

Appendix FEIR-17

Noise Memorandum

To: Stephanie Eyestone-Jones, Eyestone Environmental

From: Dan Packer, AECOM Hunt

Date: August 16, 2023

Re: TVC 2050 Project, Noise Public Comments

Below are further clarifications regarding construction noise impacts and mitigations to assist with addressing public comments on the Draft EIR.

Comment No. 26-103 regarding temporary sound walls

Providing a 50-foot-high temporary sound barrier is not a financially or logistically practical solution and would be extremely difficult to implement. At 50 feet in height, there is a significant increase in wind loading, which typically requires lateral bracing. Lateral bracing at this location is not possible to install due to the footprint of the new construction and the location of the existing Broadcast Center Apartment building. In addition, the lateral bracing, even if possible, would interfere with the construction sequencing requiring a complicated phased installation and removal. The added complexity would inhibit construction progress in this vicinity causing the overall construction duration to lengthen considerably. . For these reasons, 50-foot tall temporary sound walls are not commonplace in the building construction industry. In my 22 years in the building construction industry, I have never seen a 50-foot-high temporary sound wall built.

Comment No. 26-103 regarding silent equipment

There is currently no silent construction equipment available in the United States suitable for the construction required of this Project. The type of equipment needed is beyond the capabilities of the current rental market. While some companies are starting to develop and make available electric/battery equipment, these are currently limited to smaller scale tractors intended for smaller magnitudes of work. Furthermore, the limitations of battery capacity restrict meaningful usage to about four hours per day. To account for this reduced capability, the number of pieces of equipment would need to be increased in order to provide productivity over a full workday – doubling the equipment in most cases. Additionally, the cost of this equipment is roughly three times the cost of comparable petroleum powered equivalents making this suggested mitigation measure difficult financially, especially for smaller, disadvantaged subcontractors.

Comment No. 26-104 regarding construction equipment

The requested use of concrete crushers or pavement saws rather than impact devices, such as jackhammers, pavement breakers, and hoe rams for tasks such as concrete or asphalt demolition and removal, would not be feasible. Impact devices are high production tools that are best suited to demolish large areas easily and quickly. Concrete crushers and pavement saws are meant to be utilized in high precision situations where carefully defined edges are required to be maintained. As such, they are considered low production tools for smaller jobs. Use of this equipment would substantially extend the duration of demolition activities (i.e., up to several months) and would substantially increase construction costs.

In addition, the requested use of line or cover hoppers, storage bins, and chutes with sound-deadening material (e.g., application of wood or rubber liners to metal bin impact surfaces) would not be feasible for the 40-yard dumpster that is expected to be used on-site. Heavily used hoppers and chutes would quickly erode the sound-deadening materials and require frequent removal and replacement of those materials. The remove/replace process would be constant and time consuming, which would require cessation of the use of such hoppers and chutes that would substantially delaying construction progress and dramatically lengthen the overall duration of construction.

Further, there is currently no electric/battery powered or hybrid equipment available in the United States for use in the heavy-duty requirements for mass excavation and shoring operations in terms of horsepower, torque, running time, etc. While some companies are starting to develop and make available electric/battery equipment, this equipment is currently limited to smaller scale tractors intended for smaller areas of work. The type of equipment needed for this Project requires much larger equipment that is beyond the capabilities of the current rental market. Furthermore, battery capacity limitations restrict usage to about four hours per day. To account for this reduced capability, the number of pieces of equipment would double. Additionally, the cost of this equipment is roughly three times the cost of comparable petroleum powered equivalents making this suggested mitigation measure difficult financially, especially for smaller, disadvantaged subcontractors.

Comment No. 26-107 regarding engine noise

Engines are often located at the rear of heavy-duty equipment behind the cab and oriented away from off-site sensitive receptors. For example, while excavators use buckets to perform work near a property line, these involve the use of relatively quiet hydraulic cylinders while the engine and exhaust are often 20-30 feet behind the working bucket. In addition, equipment also would not straddle property lines, as buffers from the property line must be maintained for maneuverability.

Comment No. 26-112 regarding construction equipment mix

The construction equipment mix (i.e., construction equipment type and number of pieces of construction equipment) that would be used for each of the anticipated construction phases (i.e., demolition, grading/excavation, mat foundation, structure, enclosure, finishing and landscaping) was provided by Hunt Construction Group (dba AECOM Hunt) based on information from the developer. The equipment mix was determined using the entitlement plans, the construction schedule duration, and the local market availability of construction equipment and trucking. Based on our experience building large, commercial, complex projects in Southern California, an equipment mix was developed to meet the needs of the Project.

Comment No. 26-E.1-49 regarding wave barriers

Installation of wave barriers as a mitigation measure for vibration control is not recommended for two reasons. First, the installation of such wave barriers requires the use of heavy equipment that generate the very ground-borne vibration sought to be mitigated. Secondly, the extents of the wave barrier for this application require significant depth and length in order to be effective and are cost prohibitive.

Comment No. 26-E.1-56 regarding temporary screening on the building facade

Construction noise levels are dominated by the major construction equipment (i.e., major noise sources) located at the ground level (e.g., excavator, tractor, loader, backhoe, bore/drill rig, grader, scraper, and dozers). Construction activities that take place at the upper levels of the Project buildings would involve smaller construction equipment (i.e., hand tools), which would generate lower noise levels than the large earth-moving equipment at the ground level. As the construction progresses vertically, interior fit-out and exterior enclosure activities progress simultaneously. Generally speaking, interior activities have a longer duration than that for the exterior enclosure. In most cases, the exterior is fully enveloped long before the interior activities are complete. It is impractical to erect a large-scale, perimeter noise barrier and remove/relocate it at a frequency necessary to maintain a suitable buffer and prevent a deterrent to safe exterior wall installation activities. Based on typical construction logistics for multi-level buildings, the exterior enclosure will provide the necessary sound reduction. Therefore, there is no need for temporary noise barriers at the façade.