

ATTACHMENT D

January 10, 2018

Bassett Street Residential Project (Aviato) Initial Study/Addendum Responses to Adams Broadwell Appeal Comments – Dated November 22, 2017

Comment A1: On behalf of San Jose Residents for Responsible Development (“San Jose Residents”), we are submitting this appeal of the Planning Director’s approval of the Vesting Tentative Map (T17-026) for the Bassett Street Residential Project (Aviato) (“Project”), proposed by KT Urban (“Applicant”). The Director of Planning, Building, and Code Enforcement (“Planning Director”) approved the Project on November 15, 2017.

We have attached a Notice of Permit Appeal Form, parcel map outlining the subject site and a payment of \$500 to cover the fee of the appeal. We have also attached San Jose Residents’ comments and consultant comments submitted to the Planning Director on November 14, 2017. Those comments are incorporated herein.

Pursuant to the City of San Jose, Municipal Code, section 19.12.230 and Government Code, section 66452.5, San Jose Residents appeals this approval to the City Council. On November 15, 2017, the Planning Director made the following findings:

Subdivision Map Act Findings: In accordance with Section 66474 of the Government Code of the State of California, the Director of Planning of the City of San Jose, in consideration of the proposed subdivision shown on the Vesting Tentative Map with the imposed conditions, shall deny approval of a Vesting Tentative Map, if it makes any of the following findings:

- a. That the proposed map is not consistent with applicable General and Specific Plans as specified in Section 65451.
- b. That the design or improvement of the proposed subdivision is not consistent with applicable General and Specific Plans.
- c. That the site is not physically suitable for the type of development.
- d. That the site is not physically suitable for the proposed density of development.
- e. That the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.
- f. That the design of the subdivision or type of improvements is likely to cause serious public health problems.
- g. That the design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision.

Based on review of the proposed subdivision, the Director of Planning of the City of San Jose does not make any such findings to deny the subject subdivision. The project is consistent with the General Plan goals, policies and land use designation. The project complies with

the General Plan goals and policies related to Downtown design, retail/commercial uses in the downtown, growth areas among others. General Plan land use designation of Downtown allows for high-density residential projects with ground floor commercial uses. The project site is physically suitable for the project and proposed density in that it the development intensity is encouraged and expected within the Downtown. Furthermore, the project site does not contain any historic resources or sensitive habitats or wildlife. The project is required to improve the public sidewalks on East Santa Clara, North 4th Street and North 5th Street.

Subdivision Ordinance Findings. *In accordance with San Jose Municipal Code (SJMC) section 19.12.130, the Director may approve the Tentative Map if the Director cannot make any of the findings for denial in Government Code section 66474 and the Director has reviewed and considered the information relating to compliance of the project with the California Environmental Quality Act and determines the environmental review to be adequate. Additionally, the Director may approve the project if the Director does not make any of the findings for denial in San Jose Municipal Code Section 19.12.220.*

Section 19.12.130 incorporates the findings for denial in Section 66474 of the Government Code specified in Findings Section 1 herein.

Based on review of the proposed subdivision, the Director of Planning of the City of San Jose does not make any such findings to deny the subject subdivision. Additionally, the Addendum prepared for the project does not identify any significant environmental impacts.

This appeal is based on the Vesting Tentative Map's inconsistency with the required findings under the Subdivision Map Act and the City's Subdivision Ordinance Findings, listed above. In our November 14, 2017 comment letter, we explained that the Project would result in significant environmental damage and cause serious public health problems. We identified that the "Project's excess cancer risk for infantile, child, adult, and lifetime cancer risk all exceed the threshold of significance." We also explained, that Project construction may encounter contaminated groundwater, resulting in substantial environmental damage and public health impacts. Therefore, the Planning Director should have denied the Project approval because the Project is likely to cause substantial environmental damage and serious public health problems.

We provided in our comments that pursuant to the General Plan, the City of San Jose requires the completion of air quality modeling for sensitive land uses, such as new residential developments that are located near sources of pollution such as freeways and industrial uses. This policy applies to the proposed project due to its proximity to the Union Pacific Railroad tracks and Highway 87. We provided comments that the air quality analysis is not adequate because the air quality impacts were not adequately evaluated. Therefore, the Planning Director should have denied the approval because "the proposed map is not consistent with applicable General and Specific Plans as specified in Section 65451."

The Planning Director should have denied the Vesting Tentative Map (application) based on the City's inability to make the necessary findings. Thank you for your attention to this important matter.

Response A1: The City made the necessary findings to approve the project consistent with Section 19.12.130 of the San José Municipal Code as further described in the proposed Vesting Tentative Map and herein. Each of the commentators' comments relating to the approval of the Vesting Tentative Map application are acknowledged and responded to in detail below.

Comments on the Initial Study/Addendum prepared for Bassett Street Residential Project (Aviato) (SP17-023) – Dated November 14, 2017

Comment 1: These comments are submitted on behalf of San Jose Residents for Responsible Development regarding the Initial Study/Addendum for the Bassett Street Residential Project (Aviato) ("Project"), proposed by KT Urban ("Applicant"). The Project site is 0.77 acres and is comprised of three parcels on the north side of Bassett Street between Terraine Street and North San Pedro Street in downtown San Jose (APNs: 259-23-005; 259-23-006; 259-51-007). As proposed, the Applicant is seeking a Special Use Permit (SP17-023 & T17-026) from the City of San Jose ("City") to allow the construction of 302 square units in an 18-story building and up to 10,146 square feet of retail on the 0.77 gross acre site. The proposed Project would demolish the existing buildings (totaling approximately 26,800 square feet).

The Addendum, prepared pursuant to California Environmental Quality Act ("CEQA") Guidelines section 15164, evaluates the Project's potential environmental impacts and consistency with the Brandenburg Mixed Use Project/North San Pedro Housing Sites Final Environmental Impact Report ("EIR"); the San Jose Downtown Strategy 2000 Final EIR; and the Final EIR and Supplemental Program EIR for the Envision San Jose 2040 General Plan, and addenda thereto.

We reviewed the environmental review documents with the assistance of experts Matt Hagemann and Hadley Nolan of Soil / Water / Air Protection Enterprise ("SWAPE"). Their attached technical comments are submitted in addition to the comments in this letter.¹ The curricula vitae of these experts are also attached as exhibits to this letter.

In sum, we identified a number of significant deficiencies in the City's analysis, as well as potentially new and more severe impacts than previously analyzed in the FEIRs. Furthermore, we identified several mitigation measures not previously analyzed that would reduce potentially significant impacts. Specifically, the Addendum fails to adequately evaluate hazards related to dewatering at the construction site. It does not disclose a potentially hazardous well on the Project site. The Addendum also inadequately analyzes air quality impacts, and our experts provide substantial evidence that there are more severe air quality impacts than previously analyzed. Therefore, an

¹ See Letter from Matt Hagemann and Hadley Nolan to Linda Sobczynski (November 9, 2017) *Comments on the Bassett Street Residential Project (Aviato)* (hereinafter, "SWAPE Comments"), **Exhibit A**.

Addendum is not the appropriate means to approve this Project; rather, an EIR is required to address the significant environmental effects, which are described in further detail below.

Response 1: The comment above is introductory and did not provide any specific data or information relating to the alleged inadequacy of the findings to support approval of the Vesting Tentative Map. Therefore, no direct response is required to the comment. However, as explained in the following response to comments, there is substantial evidence in the record to support the City's findings for approval of the Vesting Tentative Map.

Comment 2: I. STATEMENT OF INTEREST

San Jose Residents for Responsible Development (“San Jose Residents”) is an unincorporated association of individuals and labor unions that may be adversely affected by the potential impacts associated with Project development.

The association includes Jeff Dreyer Sr., Paul Oller, Mo Salberg, and Alex Caraballo.

The individual members of San Jose Residents live, work, and raise their families in the City of San Jose. 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 San Jose 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 their 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, San Jose Residents' members are concerned about projects that present environmental and land use impacts without providing countervailing economic and community benefits.

Response 2: This comment identifies the alleged individuals and organizations the commenter represents and offers the opinion of the commenter regarding the economic and social issues of encouraging sustainable development, a safe working environment, and desirability for businesses and people to be located in the region. The City does not have sufficient information to determine whether the information provided above is full and accurate.

Comment 3: II. THE CITY MAY NOT RELY ON PREVIOUS ENVIRONMENTAL ANALYSIS FOR PROJECT APPROVAL

CEQA has two basic purposes, neither of which is satisfied by the City's Addendum. First, 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.² The EIR is the "heart" of this requirement.³ 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."⁴

To fulfill this function, the discussion of impacts in an EIR must be detailed, complete, and "reflect a good faith effort at full disclosure."⁵ An adequate EIR must contain facts and analysis, not just an agency's conclusions.⁶ CEQA requires an EIR to disclose all potential direct and indirect, significant environmental impacts of a project.⁷

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring imposition of mitigation measures and by requiring the consideration of environmentally superior alternatives.⁸ If an EIR identifies significant impacts, it must then propose and evaluate mitigation measures to minimize these impacts.⁹ CEQA imposes an affirmative obligation on agencies to avoid or reduce environmental harm by adopting feasible project alternatives or mitigation measures.¹⁰ Without an adequate analysis and description of feasible mitigation measures, it would be impossible for agencies relying upon the EIR to meet this obligation.

Under CEQA, an EIR must not only discuss measures to avoid or minimize adverse impacts, but must ensure that mitigation conditions are fully enforceable through permit conditions, agreements or other legally binding instruments.¹¹ A CEQA lead agency is precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; an agency may not rely on mitigation measures of uncertain efficacy or feasibility.¹² This approach helps "insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug."¹³

Response 3: As discussed in *Section 1.0 Introduction and Purpose* of the Initial Study/Addendum (IS/Addendum), development of the project site was evaluated in the Brandenburg Mixed-Use Project/North San Pedro Housing Sites Environmental Impact

² 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.

³ *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84.

⁴ *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁵ CEQA Guidelines, § 15151; *San Joaquin Raptor Wildlife Rescue Center u. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.

⁶ *See Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.ad 55a, 568.

⁷ Pub. Resources Code, § 21100(b)(1); CEQA Guidelines § 15126.2(a).

⁸ CEQA Guidelines, § 15002(a)(2) and (3); *Berkeley Jets*, 91 Cal.App.4th at 1354; *Laurel Heights Improvement Ass'n v. Regents of the University of Cal.* (1998) 47 Cal.3d 376, 400.

⁹ Pub. Resources Code, §§ 21002.1(a), 21100(b){3}.

¹⁰ *Id.*, §§ 21002-21002.1.

¹¹ CEQA Guidelines § 15126.4(a)(2).

¹² *Kings County Farm Bur. v. County of Hanford* (1990) 221 Cal.App.3d 692, 727-28 (a groundwater purchase agreement found to be inadequate mitigation because there was no record evidence that replacement water was available).

¹³ *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935. 3944-002acp

Report (SCH #2003012046, August 2003) (Brandenburg FEIR), adopted by City Council on June 15, 2004 by Resolution No. 72170. The Brandenburg FEIR is an environmental document that analyzed the overall proposed development of 60,000 square feet of commercial space and 1,500 residential units for the 11.11-acre Brandenburg site. At the time of the certification of the Brandenburg FEIR, only General Plan Amendments and Rezoning were proposed and approved. Therefore, subsequent development-specific permits proposed for the 11.11-acre site would be subject to additional environmental review to ensure compliance and conformance to the Brandenburg FEIR. An Initial Study was completed for the full development proposal (Special Use Permit and Tentative Map together) to examine if the project is consistent with the findings in the Brandenburg FEIR.

The project site is identified as Area B in the Brandenburg FEIR, which was analyzed with an assumed development potential of 141 residential units and no commercial space. The current project analyzed for 302 units and up to 10,146 square feet of retail. It should be noted that the IS/Addendum analyzed for more commercial space than the approved Special Use Permit, which was approved 302 residential units and only 9,300 square feet of commercial space.

The proposed 302 residential units result in 161 units more than the development assumed on site (Area B) in the Brandenburg FEIR. However, other sites covered by the Brandenburg FEIR have approved previous Site Development permits (CP11-034, H12-020, H14-002, H14-003, H14-004, and H14-037) that account for 76 fewer residential units than the development capacity analyzed in the Brandenburg FEIR. Prior to the approval of this project, approximately 907 residential units¹⁴ and 1,400 square feet of commercial space have been approved for the entire Brandenburg development area. The total remaining residential and commercial capacity was approximately 593 residential units and 58,600 square feet of commercial space. Therefore, the proposed 302 residential units and 10,146 square feet of retail on the site is within the capacity identified and analyzed in the Brandenburg FEIR.

Development of the overall Brandenburg Mixed-Use Project/North San Pedro Housing Sites was also addressed in the more recent Downtown Strategy FEIR, adopted by City Council on June 21, 2005 by Resolution No. 72767. The Downtown Strategy FEIR, as well as the Envision San José 2040 Plan EIR (2011) and Supplemental FEIR (General Plan SFEIR) are all broad range, program-level environmental documents. Consistent with CEQA Statute 21093(b) and CEQA Guidelines Section 15152(a), the environmental review for downtown projects used these broader FEIRs for the overall development of the area and concentrated later review on issues specific to the later project.

The IS/Addendum has been prepared as part of the supplemental environmental review process needed to evaluate the proposed project in terms of the overall development envisioned in the Brandenburg Mixed-Use Project/North San Pedro Housing Sites project,

¹⁴ Originally was approved for 934 units total. However, an amendment (AD17-490) was approved in May 2017 to reduce the unit for one project from 408 to 381 residential units.

Downtown Strategy plan and the General Plan, as explained above. In accordance with CEQA, this IS/Addendum incorporated the analyses, findings, and mitigation measures from the Brandenburg FEIR, the Downtown Strategy FEIR, and the General Plan FEIR, and addenda thereto. The FEIRs were found to be in compliance with CEQA and have been approved by City Council. All FEIRs includes legally adequate analysis and description of feasible mitigation measures and conditions for future, more specific project level developments. The FEIRs not only discussed measures to avoid or minimize adverse impacts, but those mitigation measures are fully enforceable through development conditions of approval. The IS/Addendum concluded the proposed project would not create new or more significant environmental impacts beyond those identified in the previously identified FEIRs.

Comment 4: Following preliminary review of a project to determine whether an activity is subject to CEQA, a lead agency is required to prepare an initial study to determine whether to prepare an EIR or negative declaration, identify whether a program EIR, tiering, or other appropriate process can be used for analysis of the project's environmental effects, or determine whether a previously prepared EIR could be used with the project, among other purposes.¹⁵ CEQA requires an agency to analyze the potential environmental impacts of its proposed actions in an EIR except in certain limited circumstances.¹⁶ A negative declaration may be prepared instead of an EIR when, after preparing an initial study, a lead agency determines that a project "would not have a significant effect on the environment."¹⁷

When an EIR has previously been prepared that could apply to the Project, 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.¹⁸

The CEQA Guidelines explain that 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 occur:

- (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;

¹⁵ CEQA Guidelines, §§ 15060, 15063(c).

¹⁶ See, e.g., Pub. Resources Code, § 21100.

¹⁷ *Quail Botanical Gardens u. City of Encinitas* (1994) 29 Cal.App.4th 1597; Pub. Resources Code, § 21080(c).

¹⁸ Pub. Resources Code, § 21166.

- (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 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.¹⁹

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.²⁰ For Addendums specifically, which is what the City claims is applicable to the Project, CEQA allows Addendums to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.²¹

Here, the City's reliance on CEQA's provisions is misplaced.²² The City's Addendum does not simply provide "some changes or additions" to the prior FEIRs as is allowed under CEQA Guidelines section 15162. Rather, it includes a new substantive analysis for a large development project which was not specifically analyzed in the other FEIRs.

Second, as explained further below, SWAPE provides substantial evidence that the Project will result in new and more severe significant impacts than previously analyzed in prior FEIRs. And SWAPE recommends new, cost-effective, and feasible mitigation measures that were not considered in the

¹⁹ CEQA Guidelines, § 15162(a)(1)-(3).

²⁰ CEQA Guidelines, § 15162(b).

²¹ CEQA Guidelines, § 15164; Initial Study/Addendum, p. 1 ("Pursuant to Section 15164 of the CEQA Guidelines, the City of San Jose has prepared an Addendum . . . because minor changes made to the project, as described below, do not raise important new issues about the significant impacts on the environment.").

²² CEQA Guidelines, § 15164.

prior FEIRs, but that could reduce this Project's significant impacts to a less than significant level.²³ SWAPE's substantial evidence, and the City's lack thereof, requires that the City prepare a subsequent or supplemental EIR to adequately address the Project's potentially significant impacts.²⁴

Response 4: As stated in Response 3 above, the current project is within the development capacities identified and analyzed in previous approved FEIRs. The IS/Addendum was completed to provide additional project specific analysis, included specific feasible mitigation measures and conditions of approvals as part of the Special Use Permit, and identifies no new or more significant environmental impacts beyond those identified in the FEIRs and subsequent addenda. Therefore, completion of an IS/Addendum is in conformance with Section 15164.

Comment 5: A. The City is required to prepare a subsequent EIR due to new information about hazards and hazardous waste.

1. *New information about the impacts from groundwater dewatering triggers preparation of a subsequent EIR.*

The Project will require excavation that will result in extensive dewatering during construction. Yet, the Addendum, Appendix C, and prior FEIRs fail to disclose the impacts that may result from this dewatering.

Under CEQA Guidelines, section 15162(a)(3), an agency must prepare an EIR if there is new information of substantial importance, which could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete and which will result in a significant effect that was not discussed in the previous EIR. A project may have a significant impact if it would violate any water quality standards or waste discharge requirement, create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality.²⁵

Here, the City must prepare a subsequent EIR because new information about groundwater and changes in the Project reveal a potentially significant water quality impact. New information shows that groundwater is present at depths as shallow as 15 feet in depth beneath the Project site.²⁶ Changes in the proposed Project require excavation to reach a depth of 41 feet, as opposed to

²³ IS/Addendum, p. 32 ("The project would, however, contribute cumulatively to the significant operational emissions impact identified in the Brandenburg and Downtown Strategy FEIR's.").

²⁴ CEQA Guidelines, § 15162 ("no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one of more of the following [triggering actions has occurred]"); § 15164 ("The [agency's] explanation [to not prepare a subsequent EIR pursuant to Section 15162] must be supported by substantial evidence.").

²⁵ CEQA Guidelines, Appendix G (Water Quality).

²⁶ IS/Addendum, p. 61.

excavation up to 25 feet, as described in the 2003 Brandenburg EIR.²⁷ Therefore, more extensive dewatering will be required during construction.²⁸ A subsequent EIR is required because of changes in the Project²⁹ and because it was not known and could not have been known at the time the prior EIR was certified that excavation will reach depths of 41 feet for this Project.³⁰ Therefore, impacts from extensive dewatering, up to 41 feet, were not adequately analyzed.

Response 5: The purpose of the Initial Study/Addendum is to identify and evaluate the project-specific impacts of the currently proposed project. The fact that the project would include excavation to a depth of 41 feet, rather than the 25 feet previously evaluated, does not, by itself, constitute a new significant impact or impact of substantially greater severity. The approach to dewatering of sites excavating to depths of 41 feet are similar to those with excavations of 25 feet. The Initial Study/Addendum identifies the possible effects of constructing below grade structures and dewatering on geologic conditions, such as hydrostatic pressure, settlement, etc., as well as potential hazardous materials and groundwater impacts related to dewatering. The Downtown Strategy Plan FEIR and Brandenburg FEIR, Impact GEO-3 identifies potential impacts related to dewatering for below ground structures and the mitigation necessary to reduce any impacts to a less than significant level. The Initial Study states that the project would be built and maintained in accordance with a site-specific geotechnical report (as required by the Downtown Strategy FEIR) and applicable regulations including the most recent California Building Code requirements which contains the regulations that govern the construction of structures in California.

As described in Section 4.8.3.2 of the Initial Study/Addendum, discharge to the storm drain system requires approval from the San Francisco Bay RWQCB and the City's Environmental Services Division. With the implementation of the standard permit conditions and mitigation measures identified in the IS/Addendum, dewatering during construction would not create a significant hazard to the public or the environment. In accordance with City policies, the following Standard Permit Conditions shall be implemented as part of the project:

Standard Permit Conditions

Construction Period

- As the project is regulated by the statewide Construction General Permit, it shall be subject to the requirements of that permit related to construction-period pumped groundwater discharges.

Post-Construction

²⁷ CEQA Guidelines, § 15162(a)(1) ("Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.")

²⁸ IS/Addendum, p. 61.

²⁹ CEQA Guidelines, § 15162(a)(1).

³⁰ CEQA Guidelines, § 15162(a)(3).

- The project shall be designed so that the below-grade parking structure shall withstand hydrostatic groundwater pressure intrusions and shall not need to pump groundwater on a post-construction basis. If this is infeasible then the project can implement groundwater pumping.
- Any pumped uncontaminated groundwater of less than 10,000 gallons/day shall be discharged to a landscaped area or bioretention unit that is properly designed to accommodate the volume of pumped groundwater, or discharged to the sanitary sewer. Discharge to the sanitary sewer would require review by the City's Environmental Services Engineering section during the Building Permit stage and is subject to all wastewater permitting requirements and fees. In the event that it is not feasible to pump groundwater to stormwater treatment features or the sanitary sewer, groundwater may be discharged to the storm sewer system if testing determines that the discharge is uncontaminated, as outlined in the City's Stormwater Permit - Provision C.15.b.i(2)(c)-(e). Pre-discharge sampling data collected for verification that the pumped groundwater is not contaminated shall be provided to the City of San José.
- Any proposed new discharges of uncontaminated groundwater with flows equal to or more than 10,000 gallons/day, and all new discharges of potentially contaminated groundwater, shall obtain a permit from the San Francisco Bay Regional Water Quality Control Board. Upon approval of the permit, a copy shall be provided to the City of San José with the Building Permit application submittal.

With implementation of the Standard Permit Conditions, dewatering of project excavation up to 41 feet in depth would not result in any new impacts or impacts of substantially greater severity than previously identified in the Brandenburg, Downtown Strategy, or General Plan FEIRs.

Comment 6: In addition, SWAPE provides substantial evidence that the Project site may have potentially contaminated groundwater, making the impact a new or more severe significant impact.³¹ In 2001, a consultant documented contaminated groundwater at 355 North San Pedro Street, which is adjacent to 199 Bassett Street.³² The consultant documented benzene at concentrations of 16 parts per billion.³³ Pursuant to San Francisco Bay Regional Water Quality Control Board laws and regulations, this concentration of benzene is three times the allowable limit that may be discharged from dewatering efforts into stormwater drains.³⁴

However, the 2003 EIR contains only a summary report discussing that Underground Storage Tanks (USTs) present potential contamination to soil and groundwater with no investigation into whether the groundwater was contaminated at the Project site. Yet the Addendum asserts, without providing substantial evidence, that dewatering is not anticipated to create a significant hazard to the public or the environment.

³¹ CEQA Guidelines, §15162(a)(1), (3)(A-B)

³² SWAPE Letter, p. 2.

³³ SWAPE Letter, p. 2.

³⁴ SWAPE Letter, p. 2.

SWAPE provides expert opinion, constituting substantial evidence, that the Project's excavation to a depth of 41 feet in an area where potentially contaminated groundwater is 15 feet below ground surface may cause an unanalyzed significant impact on surface water bodies, public utilities, and the public, including construction workers, if the contamination is not adequately identified, analyzed and mitigated during dewatering activities.³⁵ The City is required to prepare an EIR to discuss this potential groundwater contamination because there is new information of substantial importance and project changes showing potentially contaminated groundwater may result in a significant environmental effect.

Response 6: As discussed in the *Section 4.8.2.3* of the IS/Addendum, low levels of TPH-d and TPH-g were detected on-site. A Corrective Action Plan (CAP) was proposed and approved by the RWQCB which included excavation of approximately 100 cubic yards of petroleum contaminated soils.³⁶ Based on the results, a closure letter was issued by RWQCB in March 2002. Additionally, the estimated direction of groundwater flow is to the southeast; therefore, contaminants on the adjacent site would flow away from the project site.

As seen in Attachment D-1³⁷, the groundwater sample with elevated benzene levels mentioned by SWAPE (335-HP-2) is located approximately 45 feet south of the project site on Bassett Street north of 355 North San Pedro Street. This sample site is farther from the project site than two closer monitoring wells (Well Nos. 355-BC-7 and 355-BC-6) which have no detectable benzene levels, indicating that contamination is not migrating onto the project site.

Subsequent groundwater testing, completed in May 2017, of six monitoring wells located on the project site did not have groundwater results above laboratory detection limits for gasoline (TPH-g), diesel (TPH-d), motor oil (TPHmo), VOCs, SVOCs, or PCBs (Attachment D-2).

The Standard Permit Conditions described in the IS/Addendum and listed in Response 5 will ensure dewatering of the site does not result in any new or more severe impact than identified for the Brandenburg, Downtown Strategy, and General Plan FEIRs. As discussed in *Section 4.8.3.2* of the IS/Addendum, discharge to the storm drain system requires approval from the San Francisco Bay RWQCB and the City's Environmental Services Division. Therefore, the project would comply with applicable RWQCB regulation and laws.

Comment 7: *2. The Addendum fails to disclose and evaluate a nearby well.*

³⁵ SWAPE Letter, p. 2.

³⁶ City of San Jose. Brandenburg Mixed Use Project/North San Pedro Housing Sites Environmental Impact Report. August 2003.

³⁷ Figure 4 of the Addendum to the Corrective Action Plan for 355 North San Pedro Street to Include the Wayne Property at 170 Bassett Street, San Jose, California, June 2003, http://geotracker.waterboards.ca.gov/view_documents?global_id=T0608568823&document_id=5929224 .

According to documents filed with the State Water Resources Control Board, there is a well located on the Project site that has not been identified in the Phase I Environmental Assessment³⁸ and was not discussed in the Addendum.³⁹ CEQA does not require technical perfection in an environmental review document, but rather adequacy, completeness, and a good-faith effort at full disclosure.⁴⁰

The Addendum fails as an information disclosure document because it does not include information pertaining to this well, and any data generated from investigation of the well, including soil and groundwater analytical data.⁴¹ Because the Addendum failed to disclose the existence of this well, it is unclear if the well is leaking or was properly abandoned and if it poses a risk during earth-moving activities. The City must prepare an EIR to disclose and evaluate the potential risk associated with this well.

Response 7: As highlighted on the map of page 3 of the SWAPE report (referenced below), the well mentioned in the SWAPE report is located off-site to the northeast of the project site. As shown in the figure below, the project site is indicated in red oval and the well (in blue) is to the northeast located on parcel 259-51-006. The Phase I Environmental Site Assessment (ESA) prepared in May 2017 for this project states that no wells were observed to be on the site at the time of reconnaissance. In addition, the estimated direction of groundwater flow is to the southeast within the immediate site vicinity and contaminants associated with the well would flow downgradient, away from the project site. For those reasons, the off-site well mentioned in the comment would not result in any new impacts or impacts of substantially greater severity than previously identified in the Brandenburg, Downtown Strategy, or General Plan FEIRs.

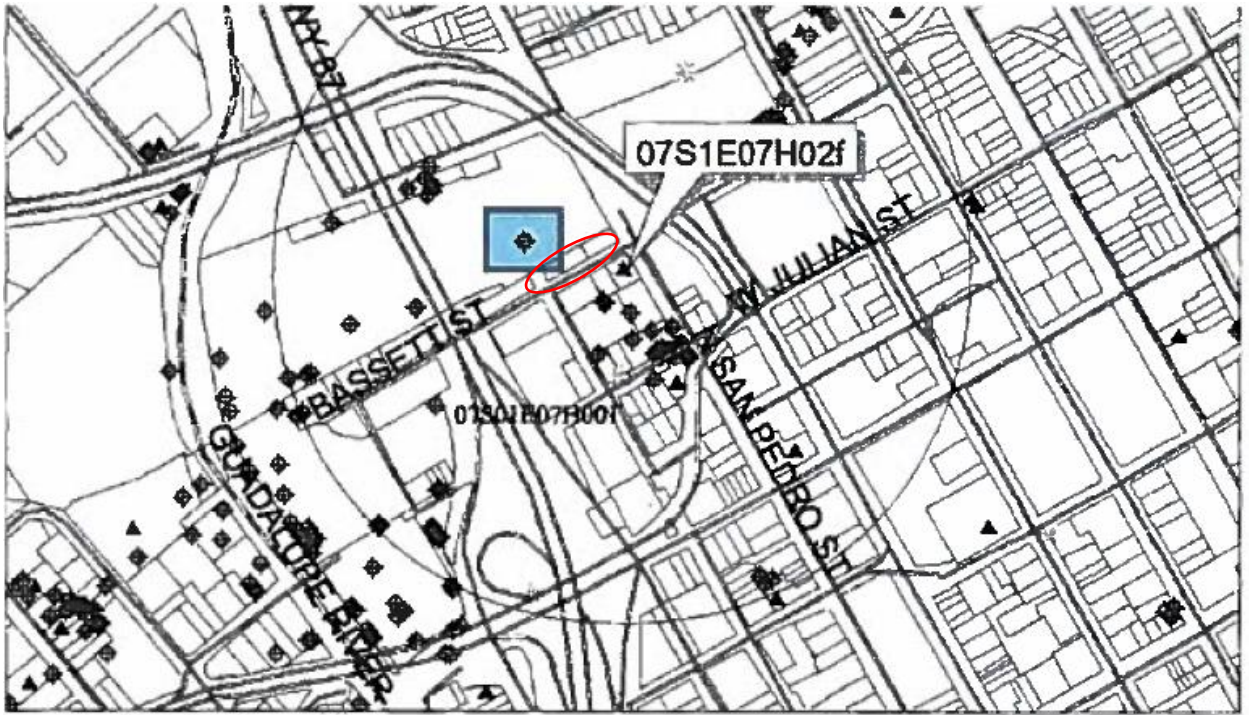
³⁸ Addendum, Appendix C

³⁹ SWAPE Letter, p. 3. (citing

https://geotracker.waterboards.ca.gov/regulators/deliverable_documents/4051131308/MAPS_METROSCAN.pdf

⁴⁰ CEQA Guidelines, § 15003, subd. (i) (citing *Kings Cowity Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692).

⁴¹ SWAPE Letter, p. 3.



Comment 8: B. The City cannot rely on the Addendum for Project approval because the Project will result in new, significant air quality impacts that were not identified in the previous FEIRs.

The City of San Jose requires the completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses.⁴² This policy applies to the proposed project due to its proximity to the Union Pacific Railroad tracks and Highway 87.⁴³ Previous FEIRs did not complete this analysis for the proposed Project. Consequently, the Addendum prepared a community risk assessment to evaluate emissions of diesel particulate matter ("DPM") and PM2.5 during construction activities as part of its air quality analysis.⁴⁴ The Addendum concluded that the community risk impact will be "new less than significant impact with mitigation incorporated (less than significant impact with mitigation)."⁴⁵

Based on this conclusion, the City believes it does not need to prepare a subsequent EIR because the new information does not show a *significant* effect.⁴⁶ However, this conclusion – that the impact is new, but *less than significant with mitigation* – is unsupported by substantial evidence and cannot be used as the basis for not preparing a subsequent EIR.⁴⁷ The Addendum (1) incorrectly calculated the community risk impact. (As explained in further detail below, the impact is more severe than what

⁴² IS/Addendum, p.27 (citing General Plan Policy MS-11.1).

⁴³ IS/Addendum, p.37.

⁴⁴ IS/Addendum, p.35.

⁴⁵ IS/Addendum, p.36.

⁴⁶ See CEQA Guidelines, § 15162(a)(3)(A); see, e.g., IS/Addendum, p. 1 of 3 ("... minor changes to the project... do not raise important new issues about the significant impacts on the environment.")

⁴⁷ See CEQA Guidelines, § 15164(e) (explanation supporting decision not to prepare a subsequent EIR must be supported by substantial evidence).

the Addendum reports.) And, (2) the Addendum relies on unenforceable, infeasible mitigation measures, which will not be able to reduce the new, significant impact to less than significant levels. Pursuant to CEQA Guidelines sections 15164(a) and 15162(a)(3)(A), a subsequent EIR is required because a correctly calculated community risk demonstrates this new impact will be significant. The City must prepare a subsequent EIR that includes enforceable, feasible mitigation measures to reduce the new, significant health risk impact.

First, the Addendum incorrectly calculated the risk posed to nearby residential receptors as a result of exposure to DPM emissions because it only looked at Project *construction* and failed to evaluate the risk associated with exposure to emissions released during Project *operation*.⁴⁸ This is inconsistent with the Bay Area Air Quality Management District ("BAAQMD") guidelines, which recognize that "operational emissions typically represent the majority of a project's air quality impacts."⁴⁹ For example, during operation, truck deliveries to this Project's commercial land uses will generate large amounts of diesel exhaust. Long-term exposure to DPM, a known human carcinogen, and other toxic air contaminants, will result in a significant health risk impact. By failing to consider construction and operational emissions, the Addendum underestimates the community risk.

Response 8: The IS/Addendum includes an air pollutant emissions assessment associated with construction and operation of the project for criteria pollutants such as reactive organic gases, nitrogen oxide, and particulate matters. The results show all criteria pollutants would not exceed significant thresholds for both operation and construction. The IS/Addendum also evaluated the potential construction health risk impacts to nearby sensitive receptors and the community risk impacts of existing toxic air contaminant (TAC) sources upon future project residences. The results show that the construction health risk impacts would be below significant thresholds. (*Section 4.3.3.6* of the Initial Study/Addendum).

Diesel exhaust is the predominant toxic air contaminant (TAC) in urban air and is estimated to represent about three-quarters of the cancer risk from exposure to TACs (based on the Bay Area average). Operation of the project would not result in the creation of localized emissions that could expose sensitive receptors to unhealthy air pollutant levels because the project, which is primarily residential (304 units) with some retail and office use, proposes no stationary sources of toxic air contaminants (TACs), such as generators.

The non-residential portion of the project includes approximately 7,820 square feet of retail/restaurant space and a 1,458 square foot leasing office and lobby.⁵⁰ The small amount of retail proposed by the project would not be associated with a high volume of heavy-duty truck traffic, as contrasted with distribution centers, warehouses and industrial uses. The BAAQMD has a screening level of 10,000 average daily traffic trips (ADT) for potentially

⁴⁸ SWAPE Letter, pp.3-4.

⁴⁹ BAAQMD, CEQA Air Quality Guidelines (May 2010), *available at* http://www.baaqmd.gov/-media/Files/P!anning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx; *see also* SWAPE Letter, p. 4.

⁵⁰ Note that IS/Addendum and technical appendices analyzed for more retail square footage than the approved Special Use Permit. The IS/Addendum analyzed for 10,146 square feet while the Special Use Permit approved for 9,300 square feet.

significant community risk impact from Bay Area roadways. According to *Section 4.3.3.2* of the IS/Addendum, project operations are estimated to generate approximate 2,200 new daily trips and is below the BAAQMD screening level. Therefore, as analyzed in the IS/Addendum, operational TAC impacts from the project (i.e., mobile emissions from project vehicular trips) would not be substantial and would not result in a significant impact with respect to community health risk.

Comment 9: Second, the Addendum includes an infeasible and unenforceable mitigation measure, Mitigation Measure AIR-1.1,⁵¹ to reduce the community risk impact to less than significant levels. Mitigation Measure AIR-1.1 calls for Tier 4 construction equipment, which have lower construction related toxic air contaminant emissions, such as DPM, than their higher emitting counterparts.⁵² However, the City has offered no evidence that the Applicant will be able to obtain Tier 4 construction equipment as part of the mitigation measure.⁵³ Under CEQA, mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments.⁵⁴ A CEQA lead agency may not rely on mitigation measures of uncertain efficacy or feasibility.⁵⁵ This approach helps "insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug."⁵⁶

As SWAPE explains, although Tier 4 equipment is available for purchase, this equipment is costlier and less available than the higher emitting equipment.⁵⁷ Unless the Applicant is able to demonstrate feasibility of obtaining Tier 4 equipment, this mitigation measure should not be solely relied upon to reduce emissions. Additionally, the mitigation measure includes no requirement that the entire fleet be comprised of Tier 4 equipment.⁵⁸ Therefore, the measure's efficacy in reducing emissions is uncertain and cannot be relied upon to reduce the community risk impact to less than significant levels.

Response 9: Tier 4 equipment has been supported by local and federal agencies to be able to reduce air pollutant emissions. In 2004, EPA finalized Tier 4 emission standards for nonroad diesel engines and sulfur reductions in nonroad diesel fuel that dramatically reduce harmful emissions and will directly help States and local areas recently designated as 8-hour ozone nonattainment areas to improve their air quality. This comprehensive national program regulates nonroad diesel engines and diesel fuel as a system.⁵⁹ The California Air Resources Board (CARB) also requires vehicle manufacturers to develop engine and emission equipment systems that reduce the specific air pollutants. These emission control systems are

⁵¹ Appendix A refers to this Mitigation Measure as "AQ-1."

⁵² IS/Addendum, p. 36.

⁵³ See SWAPE Letter, pp. 8-9.

⁵⁴ CEQA Guidelines § 15126.4(a)(2).

⁵⁵ *Kings County Farm Bur. V. County of Hanford* (1990) 221 Cal.App.3d 692, 727-28 (a groundwater purchase agreement found to be inadequate mitigation because there was no record evidence that replacement water was available).

⁵⁶ *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935.

⁵⁷ SWAPE Letter, p. 9.

⁵⁸ IS/Addendum, p. 35 (Tier 4 engines or equivalent are required for equipment larger than 25 horsepower).

⁵⁹ Environmental Protection Agency, Federal Register, 40 CFR Parts 9, et al., Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel, <https://www.gpo.gov/fdsys/pkg/FR-2004-06-29/pdf/04-11293.pdf>

also required to be proven durable and reliable. On December 9, 2004, the CARB adopted Resolution 04-43 to amend the California Off-Road Emissions Regulations for Compression-Ignition Engines and Equipment for Diesel Engines and Equipment. The Resolution 04-43 includes, but is not limited to, flexibility and use of Tier 4 equipment in order to reduce the total off-road engine emissions.⁶⁰

The comment provides no evidence showing that construction projects where Tier 4 engines are required have been unable to obtain the required equipment. The City has required this same mitigation of applicants on other large projects that exceeds significant thresholds to reduce construction impacts and have complied. The current proposed project shall also be required to use Tier 4 equipment during construction to reduce community risk impacts to a less than significant level. As required by CEQA (Guidelines Section 15097), a Mitigation Monitoring or Reporting Program (MMRP) was completed for the project as part of the Addendum, which includes the Tier 4 equipment requirement, and has been reviewed and signed by the project applicant. The MMRP includes the impacts of the project, mitigation for those impacts, the relative responsibilities of various City departments for various aspects of the monitoring and reporting, and general standards for determining project compliance with the mitigation measures. In addition, these mitigation measures become part of the development permit. Prior to grading permits, the project applicant shall undergo a MMRP Compliance review to ensure the mitigation measures are met. The MMRP, along with the IS/Addendum and associated technical reports, were approved as part of Vesting Tentative Map and Special Use Permit at the November 15, 2017 Planning Director's hearing. Based on the administrative record, there is substantial evidence to conclude that air quality impacts associated with construction will be below the City's threshold for significant impacts and there is no substantial evidence to support a fair argument that construction of the proposed project would result in significant air quality impacts. The final signed MMRP has been attached to this response (Attachment D-3).

Comment 10: What's more, when SWAPE correctly calculated the Project's air quality impacts — by taking into consideration both construction and operational emissions — it found that the Project will exceed BAAQMD's threshold of significance with respect to local community risk and hazard impacts by far more than what the Addendum reported.⁶¹ One of the factors that BAAQMD uses in determining if the community risk impact will be significant is if there will be an excess cancer risk level of more than 10 in one million.⁶²

⁶⁰ California Air Quality Board, 2004 Board Item Resolutions, <https://www.arb.ca.gov/board/res/2004/res04-43.pdf>.

⁶¹ SWAPE Letter, p. 5; CEQA Guidelines, § 16065 (“A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.”).

⁶² BAAQMD, CEQA Air Quality Guidelines (May 2010), p. 2-5, *available at* http://www.baaqmd.gov/--/media/Files/Planning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx (BAAQMD considers an excess cancer risk level of more than 10 in one million to be significant).

SWAPE details its calculations in its comments. To summarize, SWAPE prepared a screening-level health risk assessment in accordance with OEHHA guidance.⁶³ SWAPE calculated the excess cancer risk to the residential receptors located closest to the Project site.⁶⁴ OEHHA recommends using Age Sensitivity Factors (“ASF”) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.⁶⁵ SWAPE’s calculations, which are summarized in the table below, reveal that the Project’s excess cancer risk for infantile, child, adult, and lifetime cancer risk all exceed the threshold of significance.⁶⁶ For example, the excess cancer risk for an infant is 79 in one million.⁶⁷

The Maximum Exposed Individual at an Existing Residential Receptor (MEIR)					
Activity	Duration (years)	Concentration ($\mu\text{g}/\text{m}^3$)	Breathing Rate (L/kg-day)	ASF	Cancer Risk
Construction	1.94	0.23	1090	10	7.3E-05
Operation	0.06	0.64	1090	10	6.3E-06
<i>Infant Exposure Duration</i>	<i>2.00</i>			<i>Infant Exposure</i>	<i>7.9E-05</i>
Operation	14.00	0.64	572	3	2.3E-04
<i>Child Exposure Duration</i>	<i>14.00</i>			<i>Child Exposure</i>	<i>2.3E-04</i>
Operation	14.00	0.64	261	1	3.5E-05
<i>Adult Exposure Duration</i>	<i>14.00</i>			<i>Adult Exposure</i>	<i>3.5E-05</i>
<i>Lifetime Exposure Duration</i>	<i>30.00</i>			<i>Lifetime Exposure</i>	<i>3.46E-04</i>

Through its screening-level health risk assessment, SWAPE has provided substantial evidence that the Project would result in a new, significant health risk impact that is more severe than what is reported in the Addendum.⁶⁸ Consequently, the City has failed to support its finding that the Project will have a less than significant effect with mitigation because it has (1) erroneously underestimated the community risk and (2) impermissibly considered unenforceable, infeasible mitigation measures that will not reduce the impact to less than significant.

Response 10: The community health risk assessment included in the *Section 4.3* of the Initial Study/Addendum and as Appendix A of the Initial Study/Addendum was based upon a project-specific analysis, using construction equipment and durations of the proposed development. Project-specific exhaust emissions were computed using the CalEEMod model and the US EPA AERMOD dispersion model was used to predict concentrations of DPM and PM_{2.5} at existing sensitive receptors in the vicinity of the project. The IS/Addendum includes an air pollutant emissions assessment associated with construction and operation of the project for criteria pollutants such as reactive organic gases, nitrogen oxide, and particulate matters. The results show all criteria pollutants would not exceed significant thresholds for both operation and construction. The IS/Addendum also evaluated the

⁶³ SWAPE Letter, pp. 5-8.

⁶⁴ SWAPE Letter, p. 4.

⁶⁵ SWAPE Letter, p. 7.

⁶⁶ SWAPE Letter, p. 7.

⁶⁷ SWAPE Letter, p. 7.

⁶⁸ SWAPE Letter, p. 7-8.

potential construction health risk impacts to nearby sensitive receptors and the community risk impacts of existing toxic air contaminant (TAC) sources upon future project residences. The results show that the construction health risk impacts would be below significant thresholds.

Screening level analyses that were used by SWAPE are generally conservative, are based on default assumptions, and do not represent the refined project-specific analysis completed for the project. Screening level analyses are primarily used to determine if a more refined project-level analysis is required and not as the sole basis for a significance determination, unless the screening level analysis shows the impact would be less than significant.

Therefore, the project-specific analysis is a more accurate evaluation of the project's community health risk and no new impact would result from the project.

Comment 11: Because there is a new, significant impact that was not addressed in previous FEIRs, the City is required to prepare a subsequent EIR in accordance with CEQA Guidelines section 15162(a)(3)(A). In that EIR, the City must include a community risk assessment, which will consider both construction and operational emissions. The EIR should also include additional feasible, certain, enforceable, and cost effective mitigation measures to reduce the Project's significant community risk impact to less than significant.

SWAPE recommends the following measures to reduce construction emissions including, among others:

- Requiring implementation of Diesel Control Measures, such as requiring that only ultra-low sulfur diesel fuel or a biodiesel blend, with a low sulfur content, is used;⁶⁹
- Repowering or replacing older construction equipment engines with newer, cleaner engines;⁷⁰
- Installing retrofit devices on existing construction equipment on the exhaust system to reduce emissions;⁷¹
- Using electric and hybrid construction equipment;⁷² and, among others,
- Instituting a heavy-duty off-road vehicle plan (i.e., tracking vehicle inventory to see what emission control technology is installed).⁷³

The measures to reduce operation emissions include, among others:

- Increasing pedestrian and bicycle access to reduce vehicle-miles traveled around the Project site;⁷⁴
- Limiting parking supply;⁷⁵ and, among others,

⁶⁹ SWAPE Letter, p. 11.

⁷⁰ SWAPE Letter, p. 11-12.

⁷¹ SWAPE Letter, p. 12-13.

⁷² SWAPE Letter, p. 12.

⁷³ SWAPE Letter, p. 13-16.

⁷⁴ SWAPE Letter, pp. 16-17.

⁷⁵ SWAPE Letter, pp. 17.

- Promoting incentives to reduce driving.⁷⁶

These measures provide a cost-effective, feasible way to reduce emissions and must be incorporated to reduce the significant community risk this Project will pose. Moreover, if the City intends to rely on Mitigation Measure AIR-1, which requires implementing Tier 4 equipment, the City must ensure that the Applicant is able to meet this requirement.

Response 11: As explained above, the City believes feasible mitigation measures along with permit conditions have been incorporated into the project and no additional mitigation is required other than what was included in the proposed project. The project would include the implementation of Tier 4 construction equipment, and best management practices to reduce construction impacts (*Section 4.3.3.2* of the IS/Addendum). In addition, the project has been reviewed to ensure compliance with City's regulations and policies. Please refer to Response 9 regarding the enforcement of the proposed mitigation and Response 10 regarding adequacy of air quality assessments.

Comment 12: III. Conclusion

The City may not rely on the Addendum to approve the Project. San José Residents provides substantial evidence that the Project's Phase I ESA fails to assess potentially significant impacts from groundwater contamination and a well. Also, the Addendum failed to assess new and more severe significant impacts on air quality and public health. For these reasons, we urge the City to prepare a revised analysis in an EIR, as required by CEQA and to identify and implement all feasible mitigation measures available to reduce the Project's significant, site-specific impacts to less than significant levels before the City considers approving the Project.

Response 12: Refer to Response Nos. 6 through 11 for detailed responses. As demonstrated in the above responses, the comments provided do not raise any new issues that are not already evaluated, nor do they identify any new impacts, or impacts of substantially greater severity than identified in the previously adopted FEIRs. The IS/Addendum evaluates the project-specific impacts of the project and identifies mitigation measures and Standard Permit Conditions, consistent with the previously approved FEIRs, that will be implemented to ensure the project does not result in any new impacts or impacts of substantially greater severity than previously disclosed in the Brandenburg, Downtown Strategy, and General Plan FEIRs. For these reasons, an Addendum to the EIR is the appropriate level of environmental review for the project and no new EIR is warranted.

Exhibit A SWAPE Letter Attachment

Comment 13: We have reviewed the September 2017 Initial Study/Addendum (IS/Addendum) for the Bassett Street Residential Project (Aviato) ("Project") located in downtown San Jose. The 0.77-acre project site is comprised of three parcels located on Bassett Street between Terraine Street and North San Pedro Street in downtown San Jose. The site is currently developed with two

⁷⁶ SWAPE Letter, pp. 17-19.

commercial/warehouse buildings. As proposed, the project would demolish the-existing buildings (totaling approximately 26,800 square feet) and construct an 18-story tower with up to 302 residential units and approximately 7,821 square feet of ground floor retail. The project proposes approximately 7,821 square feet of retail space, of which 1,996 square feet would be restaurant and 5,825 square feet would be retail space. In addition, there would be a 1,458-square foot leasing office and a lobby. An approximately 2,652 square foot fitness area located at the northwest corner of the site is proposed on the second floor. A common terrace area and amenity space is proposed on the southwest corner of the fifth floor. A pool deck and a common terrace area is proposed on the 17th floor. Three retail parking stalls (behind the retail space) are proposed on the first floor. In addition, the project proposes four levels of below-grade parking which would contain approximately 302 parking stalls.

Our review concludes that IS/Addendum fails to adequately evaluate the Project's Hazards and Hazardous Waste and Air Quality impacts. As a result, emissions and health impacts associated with the construction and operation of the proposed Project are underestimated and inadequately addressed. A Project-specific Draft Environmental impact Report (DEIR) should be prepared to adequately assess and mitigate the potential hazard, air quality, and health risk impacts that the Project may have on the surrounding environment.

Response 13: The commenter's opinion regarding the IS/Addendum is acknowledged. Please refer to Responses 1-13 above for answers to specific comments on the content of the environmental analysis pertaining to dewatering, hazardous waste sites, community health risk and air quality impacts.

Comment 14: Hazards and Hazardous Waste

Impacts from Dewatering of Groundwater Require a Subsequent EIR

Groundwater is present beneath the Project site at depths as shallow as 15 feet in depth (IS/Addendum, p. 61). Because excavation of the Project will reach to depths of 41 feet, extensive dewatering will be required for construction of subterranean parking. The need to excavate to depths of 41 feet was not analyzed in the 2003 Brandenburg EIR, which stated that excavation would reach a depth of 25 feet.⁷⁷ Despite this change, the IS/Addendum does not evaluate this increased amount of dewatering. The IS/Addendum also does not characterize the quality of the groundwater and therefore does not disclose potentially significant environmental impacts that may result from discharge of potentially contaminated water to the City of San Jose's storm drains or sewer systems.

Response 14: Refer to Response 5 for answers to specific comments on the content of the environmental analysis pertaining to dewatering of groundwater.

Comment 15: The Geotracker website identifies a former underground storage tank site (UST) at 355 N. San Pedro St., directly across the street from the Project, where contamination from petroleum hydrocarbons in soil and groundwater was documented. The site, part of the Brandenburg

⁷⁷ Brandenburg Mixed Use Project/North San Pedro Housing Sites EIR (2003), pp. 41,151.

Properties⁷⁸, documented contamination in groundwater in 2001, including benzene at concentrations of 16 parts per billion in a sample obtained from a "hydropunch" well (355-HP-2) completed on Bassett Street, directly adjacent to the Project.⁷⁹

However, the 2003 Brandenburg EIR contains only a summary report discussing that USTs present potential contamination to soil and groundwater. The summary report did not actually conduct further soil or groundwater testing to determine if the groundwater was contaminated at the Project site.

Response 15: Refer to Response 6 for answers to specific comments on the content of the environmental analysis pertaining to hazardous waste sites.

Comment 16: The IS/Addendum, which relies on the analysis in the 2003 Brandenburg EIR, calls for discharge of water generated during dewatering to be discharged to the storm drain system and concludes:

Dewatering during construction is not anticipated to create a significant hazard to the public or the environment (p. 78).

This conclusion is entirely unsupported and is contradicted by the data which we document showing benzene at 16 ppb in a sample collected within 25 feet of the Project boundary. In fact, the San Francisco Bay Regional Water Quality Control Board has limited discharge of benzene to stormwater drains from dewatering efforts to a maximum of 5 ppb, more than three times lower than the concentration detected in the Bassett Street well.⁸⁰ If instead, discharge to the sanitary sewer is contemplated, pretreatment may be necessary. Any discharge of contaminated groundwater generated during dewatering that would require treatment is potentially covered under the General Waste Discharge Permit issued by the San Francisco Bay Regional Water Quality Control Board Order No. R2-2012-0060.⁸¹ A DEIR should be prepared to address the increase in excavation than previously analyzed and analyze this potential groundwater contamination that may result in a significant environmental effect from Project dewatering on surface water bodies (via storm drains) or to public utilities (the sewer) during construction. The DEIR should also evaluate the potential health impacts that construction workers may face if they inhale petroleum compounds, including benzene which is a known human carcinogen⁸², during the extensive dewatering activities.

Response 16: Refer to Response Nos. 5 and 6 for answers to specific comments on the content of the environmental analysis pertaining to dewatering of groundwater and hazardous wastes.

Comment 17: A Well was not Evaluated in the IS/Addendum

⁷⁸ http://aeotracker.waterboards.ca.gov/profile_report/global_idsTQ608568823

⁷⁹ https://geotracker.waterboards.ca.gov/regulators/deliverable_documents/2860092639/SWI_R_2000-05-10.pdf
Table 5 and Figure 8

⁸⁰ https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/1988/R2-1988-119.pdf

⁸¹ http://www.waterboards.ca.gov/sanfrandscobay/board_decisions/adopted_orders/2012/R2-2Q12-0060.pdf

⁸² <https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=38&tid=14>

A map from Geotracker for the Brandenburg Properties site shows a well to be located on the Project site.⁸³ This well, depicted below, was not identified in the Phase I to the IS/Addendum (Appendix C) and was not discussed in the IS/Addendum.



Site Address: 353 N San Pedro St
APN: 25932056

A DEIR should be prepared to include a description of this well along with disclosure of any data that may have been generated from the well, including soil and groundwater analytical data. Additionally, the DEIR should document measures to ensure the well has been located and properly abandoned prior to any earth-moving activities.

Response 17: Please refer to Response 7 for answers to specific comments on the content of the environmental analysis pertaining to additional well.

Comment 18: Air Quality

Diesel Particulate Matter Health Risk Emissions Require Analysis in Subsequent EIR

The IS/Addendum evaluates the health-risk posed to nearby residential receptors as a result of exposure to diesel particulate matter (DPM) emissions resulting from Project construction (see Appendix A); however, the IS/Addendum fails to evaluate, whatsoever, the health risk posed to nearby residential sensitive receptors as a result of exposure to emissions released during Project operation. As a result, the health impacts from exposure to toxic air contaminants (TACs), such as OPM, released during Project operation were not analyzed, thus leaving a gap within the IS/Addendum's analysis. Until a health risk assessment is prepared that evaluates the Project's potential operational health risk impact, the Project should not be approved.

⁸³ https://geotracker.waterboards.ca.gov/regulators/deliverable_documents/4051131308/MAPS_METROSCAN.pdf

According to the IS/Addendum, the closest sensitive receptors to the Project site are "residences located approximately 58 feet north of the project site" (p, 27). Once operational, the Project's commercial land uses will result in frequent truck deliveries, generating large amounts of diesel exhaust over the duration of Project operation. As such, the IS/Addendum should have conducted an operational health risk assessment, as long-term exposure to DPM, a known human carcinogen, and other TACs may result in a significant health risk impact and therefore, should be properly assessed.

Furthermore, by failing to prepare an individual, operational health risk assessment, the IS/Addendum is inconsistent with the Bay Area Air Quality Management District (BAAQMD) guidelines. According to BAAQMD CEQA Guidelines, "operational emissions typically represent the majority of a project's air quality impacts. After a project is built, operational emissions, including mobile and area sources, are anticipated to occur continuously throughout the project's lifetime."⁸⁴ The BAAQMD set forth the following significance thresholds for local community risk and hazard impacts:⁸⁵

- Non-compliance with a qualified risk reduction plan; or,
- An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic or acute) hazard index greater than 1.0 would be a cumulatively considerable contribution;
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) annual average PM_{2.5} would be a cumulatively considerable contribution.

According to the BAAQMD, "if emissions of TACs or fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less (PM_{2.5}) exceed any of the Thresholds of Significance listed [above], the proposed project would result in a significant impact."⁸⁶ The BAAQMD explicitly states that if a Project exceeds the thresholds listed above, including the individual health risk threshold of 10 in one million, that the Project would result in a significant health risk impact. Therefore, per BAAQMD guidance, the IS/Addendum should have prepared a Project-specific operational health risk assessment, and should have compared the results of this assessment to the 10 in one million threshold established by the BAAQMD. By failing to do so, the Project's air quality analysis is incomplete, and should not be relied upon to determine Project significance.

Additionally, the omission of a quantified operational health risk is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment (OEHHA). In February of 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, which was formally adopted in March of 2015.⁸⁷ This

⁸⁴ "CEQA Air Quality Guidelines." BAAQMD, May 2010, available at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx

⁸⁵ "CEQA Air Quality Guidelines." BAAQMD, May 2010, available at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx, p. 2-4, 2-5

⁸⁶ "CEQA Air Quality Guidelines." BAAQMD, May 2010, available at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx, p. 2-4

⁸⁷ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February

guidance document describes the types of projects that warrant the preparation of a health risk assessment. Once construction is complete, Project operation will generate 1,720 daily vehicle trips, which will generate additional exhaust emissions, thus continuing to expose nearby sensitive receptors to DPM emissions (Appendix A, pp. 46). The OEHHA document recommends that exposure from projects lasting more than 6 months should be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR).⁸⁸ Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, per OEHHA and BAAQMD guidance, health risk impacts from the Project operation should have been evaluated by the IS/Addendum. These recommendations reflect the most recent health risk assessment policy, and as such, an assessment of health risks to nearby sensitive receptors from operation should be included in a revised CEQA evaluation for the Project.

For the reasons mentioned above, we find the IS/Addendum's evaluation of the Project's health risk impact to be inadequate and unreliable, in an effort to demonstrate the potential health risk posed by Project construction and operation to nearby sensitive receptors, we prepared a simple-screening level health risk assessment. The results of our assessment, as described below, provide substantial evidence that the Project's construction and operational DPM emissions may result in a potentially significant health risk impact that was not previously identified in the IS/Addendum.

Response 18: Please refer to Response 8 for answers to specific comments on the content of the environmental analysis pertaining to community risk assessment.

Comment 19: Updated Health Risk Assessment Indicates Significant Health Impact

In an effort to demonstrate the potential health risk posed to nearby sensitive receptors during Project construction and operation, we prepared a simple screening-level health risk assessment. The results of our assessment, as described below, provides substantial evidence that DPM emissions from Project construction and operation, when evaluated correctly using the most up to date guidance, may result in a potentially significant health risk impact. As such, a DEIR should be prepared to adequately evaluate the proposed Project's health risk impacts during construction and operation, and additional mitigation measures should be identified and incorporated into the Project design, where necessary.

As of 2011, the Environmental Protection Agency (EPA) recommends AERSCREEN as the leading air dispersion model, due to improvements in simulating local meteorological conditions based on simple input parameters.⁸⁹ The model replaced SCREENS, and AERSCREEN is included in the

2015, available at: http://oehha.ca.gov/air/hot_spots/hotspots2015.html

⁸⁸ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf. p. 8-6, 8-15

⁸⁹ "AERSCREEN Released as the EPA Recommended Screening Model," USEPA, April 11, 2011, available at: http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

OEHHA⁹⁰ and the California Air Pollution Control Officers Associated (CAPCOA)⁹¹ guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

Response 19: Per City of San Jose General Plan policies, an air quality assessment was completed in accordance with the BAAQMD Guidelines, which are a formally adopted set of guidelines for analysis of air quality impacts throughout the Bay Area.

Comment 20: We prepared a preliminary health risk screening assessment of the Project's construction and operational emissions. For the Project's construction health risk assessment, we did not prepare an AERSCREEN model, as the IS/Addendum already estimates the annual average concentrations at the MEI using AERMOD. Therefore, we relied upon the annual average concentrations provided in Appendix A of the IS/Addendum to assess the Project's construction-related health risk impacts (Appendix A, pp. 94). For the Project's operational health risk, we used the annual PM₁₀ exhaust emissions from the IS/Addendum's CalEEMod model, which can be found in Appendix A of the IS/Addendum (Appendix A, pp. 29). The CalEEMod model's annual emissions indicate that operational activities will generate approximately 82 pounds of DPM over the 28-year operational period (Appendix A, pp. 79). The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentration from point, area, and volume emission sources. To account for the variability in vehicle and truck trips over the Project operation we calculated an average DPM emission rate by the following equation.

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{82\ lbs}{365\ days} \times \frac{453.6\ grams}{lb} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3,600\ seconds} = 0.001185\ g/s$$

Using this equation, we estimated a construction emission rate of 0.001185 grams per second (g/s). Operation activity was simulated as a 0.77-acre rectangular area source in AERSCREEN, with dimensions of 60 meters by 52 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generated maximum reasonable estimates of single hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annual

⁹⁰ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

⁹¹ "Health Risk Assessments for Proposed Land Use Projects," CAPCOA, July 2009, available at: http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.⁹²

The single-hour concentration estimated by AERSCREEN for Project operation is approximately 6.426 µg/m³ DPM at approximately 25 meters downwind. Multiplying this single-hour concentration by 10%, we get an annual average concentration of 0.6426 µg/m³ for operation at the MEIR.

We calculated the excess cancer risk to the residential receptors located closest to the Project site using applicable health risk assessment methodologies prescribed by OEHHA and the BAAQMD. OEHHA recommends the use of Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.⁹³ According to the updated guidance, quantified cancer risk should be multiplied by a factor often during the first two years of life (infant) and should be multiplied by a factor of three during the child stage of life (2 to 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we used 95th percentile breathing rates for infants.⁹⁴ We used a cancer potency factor of 1.1 (mg/kg·day) and an averaging time of 25,550 days. The results of our calculations are shown below.

The Maximum Exposed Individual at an Existing Residential Receptor (MEIR)					
Activity	Duration (years)	Concentration (µg/m ³)	Breathing Rate (L/kg-day)	ASF	Cancer Risk
Construction	1.94	0.23	1090	10	7.3E-05
Operation	0.06	0.64	1090	10	6.3E-06
<i>Infant Exposure Duration</i>	<i>2.00</i>			<i>Infant Exposure</i>	<i>7.9E-05</i>
Operation	14.00	0.64	572	3	2.3E-04
<i>Child Exposure Duration</i>	<i>14.00</i>			<i>Child Exposure</i>	<i>2.3E-04</i>
Operation	14.00	0.64	261	1	3.5E-05
<i>Adult Exposure Duration</i>	<i>14.00</i>			<i>Adult Exposure</i>	<i>3.5E-05</i>
<i>Lifetime Exposure Duration</i>	<i>30.00</i>			<i>Lifetime Exposure</i>	<i>3.46E-04</i>

The excess cancer risk to adults, children, and infants at a sensitive receptor located approximately 25 meters away, over the course of Project construction and operation are approximately 35, 230, and 79 in one million, respectively. Furthermore, the excess cancer risk over the course of a residential lifetime (30 years) is approximately 346 in one million. Consistent with OEHHA guidance, exposure was assumed to begin in the infantile stage of life to provide the most conservative estimates of air quality hazards. The infantile, child, adult, and lifetime cancer risk all exceed the BAAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not addressed in the IS/Addendum.

⁹² http://www.epa.gov/ttn/scram/guidance/guide/EPA-4S4R-92-019_OCR.pdf

⁹³ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

⁹⁴ "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' information and Assessment Act," June 5, 2015, available at: <http://www.aqmd.gov/docs/default-source/planning/riskassessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6>, p. 19

"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

It should be noted that our analysis represents a screening-level health risk assessment, which is known to be more conservative, and tends to err on the side of health protection.⁹⁵ The purpose of a screening level health risk assessment, however, is to determine if a more refined health risk assessment needs to be conducted. If the results of a screening-level health risk are above applicable thresholds, then the Project needs to conduct a more refined health risk assessment that is more representative of site specific concentrations. Our screening-level health risk assessment demonstrates that construction and operation of the Project could result in a potentially significant health risk impact. As a result, a refined health risk assessment must be prepared to examine the air quality impacts generated by Project construction and operation. A DEIR must be prepared to adequately evaluate the Project's health risk impact, and should include additional mitigation measures to reduce these impacts to a less-than-significant level. Without a refined health risk assessment and mitigation addressing the findings of such an assessment, substantial evidence supports a fair argument that the Project may lead to significant public health impacts due to DPM emissions.

Response 20: Please refer to Response 10.

Comment 21: Failure to Demonstrate Feasibility of Obtaining Tier 4 Construction Equipment

The IS/Addendum evaluates the health risk posed to nearby sensitive receptors as a result of emissions generated by construction of the proposed Project and determines that "the maximum excess residential cancer risk would be 87.2 in one million for an infant exposure and 1.6 in one million for an adult exposure" (Appendix A, pp. 19). Because the maximum excess residential cancer risk for an infant receptor exceeds the BAAQMD's ten in one million threshold, the IS/Addendum proposes to "develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average of at least 89 percent reduction in PM₁₀ emissions" (Appendix A, pp. 20). In order to achieve this substantial decrease in PM₁₀ emissions, the IS/Addendum proposes to implement Tier4 off-road construction equipment into the Project's construction fleet. The IS/Addendum states,

"All mobile diesel-powered off-road equipment larger than 25 hp and operating on the site for more than two days shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent. Note that the construction contractor could use other measures to minimize construction period DPM emission to reduce the estimated cancer risk below the thresholds. The use of equipment that meets U.S. EPA Tier 2 standards and includes CARB certified level 3 Diesel Particulate filters or alternatively-fueled equipment (i.e., non-diesel) would meet this requirement, Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less than significant" (Appendix A, pp. 20).

The IS/Addendum determines that through the use of Tier 4 off-road construction equipment and implementation of Mitigation Measure AIR-1.1, the Project's construction-related health risk impact would be reduced to less than 9.5 in one million, which would be below the BAAQMD's established

⁹⁵ http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf p. 15

threshold often in one million (p.36; Appendix A, pp. 20). There is no substantial evidence, however, to support the feasibility of obtaining almost an entire construction fleet equipped with Tier 4 mitigation.

Although off-road Tier 4 equipment is available for purchase, it is not required that off-road construction fleets be comprised solely of Tier 4 engines. Furthermore, based on availability and cost, it is unrealistic to presume that all of the construction equipment utilized for the Project will have Tier 4 engines. As a result, this mitigation measure should not be relied upon to reduce the Project's construction-related health risk impact to below levels of significance. Rather, the Project should pursue additional mitigation measures that are more technically feasible to implement.

The United States Environmental Protection Agency's (USEPA) 1998 nonroad engine emission standards were structured as a three-tiered progression. Tier 1 standards were phased-in from 1996 to 2000 and Tier 2 emission standards were phased in from 2001 to 2006. Tier 3 standards, which applied to engines from 37-560 kilowatts (kW) only, were phased in from 2006 to 2008. The Tier 4 emission standards were introduced in 2004, and were phased in from 2008-2015.⁹⁶ These tiered emission standards, however, are only applicable to newly manufactured nonroad equipment. According to the United States Environmental Protection Agency (USEPA) "if products were built before EPA emission standards started to apply, they are generally not affected by the standards or other regulatory requirements."⁹⁷ Therefore, pieces of equipment manufactured prior to 2000 are not required to adhere to Tier 2 emission standards, and pieces of equipment manufactured prior to 2008 are not required to adhere to Tier 4 emission standards. Construction equipment often lasts more than 30 years; as a result, Tier 1 equipment and non-certified equipment are currently still in use.⁹⁸ It is estimated that of the two million diesel engines currently used in construction, 31 percent were manufactured before the introduction of emissions regulations.⁹⁹

Furthermore, in a 2010 white paper, the California Industry Air Quality Coalition estimated that approximately 7% and less than 1% of all off-road heavy-duty diesel equipment in California was equipped with Tier 2 and Tier 3 engines, respectively.¹⁰⁰ It goes on to explain that "cleaner burning Tier 4 engines...are not expected to come online in significant numbers until 2014." Given that significant production activities have only just begun within the last couple of years, it can be presumed that there is limited availability of Tier 4 equipment. Furthermore, due to the complexity of Tier 4 engines, it is very difficult if not nearly impossible, to retrofit older model machinery with

⁹⁶ Emission Standards, Nonroad Diesel Engines, *available at:*

<https://www.dieselnet.com/Standards/us/nonroad.php#tier3>.

⁹⁷ "Frequently Asked Questions from Owners and Operators of Nonroad Engines, Vehicles, and Equipment Certified to EPA Standards." United States Environmental Protection Agency, August 2012. *Available at:*

<http://www.epa.gov/oms/highwav-diesel/regs/420f12053.pdf>

⁹⁸ "Best Practices for Clean Diesel Construction." Northeast Diesel Collaborative, August 2012. *Available at.*

<http://northeastdiesel.org/pdf/BestPractices4CieanDieselConstructionAug2012.pdf>

⁹⁹ Northeast Diesel Collaborative Clean Construction Workgroup, *available at:*

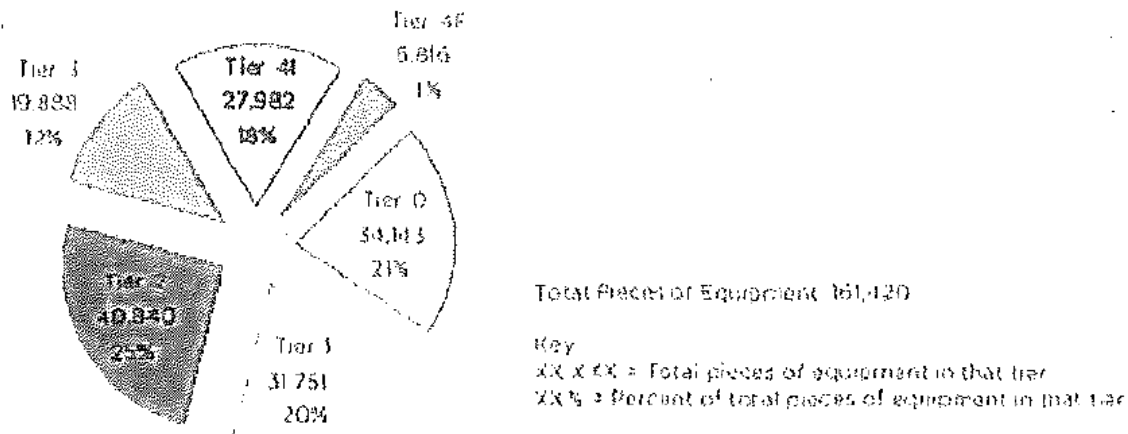
<http://northeastdiesel.org/construction.html>

¹⁰⁰ "White Paper: An Industry Perspective on the California Air Resources Board Proposed Off-Road Diesel Regulations." Construction Industry Air Quality Coalition, *available at:*

http://www.agcca.org/uploadedFiles/Member_Services/Regulatory-Advocacy-Page-PDFs/White_Paper_CARB_OffRoad.pdf

this technology.¹⁰¹ Therefore, available off-road machinery equipped with Tier 4 engines are most likely new. According to a September 20, 2013 EPA Federal Register document, a new Tier 4 scraper or bulldozer would cost over \$1,000,000 to purchase.¹⁰² It is also relatively expensive to retrofit a piece of old machinery with a Tier 3 engine. For example, replacing a Tier 0 engine with a Tier 3 engine would cost roughly \$150,000 or more.¹⁰³ Therefore, before applying mitigation measures of this caliber to a Project, the applicant should consider both the cost of the proposed equipment as well as determine the probability of obtaining an entirely Tier 4 construction fleet.

Similarly, based on information and data provided in the *San Francisco Clean Construction Ordinance Implementation Guide for San Francisco Public Projects*, the availability of Tier 4 equipment is extremely limited. In 2014, 25% of all off-road equipment in the state of California were equipped with Tier 2 engines, approximately 12% were equipped with Tier 3 engines, approximately 18% were equipped with Tier 4 Interim engines, and only 4% were equipped with Tier 4 Final engines (see excerpt below).¹⁰⁴



As demonstrated in the figure above, Tier 4 equipment only accounts for 22% of all off-road equipment currently available in the state of California. Thus, by stating that the Project proposes to use Tier 4 equipment during construction, the IS/Addendum is relying on a fleet of construction equipment that only accounts for 22% of all off-road equipment currently available in the state of California. Therefore, by failing to evaluate the feasibility of implementing Tier 4 mitigation into the Project's construction phases, it is likely that the IS/Addendum's estimation of the reductions in construction emissions associated with the use of Tier4 mitigation may not reduce the Project's health

¹⁰¹ "Tier 4-How it will affect your equipment, your business and your environment." Milton CAT, available at: <http://www.miltoncat.com/News/Documents/Articles/For%20the%20Trenches%20-%20Tier%204.pdf>

¹⁰² "Federal Register." Environmental Protection Agency, September 20, 2013, available at: <http://www.gpo.gov/fdsys/pkg/FR-2013-09-20/pdf/2013-22930.pdf>

¹⁰³ "Federal Register." Environmental Protection Agency, September 20, 2013, available at: <http://www.gpo.gov/fdsys/pkg/FR-2013-09-20/pdf/2013-22930.pdf>

¹⁰⁴ "San Francisco Clean Construction Ordinance Implementation Guide for San Francisco Public Projects." August 2015, available at:

https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf, p.

risk impact to less than significant levels. Thus, we find the IS/Addendum's reliance on Tier 4 mitigation to reduce the Project's significant health-related impact to a less than significant level to be unsubstantiated and should not be relied upon to determine Project significance.

Response 21: Please refer to Response 9.

Comment 22: Additional Mitigation Measures Available to Reduce Construction Emissions

Our health risk assessment demonstrates that Project construction-related OPM emissions would result in a significant health risk impact. Furthermore, our analysis demonstrates that the mitigation proposed in the IS/Addendum to mitigate this significant impact may not reduce emissions to less than significant levels. Therefore, additional mitigation measures must be identified and incorporated in a Project-specific DEIR to reduce these emissions to a less than significant level.

Additional mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*, which attempt to reduce Greenhouse Gas (GHG) levels, as well as reduce criteria air pollutants, such as particulate matter.¹⁰⁵ Diesel particulate matter ("OPM") is a byproduct of diesel fuel combustion, and is emitted by on-road vehicles and by off-road construction equipment. Mitigation for criteria pollutant emissions should include consideration of the following measures in an effort to reduce construction emissions.

Require Implementation of Diesel Control Measures

The Northeast Diesel Collaborative ("NEDC") is a regionally coordinated initiative to reduce diesel emissions, improve public health, and promote clean diesel technology. The NEDC recommends that contracts for all construction projects require the following diesel control measures:¹⁰⁶

- All diesel onroad vehicles on site for more than 10 total days must have either (1) engines that meet EPA 2007 onroad emissions standards or (2) emission control technology verified by EPA¹⁰⁷ or the California Air Resources Board (CARB)¹⁰⁸ to reduce PM emissions by a minimum of 85 percent.
- All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85 percent.
- All diesel nonroad construction equipment on site for more than 10 total days must have either (1) engines meeting EPA Tier 4 nonroad emission 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 percent for engines 50 horse power (hp) and greater and by a minimum of 20 percent for engines less than 50 hp.

¹⁰⁵ <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

¹⁰⁶ Diesel Emission Controls in Construction Projects, *available at*: <http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-specification.pdf>

¹⁰⁷ For EPA's list of verified technology: <http://www3.epa.gov/otaq/diesel/verification/verif-list.htm>

¹⁰⁸ For CARB's list of verified technology: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>

- All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend¹⁰⁹ approved by the original engine manufacturer with sulfur content of 15 parts per million (ppm) or less.

Response 22: As previously discussed in Response 8, 9, and 10, the air quality assessment prepared for the Project included a community risk assessment based on project-specific analysis. This analysis identified mitigation measures and conditions from the previously adopted FEIRs in that would ensure the project would not result in new or more significant impact than those previously identified in the approved FEIRs. The mitigation measures recommended by SWAPE are from the Northeast Diesel Collaborative (NEDC) and not BAAQMD. The IS/Addendum included applicable mitigation from the previously approved FEIRs for all identified impacts. The mitigation measures proposed in the Addendum would reduce all significant air quality impacts to a less than significant level, as required by CEQA. The project would be required to implement MM AIR-1.1, as described in the IS/Addendum, which requires the project applicant to prepare a construction operations plan demonstrating the necessary particulate matter reductions. One way to achieve this reduction would be to have all mobile diesel-powered off-road equipment larger than 25 horsepower and operating on-site for more than two days meet U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent. The construction operations plan will be submitted to the City for review and approval prior to the issuance of any demolition, grading, and/or building permits (whichever occurs earliest).

Comment 23: *Repower or Replace Older Construction Equipment Engines*

The NEDC recognizes that availability of equipment that meets the EPA's newer standards is limited.¹¹⁰ Due to this limitation, the NEDC proposes actions that can be taken to reduce emissions from existing equipment in the *Best Practices for Clean Diesel Construction* report.¹¹¹ These actions include but are not limited to:

- Repowering equipment (i.e., replacing older engines with newer, cleaner engines and leaving the body of the equipment intact).

Engine repower may be a cost-effective emissions reduction strategy when a vehicle or machine has a long useful life and the cost of the engine does not approach the cost of the entire vehicle or machine. Examples of good potential replacement candidates include marine vessels, locomotives, and large construction machines.¹¹² Older diesel vehicles or machines can be repowered with newer diesel engines or in some cases with engines that operate on alternative fuels (see section "Use Alternative Fuels for Construction Equipment" for details). The original engine is taken out of service and a new engine with reduced emission characteristics is installed. Significant emission

¹⁰⁹ Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements:

<http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf>

¹¹⁰ <http://northeastdiesel.org/pdf/BestPractices4CleanDteseiConstructionAug2012.pdf>

¹¹¹ <http://northeastdiesel.org/pdf/BestPractices4CleanDteseiConstructionAug2012.pdf>

¹¹² <http://www3.epa.gov/otaq/diesel/technologies/engines.htm>

reductions can be achieved, depending on the newer engine and the vehicle or machine's ability to accept a more modern engine and emission control system. It should be noted, however, that newer engines or higher tier engines are not necessarily cleaner engines, so it is important that the Project Applicant check the actual emission standard level of the current (existing) and new engines to ensure the repower product is reducing emissions for PM₁₀.¹¹³

- Replacement of older equipment with equipment meeting the latest emission standards.

Engine replacement can include substituting a cleaner highway engine for a nonroad engine. Diesel equipment may also be replaced with other technologies or fuels. Examples include hybrid switcher locomotives, electric cranes, LNG, CNG, LPG or propane yard tractors, forklifts or loaders. Replacements using natural gas may require changes to fueling infrastructure.¹¹⁴ Replacements often require some re-engineering work due to differences in size and configuration. Typically, there are benefits in fuel efficiency, reliability, warranty, and maintenance costs.¹¹⁵

Response 23: Please refer to Responses 9 and 22.

Comment 24: *Install Retrofit Devices on Existing Construction Equipment*

PM emissions from alternatively-fueled construction equipment can be further reduced by installing retrofit devices on existing and/or new equipment. The most common retrofit technologies are retrofit devices for engine exhaust after-treatment. These devices are installed in the exhaust system to reduce emissions and should not impact engine or vehicle operation.¹¹⁶ It should be noted that actual emissions reductions and costs will depend on specific manufacturers, technologies and applications.

Use Electric and Hybrid Construction Equipment

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*¹¹⁷ report also proposes the use of electric and/or hybrid construction equipment as a way to mitigate criteria pollutant emissions, such as particulate matter. When construction equipment is powered by grid electricity rather than fossil fuel, direct emissions from fuel combustion are replaced with indirect emissions associated with the electricity used to power the equipment. Furthermore, when construction equipment is powered by hybrid-electric drives, emissions from fuel combustion are also greatly reduced and criteria air pollutants would be 100% reduced for equipment running on electricity. Electric construction

¹¹³ Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Projects Information, *available at* <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100CVIS.PDF?Dockey=P100CVI5.PDF>

¹¹⁴ National Clean Diesel Campaign, p. 19 *available at:* <https://www.epa.gov/sites/production/files/2017-02/documents/fy17-state-program-guide-2017-02.pdf>

¹¹⁵ Cleaner Diesels: Low Cost Ways to Reduce Emissions from Construction Equipment, p 29 *available at:* <https://www.epa.gov/sites/production/files/2015-09/documents/cleaner-diesels-low-cost-ways-to-reduce-emissions-from-construction-equipment.pdf>

¹¹⁶ <https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel>

¹¹⁷ <http://www.capcoa.org/wpcontent/uoloads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

equipment is available commercially from companies such as Peterson Pacific Corporation¹¹⁸ and Komptech USA¹¹⁹, which specialize in the mechanical processing equipment like grinders and shredders. Construction equipment powered by hybrid-electric drives is also commercially available from companies such as Caterpillar.¹²⁰ For example, Caterpillar reports that during an 8-hour shift, its D7E hybrid dozer burns 19.5 percent fewer gallons of fuel than a conventional dozer while achieving a 10.3 percent increase in productivity. The D7E model burns 6.2 gallons per hour compared to a conventional dozer which burns 7.7 gallons per hour.¹²¹ Fuel usage and savings are dependent on the make and model of the construction equipment used. The Project Applicant should calculate project-specific savings and provide manufacturer specifications indicating fuel burned per hour.

Response 24: Please refer to Responses 9 and 22.

Comment 25: *Institute a Heavy-Duty Off-Road Vehicle Plan*

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*¹²² report recommends that the Project Applicant provide a detailed plan that discusses a construction vehicle inventory tracking system to ensure compliances with construction mitigation measures. The system should include strategies such as requiring hour meters on equipment, documenting the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment and daily logging of the operating hours of the equipment. Specifically, prior to the construction of a Project the contractor should submit a certified list of all diesel vehicles, construction equipment, and generators to be used on site.¹²³ The list should include the following:¹²⁴

- Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
- 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.
- 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.

Implement a Construction Vehicle Inventory Tracking System

¹¹⁸ Peterson Electric Grinders Brochure, available at http://www.petersoncorp.com/wpcontent/uploads/peterson_electric_grinders.pdf

¹¹⁹ Komptech Green Efficiency Brochure, available at: https://www.komptech.com/index.php?eID=tx_nawsecuredl&u=0&g=0&t=1512177816&hash=3523656a320ac25398860489f613f15951734813&file=fileadmin/komptech/brochures/Green_Efficiency_eng_2015.pdf

¹²⁰ http://www.cat.com/en_US/products/new/power-systems/electric_power-generation.html

¹²¹ <http://s7d2.scene7.com/is/content/Caterpillar/C811572>

¹²² <http://www.capcoa.org/wpcontent/uoloads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

¹²³ Diesel Emission Controls in Construction Projects, available at:

<http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf>

¹²⁴ USEPA's Construction Fleet Inventory Guide is a useful tool in identifying the information required. <http://www2.epa.gov/sites/production/files/2015-09/documents/construction-fleet-inventorv-guide.pdf>

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*¹²⁵ report recommends that the Project Applicant provide a detailed plan that discusses a construction vehicle inventory tracking system to ensure compliances with construction mitigation measures. The system should include strategies such as requiring engine run time meters on equipment, documenting the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment and daily logging of the operating hours of the equipment. Specifically, for each onroad construction vehicle, nonroad construction equipment, or generator, the contractor should submit to the developer's representative a report prior to bringing said equipment on site that includes:¹²⁶

- Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number.
- The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level.
- The Certification Statement¹²⁷ signed and printed on the contractor's letterhead.

Furthermore, the contractor should submit to the developer's representative a monthly report that, for each onroad construction vehicle, nonroad construction equipment, or generator onsite, includes:¹²⁸

- Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
- Any problems with the equipment or emission controls.
- Certified copies of fuel deliveries for the time period that identify:
 - Source of supply
 - Quantity of fuel
 - Quality of fuel, including sulfur content (percent by weight).

Response 25: Please refer to Responses 9 and 22.

Comment 26: In addition to those measures, we also recommend that the City require the Applicant to implement the following mitigation measures, called "Enhanced Exhaust Control Practices,"¹²⁹ that are recommended by the Sacramento Metropolitan Air Quality Management District ("SMAQMD"):

¹²⁵ <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

¹²⁶ Diesel Emission Controls in Construction Projects, *available at:*
<http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf>

¹²⁷ Diesel Emission Controls in Construction Projects, *available at:*
<http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf> The NEDC Model Certification Statement can be found in Appendix A, p. 10.

¹²⁸ Diesel Emission Controls in Construction Projects, *available at:*
<http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf>

¹²⁹ <http://www.airquality.org/LandUseTransportation/Documents/Ch3EnhancedexhaustControlFINAL10-2013.pdf>

1. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction period.
 - The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment.
 - The project representative shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.
 - This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment.
 - The District's Equipment List Form can be used to submit this information.
 - The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.
2. The project representative shall provide a plan for approval by the lead agency and District demonstrating that the heavy-duty off road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_x reduction and 45% particulate reduction compared to the most recent CARB fleet average.
 - This plan shall be submitted in conjunction with the equipment inventory.
 - Acceptable options for reducing emissions may include use of late model engines, low emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
 - The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.
3. The project representative shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour.
 - Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented, and a summary provided to the lead agency and District monthly.
 - A visual survey of all in-operation equipment shall be made at least weekly.
 - A monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey.
4. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation shall supersede other District, state or federal rules or regulations.

When combined together, these measures offer a cost-effective way to incorporate lower-emitting equipment into the Project's construction fleet, which subsequently, reduces particulate matter emissions released during Project construction. A DEIR must be prepared to include additional

mitigation measures, as well as include an updated air quality assessment to ensure that the necessary mitigation measures are implemented to reduce construction emissions. Furthermore, the Project Applicant needs to demonstrate commitment to the implementation of these measures prior to Project approval to ensure that the Project's construction-related emissions are reduced to the maximum extent possible.

Response 26: Please refer to Responses 9 and 22.

Comment 27: Mitigation Measures Available to Reduce Operational Emissions

Our health risk analysis demonstrates that the Project's operational DPM emissions may present a potentially significant impact. In an effort to reduce these emissions, we identified several additional mitigation measures that are applicable to the Project. Therefore, in an effort to reduce the Project's operational DPM emissions, we recommend the following mitigation measures that will result in a reduction in the total vehicle miles traveled (VMT) during operation, and will therefore result in a reduction in criteria air pollutant emissions. As stated in the section above, additional mitigation measures can be found in CAPCOA's Quantifying Greenhouse Gas Mitigation Measures, which attempt to reduce criteria air pollutant emissions such as PM₁₀.¹³⁰ These emissions are byproduct of fuel combustion during vehicle travel. Mitigation for criteria pollutant emissions should include consideration of the following mobile mitigation measures in an effort to reduce operational PM₁₀ emissions to below thresholds.

- Neighborhood/Site Enhancements
 - Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT. The project should provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site. The project should minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, landscaping, and slopes that impede pedestrian circulation should be eliminated.
- Incorporate Bike Lane Street Design (On-Site)
 - Incorporating bicycle lanes, routes, and shared-use paths into street systems, new subdivisions, and large developments can reduce VMTs. These improvements can help reduce peak-hour vehicle trips by making commuting by bike easier and more convenient for more people. In addition, improved bicycle facilities can increase access to and from transit hubs, thereby expanding the "catchment area" of the transit stop or station and increasing ridership. Bicycle access can also reduce parking pressure on heavily-used and/or heavily-subsidized feeder bus lines and auto-oriented park-and-ride facilities.
- Limit Parking Supply
 - This mitigation measure will change parking requirements and types of supply within the Project site to encourage "smart growth" development and alternative

130

transportation choices by project residents and employees. This can be accomplished in a multi-faceted strategy:

- Elimination (or reduction) of minimum parking requirements
- Creation of maximum parking requirements
- Provision of shared parking
- Unbundle Parking Costs from Property Cost
 - Unbundling separates parking from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost from the property cost. This removes the burden from those who do not wish to utilize a parking space. Parking should be priced separately from home rents/purchase prices or office leases.
- Implement Commute Trip Reduction Program-Voluntary or Required
 - Implementation of a Commute Trip Reduction (CTR) program with employers will discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The main difference between a voluntary and a required program is:
 - Monitoring and reporting is not required
 - No established performance standards (i.e. no trip reduction requirements)
 - The CTR program should provide employees with assistance in using alternative modes of travel, and provide both "carrots" and "sticks" to encourage employees. The CTR program should include all of the following to apply the effectiveness reported by the literature:
 - Carpooling encouragement
 - Ride-matching assistance
 - Preferential carpool parking
 - Flexible work schedules for carpools
 - Half time transportation coordinator
 - Vanpool assistance
 - Bicycle end-trip facilities (parking, showers and lockers)
- Provide Ride-Sharing Programs
 - Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT. The project should include a ride-sharing program as well as a permanent transportation management association membership and funding requirement. The project can promote ride-sharing programs through a multi-faceted approach such as:
 - Designating a certain percentage of parking spaces for ride sharing vehicles
 - Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
 - Providing a web site or message board for coordinating rides
- Implement Subsidized or Discounted Transit Program
 - This project can provide subsidized/discounted daily or monthly public transit passes to incentivize the use of public transport. The project may also provide free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer, school, or development. Many entities use revenue from parking to offset the cost of such a project.
- Provide End of Trip Facilities

- Non-residential projects can provide “end-of-trip” facilities for bicycle riders including showers, secure bicycle lockers, and changing spaces. End-of-trip facilities encourage the use of bicycling as a viable form of travel to destinations, especially to work. End-of-trip facilities provide the added convenience and security needed to encourage bicycle commuting.
- Implement Commute Trip Reduction Marketing
 - The project can implement marketing strategies to reduce commute trips. Information sharing and marketing are important components to successful commute trip reduction strategies. Implementing commute trip reduction strategies without a complementary marketing strategy will result in lower VMT reductions. Marketing strategies may include:
 - New employee orientation of trip reduction and alternative mode options
 - Event promotions
 - Publications
- Implement Preferential Parking Permit Program
 - The project can provide preferential parking in convenient locations (such as near public transportation or building front doors) in terms of free or reduced parking fees, priority parking, or reserved parking for commuters who carpool, vanpool, ride-share or use alternatively fueled vehicles. The project should provide wide parking spaces to accommodate vanpool vehicles.
- Implement Car-Sharing Program
 - This project should implement a car-sharing project to allow people to have on-demand access to a shared fleet of vehicles on an as-needed basis. User costs are typically determined through mileage or hourly rates, with deposits and/or annual membership fees. The car-sharing program could be created through a local partnership or through one of many existing car-share companies. Car-sharing programs may be grouped into three general categories: residential- or citywide-based, employer-based, and transit station-based. Transit station-based programs focus on providing the "last-mile" solution and link transit with commuters' final destinations. Residential-based programs work to substitute entire household based trips. Employer-based programs provide a means for business/day trips for alternative mode commuters and provide a guaranteed ride home option.
- Provide Employer-Sponsored Vanpool/Shuttle
 - This project can implement an employer-sponsored vanpool or shuttle. A vanpool will usually service employees' commute to work while a shuttle will service nearby transit stations and surrounding commercial centers. Employer-sponsored vanpool programs entail an employer purchasing or leasing vans for employee use, and often subsidizing the cost of at least program administration, if not more. The driver usually receives personal use of the van, often for a mileage fee. Scheduling is within the employer's purview, and rider charges are normally set on the basis of vehicle and operating cost.
- Implement Bike-Sharing Program
 - This project can establish a bike-sharing program to reduce VMTs. Stations should be at regular intervals throughout the project site.

- For example, Paris' bike-share program places a station every few blocks throughout the city (approximately 28 bike stations/square mile).
- Price Workplace Parking
 - The project should implement workplace parking pricing at its employment centers. This may include: explicitly charging for parking for its employees, implementing above market rate pricing, validating parking only for invited guests, not providing employee parking and transportation allowances, and educating employees about available alternatives.
 - Though similar to the Employee Parking "Cash-Out" strategy, this strategy focuses on implementing market rate and above market rate pricing to provide a price signal for employees to consider alternative modes for their work commute.
- Implement Employee Parking "Cash-Out"
 - The project can require employers to offer employee parking "cash-out." The term "cash-out" is used to describe the employer providing employees with a choice of forgoing their current subsidized/free parking for a cash payment equivalent to the cost of the parking space to the employer.

When combined together, these measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduces emissions released during Project operation. A Project-specific DEIR must be prepared to include additional mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce operational emissions to below thresholds. Furthermore, the Project Applicant also needs to demonstrate commitment to the implementation of these measures prior to Project approval, to ensure that the Project's operational emissions are reduced to the maximum extent possible.

Response 27: As previously discussed in Response 8, 9, and 10, the proposed project would not generate significant operational diesel particulate matter emissions as it is primarily a residential project. The project site is an infill site within the downtown core in walking distance to multiple modes of transit, as well as jobs and services. The project will meet the City's green building standards and includes bicycle parking. The proposed project would construct a 10-foot sidewalk and Americans with Disabilities Act (ADA) ramps along both project frontages, thus improving the pedestrian environment. Furthermore, the City is in the process of reconstructing the transportation network within the Brandenburg development area, which includes realignment of Julian Street between Market and St. James Streets, and implementation of a grid street system. Therefore, no additional VMT reduction measures would be required.