the proposed project. The traffic associated with the new project is forecast to be about 40 vehicle trips during the AM peak hour and 41 trips during the PM peak hour. The trips generated by this proposed development are estimated for the peak commute hours which represent the peak of adjacent street traffic.

To be conservative no reductions were taken to account for the existing service station in the analysis of traffic operations. This was, in part, because the proposed project would focus its traffic at one driveway versus the existing service station which is served by four separate driveways/curb cuts. Again, once the removal of traffic from the existing service station is accounted for the implementation of the proposed project would result in a net reduction in traffic on the surrounding roadway system. This is estimated to be a reduction of about 16 peak hour trips during the AM peak hour and about 44 trips during the PM peak hour. In general, the traffic generated by the proposed project would be expected to be about half of what is currently generated by the service station it would replace.

5.2 Project Trip Distribution

The trip distribution assumptions have been based on the existing traffic count data including daily directional volume and peak-hour turning movements, the Alameda County travel demand model, and knowledge of the surrounding area such as commute patterns and the overall land use patterns in the area. **Figure 5** shows the project traffic that would be added at the project study intersections.

5.3 Existing Plus Project Intersection Capacity Conditions

This scenario evaluates the existing conditions with the addition of traffic from the proposed project. A comparison of the capacity calculations for the conditions with the addition of traffic from the project is shown in **Table 5**. The corresponding LOS analysis calculation sheets are presented in the Traffic Analysis Appendix. As shown in **Table 5**, all of the study intersections would continue to have acceptable conditions (LOS D or better) during the weekday AM and PM peak hours. Please note that the results of the detailed queuing calculations have been included in the technical appendix to verify there would be no queuing problems expected with addition of traffic from the proposed project.

TABLE 5
EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE CONDITIONS

	INTERSECTION	CONTROL	PEAK HOUR	EXISTING		EXISTING PLUS PROJECT	
				Delay	LOS	Delay	LOS
1	SHATTUCK AVENUE AT ASHBY AVENUE	Signalized	AM	13.3	B	13.8	B
			PM	13.8	B	14.0	B
2	SHATTUCK AVENUE AT THE PROJECT ENTRANCE	Side Street Stop	AM	N/A	N/A	16.6	C
			PM	N/A	N/A	17.8	C
3	SHATTUCK AVENUE AT EMERSON STREET	Side Street Stop	AM	15.4	B	15.6	C
			PM	23.3	C	23.3	C

SOURCE: Abrams Associates, 2015

NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle.

5.4 Baseline Intersection Capacity Conditions

Trip generation and trip assignment assumptions for the approved projects were based on the traffic study reports prepared for each project, where available. Approved projects include developments that are either under construction, built but not fully occupied, or not built but have final development approval from the City. Trips from approved developments that could significantly affect the volumes at the project study intersections were added to the existing intersection turning movement counts.

Approved projects in the area include the Parker Place project at Shattuck Avenue and Parker Street (which is planned to include 155 residential units and 22,905 square feet of ground-floor commercial space), 3132 Martin Luther King Jr. Way Mixed Use Project, 2489 Martin Luther King Jr. Way Mixed Use Project, 2201 Dwight Way Residential Project, 2024 Durant Street Student Housing Project, 2701 Shattuck Avenue Mixed Use Project, and the 2598/2600 Shattuck Avenue Mixed Use Project. The total background traffic growth to existing traffic was forecast to be 5% per year for two years based on the assumption that the project completion

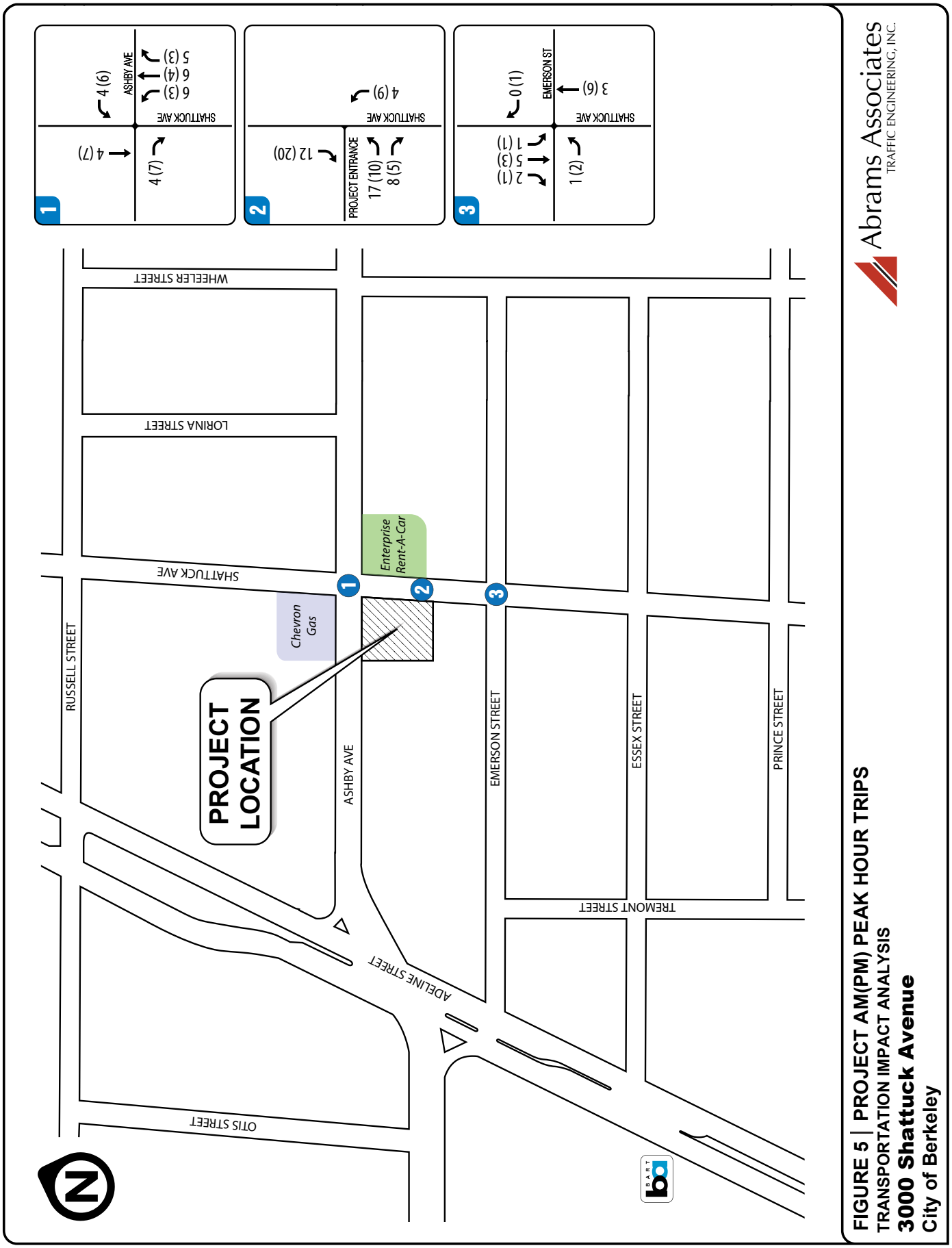

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FIGURE 5 | PROJECT AM(PM) PEAK HOUR TRIPS
TRANSPORTATION IMPACT ANALYSIS
3000 Shattuck Avenue
City of Berkeley

date would be 2017. **Figure 6** presents the resulting baseline volumes at each of the project study intersections **Table 5** summarizes the associated LOS computation results for the Baseline and Baseline Plus Project weekday AM and PM peak hour conditions. The corresponding LOS analysis calculation sheets are presented in the *Traffic Analysis Appendix*. As shown in **Table 5**, with the addition of traffic from the proposed project the project study intersection would continue to have acceptable conditions (LOS D or better).

5.5 Baseline *Plus Project* Intersection Capacity Conditions

The Baseline plus proposed project traffic forecasts were developed by adding project-related traffic to the baseline traffic volumes. **Table 6** summarizes the LOS results for the Baseline Plus Project weekday AM and PM peak hour conditions (i.e. the existing roadway network). **Figure 7** presents the resulting baseline plus project volumes at each of the project study intersections. Please note that the corresponding LOS analysis calculation sheets are presented in the appendix. As shown in **Table 6**, all of the study intersections would continue to have acceptable conditions (LOS D or better) during the weekday AM and PM peak. Again, please note that the results of the detailed queuing calculations have been included in the technical appendix to verify there would be no queuing problems with the addition of project traffic.

TABLE 6
BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE CONDITIONS

	INTERSECTION	CONTROL	PEAK HOUR	BASELINE		BASELINE PLUS PROJECT	
				Delay	LOS	Delay	LOS
1	SHATTUCK AVENUE AT ASHBY AVENUE	Signalized	AM	15.6	B	16.2	B
			PM	16.3	B	16.9	B
2	SHATTUCK AVENUE AT THE PROJECT ENTRANCE	Side Street Stop	AM	N/A	N/A	18.2	C
			PM	N/A	N/A	19.8	C
3	SHATTUCK AVENUE AT EMERSON STREET	Side Street Stop	AM	17.1	C	17.3	C
			PM	28.2	D	28.2	D

SOURCE: Abrams Associates, 2015
NOTES: HCM LOS results are presented in terms of seconds per vehicle.

5.6 Internal Circulation and Access

No site circulation or access issues have been identified that would cause any traffic safety issues or any unusual traffic congestion or delay. It should be noted that during peak periods there would be occasions where the northbound traffic queue from the Ashby Avenue traffic signal could extend back beyond the proposed driveway entrance. However, based on the LOS analysis the potential for queues near the project driveway is not expected to prevent safe access to the site. Please note that bicycle racks cannot be located at tree wells. Parking stalls will be a minimum of 8' wide and 8.5' wide at the end stalls, as per City requirements. It should also be noted that a clear 5' by 5' sight distance triangle must be provided at the garage exit point.

5.7 Parking

This section discusses the City of Berkeley's zoning and estimated parking demand for the project. As per the City's Municipal Code, the minimum off-street parking requirement for restaurants in this area equates to 1.0 spaces per every 300 square feet of gross floor area and for residential space it requires 1.0 spaces per every 1,000 square feet of gross floor area. For this project this equates to a requirement of 43 spaces.

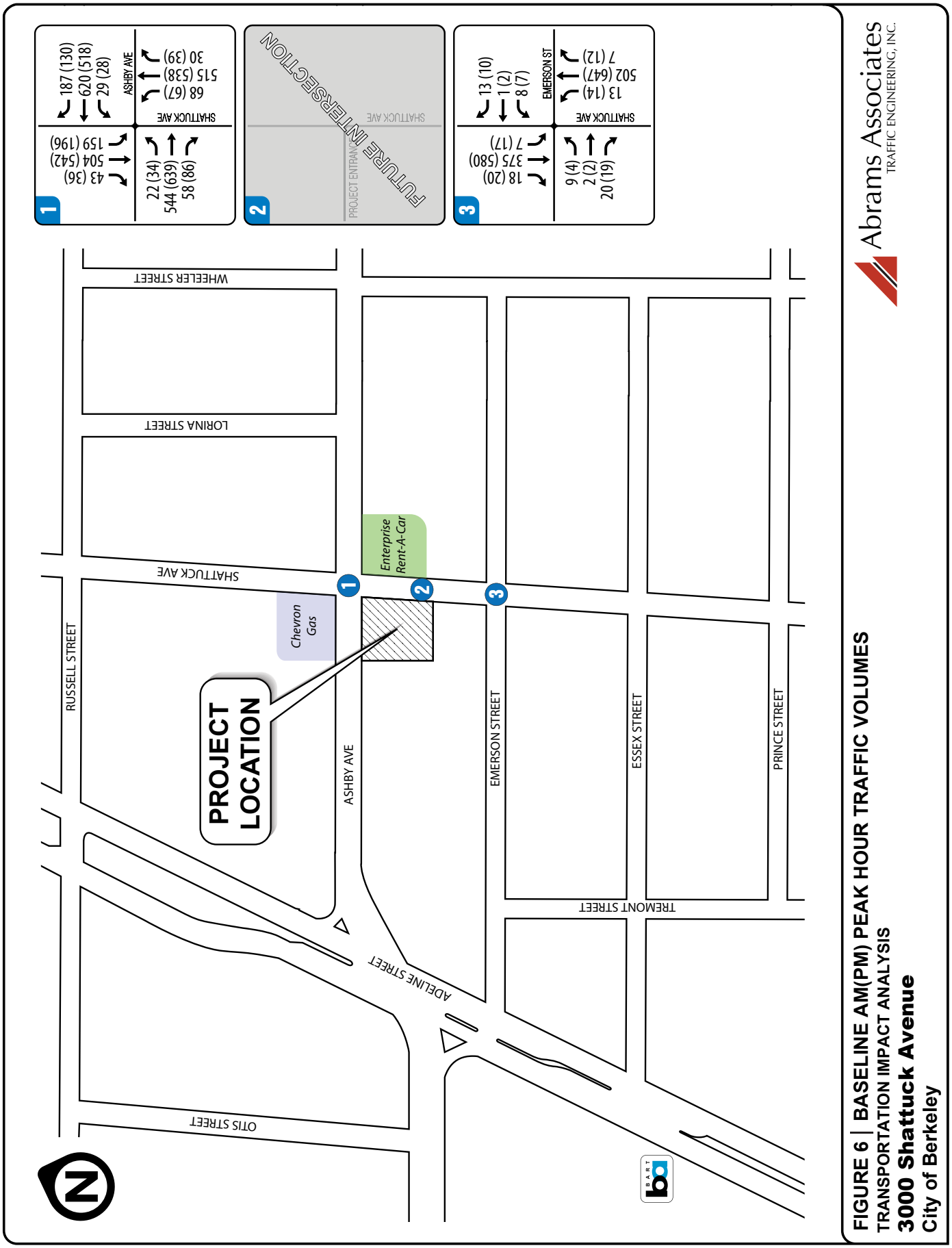

FIGURE 6 | BASELINE AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION IMPACT ANALYSIS
3000 Shattuck Avenue
City of Berkeley

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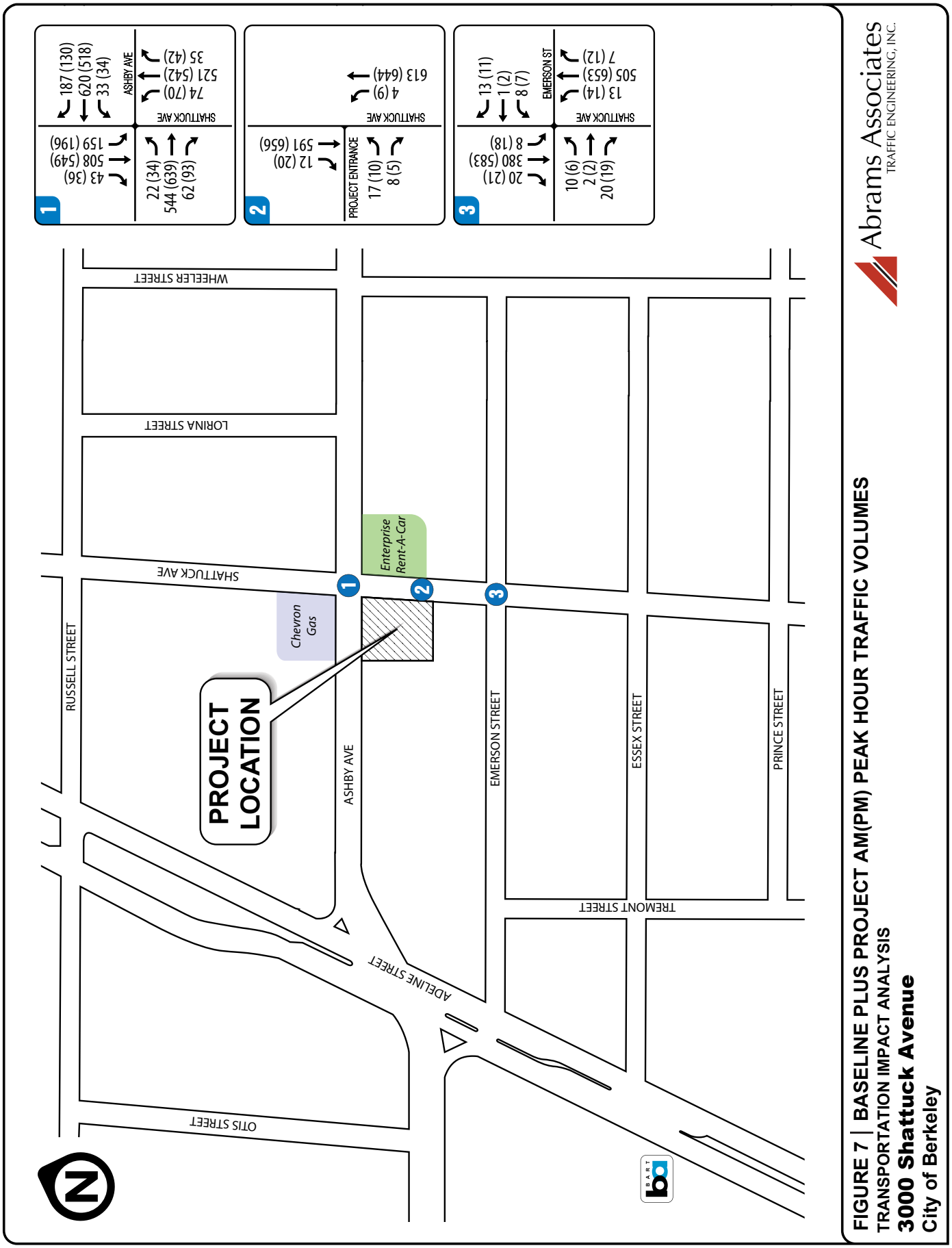

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FIGURE 7 | BASELINE PLUS PROJECT AM(PM) PEAK HOUR TRAFFIC VOLUMES
TRANSPORTATION IMPACT ANALYSIS
3000 Shattuck Avenue
City of Berkeley

Parking Demand in Berkeley - For this location near shopping and with excellent transit access (and located within a mile of a major university) the parking demand is less than the typical ITE rate in the Parking Generation Manual. This is based on many of the same characteristics that are discussed in the trip generation section. The availability of transit, the use of bicycles, and the attractiveness of walking in a mixed-use environment clearly results in reduced vehicle trip generation and an associated reduction in the need for parking.

Since Berkeley has numerous opportunities for public transportation and the apartment residents are not all expected to have personal vehicles, it is anticipated that a substantial portion of all travel will occur by walking, bicycling, and through the use of public transit. Please note the project is less than four blocks from the Ashby BART station which is less than a 5 minute walk. There are also bus stops two blocks from the site providing access to an all-nighter (Route 800).

Parking Demand Based on ITE Parking Generation Rates - To provide additional justification for the parking demand analysis, **Table 8** provides a summary of the parking demand results using the average ITE peak parking demand rates for apartments and a high turnover, sit down restaurant from the 4th Edition of the *ITE Parking Generation Manual*. As shown in **Table 8**, the parking demand generated by the project would be forecast to be approximately 75 parking spaces based on the ITE data. However, please note this estimate does not account for the project's location in a walkable area with excellent transit access located less than four blocks from a BART station.

Table 8
Residential Off-Street Parking Calculations Using Parking Data from the Institute of Transportation Engineers

Land Use	Size		Parking Ratio	Required Spaces
Restaurant	4,015	sq. ft.	5.5	22
Apartments	44	units	1.2	53
Total Unadjusted Peak Parking Demand				*75*

Residential Parking Demand Based on U.S. Census Data - To provide additional information on the potential parking demand in the project area U.S. census data was also utilized based on Census Transportation Planning Products summary of data from the American Community Survey (2010). The U.S. census data indicated the parking demand for the census tract where the project was located averaged 0.85 automobiles per dwelling unit. Please note this was calculated for the category of residential properties with greater than five dwelling units. Based on the U.S. census data the residents of the proposed 44-unit apartment building would be forecast to generate a parking demand of approximately 37 vehicles.

Public Parking Surveys - In order to evaluate the local parking situation on-street parking occupancy surveys were conducted based on the standard traffic engineering guidelines for a study area specified by the City of Berkeley. This survey included a detailed inventory of all on-street and public off-street parking within two blocks of the project site. Please note all streets in the project study area are part of the residential parking permit program where all vehicles without permits are restricted to 2 hours between 8:00 AM and 7:00 PM. The study involved a block-by-block survey of the number and types of spaces, and the parking occupancy on a weekday afternoon and also a weekday evening. These surveys were taken for both metered and non-metered spaces. The occupancy of any potentially available public off-street parking in

the area were also inventoried. The results of the study are presented in **Figure 8** which shows the study area and the particular streets in the area that have been studied. **Figure 8** also shows the number of parking spaces on each block-face. There are currently about 695 on-street parking spaces located within about two blocks of the project site. The studies found that during the afternoon, there are about 582 spaces (84%) that are occupied, and about 113 spaces available. During the evening, there are about 474 occupied spaces, which is an occupancy rate of 68%, and about 221 available on-street spaces. The detailed results of the parking occupancy surveys are attached to this report.

Summary of Findings on Parking - Based on these studies, the residential parking provided could be up to 20 spaces short of the estimated demand using U.S. Census data. The project is proposing to provide 11 spaces for residents and 6 spaces for the restaurant. Based on the Berkeley Municipal Code the residential portion would require 30 spaces and the restaurant would require 13 spaces for a total of 43 spaces. Therefore, the overall parking shortfall would be 26 parking spaces. However, the City could still consider making the findings that the proposed 17 space parking garage is reasonable and appropriate for the proposed 44 residential units and 4,015 of restaurant space. The justification would be as follows:

1) The project is proposing to exceed the requirements for bicycle parking by providing 48 bicycle parking spaces including secure parking for 36 bicycles for residents and parking for an additional 12 bicycles for the commercial space.

2) There are numerous shopping, employment, and education centers in the area.

3) There are numerous existing car sharing locations in the area. Please note that within 1/2 mile of the project site there are 6 City Carshare locations and 4 Zipcar locations.

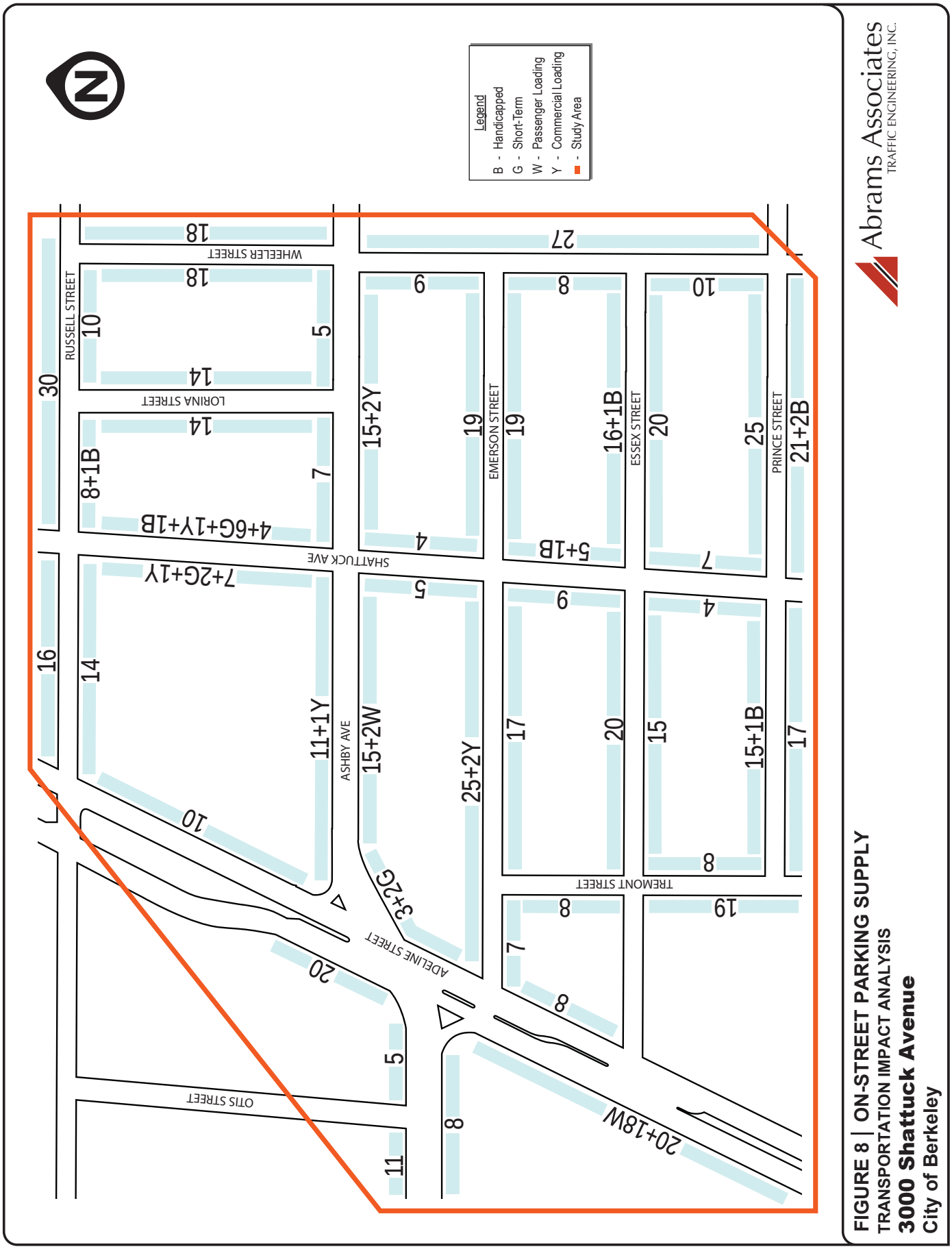
4) There is extensive public transportation available in the project area including a BART station four blocks away which is about a 5 minute walk. There are also bus stops adjacent to the site with access to two intercity routes (Routes 18 and 49) and an all-nighter (Route 800). In addition there are stops less than two blocks from the site that provide access to a transbay route (Route F).

5.8 Pedestrian and Bicycle Conditions

The proposed project would not generate a significant increase in pedestrian traffic in the area (in comparison to the existing volumes) given the size of the proposed project. In addition, the proposed project would not significantly impact or change the design of any existing pedestrian facilities and should not create any new safety problems in the area. The proposed project would also not significantly impact any existing bicycle facilities, including the nearby bicycle boulevard on Russell Street. The project will add some pedestrians and bicyclists who will utilize sidewalks and bicycle facilities in the area. 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 significantly impact or require changes to the design of any existing bicycle or pedestrian facilities. It should be noted that bicycle racks cannot be located at tree wells.

5.9 Transit

The proposed project would not interfere with any existing bus routes and would not remove or relocate any existing bus stops. The proposed Project also would not conflict with any transit plans or goals of the City of Berkeley. Based on the size of the project, it is not forecast to cause a degradation of the level of service (or a significant increase in delay) on any roadway segments currently being utilized by bus transit in the area and, as such, no significant impacts to transit are expected.



Abrams Associates
TRAFFIC ENGINEERING, INC.

FIGURE 8 | ON-STREET PARKING SUPPLY
TRANSPORTATION IMPACT ANALYSIS
3000 Shattuck Avenue
City of Berkeley

5.10 Summary of Transportation Issues and Potential Improvement Measures

TR-1 Demolition and construction activities associated with the proposed project would result in an increase in traffic to and from the site and would require an appropriate construction management plan developed and approved by the City of Berkeley.

The increase in traffic as a result of demolition and construction activities associated with the proposed project has been quantified assuming single phase construction period of 20 months.

Heavy Equipment

Heavy equipment transport to and from the site could cause traffic impacts in the vicinity of the project site during construction. However, each overweight/oversized load would be required to obtain all necessary permits, which would include conditions. Prior to issuance of grading and building permits, the project applicant would be required to submit a Traffic Control Plan.

The requirements within the Traffic Control Plan include, but are not limited to, the following: truck drivers would be notified of and required to use the most direct route between the site and I-80, as determined by the City Traffic Engineering Department; all site ingress and egress would occur only at the main driveway to the project site and construction activities may require temporary traffic controls as determined by the City Engineer. Please note construction traffic will be directed to use Shattuck Avenue as the City has a goal of minimizing construction traffic on local streets. Specifically designated travel routes for large vehicles would be monitored and controlled by flaggers for large construction vehicle ingress and egress. Any debris and mud caused by trucks would be monitored daily and may require instituting a street cleaning program. In addition, several loads of heavy equipment being hauled to and from the site each month would be short-term and temporary.

Employees

The weekday work is expected to begin around 7:00 AM and end around 4:00 PM. The construction worker arrival peak would occur between 6:30 AM and 7:30 AM, and the departure peak would occur between 4:00 PM and 5:00 PM. These peak hours are slightly before the citywide commute peaks. It should be noted that the number of trips generated during construction would not only be temporary, but would also be substantially less than the proposed project at buildout.

Based on past construction of similar projects, construction workers could require parking for up to 20 vehicles during the peak construction period. Additionally, deliveries, visits, and other activities may generate peak non-worker parking demand of 5 to 10 trucks and automobiles per day. Therefore, up to 30 vehicle parking spaces may be required during the peak construction period for the construction employees. Furthermore the Traffic Control Plan requires construction employee parking be provided on the project site or other provisions will need to be made for off-site parking, subject to approval of the City Traffic Engineering Department.

Construction Material Import

The project would also require the importation of construction material, including raw materials for the building pads, the buildings, the parking area, and landscaping. Based on past construction of similar projects, importing this material is estimated to require substantial amounts of truck traffic. Under the provisions of the Traffic Control Plan, if importation and exportation of material becomes a traffic nuisance, then the City Engineer may limit the hours the activities can take place.

Impacts of Construction on Pedestrians and Bicyclists

The project would most likely require temporary closures of sidewalks adjacent to the site for safety. This would require a detailed plan for detouring pedestrian traffic. This plan will need to be reviewed and approved by the City Engineer. Construction traffic would not be expected to cause significant impacts to bicyclists in the area. The project is not proposing to change the configuration of the existing access driveway during construction or for the proposed project.

The analysis of traffic operations at the driveway indicates there would be no significant changes to the traffic volumes, delay, or safety on Shattuck Avenue with the addition of traffic from the proposed project. It was also verified that during construction the traffic accessing the site would not be expected to exceed the volumes generated by the proposed project. In general, the pedestrian and bicycle operations in the area would not be expected to change significantly during construction beyond the addition of some truck traffic to the area.

Traffic Control Plan

The Traffic Control Plan would indicate how parking for construction workers would be provided during construction and ensure a safe flow of traffic in the project area during construction. This analysis assumed construction of the entire project in one phase to identify the potential worst-case traffic effects.

Each phase will be subject to a Traffic Control Plan and oversight by the City Engineer and construction traffic is not forecast to exceed the post construction traffic conditions created by the proposed project. As a result the potential construction traffic impacts have been adequately addressed through the project impact analysis. Therefore, the demolition and construction activities associated with the proposed project or its individual phases would not be expected to lead to noticeable congestion in the vicinity of the site or the perception of decreased traffic safety resulting in a ***less-than-significant*** impact.

Mitigation Measure(s)
None required.

TR-2 Impacts related to site access and circulation.

Based on a review of the proposed site plan it was determined that the internal garage circulation should function well and should not cause any safety or operational problems. The project site design has been required to conform to City design standards and is not expected to create any significant impacts to pedestrians, bicyclists or traffic operations.

Therefore, impacts related to site access and circulation to the proposed project would be ***less-than-significant***.

Mitigation Measure(s)
None required.

TR-3 Impacts regarding emergency vehicle access on and surrounding the proposed project site.

Sufficient emergency access is determined by factors such as number of access points, roadway width, and proximity to fire stations. The land use plan for the proposed project would be subject to approval of the fire department.

All lane widths adjacent to the project would meet the minimum width that can accommodate an emergency vehicle; therefore, the width of the roadways would be adequate. Therefore, the development of the proposed project is expected to have ***less-than-significant*** impacts regarding emergency vehicle access.

Mitigation Measure(s)
None required.

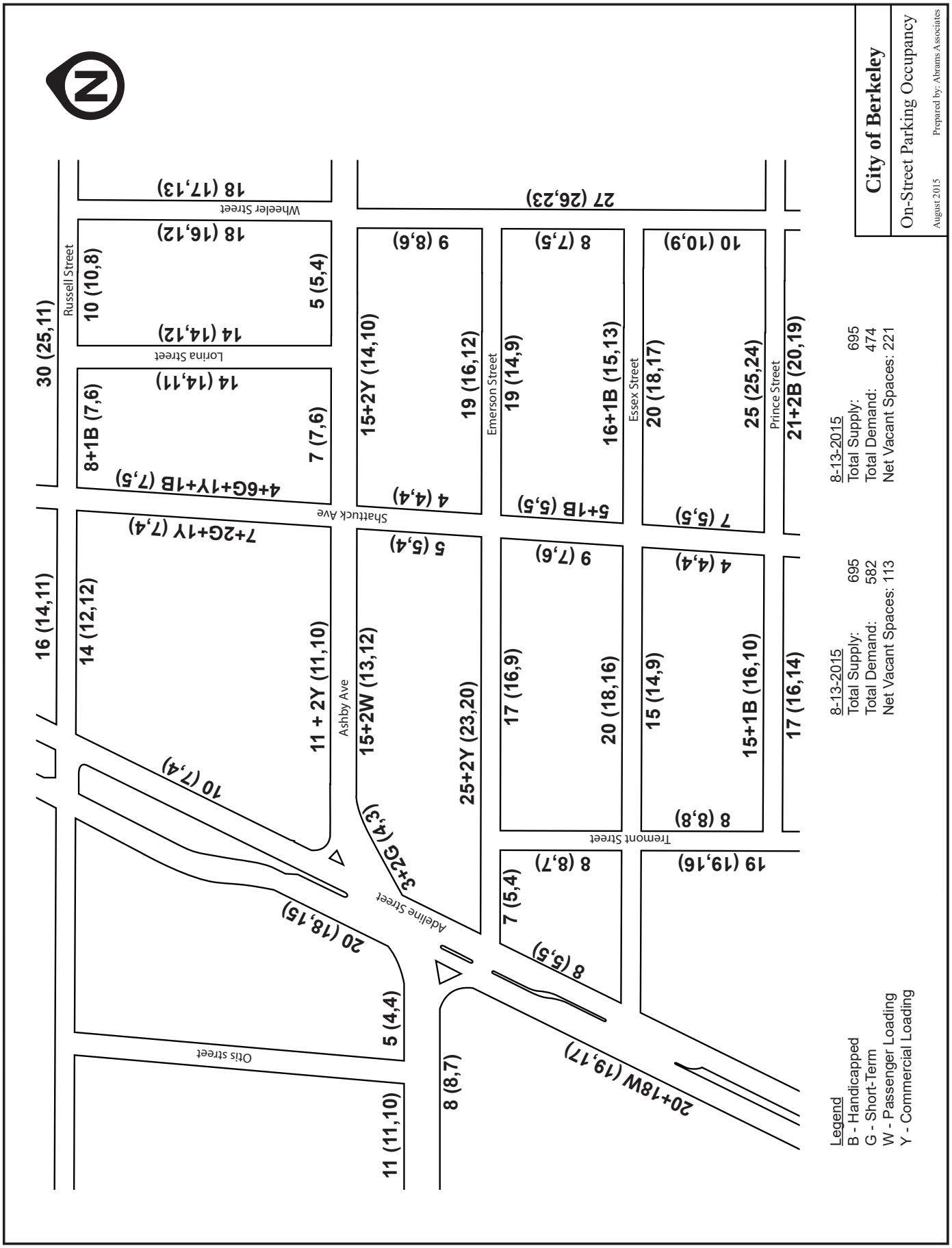
TR-4 Impacts relating to the presence and availability of adequate parking.

The proposed project is expected to provide a sufficient amount of parking to accommodate employees and residents and to ensure consistency with the City requirements. Therefore, the proposed project is not expected to create parking impacts on the surrounding areas, and impacts related to adequate parking would be ***less-than-significant***.

Mitigation Measure(s)
None required.

5.13 Mitigations and Improvement Measures

Based on this analysis there would be no significant transportation impacts according to established standards and no off-site traffic or transportation mitigations would be required.


City of Berkeley
On-Street Parking Occupancy
August 2015
Prepared by: Abrams Associates
Legend
B - Handicapped
G - Short-Term
W - Passenger Loading
Y - Commercial Loading
8-13-2015
Total Supply: 695
Total Demand: 582
Net Vacant Spaces: 113
8-13-2015
Total Supply: 695
Total Demand: 474
Net Vacant Spaces: 221
Shattuck Ave
Ashby Ave
Adeline Street
Otis street
Russell Street
Lorina Street
Wheeler Street
Emerson Street
Essex Street
Prince Street
Tremont Street
30 (25,11)
16 (14,11)
14 (12,12)
7+2G+1Y (7,4)
11 + 2Y (11,10)
10 (7,4)
20 (18,15)
5 (4,4)
11 (11,10)
8 (8,7)
3+2G (4,3)
15+2W (13,12)
25+2Y (23,20)
5 (5,4)
4 (4,4)
15+2Y (14,10)
19 (16,12)
9 (8,6)
7 (5,4)
8 (8,7)
17 (16,9)
20 (18,16)
9 (7,6)
8 (5,5)
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7 (5,5)
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25 (25,24)
10 (10,9)
17 (16,14)
21+2B (20,19)
27 (26,23)
4+6G+1Y+1B (7,5)
8+1B (7,6)
7 (7,6)
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5 (5,4)
18 (16,12)
18 (17,13)

Planning and Development Department
Land Use Planning Division

MEMORANDUM

DATE: May 19, 2017

TO: File

FROM: Shannon Allen, Principal Planner

SUBJECT: AB 25 Consultation – Phone Conversation with Andrew Galvan

This morning I spoke with Andrew Galvan, The Ohlone Tribe Inc., regarding the projects list emailed to him by Planning Technician Niloufar Karimzadegan on May 3, 2017, as well as my follow-up email on May 9, 2017. He let me know that he is not interested in consultation under AB52 on any of the projects listed, except 600 Addison.

From: Allen, Shannon
To: "chochenyo@aol.com"
Cc: Karimzadegan, Niloufar
Subject: RE: AB52 Project List 04-01-17 to 04-15-17 and 2016 catch up list
Date: Tuesday, May 09, 2017 10:34:02 AM
Importance: High

Andy –

Three things:

1) Please recall that you are going to review the project lists sent by the City, mark on the far right of the list if you would like consultation or not, then sign and send back, so that we all have a record of the communication AND can initiate consultation when requested.

2) The City has several Initial Studies that we anticipate publishing soon for the following projects:
   - 1740 San Pablo (4 story mixed-use)
   - 192-28 San Pablo (4 story mixed-use)
   - 2100 San Pablo (5 story mixed-use)
   - 2720 San Pablo (5 story mixed-use)
   - 1050 Parker/2621 Tenth (at San Pablo) (60,000 med office/R&D)
   - 1110 University (5 story mixed-use)
   - 1498 University (5 story mixed-use)
   - 1717 University (4 story mixed-use)
   - 2556 Telegraph (7 story mixed-use)
   - 3000 Shattuck (5 story mixed-use)

   Please let us know ASAP if you would like consultation on any of these. Some of these are on the recent AB52 lists sent to you, but I believe a few of the applications were submitted and/or deem complete prior to Mach 2016.

3) If Fatema Crane and/or LSA have not reached out to you yet regarding 600 Addison (Master Use Permit for approximately 475,000 sq ft R&D) they will be soon. Project information can be found here: http://www.ci.berkeley.ca.us/Planning_and_Development/Zoning_Adjustment_Board/600_Addison.aspx I think they anticipate holding a Scoping Meeting(s) in late summer or early fall.

Hope this note finds you well.

Thank you,
Shannon

Shannon Allen, AICP
Principal Planner, Land Use Planning Division
Planning and Development Department
City of Berkeley
1947 Center Street, Second Floor
Berkeley, CA 94704
(510) 981-7430

As a cost saving measure the City of Berkeley is closed the 2nd Friday of every month. Additional closures may occur. For the latest City Closures and Holidays please check the City of Berkeley Homepage at www.ci.berkeley.ca.us

From: Karimzadegan, Niloufar
Sent: Wednesday, May 03, 2017 5:38 PM
To: 'chochenyo@aol.com' <chochenyo@aol.com>
Cc: Allen, Shannon <ShAllen@cityofberkeley.info>
Subject: AB52 Project List 04-01-17 to 04-15-17 and 2016 catch up list

Dear Mr. Galvin,

Attached you can find two different project lists. The first one is the bi-monthly list for covering the period between 04/01/2017 to 04/15/2017. The second list serves as a catch up list dating back to March 2016 when you requested AB52 consultation from Shannon Allen. Please let me know if you have any questions.

Best Regards,

Nilu Karimzadegan | Land Use Planning
City of Berkeley | Planning and Development
1947 Center Street, 2nd Floor, Berkeley, Ca 94704
Direct: 510.981.7419
NKarimzadegan@cityofberkeley.info

This attachment is on file and available for review at the City Clerk Department, or can be accessed from the City Council Website. Copies of the attachment are available upon request.

City Clerk Department
2180 Milvia Street
Berkeley, CA 94704
(510) 981-6900

or from:

The City of Berkeley's Website
http://www.berkeleyca.gov

ATTACHMENT 10

NOTICE OF PUBLIC HEARING
BERKELEY CITY COUNCIL

ZAB APPEAL: 3000 SHATTUCK AVENUE, USE PERMIT #ZP2022-0046

The public may participate in this hearing by remote video or in-person.

Notice is hereby given by the City Council of the City of Berkeley that on **TUESDAY, MARCH 25, 2025** at **6:00 P.M.** a public hearing will be conducted to consider appeals of a decision by the Zoning Adjustments Board to APPROVE **Zoning Permit #ZP2022-0046 to demolish a gas station, and construct a 10-story (114 feet) mixed-use building utilizing a State Density Bonus request, with 166 dwellings, including 17 Very Low-Income units, and 1,000 square-feet of commercial space.**

The hearing will be held on March 25, 2025 at 6:00 p.m. in the School District Board Room, located at 1231 Addison Street, Berkeley CA 94702.

For further information, please contact Allison Riemer, Project Planner at (510) 981-7433 or email ariemer@berkeleyca.gov

A copy of the agenda material for this hearing will be available on the City's website at https://berkeleyca.gov/ as of March 13, 2025. **Once posted, the agenda for this meeting will include a link for public participation using Zoom video technology, as well as any health and safety requirements for in-person attendance.**

Written comments should be mailed or delivered directly to the City Clerk, 2180 Milvia Street, Berkeley, CA 94704, or e-mailed to council@berkeleyca.gov in order to ensure delivery to all Councilmembers and inclusion in the agenda packet.

Communications to the Berkeley City Council are public record and will become part of the City's electronic records, which are accessible through the City's website. **Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to the City Council, will become part of the public record.** If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service or in person to the City Clerk. If you do not want your contact information included in the public record, please do not include that information in your communication. Please contact the City Clerk at (510) 981-6900 or clerk@berkeleyca.gov for further information.

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Mark Numainville, City Clerk

Mailed by: March 11, 2025
Noticed Pursuant to: Berkeley Municipal Code Section 23.404.040(B), Public Hearing Notice

NOTICE CONCERNING YOUR LEGAL RIGHTS*: If you object to a decision by the City Council to approve or deny(Code Civ. Proc. 1094.6(b)) or approve (Gov. Code 65009(c)(5) an appeal, the following requirements and restrictions apply: 1) Pursuant to Code of Civil Procedure Section 1094.6,*

ATTACHMENT 10

no lawsuit challenging a City decision to deny or approve a Zoning Adjustments Board decision may be filed more than 90 days after the date the Notice of Decision of the action of the City Council is mailed. Any lawsuit not filed within that 90-day period will be barred. 2) In any lawsuit that may be filed against a City Council decision to approve or deny a Zoning Adjustments Board decision, the issues and evidence will be limited to those raised by you or someone else, orally or in writing, at a public hearing or prior to the close of the last public hearing on the project.

If you challenge the above in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Berkeley at, or prior to, the public hearing. Background information concerning this proposal will be available at the City Clerk Department and posted on the City of Berkeley webpage at least 10 days prior to the public hearing.