With regard to the LRT Alternative, the estimated root mean square (RMS) velocity levels (VdB re 1 micro-in./sec.) for sensitive receptors at representative distances are provided in **Tables 5-9** and **5-10**. These tables summarize the results of the analysis in terms of anticipated exceedances of the FTA criteria for "frequent events" (defined as more than 70 events per day). The criteria are discussed in more detail in Section 3.6.1.

Vibration-sensitive locations along the selected alignment are listed in **Table 5-9** for Category 2 land use and in **Table 5-10** for Category 1 and 3 land use. Each table lists the locations, the civil station, the distance to the near track, and the projected LRT speed at each location. In addition, the predicted project vibration level and the impact criterion level are indicated along with the number of impacts projected for each receptor or receptor group.

As shown in **Table 5-9** there are no projected residential vibration impacts along the Irving Corridor.

Similar to the Category 2 analysis, an assessment of vibration impact for Category 1 and 3 receptors was also conducted. As shown in **Table 5-10**, no potential impacts were identified for Category 1 or 3 receptors.

TABLE 5-9
LAND USE CATEGORY 2 VIBRATION IMPACTS

Location	Civil Stn.	Distance to Near Track (ft)	Speed (mph)		Project Vibration Level[1]	Vibration Impact Criterion[1]	No. of Res. Impacts
			EB	WB			
Cistercian Abbey Living Quarters	188	260	40	45	53	72	0
Mandalay on the Lake Apartments	236	60	43	38	65	72	0
Lofts at Los Colinas and Delano	272	60	45	39	65	72	0
Candlewood Suites Hotel	344	230	38	47	65	72	0
Fairfield Inn Hotel	345	620	35	42	61	72	0
Las Colinas Studio Plus Hotel	347	220	27	32	62	72	0
Extended Stay Deluxe Hotel	347	400	27	32	58	72	0
Villas at Beaver Creek	358	130	25	25	66	72	0
Archstone at MacArthur Apartments	391	60	45	45	66	72	0
Mandalay Place	408	80	52	36	70	72	0
Total:							**0**

[1] Vibration levels are measured in VdB referenced to 1 µin/sec.

Source: HMMH, 2006

TABLE 5-10
LAND USE CATEGORY 1 AND 3 VIBRATION IMPACTS

Location[1]	Land Use Cat.	Civil Stn.	Distance to Near Track (ft)	Speed (mph)		Project Vibration Level[2]	Vibration Impact Criterion[2]	No of Impacts
				EB	WB			
Cistercian Abbey Church	3	189	400	37	41	52	75	0
Miss Bloomingdale's Academy	3	219	180	25	25	51	75	0
Total:								**0**

[1] Assessment is for vibration-sensitive buildings only; park lands are not included.
[2] Vibration levels are measured in VdB referenced to 1 µin/sec.

Source: HMMH, 2006

5.5.2 Ground-Borne Noise Impact Assessment

As indicated in Section 3.6.1 (Ground-Borne Vibration Criteria), airborne noise tends to mask ground-borne noise for above ground (i.e. at-grade or elevated) rail systems, therefore ground-borne noise impact was not assessed along the project corridor.