CALIFORNIA
AIR RESOURCES BOARD

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June 13, 2019

Hector Lopez
Planning and Building Services Department
City of Richmond
450 Civic Center Plaza
Richmond, California 94804

Dear Hector Lopez:

Thank you for providing California Air Resources Board (CARB) staff the opportunity to comment on the Parkway Commerce Center Project (Project) Initial Study and Mitigated Negative Declaration (IS/MND), State Clearinghouse No. 2000082091. CARB staff's timely comments on the IS/MND are submitted for your consideration. The Project consists of the development of a two-story, 96,000 square-foot warehouse building that would be subdivided into suites and leased for a variety of light industrial and/or warehouse uses. The proposed warehouse building would be constructed on a 7.3-acre parcel located within the City of Richmond (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

Existing residences are located approximately 160 feet from the Project's eastern boundary. In addition to residences, there are two elementary schools (Bayview Elementary School and Lake Elementary School) located within a half mile of the Project. The community is surrounded by existing toxic diesel emission sources, which include existing warehouses and other industrial uses and vehicular traffic along Richmond Parkway. Due to the Project's proximity to residences and two elementary schools already disproportionately burdened by multiple sources of pollution, CARB staff is concerned with the potential cumulative health impacts associated with the construction and operation of the Project.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities with high exposure burdens, like those in which the Project is located. Diesel emissions generated during the construction and operation of the Project would negatively impact the community, which is already disproportionally impacted by air pollution from existing freight facilities.

Through its authority under Health and Safety Code, section 39711, the California Environmental Protection Agency (CalEPA) is charged with the duty to identify

disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). Communities that score within the top 25 percent of the census tracts are exposed to higher concentrations of air pollutants and have a higher Pollution Burden.[1] CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. According to CalEnviroScreen, communities near the Project score within the top 25 percent of the census tracts. Therefore, CARB urges the City to ensure that the Project does not adversely impact neighboring disadvantaged communities already exposed to high concentrations of air pollutants resulting in high public health risks.

Lead agencies may only adopt mitigated negative declarations if the "initial study shows that there is no substantial evidence, in light of the whole record before the agency that the project, as revised, may have a significant effect on the environment". (14 CCR section 15070(b)(2).) CARB staff is concerned that the City's current IS/MND does not meet this threshold. In an effort to ensure that the Project will not have a significant effect on the environment, CARB staff has reviewed the IS/MND and Health Risk Assessment (HRA) and have the following comments:

1. Since the Project description in the IS/MND did not explicitly state that the warehouse building proposed under the Project would not include cold storage space, there is a possibility that trucks and trailers visiting the Project site would be equipped with transportation refrigeration units (TRU). TRUs on trucks and trailers can emit large quantities of diesel particulate matter (PM) while operating within the Project site. Modeling in support of the IS/MND did not account for emissions of diesel PM that result from the operation of TRUs. Residences and other sensitive receptors (e.g., day care facilities, senior care facilities, and schools) located near where these TRUs could be operating would be exposed to diesel PM emissions that would result in significant cancer risk. If the Project will include cold storage space, then some of the trucks and trailers visiting the Project will be equipped with TRUs. In this event, the City should quantify all operational nitrogen oxides (NO_x) and diesel PM emissions and health risks from TRUs and disclose the results in the IS/MND. Alternatively, the IS/MND can include a mitigation measure that requires all TRUs operating on the Project site to be fully zero-emission.

[1] Pollution Burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution.

2. The Project description in the IS/MND is unclear on the number loading docks the proposed warehouse would accommodate. Figure 5 in the Project description shows 18 loading docks with large roll-up doors. However, nowhere in the Project description does it state that the Project would be constructed with 18 loading docks. The only mention of the roll-up doors is in the Aesthetics section where it states that the rear elevation "would consist of loading docks with 18 large roll-up doors, where tractor-trailer trucks would frequently be visible maneuvering to and from the docks." CARB staff urges the City to be more explicit regarding important project design features in the Project IS/MND as they facilitate the public's understanding of the impacts to air quality.

3. The Project's HRA should be revised to include an existing baseline (current conditions) and future baseline without the Project, and the future conditions with the Project. The health risks modeled under both the existing and the future baselines should reflect all applicable federal, state, and local rules and regulations. By evaluating health risks using all baselines, the public and City planners will have a complete understanding of the potential health impacts that would result from the Project. These include the impacts from the loss of expected emission reductions as truck fleets turn over to cleaner models.

4. The Project's air quality and health impacts were modeled using CARB's 2014 Emission Factors model (EMFAC2014). Project-related air pollutant emissions from mobile sources should be modeled using CARB's latest EMFAC2017. One of the many updates made to EMFAC included an update to the model's heavy-duty emission rates and idling emission factors, which resulted in higher diesel PM emissions as compared to EMFAC2014. Since EMFAC2017 generally shows higher emissions of diesel PM from trucks than EMFAC2014, CARB staff is concerned that the Project's mobile source NO_x and diesel PM emissions are underestimated.

5. The IS/MND states that the Project would result in 480 average daily vehicle trips, of which 144 trips would consist of delivery trucks during operation of the Project. However, according to the Project's California Emissions Estimator Model (CalEEMod) outputs, referenced in Appendix A of the IS/MND, the Project fleet mix included 2 percent light-duty trucks, 1 percent medium-duty trucks, and 2 percent heavy-duty trucks. Based on these truck fleet mix estimates, the Project would result in approximately 24 average daily truck trips. Since the average daily truck trips reported in the Project's CalEEMod output are well below what are reported in the IS/MND, CARB staff is concerned that the air pollutant emission reported in the IS/MND are underestimated.

6. The Air Quality section of the IS/MND concluded that the air pollutant emissions emitted during Project construction would not exceed the Bay Area Air Quality Management District's average daily significance thresholds. Although Appendix A of the IS/MND included all CalEEMod outputs used to estimate the Project's construction annual and peak daily construction air pollutant emissions, it did not include any project-specific documentation of how average daily construction emissions were estimated. Without substantial evidence in the record of how these air pollutant emissions were calculated, it cannot be concluded that the air pollutant emissions emitted during Project construction would be less than significant.

7. The HRA prepared for the Project (see Appendix B of the IS/MND) indicates that the incremental increase in lifetime cancer risk at the nearest residence would be 0.72 in a million during Project operation. However, modeling assumptions (e.g., diesel PM source locations, release heights) and AERMOD[2] inputs and outputs to support this conclusion are not provided. The City should revise the HRA to include substantial evidence of all AERMOD inputs and outputs, modeling assumptions, and the location of the maximum exposed individual receptor. Additionally, the results of the HRA should be presented graphically with cancer risk isopleths overlaid on a map.

CARB staff is concerned with the conclusions found in the Air Quality section of the IS/MND. The emissions and health risks reported in the IS/MND were estimated under the assumption that the proposed warehouse building would not be utilized for cold storage. As a result, the IS/MND did not account for potential air quality impacts associated with the operation of TRUs. Because the future tenants of the proposed warehouse building are mostly unknown, the air quality impact analysis in the IS/MND should have accounted for trucks and trailers with TRUs entering the Project. In this case, the IS/MND does not assess the air quality impacts from the Project adequately. Without proper analysis, it is impossible to understand the Project's air quality impacts and the resulting health risk to nearby communities. The City must adequately account for all sources that may contribute to operational emissions, and clearly articulate, supported by substantial evidence, the foundation and calculations used to assess the effectiveness of mitigation measures.

As it stands, the IS/MND does not meet the bare legal minimum of serving as an adequate informational document relative to informing decision makers and the public

[2] The American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain.

that there is no substantial evidence[3] in the record that the Project, as revised, may have a significant effect on the environment. (See Sierra Club v. County of Fresno (2018) 6 Cal.5th 502, 520.) CARB staff believes that there would be substantial evidence in the record to find that the Project may have a significant effect on the environment if the air quality impact analysis used EMFAC2017 to better estimate the Project's mobile source diesel PM and NO_x emissions, provided all modeling assumptions and calculations, accounted for diesel PM and NO_x emissions from TRUs, and included explicit details in the Project description regarding project design features that could impact regional air quality. In this event, the City would be required to prepare a full Environmental Impact Report (EIR) for the Project under the "fair argument" standard. (See No Oil, Inc. v. City of Los Angeles (1974) 13 Cal.3d 68, 83.)[4]

CARB staff recommends that the City revise the air quality section and HRA and recirculate the IS/MND for public review. Should the updated and recirculated IS/MND find, after adequately addressing informational deficiencies noted in this letter, that there is substantial evidence in the record to support a fair argument that the Project may have a significant effect on the environment, the City must prepare and circulate a draft EIR for public review, as required under CEQA.

In addition to the concerns listed above, CARB encourages the City and applicant to implement the measures listed in Attachment A of this comment letter to reduce the Project's construction and operational air pollution emissions. CARB appreciates the opportunity to comment on the IS/MND for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed.

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[3] "Substantial evidence" is defined, in part, as "enough relevant information and reasonable information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.... Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."

[4] The adequacy of an IS/MND is judicially reviewed under the "fair argument" standard should a party challenge the lead agencies CEQA determination. Under this standard, a negative declaration is invalid if there is substantial evidence in the record supporting a fair argument that a project may have a significant effect on the environment. (*Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1399.) This is the case "even though [the lead agency] may also be presented with other substantial evidence that the project will not have a significant effect." (CEQA Guidelines, Title 14 CCR section 15064(f)(1).) (emphasis added)

The CEQA Act places the burden of environmental investigation on the public agency rather than on the public. If a lead agency does not fully evaluate a project's environmental consequences, it cannot support a decision to adopt a negative declaration by asserting that the record contains no substantial evidence of a significant adverse environmental impact. (Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296, 311.) If a lead agency does not study a potential environmental impact, a reviewing court may find the existence of a fair argument of a significant impact based on limited facts in the record that might otherwise not be sufficient to support a fair argument of a significant impact.
(Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296, 311.)

If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, at (916) 440-8242 or via email at stanley.armstrong@arb.ca.gov.

Sincerely,

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Attachment

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ATTACHMENT A

Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers

California Air Resources Board (CARB) staff recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommend by CARB staff, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

Recommended Construction Measures

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.

2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating onsite. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, onsite vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.

3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits such that emission reductions achieved equal or exceed that of a Tier 4 engine.

4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during project construction be battery powered.

5. In construction contracts, include language that requires all heavy-duty trucks entering the construction site, during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-NO_x standard starting in the year 2022.[1]

[1] In 2013, CARB adopted optional low-NO_x emission standards for on-road heavy-duty engines. CARB staff encourages engine manufacturers to introduce new technologies to reduce NO_x emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model years 2010 and later. CARB's optional low-NO_x emission standard is available at https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm.

6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB staff is available to assist in implementing this recommendation.

Recommended Operation Measures

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating onsite.

2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. This requirement will eliminate the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration and cryogenic transport refrigeration are encouraged and can also be included lease agreements.[2]

3. Include contractual language in tenant lease agreements that requires all TRUs entering the project site be plug-in capable.

4. Include contractual language in tenant lease agreements that requires future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans.

5. Include contractual language in tenant lease agreements requiring all TRUs, trucks, and cars entering the Project site be zero-emission.

6. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission. This equipment is widely available.

7. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later today, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2030.

[2] CARB's Technology Assessment for Transport Refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf.

8. Include contractual language in tenant lease agreements that requires the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,[3] Periodic Smoke Inspection Program (PSIP),[4] and the Statewide Truck and Bus Regulation.[5]

9. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than five minutes while onsite.

10. Include contractual language in tenant lease agreements that limits onsite TRU diesel engine runtime to no longer than 15 minutes. If no cold storage operations are planned, include contractual language and permit conditions that prohibit cold storage operations unless a health risk assessment is conducted and the health impacts fully mitigated.

11. Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.

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[3] In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at https://www.arb.ca.gov/cc/hdghg/hdghg.htm.

[4] The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at https://www.arb.ca.gov/enf/hdvip/hdvip.htm.

[5] The regulation requires newer heavier trucks and buses must meet PM filter requirements beginning January 1, 2012. Lighter and older heavier trucks replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.