

Appendix D: Noise

Note: If measurements were made during the day, then read data from the "day" column that corresponds to the applicable Existing Leq(1) value; if measurements were made during the night, then read data from the "night" column

RECEPTOR NOISE LEVEL CALCULATION FOR YEAR		0																						
Receptor Location	Site	Hour	EXISTING CONDITIONS							0 NO BUILD				0 BUILD						CEQR COMPLIANCE				
			Volume	%Auto	%Medium	%Heavy	%Bus	PCEs	Leq(1)	Volume	PCEs	Leq(1)	Change	P-G Autos	P-G Medium	P-G Heavy	P-G Bus	Total PCE's	Leq (1)	Change	DAY 7 AM - 10 PM Existing Leq(1) >= 62 dBA	DAY 7 AM - 10 PM Existing Leq(1) = 61 dBA	DAY 7 AM - 10 PM Existing Leq(1) <= 60 dBA	NIGHT 10 PM - 7 AM
Shore Parkway Adjacent to Project Site	1	Weekday MD	402	98.0%	0.0%	0.0%	2.0%	539	72.8	426	571	73.1	0.3	283	0	14	0	1512	77.3	4.2	IMPACT	IMPACT	NO IMPACT	IMPACT
		Weekday PM	448	98.0%	0.0%	0.0%	2.0%	600	74.0	475	637	74.3	0.3	274	0	0	0	911	75.9	1.6	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
		Saturday PM	822	99.0%	0.0%	0.0%	1.0%	962	73.5	868	1016	73.7	0.2	566	0	0	0	1582	75.6	1.9	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
West End of Project Site	A	Weekday MD	0						57.3	0	0	#DIV/0!	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
		Weekday PM	0						55.4	0	0	#DIV/0!	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
		Saturday PM	0						54.5	0	0	#DIV/0!	#DIV/0!	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
			0						0.0	0	0	#DIV/0!	#DIV/0!					0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Cropsey Avenue between Bay 32nd and Bay 31st Streets	2	Weekday MD	980	90.0%	4.0%	3.0%	3.0%	3303	70.6	1054	3552	70.9	0.3	115	0	7	0	3996	71.4	0.5	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
		Weekday PM	1010	93.0%	2.0%	1.0%	4.0%	2404	70.4	1100	2618	70.8	0.4	107	0	0	0	2725	71.0	0.2	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
		Saturday PM	1436	98.0%	1.0%	0.0%	1.0%	1852	69.4	1541	1988	69.7	0.3	221	0	0	0	2209	70.2	0.5	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
Bay Parkway between Bath and Cropsey Avenues	3	Weekday MD	1647	94.0%	1.0%	1.0%	4.0%	3722	70.0	1737	3926	70.2	0.2	207	0	6	0	4415	70.7	0.5	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
		Weekday PM	1895	95.0%	1.0%	1.0%	3.0%	3961	71.4	2000	4180	71.6	0.2	191	0	0	0	4371	71.8	0.2	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
		Saturday PM	1931	96.0%	1.0%	1.0%	2.0%	3708	70.3	2035	3907	70.5	0.2	350	0	0	0	4257	70.9	0.4	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
Bay Parkway between Cropsey Avenue and Belt Parkway	4	Weekday MD	2581	93.0%	2.0%	1.0%	4.0%	6143	73.6	2729	6495	73.8	0.2	181	0	7	0	7005	74.1	0.3	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
		Weekday PM	2762	95.0%	1.0%	1.0%	3.0%	5773	72.9	2934	6132	73.2	0.3	162	0	0	0	6294	73.3	0.1	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
		Saturday PM	2625	96.0%	1.0%	1.0%	2.0%	5040	72.9	2786	5349	73.2	0.3	284	0	0	0	5633	73.4	0.2	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT

9/8/2009
 1752 Shore Parkway
 10794-0512

Note: This L10 calculation sheet is valid for the following in addition to Residential 7 AM - 10 PM: school, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility, commercial, or office

Categories	
L10 < or equal 65 dBA	acceptable
65 < L10 < or equal 70 dBA	marginally acceptable
70 < L10 < or equal 80 dBA	marginally unacceptable
L10 > 80 dBA	clearly unacceptable

Receptor Location	Site	Hour	NB Change	Existing L10	Category (Existing L10 noise levels)	Existing L10 + NB Change = NB L10	Category (NB L10 noise levels)	Build Change	No Build L10	No Build L10 + Build Change = Build L10	Category (B L10 noise levels)	CEQR criteria 45 dB(A)	Building Attenuation required
Cropsey Avenue between Bay 32nd and Bay 31st Streets	2	Weekday MD	0.3	74.4	MARGINALLY UNACCEPTABLE	74.7	MARGINALLY UNACCEPTABLE	0.5	74.7	75.2	MARGINALLY UNACCEPTABLE	45	30.2
		Weekday PM	0.4	74.0	MARGINALLY UNACCEPTABLE	74.4	MARGINALLY UNACCEPTABLE	0.2	74.4	74.6	MARGINALLY UNACCEPTABLE	45	29.6
		Saturday PM	0.3	72.7	MARGINALLY UNACCEPTABLE	73.0	MARGINALLY UNACCEPTABLE	0.5	73.0	73.5	MARGINALLY UNACCEPTABLE	45	28.5
Bay Parkway between Bath and Cropsey Avenues	3	Weekday MD	0.2	72.9	MARGINALLY UNACCEPTABLE	73.1	MARGINALLY UNACCEPTABLE	0.5	73.1	73.6	MARGINALLY UNACCEPTABLE	45	28.6
		Weekday PM	0.2	72.6	MARGINALLY UNACCEPTABLE	72.8	MARGINALLY UNACCEPTABLE	0.2	72.8	73.0	MARGINALLY UNACCEPTABLE	45	28.0
		Saturday PM	0.2	72.9	MARGINALLY UNACCEPTABLE	73.1	MARGINALLY UNACCEPTABLE	0.4	73.1	73.5	MARGINALLY UNACCEPTABLE	45	28.5
Bay Parkway between Cropsey Avenue and Belt Parkway	4	Weekday MD	0.2	76.6	MARGINALLY UNACCEPTABLE	76.8	MARGINALLY UNACCEPTABLE	0.3	76.8	77.1	MARGINALLY UNACCEPTABLE	45	32.1
		Weekday PM	0.3	75.8	MARGINALLY UNACCEPTABLE	76.1	MARGINALLY UNACCEPTABLE	0.1	76.1	76.2	MARGINALLY UNACCEPTABLE	45	31.2
		Saturday PM	0.3	74.0	MARGINALLY UNACCEPTABLE	74.3	MARGINALLY UNACCEPTABLE	0.2	74.3	74.5	MARGINALLY UNACCEPTABLE	45	29.5

2013 Build (Weekday MD)

1) Parking Garage

$$\begin{aligned}
 L_{eq} @ 50 \text{ Feet} &= \text{SEL ref} + \text{CN} - 35.6 \\
 &= 92 - 2.240257 = 35.6 \\
 &= \boxed{54.2} \\
 \text{Usage Factor} &= 1.0 \\
 \text{SEL ref} &= 92 \\
 \text{\# of autos per hour} &= 597 \\
 L_{eq} @ 50 \text{ Feet} &= \boxed{54.2}
 \end{aligned}$$

Receptor	Distance (feet)	L _{eq} (1-Hour)
OS 1	141	45.2
OS 2	295	38.8
OS 3	102	48.0

2013 Build (Weekday PM)

1) Parking Garage

$$\begin{aligned}
 L_{eq} @ 50 \text{ Feet} &= \text{SEL ref} + \text{CN} - 35.6 \\
 &= 92 - 2.395775 = 35.6 \\
 &= \boxed{54.0} \\
 \text{Usage Factor} &= 1.0 \\
 \text{SEL ref} &= 92 \\
 \text{\# of autos per hour} &= 576 \\
 L_{eq} @ 50 \text{ Feet} &= \boxed{54}
 \end{aligned}$$

Receptor	Distance (feet)	L _{eq} (1-Hour)
OS 1	141	45.0
OS 2	295	38.6
OS 3	102	47.8

2013 Build (Saturday PM)

1) Parking Garage

$$\begin{aligned}
 L_{eq} @ 50 \text{ Feet} &= \text{SEL ref} + \text{CN} - 35.6 \\
 &= 92 + 0.358298 = 35.6 \\
 &= \boxed{56.8} \\
 \text{Usage Factor} &= 1.0 \\
 \text{SEL ref} &= 92 \\
 \text{\# of autos per hour} &= 1086 \\
 L_{eq} @ 50 \text{ Feet} &= \boxed{56.8}
 \end{aligned}$$

Receptor	Distance (feet)	L _{eq} (1-Hour)
OS 1	141	47.8
OS 2	295	41.4
OS 3	102	50.6

1752 Shore Parkway Open Space Analysis Results (in dBA)

Site	Location	Time		Existing L _{eq}	Existing L ₁₀	2013 Build TNM L _{eq}	2013 Build FTA L _{eq}	2013 Build Total L _{eq}	Calculated L ₁₀	Exceed 55 dBA L ₁₀ ?
OS 1	North of Parking Garage	Weekday	md	N/A	N/A	60.8	45.2	60.9	62.2	YES
			pm	N/A	N/A	60.7	45.0	60.8	62.1	YES
		Sat	pm	N/A	N/A	61.8	47.8	62.0	63.3	YES
OS 2	West End of Project Site	Weekday	md	57.3	58.6	57.2	38.8	57.4	58.7	YES
			pm	55.4	56.7	57.2	38.6	55.5	56.8	YES
		Sat	pm	54.5	55.8	57.4	41.4	54.7	56.0	YES
OS 3	South of Parking Garage	Weekday	md	N/A	N/A	62.1	48.0	62.3	63.6	YES
			pm	N/A	N/A	62.0	47.8	62.2	63.5	YES
		Sat	pm	N/A	N/A	62.1	50.6	62.4	63.7	YES

1752 Shore Pkwy TNM Analysis Results

in dBA

Site	Location	Time	Measured L _{eq}	Measured L ₁₀	Existing TNM L _{eq}	Difference	2013 No Build TNM L _{eq}	2013 No Build Calculated TNM L _{eq}	Increase	2013 No Build Calculated TNM L ₁₀	2013 Build TNM L _{eq}	2013 Build Calculated TNM L _{eq}	2013 Build Calculated L ₁₀	Increase	
1	Shore Parkway Eastbound Service Road adjacent to Project Site	Weekday	md	72.8	75.1	73.4	0.6	73.6	73.0	0.2	75.3	74.0	73.4	75.7	0.4
			pm	74.0	76.4	73.3	-0.7	73.5	74.2	0.2	76.6	73.8	74.5	76.9	0.3
		Saturday	pm	73.5	75.4	73.4	-0.1	73.6	73.7	0.2	75.6	74.2	74.3	76.2	0.6