2.8 NOISE

2.8.1 CONSTRUCTION NOISE

Comment
The noise impacts are not adequately addressed or studied in the DEIR, as there appears to be no analysis at all of potential noise level increases as measured from locations along the NE Embarcadero and on Telegraph Hill. Based on the experience of our members, we know that when music events are held on TI, the noise levels reaching Telegraph Hill are significant. Thus, it is certain that the impacts of noise pollution from construction and other activities proposed on TI/YBI could cause significant noise and light pollution impacts at locations on the mainland. Construction noise over a 30-year period would definitely significantly impact the residents and visitors to these and other mainland locations. *(Vedica Puri, President, Telegraph Hill Dwellers)*  [39.74]

Response
A significant and unavoidable noise impact from project construction is identified in the EIR in Section IV.F, Noise, p. IV.F.14. The proposed ferry quay would be the closest project element to The Embarcadero, at a distance of 1.7 miles. Telegraph Hill is further inland. The noisiest construction activity would be pile driving, which generates noise levels of about 101 dBA at a distance of 50 feet. At a distance of 1.7 miles (8,976 feet) pile driving noise would be attenuated to 56 dBA. Consequently, while the greatest construction noise would likely be audible to receptors along The Embarcadero during quieter periods, it would generally be below the noise levels generated by motor vehicle traffic along The Embarcadero, which the San Francisco Department of Public Health has modeled to be 75 dBA or greater.  

Therefore, while construction noise would be significant and unavoidable at some on-island receptor locations, impacts along The Embarcadero and at Telegraph Hill, which is further away, would be below ambient values and less than significant. The EIR uses the following significance threshold for temporary increases in noise levels, such as noise from construction activities, on p. IV.F.12: “Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.” Construction-related noise impacts from the Proposed Project along The Embarcadero and on Telegraph Hill would be less than significant.

2.8.2 OPERATIONAL NOISE

Comment
• In addition to noise generated by construction activities over a 30-year period, what other noise generating activities are proposed? *(Vedica Puri, President, Telegraph Hill Dwellers)*  [39.75]

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Response

As discussed in EIR Section IV.F, Noise, on p. IV.F.20, operation of the Proposed Project would increase noise levels along existing and proposed roadways due to increased vehicle traffic in the area of Treasure Island where the streets lead to the Treasure Island Causeway and all traffic would concentrate. Impact NO-4, on EIR p. IV.F.23, addresses noise generated by ferry vessels at and approaching the proposed Ferry Terminal. No other substantial noise-generating activities are proposed.

EIR Chapter II, Project Description, p. II.79, states that construction and buildout would occur over an approximately 15- to 20-year period, although market forces could affect the actual timing. Therefore, the statement in the comment that construction activities would occur for a 30-year period is not correct.

2.8.3 NOISE LEVELS ON MAINLAND

Comment

• Quantify the noise levels and light pollution increases that would be caused from the proposed Sports Complex.

• Please analyze all potential noise level increases to locations along the NE Embarcadero and on Telegraph Hill. (Vedica Puri, President, Telegraph Hill Dwellers) [39.76]

Response

The proposed Sports Park is described in EIR Chapter II, Project Description, on EIR p. II.31. The Sports Park would be a regional recreational park of up to 40 acres with a variety of athletic fields and associated facilities. The facilities may include courts and fields for baseball (including batting cages), softball, soccer, rugby, lacrosse, and volleyball, as well as associated services such as a concessionaire, parking, and restroom facilities. These community sports fields are anticipated to generate 1,376 peak hour weekend vehicle trip ends. Noise from land uses such as these would be from vehicle trip generation and participant and crowd noise during games and practices. Noise increases from vehicle trips generations are addressed in EIR Section IV.F, Noise, in Impact NO-3, on p. IV.F.20, and quantified in Table IV.F.6: Modeled Project Traffic L_{dn} Noise Levels, on p. IV.F.23. The table includes traffic generation from all project components inclusive of the sports fields.

Noise generated by participants and crowds attending these sporting events would be similar to those at most community sports fields. An analysis of noise generated from a mix of soccer and softball games indicated that average noise levels during games are approximately 60 dBA at a
distance of 100 feet from the field. An analysis of noise generated by spectators at two soccer fields with maximum attendance for a tournament indicated that if all attendees were shouting at the same time, the noise level at 155 feet would be about 75 dBA. The proposed Sports Park would be located on the eastern side of Treasure Island, on the far side of the Island from receptors on Telegraph Hill. Noise from the Sports Park would also be shielded by proposed buildings to the west of the sports fields. These noise levels would be attenuated to well below existing ambient levels on The Embarcadero and Telegraph Hill, both at a distance of 1.7 miles or more.

See the response in Subsection 2.4.4, Nighttime Views and Glare, in Section 2.4, Aesthetics, of this Comments and Responses document, for a discussion of changes in nighttime lighting as a result of the Proposed Project.

An analysis of construction-related noise impacts to receptors along The Embarcadero and Telegraph Hill is addressed in the response in Section 2.8.1, Construction Noise, above.

Noise increases from traffic generated by the Proposed Project would have significant impacts at on-island roadway segments; these roadways are located 1.7 miles away from The Embarcadero and further away from Telegraph Hill. However, noise increases along these roadways would not be audible at a distance of 1.7 miles. The Transportation Impact Study for the Proposed Project examined the intersection of Harrison Street and The Embarcadero, and indicates a Proposed Project contribution of 25 peak hour vehicles to The Embarcadero, which has an existing volume of 1,937 vehicles. The addition of 25 peak hour vehicles to the existing traffic volumes on The Embarcadero would result in a non-quantifiable increase in roadway noise (less than 0.1 dBA) based on the Traffic Noise Model of the Federal Highway Administration.

Noise increases from the Ferry Terminal on Treasure Island would be generated at a distance of 1.7 miles away from The Embarcadero. A study of noise from ferry terminals in the state of Washington yielded anecdotal daytime hourly equivalent sound level (Leq) values of 55 to 60 dBA at residential locations varying from 500 to 2,500 feet from terminal operations. Attenuation of terminal noise to a distance of 8,976 feet results in hourly noise levels of 44 dBA, well below the existing ambient traffic-related noise levels along the northeastern Embarcadero roadway, which exceed 75 dBA.

3 City of Piedmont, Moraga Canyon Sports Fields Project Draft EIR, June 2010, pp. 287-288. A copy of this material is available for public review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File 2007.0903E.
Noise would also increase at the existing Ferry Building terminal on the mainland as a result of increased ferry operations to and from Treasure Island. As ferries already access the Ferry Building terminal in the existing conditions, the single additional ferry docking event would not result in a change in the maximum noise levels or sound exposure noise level. The change in the noise environment would result from the increase in the number of daily maneuvering and docking events, which would potentially increase the 24-hour based day-night sound level in the area of the Ferry Building. The nearest mainland sensitive receptor to the Ferry Building terminal would be residential condominiums on Drumm Street and Washington Street, approximately 1,300 feet to the west.

The Ferry Building terminal currently experiences 64 ferry dockings per day between the hours of 6:20 a.m. and 11:00 p.m. The Proposed Project would increase these daily visits to 79 dockings per day, while the Expanded Transit Service would increase ferry dockings to 109 daily events with operations occurring between 5:00 a.m. and 9:00 p.m. The Federal Transit Administration transit noise impact model was adjusted to predict noise increases from increased ferry docking events. Using the upper end of maximum noise levels at 100 meters for ferries at cruising speed, the Proposed Project would increase existing noise levels 100 meters from the ferry terminal from 63 dBA, Ldn to 64 dBA, Ldn. The Expanded Transit Service would increase existing noise levels 100 meters from the ferry terminal from 63 dBA, Ldn to 66 dBA, Ldn. Attenuating this noise level out to the distance of the nearest receptor results in a Ferry Building terminal noise contribution of 52 dBA, Ldn for the Proposed Project and 54 dBA, Ldn for the Expanded Transit Service. These contributions would not affect existing noise levels at mainland residential uses in the area, which are dominated by vehicle traffic on The Embarcadero that generates noise levels in excess of 75 dBA, Ldn. Therefore, the additional ferry vessel activity resulting from the Proposed Project would not cause a significant noise effect at sensitive receptors located on the mainland.4

2.8.4 TRAFFIC NOISE AT COAST GUARD FACILITIES

Comment

Section IV, page IV.F.21 - Impact NO-3 recognizes noise impacts to the USCG from traffic. Is increased insulation of USCG residential structures, or other interior sound dampening viable to mitigate these impacts? Is there going to be long term monitoring of noise impacts to CG property?

4 This conclusion is similar to the conclusion reached in the Water Emergency Transit Authority Final Program EIR, in Impact NOI-2 on pp. 3.11-12-3.11-14 of that EIR, cited in Section IV.F, Noise, on pp. IV.F.25 and IV.F.26 of the Treasure Island / Yerba Buena Island Redevelopment Project EIR.
Section IV, page IV.F.31 - Impact NO-8 should mention the cumulative sound impacts on USCG residential properties along Hillcrest Road. (P. M. McMillin, Captain, U. S. Coast Guard)

[10.19]

**Response**

EIR Section IV.F, Noise, states on p. IV.F.21 that Coast Guard residences would experience increased noise levels. Existing Coast Guard residential dwellings are located south of and adjacent to the Bay Bridge and over 1,000 feet from the roadways analyzed in Table IV.F.6: Modeled Project Traffic L_{eq} Noise Levels, on p. IV.F.23. Noise from existing traffic on the Bay Bridge was monitored on Yerba Buena Island to be 66 dBA, Ldn, as presented on EIR p. IV.F.6. Noise modeling presented on EIR p. IV.F.23 indicates that future noise levels along the Avenue of the Palms would be 70 dBA, Ldn at a distance of 50 feet from the roadway center. A majority of the southbound traffic on the Avenue of the Palms would continue on to Treasure Island Road on Yerba Buena Island, leading to the Bay Bridge ramps. At a distance of 1,000 feet these noise levels on Avenue of the Palms and Treasure Island Road would be attenuated to well below the monitored ambient noise levels on Yerba Buena Island. Consequently, while roadside noise levels along the roadway would increase by as much as 9 dBA along Avenue of the Palms, noise levels would not increase at Coast Guard residences on Hillcrest Road, because of the dominating contribution of existing vehicle traffic on the Bay Bridge, and would not be a significant noise impact requiring mitigation.

To further examine the potential impacts at Coast Guard residences on Hillcrest Road, a noise modeling analysis was conducted to assess the potential noise increase resulting from the increase in vehicle volumes on the eastbound ramps to and from the Bay Bridge. It is estimated that the roadway center of the eastbound ramps is as close as 200 feet from the Hillcrest Road residences, taking into account elevation changes. While roadside noise levels would increase by 7.1 dBA (from 52.7 dBA to 59.8 dBA) from increased eastbound on- and off-ramp traffic with the Proposed Project, the full impact of this increase would not be realized by local receptors because of the existing contribution of traffic noise from the Bay Bridge (66 dBA). Addition of the existing (66 dBA) noise level and the estimated future noise level from eastbound ramps with the Proposed Project (59.8 dBA) results in an increase of 0.9 dBA. This would be a less-than-significant noise impact to residences on Hillcrest Road from the Proposed Project. This impact would be reduced in the Expanded Transit Service and the Reduced Development Alternatives because ramp volumes would be reduced compared to the Proposed Project.

Based on this information, the EIR was very conservative in stating that traffic noise would increase substantially and result in a significant noise impact at Coast Guard residences. Accordingly, the text has been adjusted to reflect this updated analysis. The references to impacts to residents on the Coast Guard property in the third and fourth full paragraphs on EIR p. IV.F.21
are deleted and other revisions to these paragraphs are made, as shown below (deletions are shown as strike-through and new text is underlined):

Although these significant traffic noise level increases would not expose existing or future residents to noise levels in excess of compatibility standards (discussed in Impact NO-6), they would affect future residential receptors in the Cityside District, the Island Center District, and the Yerba Buena Island District, particularly, future residents of early phases that would not have been exposed to the full extent of the operational noise environment prior to full buildout. The traffic noise level increases would also affect students at the Job Corps campus and Life Learning Academy, and residents on the Coast Guard property who would have been exposed to the pre-operational noise environment. Therefore, permanent increases in ambient noise levels are considered to be potentially significant due to noise created by project-generated traffic.

Measures available to address significant traffic noise increases in the Job Corps campus, and Life Learning Academy, and Coast Guard areas or the future residential areas are limited. For example, the construction of continuous noise barriers at curbside along the entire length of the identified roadways would not be feasible because such a barrier would block vehicle access to properties and conflict with the aesthetic character of the neighborhoods. All proposed new dwelling units would be multi-family structures. Multi-family structures and hotels proposed as part of the Project would be required to design interior dwelling spaces to achieve an interior noise standard of 45 dBA as required by Title 24. Noise-reducing building techniques to attain these standards could include use of increased insulation and installation of building materials and windows with a high sound transmission class. Consequently, this impact would primarily result in a significant noise increase to exterior areas only (e.g., balconies, and public gathering areas).

The following text is added to EIR p. IV.F.21 as a new second paragraph, to provide a discussion of traffic noise impacts at the Coast Guard residences (new text is underlined):

To examine the potential impacts from traffic noise increases to Yerba Buena Island receptors near eastbound Bay Bridge on- and off-ramps, a noise modeling analysis was conducted. It is estimated that the roadway center of the eastbound ramps is as close as 200 feet from the Hillcrest Road residences, taking into account elevation changes. While roadside noise levels would increase by 7.1 dBA (from 52.7 dBA to 59.8 dBA) from increased eastbound on- and off-ramp traffic with the Proposed Project, the full impact of this increase would not be realized by local receptors because of the existing contribution of traffic noise from the Bay Bridge (66 dBA). Addition of the existing (66 dBA) noise level plus the future noise level from the eastbound ramps with the Proposed Project (59.8 dBA) results in an increase of 0.9 dBA. This is considered a less-than-significant noise impact on residences on Hillcrest Road. This impact would be reduced in the Expanded Transit Service and the Reduced Development Alternatives because ramp volumes would be reduced compared to the Proposed Project.

Hillcrest Road is located over 1,000 feet from the roadways impacted by cumulative traffic noise presented on EIR p. IV.F.30. Noise from existing traffic on the Bay Bridge was monitored on Yerba Buena Island to be 66 dBA, Ldn, as presented on EIR p. IV.F.6. Noise modeling presented on EIR p. IV.F.30 indicates that future noise levels along Avenue of the Palms, within 50 feet of
the roadway, would be 71 dBA, Ldn. At 1,000 feet, the TNM model of the Federal Highway Administration indicates that roadway noise would be reduced to 50 dBA. Consequently, while roadside noise levels along the roadway would increase by as much as 9 dBA, there would be no quantifiable noise increase at Coast Guard residences on Hillcrest Drive, particularly given the presence of intervening topography. Consequently, Coast Guard residential properties on Hillcrest Road would not experience cumulative traffic noise impacts and were not included in Impact NO-8 of the EIR.

### 2.8.5 CONSTRUCTION HOURS AND NOISE MITIGATION PLAN

**Comment**

5. Will the Treasure Island Job Corps Center have an opportunity to review the General Contractor’s proposed hours of operation and noise mitigation plan, particularly for deep dynamic compaction and pile driving activities? *(Johannes Hoffman, AIA Contracting Officer’s Technical Representative, U.S. Department of Labor, Employment and Training Administration)* [15.4b]

**Response**

As stated in the response in Subsection 2.1.6, Hours of Construction, in Section 2.1, Project Description, of this Comments and Responses document, construction hours must comply with the San Francisco Noise Ordinance, described in EIR Section IV.F, Noise, on pp. IV.F.11-IV.F.12. This ordinance restricts construction activities to the hours between 7:00 a.m. and 8:00 p.m. unless the Director of Public Works of the Director of the Department of Building Inspection has granted a special permit for construction activities outside of these hours.

A copy of the construction contractor’s noise mitigation plan would be made available to the Job Corps, with an opportunity to review and comment on it. The Treasure Island Development Authority (“TIDA”) would take these comments into account when approving the final noise mitigation plan. TIDA anticipates that a Memorandum of Agreement would be entered into with the Job Corps, establishing construction rules and channels of communication during construction to minimize the impacts of construction-related noise on the Job Corps campus.