

Appendix 5.2.2-C

Vibration Impact Tables

Land Use Category	At Grade Impact Contour Distance (feet)	Number of Impacted Parcels
Category 1	200	0
Category 2	70	0
Category 3	50	0
Concert Halls	200	0
TV Studios	200	0
Recording Studios	200	0
Auditoriums	35	0
Theaters	35	0

Source: AMEC

Land Use Category	At Grade	Elevated	Number of Impacted Parcels
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	
Category 1	505	175	0
Category 2	175	60	117
Category 3	130	40	8
Concert Halls	505	175	0
TV Studios	505	175	0
Recording Studios	505	175	0
Auditoriums	105	30	0
Theaters	105	30	0

Source: AMEC

Land Use Category	At Grade	Elevated	Number of Impacted Parcels
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	
Category 1	555	190	0
Category 2	115	35	1
Category 3	80	20	2
Concert Halls	555	190	0
TV Studios	555	190	0
Recording Studios	555	190	0
Auditoriums	115	35	0
Theaters	115	35	0

Source: AMEC

Land Use Category	At Grade	Elevated	Number of Impacted Parcels
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	
Category 1	195	65	0
Category 2	35	0	0
Category 3	25	0	2
Concert Halls	195	65	0
TV Studios	195	65	0
Recording Studios	195	65	0
Auditoriums	35	0	0
Theaters	35	0	0

Source: AMEC

Land Use Category	Existing Freight	North-South Corridor Alternative	
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	Number of Impacted Parcels
Category 1	575	475	0
Category 2	255	170	590
Category 3	195	125	90
Concert Halls	575	475	0
TV Studios	575	475	0
Recording Studios	575	475	1
Auditoriums	255	100	0
Theaters	255	100	3

Source: AMEC

Land Use Category	Existing Freight	North-South Corridor Alternative	
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	Number of Impacted Parcels
Category 1	465	420	0
Category 2	220	150	586
Category 3	165	110	84
Concert Halls	465	420	4
TV Studios	465	420	3
Recording Studios	465	420	0
Auditoriums	220	90	2
Theaters	220	90	1

Source: AMEC

Land Use Category	Existing Freight	North-South Corridor Alternative	
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	Number of Impacted Parcels
Category 1	505	495	0
Category 2	230	175	721
Category 3	175	130	142
Concert Halls	505	495	1
TV Studios	505	495	0
Recording Studios	505	495	1
Auditoriums	230	105	0
Theaters	230	105	0

Source: AMEC

Land Use Category	Existing Freight	North-South Corridor Alternative	
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	Number of Impacted Parcels
Category 1	575	570	0
Category 2	255	195	241
Category 3	195	145	63
Concert Halls	575	570	4
TV Studios	575	570	0
Recording Studios	575	570	1
Auditoriums	255	120	3
Theaters	255	120	3

Source: AMEC

Land Use Category	Existing Freight	North-South Corridor Alternative	
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	Number of Impacted Parcels
Category 1	570	525	0
Category 2	250	185	1179
Category 3	195	135	134
Concert Halls	570	525	0
TV Studios	570	525	0
Recording Studios	570	525	0
Auditoriums	250	110	4
Theaters	250	110	0

Source: AMEC

Table 10. Summary of Vibration Impact Contours and Vibration Impacts in Orange (East) County for Alternative C			
Land Use Category	At Grade	Elevated	Number of Impacted Parcels
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	
Category 1	555	190	0
Category 2	115	35	1
Category 3	80	20	2
Concert Halls	555	190	0
TV Studios	555	190	0
Recording Studios	555	190	0
Auditoriums	115	35	0
Theaters	115	35	0

Source: AMEC

Table 11. Summary of Vibration Impact Contours and Vibration Impacts in Orange (West) County for Alternative C			
Land Use Category	At Grade	Elevated	Number of Impacted Parcels
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	
Category 1	195	65	0
Category 2	35	0	0
Category 3	25	0	2
Concert Halls	195	65	0
TV Studios	195	65	0
Recording Studios	195	65	0
Auditoriums	35	0	0
Theaters	35	0	0

Source: AMEC

Table 12. Summary of Vibration Impact Contours and Vibration Impacts in Orange (East) County for Alternative E			
Land Use Category	At Grade	Elevated	Number of Impacted Parcels
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	
Category 1	555	190	0
Category 2	115	35	0
Category 3	80	20	2
Concert Halls	555	190	0
TV Studios	555	190	0
Recording Studios	555	190	0
Auditoriums	115	35	0
Theaters	115	35	0

Source: AMEC

Table 13. Summary of Vibration Impact Contours and Vibration Impacts in Orange (west) County for Alternative E

Land Use Category	At Grade	Elevated	Number of Impacted Parcels
	Impact Contour Distance (feet)	Impact Contour Distance (feet)	
Category 1	195	65	0
Category 2	35	0	1
Category 3	25	0	2
Concert Halls	195	65	0
TV Studios	195	65	0
Recording Studios	195	65	0
Auditoriums	35	0	0
Theaters	35	0	0

Source: AMEC

Table 14. North-South Corridor Construction Vibration Annoyance Impact Contours and Summary of Impacts

Land Use Category	Pile Driver (Impact)-Upper Range		Large Bulldozer	
	Impact Contour	# of Impacts	Impact Contour	# of Impacts
1	920	0	135	4
2	535	693	75	1551
3	425	61	60	217
Concert Halls (4)	920	0	135	3
TV Studios (4)	920	0	135	0
Recording Studios (4)	920	0	135	0
Auditoriums (5)	535	0	75	1
Theaters (6)	535	0	75	0

Source: AMEC

Table 15. East-West Corridor Construction Vibration Annoyance Impact Contours and Summary of Impacts

Land Use Category	Pile Driver (Impact)-Upper Range		Large Bulldozer	
	Impact Contour	# of Impacts	Impact Contour	# of Impacts
1	920	0	135	0
2	535	143	75	83
3	425	41	60	12
Concert Halls (4)	920	0	135	0
TV Studios (4)	920	0	135	0
Recording Studios (4)	920	0	135	0
Auditoriums (5)	535	0	75	0
Theaters (6)	535	0	75	0

Source: AMEC

Table 16. North-South Corridor Construction Vibration Damage Impact Contours and Summary of Impacts			
Building Category	Pile Driver (Impact)- Upper Range	Large Bulldozer	Number of Impacted Structures
	Impact Contour Distance (feet)		
I. Reinforced-concrete, steel or timber	50	--	0
II. Engineered concrete and masonry (no plaster)	70	--	0
III. Non-engineered timber and masonry buildings	95	--	0
IV. Buildings extremely susceptible to vibration damage	135	--	0

Source: AMEC

Table 17. East-West Corridor Construction Vibration Damage Impact Contours and Summary of Impacts			
Building Category	Pile Driver (Impact)- Upper Range	Large Bulldozer	Number of Impacted Structures
	Impact Contour Distance (feet)		
I. Reinforced-concrete, steel or timber	50	--	0
II. Engineered concrete and masonry (no plaster)	70	--	0
III. Non-engineered timber and masonry buildings	95	--	0
IV. Buildings extremely susceptible to vibration damage	135	--	0

Source: AMEC