

## ATTACHMENT 11

# memorandum

date June 21, 2018

to Jose Mendivil, City of Culver City

cc Michael Allen, City of Culver City

from Mike Harden and Olivia Chan, ESA PCR

subject “9735 Washington or “Brick-Machine” Project – Noise/Vibration Revisions”

An Initial Study/Mitigated Negative Declaration (IS/MND or MND) was prepared by the City of Culver City (City) in accordance with the California Environmental Quality Act (CEQA), as amended, to evaluate the potential environmental effects associated with implementation of the proposed office, retail, and restaurant development project known as Brick and Machine (the "Project"). The MND was circulated for public review from August 2, 2017 to August 23, 2017. The City received one (1) comment letter during the public review period from Allen Matkins Attorneys at Law (on behalf of the Southern California Hospital or “SCH-CC”), dated August 21, 2017. Responses to comments raised in the letter were provided by ESA PCR to the City on September 28, 2017. Supplemental noise and vibration analyses were performed and summarized by ESA PCR in a Memorandum titled “9735 Washington or “Brick-Machine” Project – Noise/Vibration Corrections and Revisions” on February 14, 2018.

Following the February 2018 supplemental analyses, further evaluation of noise and vibration impacts was undertaken by Wilson Ihrig, and presented in the “9735 Washington or “Brick-Machine” Project – Noise/Vibration Revisions” Memorandum by ESA PCR dated April 30, 2018.

This current Memorandum includes additional revisions to the mitigation measures in Section XII, Noise, of the IS/MND. These revisions supersede and replace prior revisions to the IS/MND presented in the September 28, 2017 and February 14, 2018 and April 30, 2018 memoranda.

### **Revised/Updated Noise and Vibration Measures**

CEQA Guidelines Section 15074.1, *Substitution of Mitigation Measures in a Proposed Mitigated Negative Declaration*, subsection (a) states:

*(a) As a result of the public review process for a proposed mitigated negative declaration, including any administrative decisions or public hearings conducted on the project prior to its approval, the lead agency may conclude that certain mitigation measures identified in the mitigated negative declaration are infeasible or otherwise undesirable. Prior to approving the project, the lead agency*

*may, in accordance with this section, delete those mitigation measures and substitute for them other measures which the lead agency determines are equivalent or more effective.*

Further Section 15074.1(c) and 15074.1(d) state:

*(c) No recirculation of the proposed mitigated negative declaration pursuant to Section 15072 is required where the new mitigation measures are made conditions of, or are otherwise incorporated into, project approval in accordance with this section.*

*(d) "Equivalent or more effective" means that the new measure will avoid or reduce the significant effect to at least the same degree as, or to a greater degree than, the original measure and will create no more adverse effect of its own than would have the original measure.*

Consistent with CEQA Guidelines Section 15074.1, the noise and vibration mitigation measures in the IS/MND have been revised and updated with "more effective" measures, where appropriate, to ensure that potentially significant noise and vibration during construction activities are reduced to a less than significant level. Accordingly, the impact findings and conclusions in the IS/MND remain unchanged.

Below is the updated list of noise and vibration mitigation measures with new text in underline and text that has been removed in ~~stricken through~~ as compared to the original measures included in the Draft IS/MND (August 2017).

**NOISE-1** The Project shall implement noise reduction strategies to reduce noise levels from construction to achieve a performance standard of less than 63 dBA Leq measured at the building facade of the nearest adjacent patient room at the hospital and at the building facade of the nearest residential uses. Noise reduction strategies shall include one or a combination of the following to achieve the performance standard.

- Use construction equipment, fixed or mobile, that individually generates less noise than presumed in the FHWA RCNM (refer to Table B- 14 of the MND). Examples of such equipment are compact, small, or mini model versions of backhoes, cranes, excavators, loaders, tractors, of other applicable equipment that are equipped with engines typically less than 125 horsepower. Construction equipment noise levels shall be documented based on manufacturer's specifications. The construction contractor shall keep construction equipment noise level documentation onsite for the duration of construction.
- Noise-generating equipment operated at the project site shall be equipped with the most effective noise control devices, i.e., mufflers, lagging, and/or motor enclosures. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated. The reduction in noise from noise shielding and muffling devices shall be documented based on manufacturer's specifications. The construction contractor shall keep noise shielding and muffling device documentation onsite and documentation demonstrating that the equipment has been maintained in accordance with the manufacturers' specifications onsite for the duration of construction.
- Stage noise- generating construction equipment as far away from adjacent sensitive receptors as practicable.

- With the hospital's consent, provide and/or install portable sound blanket screens for placement on the interior or exterior of patient room windows with a line of sight to the construction area.
- Mitigation Measure NOISE- 4 requires a noise barrier that shields portions of the adjacent hospital from the construction area. If warranted, an approximate 10- foot long angled extension shall be added to the required minimum 20- foot tall noise barrier to provide further noise level reductions for patient rooms on the upper floors.

The effectiveness of the noise reduction strategies to achieve the performance standard shall be documented by on- site noise monitoring, conducted by a qualified acoustical analyst using a Type 1 instrument in accordance with the American National Standards Institute (ANSI) S1.4. The contractor shall install and maintain at least two continuously operational automated noise monitors with one noise monitoring location selected at the building façade (window adjacent) of the nearest sixth floor patient room with direct line- of- sight to the project construction and one noise monitoring location selected at the building façade (window adjacent) of the nearest third floor patient room with direct line- of- sight to the project construction. Construction noise monitoring for the project shall follow protocol outlined in Mitigation Measure NOISE- 6, with noise monitoring data collected by the contractor and reported to the City Chief Building Office on a weekly basis. Noise monitoring shall be conducted throughout project construction. The results of the noise monitoring shall be used to inform the extent to which the noise reduction strategies shall be implemented throughout the duration of construction and what additional measures, if need, shall be implemented. All noise monitoring shall be conducted to the satisfaction of the City of Culver City, and per Mitigation Measure NOISE- 6.

**NOISE-2** The project applicant shall designate a construction relations officer to serve as a liaison with surrounding residents and property owners who is responsible for responding to any concerns regarding construction noise and vibration. The liaison's telephone number(s) shall be prominently displayed at the project site. Signs shall also be posted at the project site that includes permitted construction days and hours.

**NOISE-3** Construction and demolition activities shall be scheduled so as to avoid operating ~~several pieces~~ more than one piece of motorized equipment simultaneously within 15 feet of the adjacent sensitive receptor's property line. The Chief Building Official, or designated representative, shall conduct periodic site visits to ensure compliance with the requirements set forth in this measure.

**NOISE-4** ~~Temporary noise barriers that provide a minimum of 20 dB noise reduction shall be used to block the line of site between construction equipment and noise sensitive receptors (residences and hospital uses, R1) during project construction. Noise barriers shall be at a minimum height of 20-feet tall shall be installed along the northwestern and northeastern boundary adjacent to residential and hospital uses during project construction. Detailed noise barrier specifications including but not limited to barrier construction details and Sound Transmission Class (STC) ratings should be approved by a qualified acoustical consultant and submitted to the City Chief Building Office for approval prior to the start of project construction.~~

**NOISE-5** Contractors ~~would~~ shall phase in construction activity, use low-impact construction technologies, and avoid the use of heavy vibrating equipment where possible to reduce or avoid

construction vibration impacts. Especially, contractors shall use smaller and lower impact construction technologies to avoid human annoyance to the adjacent buildings. Contractors shall avoid the use of driving piles and drill piles instead where necessary to avoid structural damage. The construction contractor shall be responsible for implementing this measure during the construction phase. The use of a hoe ram shall be at least 30 feet and use of a concrete mixer truck and dump truck shall be at least 10 feet from the property line of the adjacent hospital.

In order to ensure that construction vibration levels do not exceed applicable thresholds (0.2 PPV in/sec for structural damage, 0.035 PPV in/ sec for human annoyance, and 72 VdB for hospital operating rooms), the contractor shall install and maintain at least two continuously operational automated vibrational monitors with one adjacent to the nearest sensitive space within the basement of the hospital; and one on the adjacent residential building at the locations closest to the active auger bit at minimum throughout all ground- disturbing significant impact construction activities (demolition, shoring, excavation, and foundation work) and until sufficient compliance has been demonstrated to the satisfaction of the Chief Building Official or designated representative. The monitoring system must produce real- time specific alarms (via text message and/ or email to onsite- personnel and selected Hospital representatives) when vibration velocities are approaching, but prior to, the applicable vibration threshold, as outlined in Mitigation Measure NOISE- 6. In the event of an alarm after steps have been taken to reduce vibratory levels, work in the vicinity shall be halted and potential adjustments to the construction program assessed to ensure that vibration thresholds would not be exceeded upon continuation of construction activity.

In the event that the structural damage threshold is exceeded, the adjacent hospital and residential buildings shall be inspected for damage, as applicable. In the event damage occurs due to construction vibration, repairs shall be arranged by the contractor and/or the applicant's representative in consultation with SCH- CC, the residential building owner and/or the City Building Official, as necessary.

The construction contractor shall be responsible for implementing this measure during the construction phase. The Chief Building Official, or designated representative, shall conduct periodic site visits to ensure compliance with the requirements set forth in this measure. Vibration monitoring data shall be collected by the contractor and reported to the City Chief Building Office on a weekly basis.

**NOISE- 6** The contractor shall provide a noise and vibration monitoring plan, prepared by a qualified acoustical consultant for City review and approval prior to the start of project construction. For this type of sensitive adjacency, a mitigation measure of this nature is essential to the protection of the sensitive receptor. At minimum, the plan should include, but not be limited to: monitoring instrument specifications, instrument calibration certificates, list of exact monitoring locations, ambient/existing vibration survey results, data collection protocol, alarming and alerting protocol (including but not limited to a fail- safe to ensure compliance with the stop- work requirements when the vibration measures are triggered), weekly reporting protocol (including but not limited to listing a summary of construction activities performed during the previous week, and to be performed during the upcoming week), maintenance and service outage protocol, and a redundancy mechanism in case the vibration monitors malfunction. The plan should detail compliance procedures to meet requirements outlined in Mitigation Measures NOISE- 1 and NOISE- 5. Additionally, the detailed baseline construction schedule shall be provided to the noise and vibration monitoring consultant prior to project construction. The

ambient/ existing vibration assessment shall be performed at the nearest sensitive space within the basement of the hospital for a minimum 24- hour period prior to the start of project construction. To determine applicable "warning" thresholds, "test" construction work activities shall be conducted, measuring the vibration response at the nearest sensitive space within the basement of the hospital to equipment usage with the most potentially significant vibration impacts (i.e. hoe ram usage, auger drill usage, etc.) for each ground- disturbing work phase, as per the 30 April 2018 Revision A construction vibration analysis.

Mitigation measure NOISE- 6 ensures that there is a means in place to verify that the actual noise and vibration control is retained and meets the requirements during the course of construction and that the hospital is suitably protected from noise and vibration.