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Submitted via email: Mora-Rodriguez_El@sbcity.org

Dear Elizabeth Mora-Rodriguez:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Landing by San Manuel Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020100067. The Project would allow for the construction and operation of 1,153,644 square feet of warehouse building space on approximately 53 acres of land. Once in operation, the Project would introduce 2,458 daily vehicle trips, including 582 daily heavy-duty truck trips, along local roadways. The Project is located within the City of San Bernardino (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

Freight facilities, like the one proposed in the Project, can result in high volumes of heavy-duty diesel trucks and operation of on-site equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change.[1] CARB has reviewed the DEIR and is concerned about the air pollution and health risk impacts that would result should the City approve the Project.

I. The Project Would Increase Exposure to Air Pollution in Disadvantaged Communities

The Project, if approved, will expose nearby disadvantaged communities to elevated levels of air pollution. Residences are located north of the Project with the closest residences located approximately 100 feet from the Project's northern boundary. In addition, six schools (Indian Springs High School, Lankershim Elementary School, Cypress Elementary School, Cole Elementary School, Saint Adelaide School, and Thompson Elementary School) are located within two miles of the Project. The communities near the Project are exposed to existing toxic diesel particulate matter (diesel PM) emissions from existing industrial facilities, vehicular

[1] With regard to greenhouse gas emissions from this project, CARB has been clear that local governments and project proponents have a responsibility to properly mitigate these impacts. CARB's guidance, set out in detail in the Scoping Plan issued in 2017, makes clear that in CARB's expert view, local mitigation is critical to achieving climate goals and reducing greenhouse gases below levels of significance.

traffic along State Route 210 (SR-210), and aircraft operations at the San Bernardino International Airport.

Due to the Project's proximity to residences and schools already burdened by air pollution, CARB 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 (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 PM 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 industrial facilities, vehicular traffic along State Route 210 (SR-210), and aircraft operations at the San Bernardino International Airport.

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). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 5 percent for Pollution Burden[2] and is considered a disadvantaged community; therefore, CARB urges the City to ensure that the Project does not adversely impact neighboring disadvantaged communities.

II. The DEIR Did Not Account for All Air Pollutant Emissions from Heavy-Duty Trucks During the Project's On-site Grading Construction Phase

The DEIR did not account for mobile air pollutant emissions emitted during the transport of soil during the Project's construction grading phase. According to the DEIR, it was assumed that 8,000 cubic yards would be imported/exported from the Project site during its grading construction phase. It was also assumed 100 tons of demolished material would need to be removed from the Project site during the site preparation construction phase. Based on CARB's review of the California Emissions Estimator Model (CalEEMod) outputs found in Appendix B1 (Air Quality Impact Analysis) of the DEIR, the City and applicant assumed a total

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

of 10 one-way heavy-duty truck trucks trips would be required during the Project's combined site preparation/grading construction phase. Although the total 10 one-way heavy-duty truck trips account for the 100 tons of demolished material that would be removed from the Project, it does not account for the 8,000 cubic yards of soil imported/exported from the Project site. Assuming each heavy-duty truck has a capacity of 16 cubic yards, the Project would require a total of 1,000 one-way heavy-duty truck trips to import/export 8,000 cubic yards to/from the Project site. To account for all of the air pollutant emissions emitted during the Project's construction activities, CARB urges the City and applicant to account for air pollutant emissions from heavy-duty trucks importing/exporting 8,000 cubic yards of soil to the Project site in the Final Environmental Impact Report (FEIR).

III. The Health Risk Assessment Used Inappropriate Assumptions When Modeling the Project's Health Risk Impacts

Chapter 3 (Project Description) of the DEIR states that approximately 384,548 square feet of the proposed warehouse building space would be used for cold storage. Warehouses containing cold storage are serviced by trucks with transport refrigeration units (TRU) to transport frozen goods to and from the facility.[3] Based on CARB's research, TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within a facility. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near the Project would be exposed to diesel exhaust emissions that would result in significant cancer risk. CARB has reviewed the Project's HRA and has concerns regarding the assumptions used to estimate the Project's health impacts.

The HRA assumed all heavy-duty trucks with TRUs visiting the Project site would not idle longer than 30 minutes. Data obtained by CARB indicates that trucks with TRUs can operate for as long as two hours per visit, which is well above the 30-minute duration assumed in the HRA. Unless the applicant and City restrict on-site TRU idling to less than 30 minutes, the Project's HRA should be revised.

The HRA assumed 79 of the Project's 582 total daily heavy-duty truck traffic (approximately 14 percent) would consist of trucks equipped with TRUs. It is unclear in the HRA how this estimate was derived. Due to the large size of the proposed warehouse development, CARB is concerned that the number of TRUs visiting the Project site may be underestimated in the HRA. CARB urges the City and applicant to provide substantial evidence to support this assumption.

The HRA states that diesel PM emissions from on and off-site TRU activities were accounted for in the Project's air dispersion modeling. To estimate the emissions from Project-related TRUs, the HRA assumed 60 percent of the TRUs accessing the Project site would have a

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[3] TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.

power rating of 34 horsepower (hp) and the other 40 percent would have a power rating of 23 hp. Based on this mix, the City calculated the average idling emission factor of Project-related TRUs to be 0.62 grams per brake horsepower-hour (g/bhp-hr). Table 2-2 of the HRA summarizes the combined diesel PM emission rates from on and off-site heavy-duty trucks and TRUs for the year 2022. However, the footnote of each table states the assumed time each TRU will be within the Project site, but does not provide the assumed time each TRU will operate off-site. Therefore, it is unclear how the 0.62 g/bhp-hr TRU-emission factor was used to calculate the diesel PM emission rates presented in the tables. Due to the lack of clarity, CARB urges the City and applicant to revise the HRA to include specific details of the assumptions used to calculate the cancer risk impacts, supported by substantial evidence.

IV. The DEIR Does Not Analyze Potential Air Quality Impacts from the Project's Transport Refrigeration Units

Although the HRA prepared for the Project evaluated cancer risks from the operation of on-site and off-site TRUs, the City and applicant did not model and report air pollutant emissions from TRUs in the DEIR. The air pollutant emission estimates, found in Table 4.1-10 (Peak Operational Emissions Summary) of the DEIR, were modeled using CalEEMod. Although CalEEMod can estimate air pollutant emissions from area, energy, and mobile sources, the current version of CalEEMod does not account for air pollutant emissions from TRUs. Since a portion of the Project will be used for cold storage, CARB urges the City and applicant to model and report the Project's air pollution emissions from TRUs using CARB's latest emission factors. The City and applicant should assume that a conservative percentage of the Project's truck fleet is equipped with TRUs, as well as a conservative idling duration for each TRU.

V. Recommend Mitigation Measures

The DEIR includes a list of nine mitigation measures (4.1-1 through 4.1-9) to reduce the Project's significant impact on air quality. These mitigation measures include: requiring large off-road equipment that is equipped with Tier 4 engines, or Tier 3 or cleaner engines where Tier 4 equipment is not available during Project construction; restricting truck idling times to 5 minutes; requiring all indoor and outdoor cargo handling equipment to be electric or non-diesel fueled; and including the minimum number of automobile electric vehicle charging states required by Title 24 of the California Code of Regulations. Although these mitigation measures would reduce the Project's air pollutant emissions, the DEIR concludes that the Project's impact on air quality would remain significant after mitigation. Even where impacts will remain significant and unavoidable after mitigation, CEQA requires that all feasible mitigation measures be incorporated (see California Public Resources Code§ 21081; 14 CCR§ 15126.2(b)). To meet this requirement, CARB urges the City and applicant to add the applicable emission reduction measures listed in Attachment A of this letter in the Final Environmental Impact Report (FEIR).

VI. Conclusion

CARB is concerned about the potential public health impacts should the City approve the Project. The cancer risk impacts presented in the HRA should be based on realistic on-site idling time for TRUs. The HRA should also assume a conservative percentage of the trucks visiting the Project site are equipped with TRUs and report the findings in the FEIR. The Project's air quality impact analysis does not account for air pollutant emissions from the operation of on-site and off-site TRUs. The FEIR should account for mobile air pollutant emissions emitted during the transport of soil during the Project's construction grading phase. Lastly, the revised FEIR analysis presented in the FEIR should include all feasible mitigation measures listed in Attachment A of this letter to reduce the Project's significant and unavoidable impact on air quality.

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

CARB appreciates the opportunity to comment on the DEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, at stanley.armstrong@arb.ca.gov.

Sincerely,

Heather Arias, Chief
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Attachment

cc: See next page.

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ATTACHMENT A

Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers

The California Air Resources Board (CARB) 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 recommended by CARB, 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 on site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site 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-oxides of nitrogen (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 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-year 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 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 on site.

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 substantially decrease 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 in 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, 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 on site.

10. Include contractual language in tenant lease agreements that limits on-site 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.

12. Including language in tenant lease agreements, requiring the installing of vegetative walls[6] or other effective barriers that separate loading docks and people living or working nearby.

[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 that newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be 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.

[6.] Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies (2017) is available at: https://ww2.arb.ca.gov/sites/default/files/classic//research/apr/past/13-306.pdf.