TABLE 4.5-2: FTA VIBRATION IMPACT CRITERIA			
Land Use Category	Vibration Impact Level for Frequent Events (VdB)/a/	Vibration Impact Level for Occasional Events (VdB)/b/	Vibration Impact Level for Infrequent Events (VdB)/c/
Category 1: Buildings where low ambient vibration is essential for interior operations	65	65	65
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

[/]a/ Frequent events are defined as more than 70 vibration events of the same source per day.

Existing Noise and Vibration Levels

Monitored Ambient Noise Levels. The existing noise environment of the project area is characterized by vehicular traffic and noises typical to a dense urban area (e.g., sirens, horns, helicopters, etc.). Sound measurements were taken using a SoundPro DL Sound Level Meter between 8:00 a.m. and 9:30 p.m. on January 11, 2010 to determine existing ambient daytime and nighttime noise levels in the project vicinity. These readings were used to establish existing ambient noise conditions and to provide a baseline for evaluating construction and operational noise impacts. Noise monitoring locations are shown in **Figure 4.5-2**. As shown in **Table 4.5-3**, existing ambient sound levels ranged from 61.6 to 67.1 dBA L_{eq} during the AM peak hour period (7:30 to 9:30 a.m.). Off-peak ambient sound levels ranged from 54.7 to 66.2 dBA L_{eq}. Nighttime ambient noise levels ranged from 54.1 to 54.6 dBA L_{eq}.

taha 2009-037 4.5-5

[/]b/ Occasional events are defined as between 30 and 70 vibration events of the same source per day.

[/]c/ Infrequent events are defined as fewer than 30 vibration events of the same source per day.

SOURCE: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.