



26-0337_DCblox_IndyDC_Baseline Sound Levels Letter_260630.docx

June 30, 2026

Epsilon Ref. 26-0337

Mr. Spencer Humphrey, PE
Associate Principal
Langan
Via email: shumphrey@langan.com

**Subject: Baseline Sound Level Report
Indianapolis Data Center Project – Indianapolis, Indiana**

Dear Spencer:

Epsilon Associates, Inc. (Epsilon) is pleased to provide this brief report on a baseline sound level measurement program conducted for the proposed data center project with Phase 1 (10 MW tenant load) and Phase 2 (up to 40 MW) located in the Eastgate neighborhood of Indianapolis, Indiana to the south of E. Washington Street and west of S. Shadeland Avenue (the Project). The Project is being developed by DC Blox who has established a site requirement sound level limit of 65 dBA (L_{max}) at their property boundary. Additionally, DC Blox is committed to minimizing low frequency impacts from the Project through diligent study and engineering.

This baseline sound study was conducted to quantify sound levels existing today in the vicinity of the proposed site without the Project in operation. The methodology and results are described herein with a primer on acoustic terminology included as an attachment.

Measurement Methodology Overview

The baseline sound level measurements were each 20 minutes in duration performed during the morning, afternoon, evening, and nighttime at four (4) locations around the proposed site between Monday, June 22 and Tuesday, June 23, 2026. The multiple periods allow for a characterization of how sound levels change over the course of a day due to various existing sound sources such as traffic, commercial activity, and/or natural sounds.

Four (4) locations largely along the site's property boundary were utilized to characterize existing sound levels. Table 1 provides details of these locations including their global coordinates. All measurements were attended by Epsilon staff and performed on publicly accessible property or the Project's property.

Table 1

Location	Property Line Direction	Description	Coordinates	
			Latitude	Longitude
1	East	Fintail Drive	39.766891	-86.049460
2	West	S Kitley Avenue	39.766951	-86.054599
3	Northwest	Pennsy Trail (across from Irvington Community Elementary School)	39.768877	-86.052921
4	Northeast	Pennsy Trail (across from N Edmondson Avenue)	39.768982	-86.049922

Sound level measurements were made using a Larson Davis Model 831C sound level meter equipped with a microphone, preamplifier, and a windscreen. This instrumentation meets “Type 1 Precision” requirements set forth in American National Standards Institute (ANSI) S1.4 standard for sound level meters. The microphone was mounted at about 5 feet above ground to represent the height of the average standing person’s ears. The measurement equipment was calibrated in the field before and after the survey with a Larson Davis CAL200 acoustical calibrator which meets the standards of IEC 942 Class 1L and ANSI S1.40. Sound levels of various metrics (e.g., L_{max} , L_{eq} , L_{90}) were measured for each 20-minute sampling period with one-third octave band sound levels corresponding to the same datasets measuring from 6.3 Hz to 20,000 Hz, which includes low frequencies (20 to 200 Hz) and infrasound (below 20 Hz) that cannot be heard by the human ear.

Meteorological conditions were periodically sampled by field personnel via handheld instrumentation as documented in Table 2. No precipitation occurred during the measurements.

Table 2

Measurement Period	Date	Temperature (°F)	Relative Humidity (%)	Wind Speed (mph)	Wind Direction (from)	Sky Condition
Morning	6/23/2026	83	54	5	North	Clear
Afternoon	6/22/2026	66	77	7	North	Overcast
Evening	6/23/2026	80	40	5	North	Clear
Night	6/23/2026	68	74	0	N/A	Clear

Measurement Results (Baseline)

Existing sound sources observed in the vicinity of the Project site include traffic locally and on major roadways, construction at neighboring parcels to the east and southeast, activity at nearby facilities such as loading dock activity to the west, rustling vegetation, birds, aircraft, emergency vehicle sirens,

and insects/amphibians (mainly at night). Periods and locations where construction activity was clearly audible are as follows:

- *Morning*: Locations 1, 2, 3, 4
- *Afternoon*: Locations 1, 3
- *Evening*: None observed
- *Night*: Some minor activity observed at Locations 1, 3

A summary of the existing broadband sound levels measured during various times of the day are shown in Table 3 by location. A-weighted (dBA) sound levels, representative of human hearing for most sounds, and C-weighted (dBC) sound levels, best used for quantifying loud sound levels (e.g., > 85 dBC), are included in the table. The difference between the two sound levels (dBC – dBA) provides insight to the significance of low-frequency content of the observed sound; a small difference means the sound was dominated by mid- and/or high-frequency sound, and a large difference means low-frequency sound was dominant. The following sound level metrics are presented in the table.

- L_{eq} , the equivalent level, is the level of a hypothetical steady sound that would have the same energy as the actual fluctuating sound and is mostly determined by loud, transient events.
- L_{90} is the sound level exceeded 90 percent of the time during the measurement period, essentially the lowest sound level observed when there are no transient sounds.
- L_{max} is the maximum sound level over a given period and is typically due to discrete, identifiable events such as a truck passby or construction.

The Project's self-imposed sound limit of 65 decibels is an A-weighted L_{max} . The attached Table 4 presents the measured unweighted (dB) one-third octave band L_{max} , L_{eq} , and L_{90} sound levels in all measured frequencies.

Table 3

Location	Period	Date/Start Time	Broadband Sound Pressure Level				
			L _{max}		L _{eq}		L ₉₀ *
			dBA	dBC	dBA	dBC	dBA
1	Morning	6/23/26 9:15	84	99	68	82	60
	Afternoon	6/22/26 14:17	62	84	54	69	53
	Evening	6/23/26 18:41	64	80	50	65	47
	Night	6/23/26 0:23	78	92	49	64	47
2	Morning	6/23/26 9:41	82	87	59	66	44
	Afternoon	6/22/26 14:45	81	92	63	71	48
	Evening	6/23/26 19:07	83	91	60	69	44
	Night	6/23/26 0:49	80	83	54	61	44
3	Morning	6/23/26 10:10	66	72	50	63	47
	Afternoon	6/22/26 15:10	63	75	52	63	50
	Evening	6/23/26 19:36	71	85	53	65	46
	Night	6/23/26 1:13	63	72	46	59	43
4	Morning	6/23/26 10:35	72	90	52	71	47
	Afternoon	6/22/26 15:37	64	84	53	65	51
	Evening	6/23/26 19:59	76	82	52	63	46
	Night	6/23/26 1:37	92	96	60	66	46

*C-weighted L90 sound levels were not measured due to instrumentation limitations.

Conclusion

Epsilon completed a baseline sound level measurement program and quantified sound levels existing today in the vicinity of the proposed site without the Project in operation. Sound levels presented in the tables that were influenced by construction may be higher than levels that are more typical for the area, i.e., when construction is not occurring.

If you have any questions on this letter, please feel free to call me at (978) 461-6232 or e-mail me at ccyr@epsilonassociates.com.

Sincerely,
 EPSILON ASSOCIATES, Inc.

Clinton D. Cyr, PE, INCE Board Certified
 Lead Engineer

Attachments

- Sound Terminology
- Table 4 – One-Third Octave Band Sound Pressure Levels (Unweighted, dB)

Sound Terminology

There are several ways in which sound levels are measured and quantified. All of them use the logarithmic decibel (dB) scale. The following information defines the sound level terminology used in this analysis.

The decibel scale is logarithmic to accommodate the wide range of sound intensities found in the environment. A property of the decibel scale is that the sound pressure levels of two or more separate sounds are not directly additive. For example, if a sound of 50 dB is added to another sound of 50 dB, the total is only a 3-decibel increase (53 dB), which is equal to doubling in sound energy, but not equal to a doubling in decibel quantity (100 dB). Thus, every 3-dB change in sound level represents a doubling or halving of sound energy. The human ear does not perceive changes in the sound pressure level as equal changes in loudness. Scientific research demonstrates that the following general relationships hold between sound level and human perception for two sound levels with the same or very similar frequency characteristics¹:

- 3 dB increase or decrease results in a change in sound that is just perceptible to the average person,
- 5 dB increase or decrease is described as a clearly noticeable change in sound level, and
- 10 dB increase or decrease is described as twice or half as loud.

Another mathematical property of decibels is that if one source of sound is at least 10 dB louder than another source, then the total sound level is simply the sound level of the higher-level source. For example, a sound source at 60 dB plus another sound source at 47 dB is equal to 60 dB.

A sound level meter (SLM) that is used to measure sound is a standardized instrument.² It contains “weighting networks” (e.g., A-, C-, Z-weightings) to adjust the frequency response of the instrument. Frequencies, reported in Hertz (Hz), are detailed characterizations of sounds, often addressed in musical terms as “pitch” or “tone”. The most commonly used weighting network is the A-weighting because it most closely approximates how the human ear responds to sound at various frequencies. The A-weighting network is the accepted scale used for community sound level measurements; therefore, sounds are frequently reported as detected with a sound level meter using this weighting. A-weighted sound levels emphasize middle frequency sounds (i.e., middle pitched – around 1,000 Hz) and de-emphasize low and high frequency sounds. These sound levels are reported in decibels designated as “dBA”. The C-weighting network has a nearly flat response for frequencies between 63 Hz and 4,000 Hz and is noted as dBC. Z-weighted sound levels are measured sound levels without any weighting curve and are otherwise referred to as “unweighted”.

¹ Bies, David, and Colin Hansen. 2009. *Engineering Noise Control: Theory and Practice*, 4th Edition. New York: Taylor and Francis.

² *American National Standard Specification for Sound Level Meters*, ANSI S1.4-2014 (R2019), published by the Standards Secretariat of the Acoustical Society of America, Melville, NY.

Because the sounds in our environment vary with time they cannot simply be described with a single number. Two methods are used for describing variable sounds. These are exceedance levels and the equivalent level, both of which are derived from a large number of moment-to-moment A-weighted sound level measurements. Exceedance levels are values from the cumulative amplitude distribution of all of the sound levels observed during a measurement period. Exceedance levels are designated L_n , where n can have a value between 0 and 100 in terms of percentage. Several sound level metrics that are commonly reported in community sound monitoring studies are described below.

- L_{max} is the maximum sound level over a given time period. The L_{max} is typically due to discrete, identifiable events such as an airplane overflight, car or truck passby, or a dog bark for example.
- L_{eq} , the equivalent level, is the level of a hypothetical steady sound that would have the same energy (*i.e.*, the same time-averaged mean square sound pressure) as the actual fluctuating sound observed. The equivalent level is designated L_{eq} and is typically A-weighted. The equivalent level represents the time average of the fluctuating sound pressure, but because sound is represented on a logarithmic scale and the averaging is done with linear mean square sound pressure values, the L_{eq} is mostly determined by loud sounds if there are fluctuating sound levels.
- L_{90} is the sound level exceeded 90 percent of the time during the measurement period. The L_{90} is close to the lowest sound level observed. It is essentially the same as the residual sound level, which is the sound level observed when there are no obvious nearby intermittent sound sources.

Table 4

Loc.	Period	Date/Start Time	Lmax One-Third Octave Band Sound Pressure Levels (Unweighted, dB) by Frequency Band (Hz)																																			
			6.3	8	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10k	12.5k	16k	20k
1	Morning	6/23/26 9:15	73	68	68	69	69	69	88	90	98	97	100	91	89	91	82	85	81	82	85	82	77	74	71	75	77	75	73	74	71	68	63	61	53	59	45	35
	Afternoon	6/22/26 14:17	87	89	85	82	80	84	81	77	74	72	73	73	69	69	67	68	59	58	54	55	61	56	53	50	50	47	48	51	50	50	47	45	41	36	29	25
	Evening	6/23/26 18:41	84	82	84	78	82	78	77	76	75	69	69	68	64	66	64	61	60	60	59	65	63	60	56	59	55	54	54	55	52	49	45	42	39	35	30	27
	Night	6/23/26 0:23	58	58	62	66	61	63	60	69	76	79	79	82	86	79	84	79	71	69	72	69	71	66	66	65	64	60	56	47	43	40	36	28	32	29	28	24
2	Morning	6/23/26 9:41	71	72	78	76	86	86	88	86	76	81	83	76	70	74	79	79	73	71	73	71	72	75	75	72	71	70	70	69	65	65	62	60	58	54	46	
	Afternoon	6/22/26 14:45	92	90	88	84	86	83	82	76	77	77	83	89	86	90	87	78	82	77	76	73	75	74	73	71	71	69	66	65	62	59	57	55	52	48	43	36
	Evening	6/23/26 19:07	91	87	89	83	83	81	78	74	78	74	85	83	86	91	82	84	80	89	75	73	78	79	74	74	70	69	65	64	60	57	54	53	50	48	45	35
	Night	6/23/26 0:49	60	57	61	67	66	64	68	67	69	71	74	71	69	71	67	67	74	69	71	69	76	75	73	70	69	68	65	60	57	55	52	49	45	38	32	26
3	Morning	6/23/26 10:10	59	59	63	67	69	69	65	64	68	71	70	71	70	66	64	63	62	59	59	59	60	62	57	54	54	49	50	59	65	58	53	44	39	39	35	29
	Afternoon	6/22/26 15:10	82	78	77	75	74	71	69	73	71	67	69	68	71	68	69	57	52	56	61	51	52	52	54	51	53	52	55	53	61	57	49	50	39	38	35	36
	Evening	6/23/26 19:36	63	63	66	68	69	72	73	73	74	73	79	82	82	78	81	71	70	68	70	67	65	66	61	60	56	53	56	59	53	52	50	55	61	45	40	39
	Night	6/23/26 1:13	59	58	62	63	60	63	60	62	59	71	67	71	69	62	60	57	57	55	54	56	57	60	62	54	56	37	39	36	32	28	25	23	19	18	14	14
4	Morning	6/23/26 10:35	71	69	69	67	69	68	79	85	88	88	89	77	77	80	78	75	71	63	63	62	62	60	61	61	59	55	54	52	50	57	51	45	38	37	30	23
	Afternoon	6/22/26 15:37	88	88	84	86	85	82	81	78	74	72	69	71	65	70	71	62	59	57	62	63	59	54	55	53	48	47	48	50	50	50	45	49	45	42	41	36
	Evening	6/23/26 19:59	79	77	76	74	74	72	73	71	72	71	66	74	77	75	75	72	71	73	67	69	68	66	64	65	66	64	67	64	62	59	56	55	53	51	46	42
	Night	6/23/26 1:37	60	64	60	66	65	71	68	71	89	84	63	77	79	82	82	89	78	85	88	89	86	85	84	79	77	75	73	72	70	65	63	59	54	50	44	
			Leq One-Third Octave Band Sound Pressure Levels (Unweighted, dB) by Frequency Band (Hz)																																			
			6.3	8	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10k	12.5k	16k	20k
1	Morning	6/23/26 9:15	56	55	54	55	57	57	60	66	69	70	81	67	67	71	63	64	62	64	66	61	59	58	55	57	55	53	52	49	46	44	40	33	29	23	17	
	Afternoon	6/22/26 14:17	71	69	67	65	64	63	61	60	59	58	64	57	56	56	53	52	49	46	45	44	45	47	46	43	41	37	34	31	30	27	23	18	14	10	7	6
	Evening	6/23/26 18:41	67	65	64	62	60	59	57	55	56	55	61	53	52	54	48	46	44	41	41	39	41	42	42	39	36	33	30	28	24	20	17	13	10	7	6	
	Night	6/23/26 0:23	47	47	49	50	51	53	51	52	55	53	60	54	52	55	50	47	45	41	40	40	41	41	40	37	34	32	38	22	20	13	11	8	7	6	5	9
2	Morning	6/23/26 9:41	55	54	53	54	58	59	59	59	58	59	59	55	52	52	52	51	49	47	47	48	49	51	51	50	49	47	44	42	42	42	37	33	30	27	30	31
	Afternoon	6/22/26 14:45	70	68	66	64	63	61	59	58	57	57	62	59	63	61	55	55	53	52	53	54	56	56	55	54	51	48	45	42	39	36	33	27	23	18	13	
	Evening	6/23/26 19:07	69	67	65	62	60	58	56	54	55	55	59	58	61	62	55	55	53	59	49	49	51	52	52	51	49	47	43	41	37	35	30	26	22	18	15	19
	Night	6/23/26 0:49	45	46	48	50	53	53	52	53	51	51	53	52	49	50	47	45	47	46	46	45	48	48	47	45	42	40	37	34	32	29	25	22	17	11	8	11
3	Morning	6/23/26 10:10	48	49	50	52	53	54	53	55	56	57	57	54	54	51	48	45	43	40	39	39	39	38	35	33	34	36	37	39	44	38	23	20	16	12	10	
	Afternoon	6/22/26 15:10	59	56	55	55	55	53	55	54	55	57	53	53	52	48	45	43	41	41	41	42	43	42	40	38	39	39	39	41	44	35	30	25	20	15	13	
	Evening	6/23/26 19:36	48	48	50	51	53	54	58	56	56	55	57	58	57	56	54	51	50	48	47	46	44	43	41	39	36	36	35	37	36	37	30	24	25	16	12	17
	Night	6/23/26 1:13	44	45	47	48	50	52	50	49	50	50	53	52	50	48	44	43	39	39	40	38	39	38	34	33	23	18	17	24	11	9	9	7	6	5	12	
4	Morning	6/23/26 10:35	53	52	52	53	54	54	55	59	60	66	69	55	58	60	54	54	47	42	42	42	40	40	41	39	38	36	35	34	35	33	30	21	17	13	14	14
	Afternoon	6/22/26 15:37	65	63	61	61	60	59	57	57	58	56	58	55	55	53	50	47	44	43	43	44	45	46	45	42	40	37	36	37	35	33	29	26	21	17	14	12
	Evening	6/23/26 19:59	61	59	58	57	56	54	54	52	53	54	55	55	56	54	51	48	46	46	42	42	42	41	40	40	39	40	39	37	34	30	27	24	22	18	16	
	Night	6/23/26 1:37	46	47	49	50	52	53	51	54	58	55	52	52	51	54	52	49	46	51	54	55	54	53	51	47	46	43	42	40	40	37	33	30	26	21	17	14
			L90 One-Third Octave Band Sound Pressure Levels (Unweighted, dB) by Frequency Band (Hz)																																			
			6.3	8	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10k	12.5k	16k	20k
1	Morning	6/23/26 9:15	46	46	47	49	51	51	51	57	56	59	58	57	58	56	55	55	54	55	53	49	49	48	47	47	46	45	44	42	40	37	36	32	24	19	10	6
	Afternoon	6/22/26 14:17	57	55	54	54	54	54	52	54	53	53	58	53	52	53	49	49	46	43	43	42	43	45	45	42	39	35	31	28	25	20	15	11	7	6	5	6
	Evening	6/23/26 18:41	51	50	50	50	50	50	48	49	50	50	53	49	48	50	45	43	41	38	37	36	37	39	39	36	33	28	24	21	18	12	9	7	6	5	5	14
	Night	6/23/26 0:23	39	39	42	43	46	47	46	48	51	48	54	49	46	50	45	44	42	39	37	37	37	38	38	35	32	29	24	20	17	10	8	7	6	5	5	8
2	Morning	6/23/26 9:41	43	43	44	46	49	49	49	51	50	51	51	49	46	44	40	37	35	32	31	30	30	31	30	28	26	24	22	22	33	38	14	12	14	9	7	9
	Afternoon	6/22/26 14:45	51	49	48	50	50	50	49	51	50	51	52	49	47	45	42	40	40	39	38	38	40	41	40	36	33	30	28	26	24	28	15	12	9	7	5	7
	Evening	6/23/26 19:07	49	47	47	46	47	47	46	46	47	48	48	46	45	43	40	37	36	34	34	35	35	35	35	32	29	25	23	21	19	22	15	10	8	7	6	17
	Night	6/23/26 0:49	38	38	41	44	47																															