

Supplemental Review of Applicant Provided Noise Dataset

Key Points:

Information for definitions presented as column headers for the noise on pages 18-19 was inaccurate.

- Continuous Sound was an average of observed decibel values.
- Impulse Sound was the maximum value.
- Fairfax County definitions as follows:

***Continuous sound** shall mean a sound whose intensity remains essentially constant during the period of observation. Continuous sound shall be defined for measurement purposes as sound which is measured by the slow response setting of a sound level meter.*

***Impulse sound** shall mean a single or multiple sound event characterized by a rapid rise to a maximum sound pressure of high intensity, followed by a somewhat slower decrease in sound pressure. The duration of an impulse sound event, which includes a combination of rise time, peak amplitude and decay, shall be no more than one second. Impulse sound shall be measured using unweighted peak dB levels and the fast setting of a sound level meter. Impulse sound may include, but is not limited to, sound from weapons fire, pile drivers or blasting*

- Because decibels (dB) are a log scale an arithmetic average is **not** equivalent to Equivalent Continuous Sound Level (L_{eq}) over a duration of time.
- The calculation involves converting the log value in dB to its arithmetic equivalent, taking the arithmetic average then converting back to log scale dB value (see following pages)

Attachment 21 Noise Dataset, Supplemental Review (all data)

	Playground Behind MPR				
	10-Oct-25	11-Oct-25	12-Oct-25	13-Oct-25	14-Oct-25
	2:18pm - 11:59pm	12:00am - 11:59pm	12:00am - 11:59pm	12:00am - 11:59pm	12:00am - 9:17am
Arithmetic Average	43.80	43.81	51.84	41.46	41.57
Equivalent Continuous Sound Level (Leq)	49.09	47.64	59.50	43.52	43.51
Standard Deviation	3.28	4.84	10.11	2.74	3.86
Max. Value	72.80	66.20	69.40	68.30	55.3
# of Observations > 60 dB	8.00	7.00	1056.00	2	0
# of Observations >70 dB	1.00	0.00	0.00	0	0
# of Observations > 80 dB					
	MPR Door				
	10-Oct-25	11-Oct-25	12-Oct-25	13-Oct-25	14-Oct-25
	2:18 pm - 11:59pm	12:00am - 11:59pm	12:00am - 11:59pm	12:00am - 11:59pm	12:00am - 11:17am
Arithmetic Average	42.14	40.57	42.11	43.79	46.41
Equivalent Continuous Sound Level (Leq)	55.18	45.97	45.81	47.00	61.43
Standard Deviation	4.75	4.10	4.39	4.11	7.90
Max. Value	79.40	68.2	67.70	68.90	85.9
# of Observations > 60 dB	13	20	9	12	108
# of Observations >70 dB	4	0	0	0	27
# of Observations > 80 dB	0	0	0	0	3
	Playground 2				
	27-Oct-25	28-Oct-25	29-Oct-25	30-Oct-25	
	7:27am - 11:59pm	12:00am - 11:59pm	12:00am - 11:59pm	12:00am - 3:13pm	
Arithmetic Average	51.75	49.93	50.31	54.22	
Equivalent Continuous Sound Level (Leq)	64.28	63.53	63.49	66.35	
Standard Deviation	9.36	9.25	8.95	7.94	
Max. Value	85.00	85.6	84.10	91.50	
# of Observations > 60 dB	424	461	455	353	
# of Observations >70 dB	109	155	132	118	
# of Observations > 80 dB	6	6	11	14	

Attachment 21 Noise Dataset, Supplemental Review (7:00am – 10:00pm data)

	Playground Behind MPR			
	11-Oct-25	12-Oct-25	13-Oct-25	
	7:00am - 10:00pm	7:00am - 10:00pm	7:00am - 10:00pm	
Arithmetic Average	44.82	53.03	42.47	
Equivalent Continuous Sound Level (Leq)	49.28	60.46	44.94	
Standard Deviation	5.85	10.53	2.91	
Max. Value	66.2	69.40	68.30	
# of Observations > 60 dB	5	710	2	
# of Observations >70 dB	0	0	0	
# of Observations > 80 dB	0	0	0	
	MPR Door			
	11-Oct-25	12-Oct-25	13-Oct-25	
	7:00am - 10:00pm	7:00am - 10:00pm	7:00am - 10:00pm	
Arithmetic Average	41.70	43.43	45.82	
Equivalent Continuous Sound Level (Leq)	47.84	46.53	48.53	
Standard Deviation	4.79	4.39	3.30	
Max. Value	68.20	67.70	68.90	
# of Observations > 60 dB	18.00	9.00	8.00	
# of Observations >70 dB	0.00	0.00	0.00	
# of Observations > 80 dB				
	Playground 2			
	28-Oct-25	29-Oct-25		
	7:00am - 10:00pm	7:00am - 10:00pm		
Arithmetic Average	54.96	54.69		
Equivalent Continuous Sound Level (Leq)	64.30	64.22		
Standard Deviation	9.31	9.29		
Max. Value	85.6	84.10		
# of Observations > 60 dB	452	439		
# of Observations >70 dB	155	132		
# of Observations > 80 dB	6	11		