



September 28, 2020

Christopher C. Koontz, AICP
Deputy Director
City of Long Beach Development Services
411 W. Ocean Blvd., 3rd Floor
Long Beach, CA 90802

Subject: Summary of Application Materials Submitted for the Proposed Car Wash Project at
5005 Long Beach Boulevard, Long Beach, California

Dear Mr. Koontz:

LSA has reviewed the application materials submitted for the proposed Car Wash Project (project) at 5005 Long Beach Boulevard, in the City of Long Beach (City), California. The summary below is based on our professional opinions related to the noise, air quality, and traffic issues associated with the proposed project.

NOISE

LSA Senior Noise Staff has reviewed the *Construction Noise Analysis for the 5005 Long Beach Boulevard Car Wash* (noise analysis) (BridgeNet International, June 2020). The initial observation of the noise analysis is that it has only assessed off-site construction noise impacts. For a project that would incorporate significant noise sources such as the car wash and automobile vacuum cleaners, LSA's professional opinion is that operational noise should be analyzed and any noise reduction measures to reduce noise impacts to achieve the necessary standards should be recommended. Given the proximity of the proposed car wash to surrounding sensitive uses, specifically Dooley Elementary School to the north and west, it would seem insufficient to not assess the potential operational impacts.

Furthermore, there is no assessment of vibration during construction or operation of the proposed project. While it is highly likely there would be no damage resulting from vibration impacts during construction, there is the potential for vibration impacts to occur at the playground and sports fields immediately to the north of the proposed project site.

Lastly, since the specific construction calculations are not provided in the noise analysis, LSA was not able to reconcile the numbers presented. Utilizing the reference noise levels presented in the analysis along with industry standard usage factors and attenuation equations, it was calculated that construction noise levels at the nearest school building would be approximately 71 dBA L_{eq} (equivalent continuous sound level measured in A-weighted decibels). If the assumption of exterior- to-interior noise reduction presented in the study is used, 20 dBA, interior levels would be 51 dBA L_{eq} and would exceed the City's interior noise standard of 45 dBA L_{eq} . While the City's noise standard is L_{50} , because the average construction noise (L_{eq}) would occur for the duration of an hour, the L_{50} and L_{eq} would be interchangeable.

AIR QUALITY

LSA has reviewed the *Focused Air Quality Analysis* prepared for the 5005 Long Beach Boulevard Project dated August 24, 2020, by Rincon Consultants, Inc. The report provides background air quality information and identifies the Dooley Elementary School as the closest sensitive receptor to the project site. The report also identifies the South Coast Air Quality Management District's (SCAQMD) regional significance criteria for long-term project operation and Localized Significance Thresholds (LSTs) for the project site. In the report, the title of Table 3 is "SCAQMD LSTs for Construction"; however, a construction analysis has not been provided in the report. Further, the information in the table is not correct for either construction or operation.

The LSTs for the project site are shown in Table 1.

Table 1: Localized Significance Thresholds

On-Site Emissions Sources	Pollutant Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Construction Emissions	57	585	4	3
Operational Emissions	57	585	1	1

Source: Compiled by LSA (September 2020).

Note: Source Receptor Area – South Coastal Los Angeles County, 1 acre, receptors at 82 feet.

CO = carbon monoxide

PM_{2.5} = particulate matter less than 2.5 microns in size

lbs/day = pounds per day

PM₁₀ = particulate matter less than 10 microns in size

NO_x = nitrogen oxides

The analysis used a 5-mile-per-hour speed to replicate idling, which would be acceptable for on-site emissions. This does not however account for off-site emissions for vehicles traveling to the project site. Additionally, calculation details with the specific inputs were not provided to verify the accuracy of calculations. LSA's independent calculations result in substantially higher emissions, although we would anticipate the emissions would remain well below the thresholds. Additional calculation details should be provided for verification and all categories of emissions should be quantified.

Table 4 of the report compares the vehicle emissions to the SCAQMD Regional threshold; however, this is not accurate. The total emissions for the project were not calculated; the total emissions would have included the emissions associated with total trip lengths (not just the on-site idling), the area source emissions, and the energy source emissions for comparison to the regional thresholds. The report should also identify whether any additional sources of emissions (i.e., an emergency back-up generator) would be included as part of the project.

The project site is located in an area identified by the California Office of Environmental Health Hazard Assessment as currently affected by many sources of pollution and where people are often especially vulnerable to pollution's effects. Therefore, a cumulative analysis of existing sources of pollution in the project vicinity should be provided.

In summary, the *Focused Air Quality Analysis* prepared for the project does not include enough information to determine the air quality impacts of the project. An analysis of project construction emissions using the California Emissions Estimator Model (CalEEMod) or other SCAQMD approved model should be used to determine if construction emissions would exceed the SCAQMD's regional or

localized significance thresholds. Additionally, the operational analysis should include emissions from the entire trip length in addition to idling emissions and should include all emission sources associated with the project. LSA suggests that once the idling emissions are verified, the estimated emissions should be added to the regional vehicle emission estimates from CalEEMod to determine total project emissions. A cumulative analysis should also be provided to determine the cumulative risk impacts of the project to sensitive receptors in the project vicinity.

TRAFFIC

The current description indicates that 300 customers per day are anticipated at the proposed carwash, which would indicate at least 600 daily trips. Some of these may be pass-by trips, which could potentially result in fewer than 500 net new daily trips. However, the City's *Traffic Impact Analysis Guidelines* (June 2020) state that the City must approve pass-by trip estimates for each development on a case-by-case basis (page 17). In addition, while the City's *Traffic Impact Analysis Guidelines* state that a traffic impact analysis is generally required for projects generating 500 or more net new daily trips, the guidelines also state that the City Department of Public Works may also require that a traffic impact analysis be prepared (regardless of project size) if there are concerns over safety or operational issues, or if the project is located in an area significantly impacted by traffic (page 2). The City of Long Beach Mobility Element (2013) states, "Of particular concern are the safety hazards posed by vehicles to school-aged children..." (page 80). Safety concerns may indicate a potential impact according to the California Environmental Quality Act (CEQA) if the project presents hazards due to design features.

The project site is located immediately south of Dooley Elementary School on Long Beach Boulevard. Localized congestion is typically present in the vicinity of schools during school start and ending times. The presence of school-aged children means that safety should be analyzed. The City's *Traffic Impact Analysis Guidelines* specify that bicycle and pedestrian facilities should be included in the study area (page 15). Additional analysis of other transportation modes including the assessment of potential degradation of other modes in the project vicinity may be included depending on the location and type of project (page 18). The Long Beach Mobility Element lists Long Beach Boulevard as a primary transit priority street and Del Amo Boulevard as a secondary transit priority street (Map 14). Long Beach Boulevard has existing Class II bicycle lanes. The 2017 Bicycle Master Plan recommends 8-80 bikeways for both Long Beach Boulevard and Del Amo Boulevard. Based on the location of the project site, analysis of operations and safety, including vehicle, transit, bicycle, and pedestrian modes, appears to be warranted.

The project plans include pay stations for entrance to the car wash tunnel two or three car lengths from the public right-of-way. If queues exceed the on-site vehicle storage, project queues could extend onto Long Beach Boulevard. In addition, as currently planned, inbound access to the project is dependent on a right-in driveway located less than 100 feet from the intersection of Long Beach Boulevard/Del Amo Boulevard. Inbound access is only possible from this one driveway. Vehicles then exit the project site at a right-in/right-out driveway on Del Amo Boulevard. Outbound access is only possible onto Del Amo Boulevard. When inbound and outbound movements occur on different streets, the likelihood of U-turns increases. Near the project site, U-turns would be more common at the unsignalized intersection of Virginia Avenue/Del Amo Boulevard, the signalized intersection of Long Beach Boulevard/51st Street, or illegally midblock along Long Beach Boulevard. U-turns at these locations have the potential to add to localized congestion and/or have the potential to increase

hazards on the public roadways. These are examples of operational issues that should be addressed in a traffic impact analysis.

In order to assess these operational, safety, and multimodal concerns, LSA recommends the following items be included in a traffic impact analysis.

Vehicle Analysis

Queueing analysis to demonstrate that 95th percentile queue can be contained within the project site without interference to vehicle travel on Long Beach Boulevard.

Operational Analysis of Three Intersections in the Immediate Project Vicinity

The City's Traffic Impact Analysis Guidelines state that the City must approve pass-by trip estimates for each development on a case-by-case basis. As this is an operational analysis of the actual traffic volume into and out of the project site, it would not be appropriate to deduct pass-by trips from this analysis.

- Virginia Avenue/Del Amo Boulevard
- Long Beach Boulevard/Del Amo Boulevard
- Long Beach Boulevard/51st Street

In this operational analysis, particular attention should be paid to:

Virginia Avenue/Del Amo Boulevard. Assessment of peak hour operations including whether the westbound left-turn pocket is sufficient to hold the additional volume generated by project westbound U-turns and the effect of westbound U-turns on roadway safety.

Long Beach Boulevard/Del Amo Boulevard. The effect of project trips including upstream and downstream U-turns on intersection vehicle level of service during the peak commute hours. Analysis of peak-hour queueing in the southbound right-turn lane to determine whether the project's inbound driveway is blocked, how the proposed project would contribute to the southbound queue, an assessment of whether additional project vehicles present a hazard, and an assessment of how additional project vehicle queueing impacts transit service on Long Beach Boulevard, which is designated a primary transit priority street in the Long Beach Mobility Element.

Long Beach Boulevard/51st Street. Assessment of peak-hour operation including vehicle level of service and northbound left-turn queueing. Determination of whether the northbound left-turn pocket is sufficient to accommodate anticipated the 95th percentile queue with additional project U-turns and the effect of northbound U-turns on roadway safety. The analysis should specifically address the proximity of the bus stop on the west side of Long Beach Boulevard, the frequency of bus service, and whether U-turns can be completed when a bus is stopped at the bus stop. If the northbound left-turn pocket is inadequate to accommodate existing left-turn plus project U-turn traffic or if U-turns are impeded by bus operations, then the analysis should consider whether the likelihood of illegal mid-block U-turns is increased and the effects of those on traffic safety.

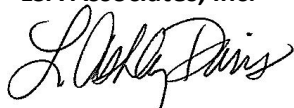
Multimodal Analysis

Existing (during a period of in-class school instruction) or historic pedestrian and bicycle volumes along the west side of Long Beach Boulevard and the north side of Del Amo Boulevard adjacent to the project site should be collected. Sight distance at the project driveways should be analyzed to demonstrate that increased use of the driveways would not result in an increase in sight distance obstructions and conflicts with pedestrians and bicyclists. The analysis should determine the effects of additional project vehicle traffic on pedestrian and bicycle level of service and whether additional vehicle trips constitute a hazard to pedestrian and bicycle travel (especially school-aged children). The analysis should determine the effect of pedestrian and bicycle volume on vehicle delay entering the project site, whether additional vehicles stopped and waiting to enter the project site would increase the likelihood of rear-end collisions and constitute a hazard, and what effect that additional vehicles waiting to enter the project site would have on bus service on Long Beach Boulevard, which is designated a primary transit priority street in the Long Beach Mobility Element.

Thank you for this opportunity to continue to provide LSA's services to the City. If you have any questions regarding this memorandum, please contact me directly.

Sincerely,

LSA Associates, Inc.



Ashley Davis
Principal