

Appendix 9 – Noise

One Third Octave-band Noise Measurements

ONE THIRD OCTAVE-BAND NOISE MEASUREMENTS

Receptor	Time	L_{eq}	L₁₀	31.5Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
1	AM	72.3	75.2	43.2	61.8	62.8	65.7	69.1	71.1	69.4	65.4	63.3
	MD	70.9	74.2	44.4	59.9	61.2	64.0	67.4	69.7	67.0	63.2	61.8
	PM	71.2	73.6	38.8	60.3	61.8	63.1	69.8	69.8	67.9	63.8	60.4
2	AM	72.2	74.9	46.2	54.7	60.6	64.4	69.3	71.8	68.6	63.9	58.7
	MD	70.7	73.6	43.5	56.9	59.0	60.9	66.8	69.0	67.9	63.8	61.8
	PM	70.7	73.7	42.2	55.7	63.0	63.1	68.2	70.7	66.4	62.4	59.9
3	AM	75.2	76.3	49.3	65.4	67.2	72.3	74.9	75.2	73.9	69.0	65.7
	MD	73.2	74.5	41.7	58.2	64.7	64.9	70.2	73.7	71.3	64.9	61.3
	PM	73.6	75.5	40.5	63.4	63.8	69.4	72.8	75.4	72.9	68.7	61.4
4	AM	73.1	76.3	52.3	63.6	62.9	65.7	68.8	72.4	69.4	64.3	59.7
	MD	71.1	74.0	43.1	62.0	60.0	62.4	68.7	70.3	68.0	61.2	54.9
	PM	71.4	74.6	42.8	63.3	63.6	61.6	68.8	69.9	67.0	61.4	56.3
5	AM	73.2	75.6	46.9	60.0	61.7	68.5	72.4	72.2	71.2	67.9	63.8
	MD	70.4	72.4	45.3	56.3	58.2	61.1	68.4	68.9	67.1	64.0	58.6
	PM	68.8	70.6	39.8	51.5	55.4	61.2	67.0	68.5	64.6	56.8	58.4
6	AM	72.2	75.5	39.7	63.7	63.8	64.2	68.4	71.4	69.0	63.8	58.7
	MD	70.9	73.8	45.7	60.4	62.3	63.8	68.6	70.5	66.9	61.0	55.1
	PM	71.7	73.7	48.1	64.7	61.8	66.9	69.7	71.0	69.5	65.6	58.8
7	AM	72.4	75.7	40.9	63.0	60.7	65.6	67.7	71.8	70.0	64.9	56.7
	MD	71.9	74.2	40.8	59.9	60.8	64.1	69.8	71.2	69.3	64.0	54.8
	PM	72.8	75.4	40.1	60.2	64.0	68.0	70.1	72.6	71.4	64.8	56.7
8	AM	76.2	79.2	47.0	64.1	68.2	70.0	74.3	76.0	73.0	67.1	62.1
	MD	74.4	76.9	41.3	60.4	63.3	65.9	72.2	72.9	71.3	66.0	59.3
	PM	74.1	76.9	46.6	62.9	63.7	67.0	72.2	72.7	70.9	65.7	60.0
9	AM	72.2	74.6	48.8	60.5	63.2	65.2	69.2	72.1	68.3	63.8	63.9
	MD	69.8	72.4	40.4	53.8	60.3	66.4	69.2	70.3	68.4	60.8	51.0
	PM	70.7	73.8	38.5	53.1	58.4	65.3	67.6	70.7	67.4	61.0	54.1
10	AM	73.5	76.3	47.7	61.2	63.2	66.8	70.8	73.0	70.4	65.0	62.8
	MD	72.5	74.6	50.2	60.9	60.2	65.2	69.4	71.5	70.5	65.5	63.5
	PM	72.4	74.5	49.7	60.0	60.8	63.3	69.9	70.4	68.1	64.7	62.7

PCE Based Noise Level Screening Calculations for Build year 2033

PCE BASED NOISE LEVEL CALCULATIONS FOR BUILD YEAR 2033

Receptor Location	Site	Weekday Hour	EXISTING CONDITIONS								2033 NO ACTION					2033 BUILD				
			Volume	% Auto	% Medium	% Heavy	% Bus	PCEs	Leq	L10	Volume	PCEs	Leq	L10	Change over Existing	Volume	Total PCE's	Leq	L10	Change Over No-Action
571 Madison Avenue	1	AM	1756	82.6	5.1	1.7	10.6	7349	72.3	75.2	1937	8099	72.7	75.6	0.4	1994	8345	72.9	75.8	0.2
		MD	1710	91.8	4.2	0.3	3.7	3880	70.9	74.2	1923	4320	71.4	74.7	0.5	1955	4398	71.4	74.7	0.0
		PM	1471	89.1	2.0	0.0	9.0	4063	71.2	73.6	1660	4560	71.7	74.1	0.5	1721	4752	71.9	74.3	0.2
300 Park Avenue	2	AM	3051	97.9	1.2	0.4	0.5	4290	72.2	74.9	3323	4673	72.6	75.3	0.4	3376	4726	72.6	75.3	0.0
		MD	2785	98.8	0.9	0.0	0.4	3243	70.7	73.6	3054	3599	71.1	74.1	0.5	3137	3694	71.3	74.2	0.1
		PM	2995	98.8	0.9	0.0	0.3	3472	70.7	73.7	3295	3825	71.1	74.1	0.4	3396	3938	71.2	74.2	0.1
541 Lexington Avenue	3	AM	1815	88.7	6.4	1.5	3.4	5515	75.2	76.3	2040	6211	75.7	76.8	0.5	2165	6558	76.0	77.1	0.3
		MD	1715	92.7	3.9	0.9	2.4	3969	73.2	74.5	1911	4438	73.7	75.0	0.5	1993	4636	73.9	75.2	0.2
		PM	1785	91.1	2.4	0.3	6.1	4430	73.6	75.5	1995	4967	74.1	76.0	0.5	2069	5133	74.2	76.1	0.1
361 Madison Avenue	4	AM	1700	81.6	5.9	1.8	10.7	7374	73.1	76.3	1891	8165	73.5	76.7	0.4	2090	8981	74.0	77.2	0.5
		MD	1669	90.1	5.2	0.3	4.4	4184	71.1	74.0	1878	4719	71.6	74.5	0.5	2143	5385	72.2	75.1	0.6
		PM	1436	86.5	2.1	0.0	11.4	4584	71.4	74.6	1661	5294	72.0	75.2	0.6	2020	6208	72.7	75.9	0.7
52 Vanderbilt Avenue	5*	AM	790	91.9	0.0	0.0	8.1	1878	73.2	75.6	853	2026	73.5	75.9	0.3	573	1644	72.6	75.0	-0.9
		MD	720	92.6	0.0	0.0	7.4	1621	70.4	72.4	776	1762	70.8	72.8	0.4	478	1481	70.0	72.0	-0.8
		PM	700	95.7	0.0	0.0	4.3	1210	68.8	70.6	755	1299	69.1	70.9	0.3	419	861	67.3	69.1	-1.8
333 Madison Avenue	6	AM	1530	82.3	4.1	1.4	12.3	6436	72.2	75.5	1677	7053	72.6	75.9	0.4	1828	7574	72.9	76.2	0.3
		MD	1585	89.7	4.7	0.3	5.3	4131	70.9	73.8	1831	4783	71.5	74.4	0.6	2059	5337	72.0	74.9	0.5
		PM	1255	83.7	3.6	0.0	12.7	4515	71.7	73.7	1451	5171	72.3	74.3	0.6	1675	5800	72.8	74.8	0.5
711 3rd Avenue	7	AM	2165	86.0	4.8	5.5	3.8	10269	72.4	75.7	2429	11440	72.9	76.2	0.5	2486	11705	73.0	76.3	0.1
		MD	2096	90.5	3.7	4.2	1.7	7629	71.9	74.2	2391	8654	72.4	74.7	0.5	2457	8899	72.6	74.9	0.2
		PM	2505	94.7	1.3	1.4	2.6	5604	72.8	75.4	2829	6313	73.3	75.9	0.5	2886	6445	73.4	76.0	0.1
33 East 42nd Street	8	AM	2646	83.5	3.6	1.9	11.1	11055	76.2	79.2	3031	12661	76.8	79.8	0.6	3185	13348	77.0	80.0	0.2
		MD	2630	90.2	4.0	1.7	4.0	7774	74.4	76.9	3107	9267	75.2	77.7	0.8	3166	9396	75.2	77.7	0.0
		PM	2135	86.0	2.3	0.0	11.7	6968	74.1	76.9	2546	8332	74.9	77.7	0.8	2606	8552	75.0	77.8	0.1
235 East 42nd Street	9	AM	3380	88.0	4.2	1.3	6.4	10809	72.2	74.6	4278	13663	73.2	75.6	1.0	4306	13737	73.2	75.6	0.0
		MD	3271	91.1	4.8	1.7	2.4	8999	69.8	72.4	3786	10379	70.4	73.0	0.6	3839	10519	70.5	73.1	0.1
		PM	3689	94.1	2.1	0.2	3.6	7186	70.7	73.8	4420	8658	71.5	74.6	0.8	4505	8813	71.6	74.7	0.1
266 Madison Avenue	10	AM	1785	82.8	5.8	1.8	9.6	7417	73.5	76.3	2073	8598	74.1	76.9	0.6	2206	9045	74.4	77.2	0.3
		MD	1815	90.4	5.6	0.4	3.6	4512	72.5	74.6	2086	5196	73.1	75.2	0.6	2141	5304	73.2	75.3	0.1
		PM	1720	87.5	2.6	0.2	9.7	5266	72.4	74.5	2007	6176	73.1	75.2	0.7	2073	6351	73.2	75.3	0.1

*The results for the With-Action scenario should not be considered for attenuation purposes due to a reduction in traffic noise caused by the re-routing of traffic away from Vanderbilt Avenue under the future 2033 With-Action scenario. As a result, the future 2033 No-Action values should be used for this analysis. The rationale is that 2033 With-Action values cannot be lower than the 2013 Existing noise level readings.

CEQR Exterior Noise Exposure Assessment

CEQR EXTERIOR NOISE EXPOSURE ASSESSMENT

Receptor	Site	Weekday Hour	Existing L _{eq}	Existing L ₁₀	Category (Existing L ₁₀ noise levels)	No-Action L ₁₀	Change (No-Action - Existing)	Category (No-Action L ₁₀ noise levels) 2033	Build L ₁₀	Change (Build - No-Action)	Category (Build L ₁₀ noise levels)	CEQR Criteria dB(A)	Building Attenuation Required
571 Madison Avenue	1	AM	72.3	75.2	Marginally Unacceptable	75.6	0.4	Marginally Unacceptable	75.8	0.2	Marginally Unacceptable	45	31
		MD	70.9	74.2	Marginally Unacceptable	74.7	0.5	Marginally Unacceptable	74.7	0.0	Marginally Unacceptable	45	31
		PM	71.2	73.6	Marginally Unacceptable	74.1	0.5	Marginally Unacceptable	74.3	0.2	Marginally Unacceptable	45	31
300 Park Avenue	2	AM	72.2	74.9	Marginally Unacceptable	75.3	0.4	Marginally Unacceptable	75.3	0.0	Marginally Unacceptable	45	31
		MD	70.7	73.6	Marginally Unacceptable	74.1	0.5	Marginally Unacceptable	74.2	0.1	Marginally Unacceptable	45	31
		PM	70.7	73.7	Marginally Unacceptable	74.1	0.4	Marginally Unacceptable	74.2	0.1	Marginally Unacceptable	45	31
541 Lexington Avenue	3	AM	75.2	76.3	Marginally Unacceptable	76.8	0.5	Marginally Unacceptable	77.1	0.3	Marginally Unacceptable	45	33
		MD	73.2	74.5	Marginally Unacceptable	75.0	0.5	Marginally Unacceptable	75.2	0.2	Marginally Unacceptable	45	31
		PM	73.6	75.5	Marginally Unacceptable	76.0	0.5	Marginally Unacceptable	76.1	0.1	Marginally Unacceptable	45	33
361 Madison Avenue	4	AM	73.1	76.3	Marginally Unacceptable	76.7	0.4	Marginally Unacceptable	77.2	0.5	Marginally Unacceptable	45	33
		MD	71.1	74.0	Marginally Unacceptable	74.5	0.5	Marginally Unacceptable	75.1	0.6	Marginally Unacceptable	45	31
		PM	71.4	74.6	Marginally Unacceptable	75.2	0.6	Marginally Unacceptable	75.9	0.7	Marginally Unacceptable	45	33
52 Vanderbilt Avenue	5	AM	73.2	75.6	Marginally Unacceptable	75.9	0.3	Marginally Unacceptable	75.0	-0.9	Marginally Unacceptable	45	31
		MD	70.4	72.4	Marginally Unacceptable	72.8	0.4	Marginally Unacceptable	72.0	-0.8	Marginally Unacceptable	45	28
		PM	68.8	70.6	Marginally Unacceptable	70.9	0.3	Marginally Unacceptable	69.1	-1.8	Marginally Acceptable	45	25
333 Madison Avenue	6	AM	72.2	75.5	Marginally Unacceptable	75.9	0.4	Marginally Unacceptable	76.2	0.3	Marginally Unacceptable	45	33
		MD	70.9	73.8	Marginally Unacceptable	74.4	0.6	Marginally Unacceptable	74.9	0.5	Marginally Unacceptable	45	31
		PM	71.7	73.7	Marginally Unacceptable	74.3	0.6	Marginally Unacceptable	74.8	0.5	Marginally Unacceptable	45	31
711 3rd Avenue	7	AM	72.4	75.7	Marginally Unacceptable	76.2	0.5	Marginally Unacceptable	76.3	0.1	Marginally Unacceptable	45	33
		MD	71.9	74.2	Marginally Unacceptable	74.7	0.5	Marginally Unacceptable	74.9	0.2	Marginally Unacceptable	45	31
		PM	72.8	75.4	Marginally Unacceptable	75.9	0.5	Marginally Unacceptable	76.0	0.1	Marginally Unacceptable	45	33

CEQR EXTERIOR NOISE EXPOSURE ASSESSMENT

Receptor	Site	Weekday Hour	Existing L _{eq}	Existing L ₁₀	Category (Existing L ₁₀ noise levels)	No-Action L ₁₀	Change (No-Action - Existing)	Category (No-Action L ₁₀ noise levels) 2033	Build L ₁₀	Change (Build - No-Action)	Category (Build L ₁₀ noise levels)	CEQR Criteria dB(A)	Building Attenuation Required
33 East 42nd Street	8	AM	76.2	79.2	Marginally Unacceptable	79.8	0.6	Marginally Unacceptable	80.0	0.2	<u>Clearly</u> Unacceptable	45	36
		MD	74.4	76.9	Marginally Unacceptable	<u>77.7</u>	<u>0.8</u>	Marginally Unacceptable	77.7	<u>0.0</u>	Marginally Unacceptable	45	33
		PM	74.1	76.9	Marginally Unacceptable	77.7	0.8	Marginally Unacceptable	77.8	0.1	Marginally Unacceptable	45	33
235 East 42nd Street	9	AM	72.2	74.6	Marginally Unacceptable	<u>75.6</u>	<u>1.0</u>	Marginally Unacceptable	<u>75.6</u>	0.0	Marginally Unacceptable	45	31
		MD	69.8	72.4	Marginally Unacceptable	<u>73.0</u>	<u>0.6</u>	Marginally Unacceptable	<u>73.1</u>	0.1	Marginally Unacceptable	45	31
		PM	70.7	73.8	Marginally Unacceptable	<u>74.6</u>	<u>0.8</u>	Marginally Unacceptable	<u>74.7</u>	0.1	Marginally Unacceptable	45	31
266 Madison Avenue	10	AM	73.5	76.3	Marginally Unacceptable	76.9	0.6	Marginally Unacceptable	77.2	0.3	Marginally Unacceptable	45	33
		MD	72.5	74.6	Marginally Unacceptable	75.2	0.6	Marginally Unacceptable	75.3	0.1	Marginally Unacceptable	45	31
		PM	72.4	74.5	Marginally Unacceptable	75.2	0.7	Marginally Unacceptable	75.3	0.1	Marginally Unacceptable	45	31