threshold at multiple residential land uses and the Robert Hill Lane Elementary School. Construction activity would result in a significant off-site noise impact without mitigation.

TABLE 4.5-7: OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level At 50 Feet (dBA)
Ground Clearing	84
Grading/Excavation	89
Foundations	78
Structural	85
Finishing	89

SOURCE: USEPA, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971.

TABLE 4.5-8: CONSTRUCTION NOISE IMPACTS – UNMITIGATED

Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Existing Ambient	New Ambient	Impact?
Child Development Center	50	89.0	60.9	89.0	**28.1**
Single- and multi-family residences to the north	65	86.7	63.4	86.7	**23.3**
Single-family residences to the west	65	82.2	60.9	86.7	**25.8**
Single-family residences to the south	110	81.4	66.2	82.3	**16.1**
Robert Hill Lane Elementary School	120	58.6	66.2	81.5	**15.3**
Brightwood Elementary School	525	58.3/c/	59.1	61.9	2.8
Sunnyslopes Park	540	55.5/c/	59.1	61.7	2.6
Single-family residences to the east	750	60.0/c/	54.7	58.1	3.4
Belvedere Park	795	53.4/d/	58.2	62.2	4.0
Morris K. Hamasaki Elementary	1690	53.4/d/	58.2	59.4	1.2
St. Thomas Aquinas School	1695	89.0/d/	63.4	63.8	0.4

/a/ Distance of noise source from receptor.
/b/ Includes a noise reduction for distance attenuation.
/c/ Includes a 10-dBA reduction for intervening structures and/or terrain.
/d/ Includes a 5-dBA reduction for intervening structures and/or terrain.
SOURCE: TAHA, 2010.

With respect to on-site sensitive receptors, as shown in **Table 4.5-8**, noise generated during construction of the proposed tennis courts, football and soccer fields would exceed the noise standard at the Child Development Center. This would result in a significant on-site impact without mitigation.

Vibration. Construction activity would potentially generate substantial vibration levels. As shown in **Table 4.5-9**, use of heavy equipment (e.g., a large bulldozer) generates vibration levels of 0.089 inches per second at a distance of 25 feet. The closest off-site structure to construction activity would be the single- and multi-family residences located 65 feet from the nearest construction activity. These structures would experience vibration levels of 0.021 inches per second. This would be less than the FTA threshold for buildings of 0.3 inches per second. The potential for off-site building damage as a result of construction vibration would result in a less-than-significant impact.

The closest on-site structure to construction activity would be the Child Development Center located 25 feet from the nearest construction activity. This structure would experience vibration levels of 0.089 inches per second. This would be less than the FTA threshold for buildings of 0.3 inches per second. The