Noise Impact Assessment

of

Proposed Data Center at
1960 W. Lucent Lane, Naperville, Illinois 60563

Prepared for:
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This Noise Impact Assessment for a proposed data center located at 1960 W. Lucent Lane, Naperville, Illinois (the "Site") has been prepared by Jacob & Hefner Associates, Inc. (JHA) on behalf of Karis Critical (the Client).

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FIGURES, TABLES, ATTACHMENTS

FIGURES

TABLES

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ATTACHMENTS

1 INTRODUCTION

1.0 Introduction and Purpose of Noise Study

JHA has prepared this Noise Impact Assessment (NIA) of the proposed Site development for a future data center facility to be located at the northwest corner of the intersection of Warrenville Rd. and Naperville Rd., Naperville, IL 60563. This report has been prepared for Karis Critical to address the potential risk of excess noise exposure at the Site perimeters in accordance with City of Naperville's noise ordinance. The primary goal of the NIA is to determine if the proposed routine operation of the data center will comply with Naperville's Code of ordinances (Title 6, Chapter 14 (6-14-4). Additionally, this NIA measured the existing background (baseline noise levels) at the perimeters of the proposed development area to determine the current noise levels in the area. The modeled noise from the proposed development was compared to the baseline noise levels to estimate the overall change in noise levels along the Site perimeters. In particular, the NIA will be used to model or predict the level of impact produced by truck and vehicle traffic, roof-mounted HVAC equipment, and emergency generators, from the proposed development on surrounding properties, and determine if the predicted noise levels are within accepted noise regulations or guidelines.

2 SITE BACKGROUND

2.0 Site Location and Description

The Site consists of one parcel totaling approximately 41.54-acres, irregular in shape and is located at the northwest corner of Warrenville Road and Naperville Road, in the City of Naperville, DuPage County, Illinois. The Site is situated within an Office, Research, and Light Industrial (ORI) district with several residences situated along the northeast and west perimeters. The Site is situated immediately adjacent to several arterial roads including: (i) Warrenville Road adjacent to the south perimeter, (ii) Naperville Road adjacent to the east/southeast perimeter, and (iii), the I-88 corridor located approximately 800 feet south perimeter of the Site. The Site was historically home to Bell Labs, Lucent, and Nokia. Currently, it is vacant following the demolition of a former 600,000 square foot office building and two former parking decks. The Parcel Index Number (PIN) associated with the Site is 08-05-207-037.

2.1 Surrounding Land Use and Future Use

The Site is currently under re-development. The Site currently consists of several stockpiles and exposed soil from the demolition of the former office building and two former parking decks. Additionally, the southern portion of the Site consists of a low-lying vegetated area and a portion of West Lucent Lane and public right-of-way sidewalks are located along the west portion of the Site. The location of the Site is shown in **Figure 1.0**.

The proposed development plan is currently for two phased buildings (211,160 square feet each or 422,320 square feet total) that will each house a data center. As of 2023, data centers are allowed as a conditional use in the City of Naperville's ORI district. The buildings will be developed with associated parking lots, truck docks, and access roads/drives. Additionally, generator yards will be located on the north sides of the proposed buildings and will be visually screened using a 22 foot high screen wall. Building cooling will be provided via rooftop HVAC units that will be screened using a five foot parapet wall along the entire rooftop perimeter. Phase 1 of the development will consist of construction of approximately two thirds of the western building. The building may be expanded to the full footprint in the future. Phase 2 of the development will include construction of the eastern building and an associated substation. A proposed development plan is provided as **Attachment 1.**

3 NOISE IMPACT ASSESSMENT

3.0 Scope of Study

The scope of the NIA was to conduct a short-term noise monitoring program to determine the existing background (baseline noise levels) in the proposed development area, assess how the proposed future development could affect local noise levels, and determine if the predicted noise levels are within accepted noise regulations or guidelines.

3.1 Noise Regulations – City of Naperville, Illinois

Karis Critical's proposed development of a data center facility must comply with applicable noise level requirements as specified in applicable standards from the City of Naperville. In particular, the focus was on abiding by both the City of Naperville's municipal code for noise standards Title 6, Chapter 14 (6-14-4), and evaluating the change in sound levels from existing baseline noise levels.

According to the City of Naperville's noise ordinance, noise levels are divided into two time slices (7:00-19:00 for daytime hours, and 19:00-7:00 for nighttime hours). Properties are divided into four categories, residential, commercial, light industrial, and industrial. The Site and surrounding properties were determined to consist of a combination of light industrial and residential areas. The sound pressure limits for each property type are summarized in the following table:

Table 1: Naperville Noise Ordinance Decibel Limits

Property Type	Allowable Octave Band Sound Pressure Levels (dBA) of Sound Emitted for Daytime and Nighttime Intervals	
	Daytime (7:00-19:00)	Nighttime (19:00-7:00)
Residential	**55**	**50**
Commercial	**62**	**55**
Light Industrial	**70**	**70**
Industrial	**80**	**80**

Limits based on octave pressure bands are not provided in the Naperville Ordinance Title 6, Chapter 14 (6-14-4), and are not individually evaluated in this NIA.

3.2 Ambient Noise Measurement and Assessment

For the NIA activities, JHA procured equipment to measure ambient sound levels at four perimeter locations over approximately three (3) days. The goal of this assessment was to determine background noise levels at the Site perimeters. Since the new facility has not yet been constructed, the goal was to record the ambient noise in the area and understand the level of existing nuisance noise.

3.2.1 Sound Level Meter Installation

On March 28, 2025 through April 1, 2025, JHA set up sound level meters at four separate locations (N1-N4). They were placed at locations at the Site boundary in order to capture representative data from select residential and light industrial properties bordering the Site as shown in **Figure 2.0**.

Noise levels were collected utilizing the Casella CEL-63 Type 1 Sound Level Meters. The A-weighting curve was applied to instrument-measured sound levels to account for the relative loudness perceived by the human ear, as the ear is less sensitive to low audio frequencies. Noise level readings that were A-weighted (in decibel [dBA]) were collected each second and averaged in to 15-minute averages. The 15-minute readings were averaged into 1-hour readings, presented on graphs, and combined into average readings for daytime and nighttime, time slices. Tables and graphs of background noise recordings are discussed in Section 3.2.2 below.

JHA did not average the data collected on Friday night and Saturday morning from meter location N2, on account of exceptionally loud readings. These readings lasted approximately 18 hours from 19:00-11:00. It is possible that loud noises were emanating from Warrenville Road and may be related to loud traffic or illegal mufflers. The removal of this data was deemed necessary since the unusually loud readings were not recorded in any of the other meters and they are unlikely to be representative of the typical background readings. JHA "Omitted" these readings so that they do not skew the baseline noise levels high.

3.2.2 Noise Level Readings Assessment

Table 2 summarizes the averaged A-weighted baseline noise levels using data collected during the 3-day background monitoring event.

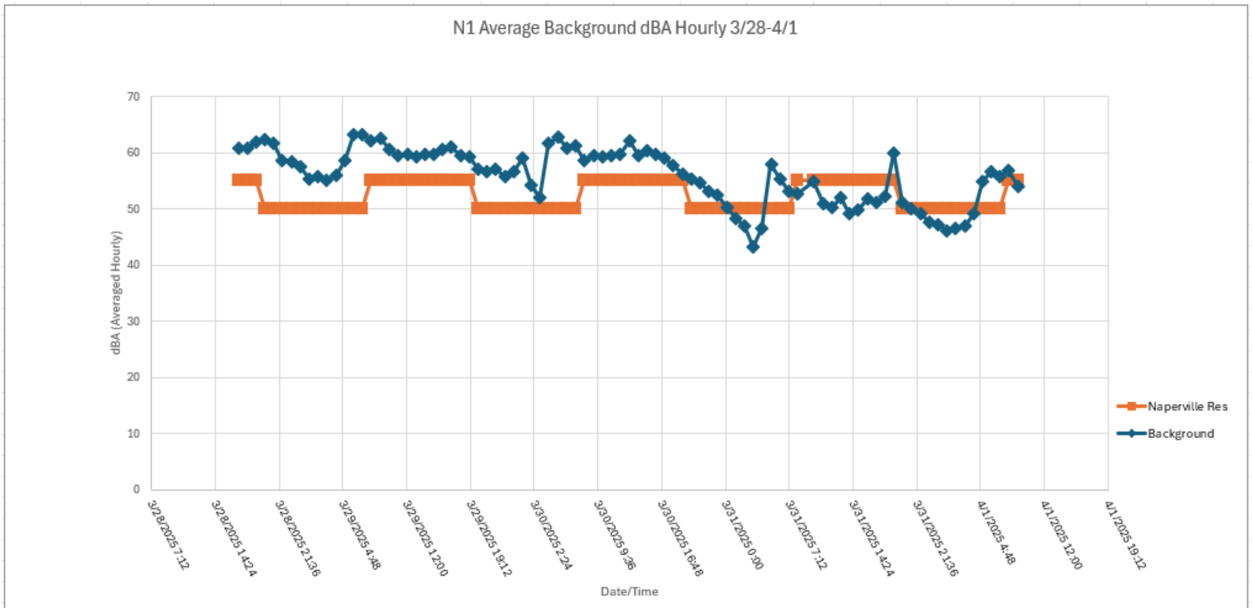
Table 2: Recorded Baseline Noise Levels

Table 1 -Measured Background Sound Pressure Levels dB(A)				
	Stations			
Date	**N1**	**N2**	**N3**	**N4**
03/28 Night	59.9	Omitted	61.9	61.1
03/29 Day	60.5	65.5	64.4	62.2
03/29 Night	59.0	60.3	59.7	58.8
03/30 Day	59.5	63.6	62.5	61.3
03/30 Night	53.1	57.5	54.3	55.4
03/31 Day	53.5	59.2	52.6	54.8
03/31 Night	51.7	57.4	55.4	51.1
Total Average (Day-Night)				
All Night Average	57.3	58.6	58.9	58.0
All Day Average	58.7	63.5	62.0	60.4
Ordinance Type	Res	Ind	Res	Ind

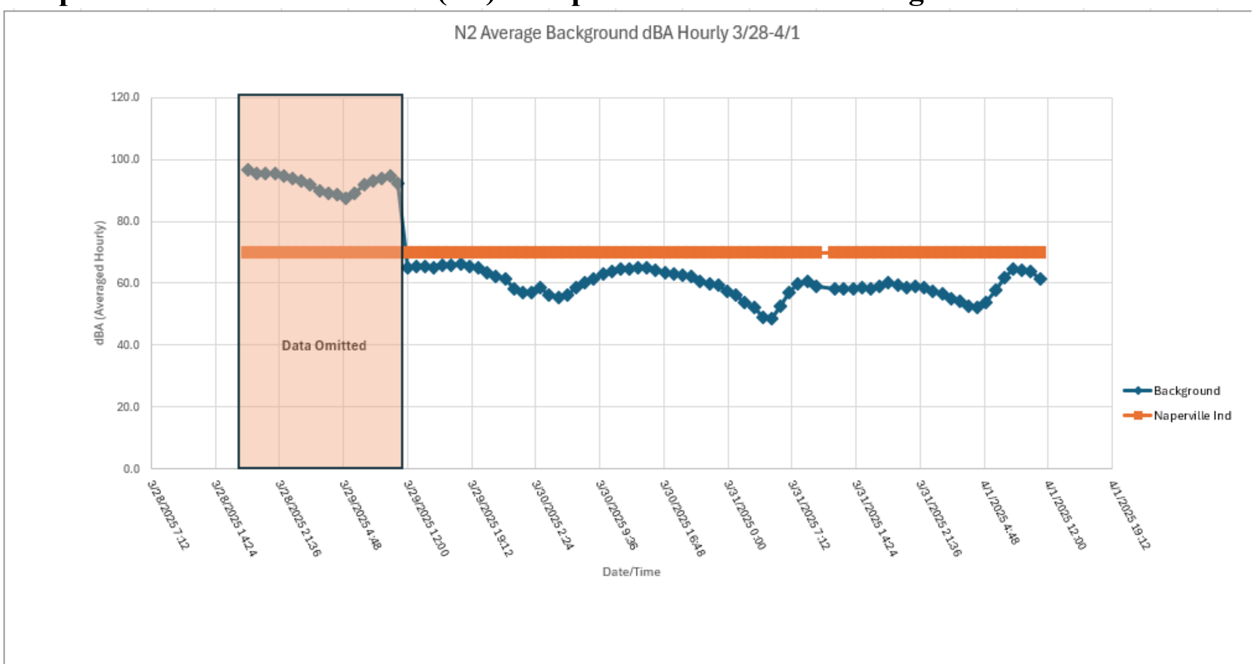
Notes
Ind = Industrial

Res = Residential

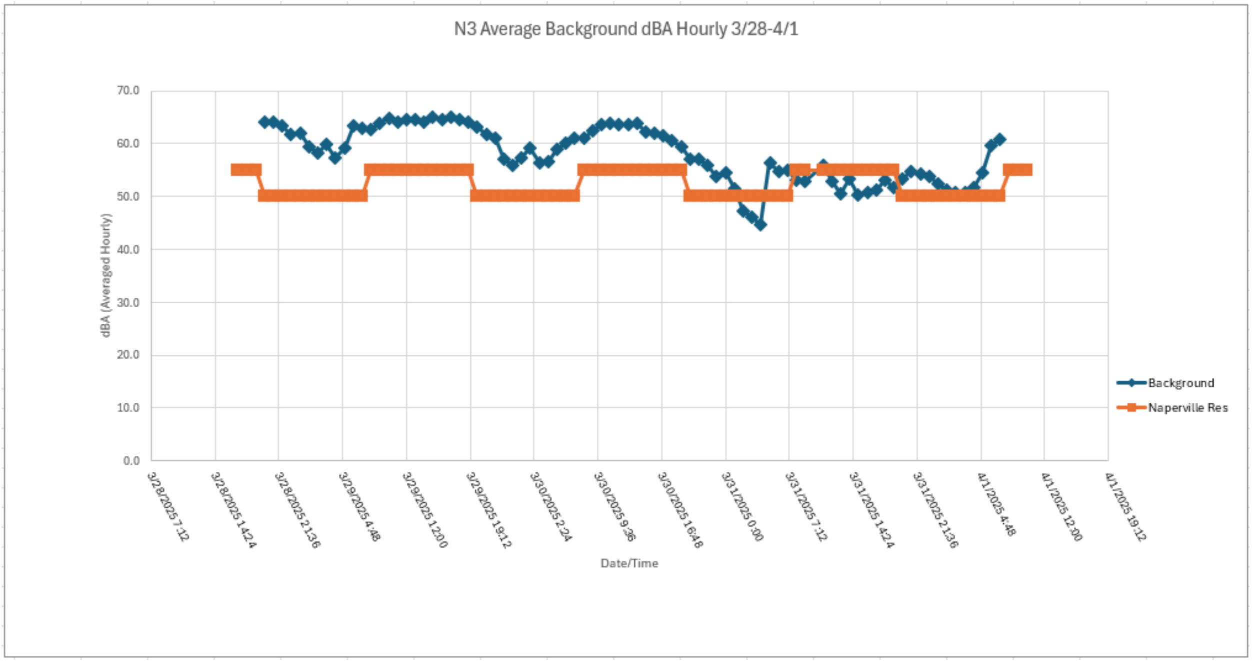
<u>Graph 1- Background Noise Levels (N1) Compared to Residential Background Limit</u>



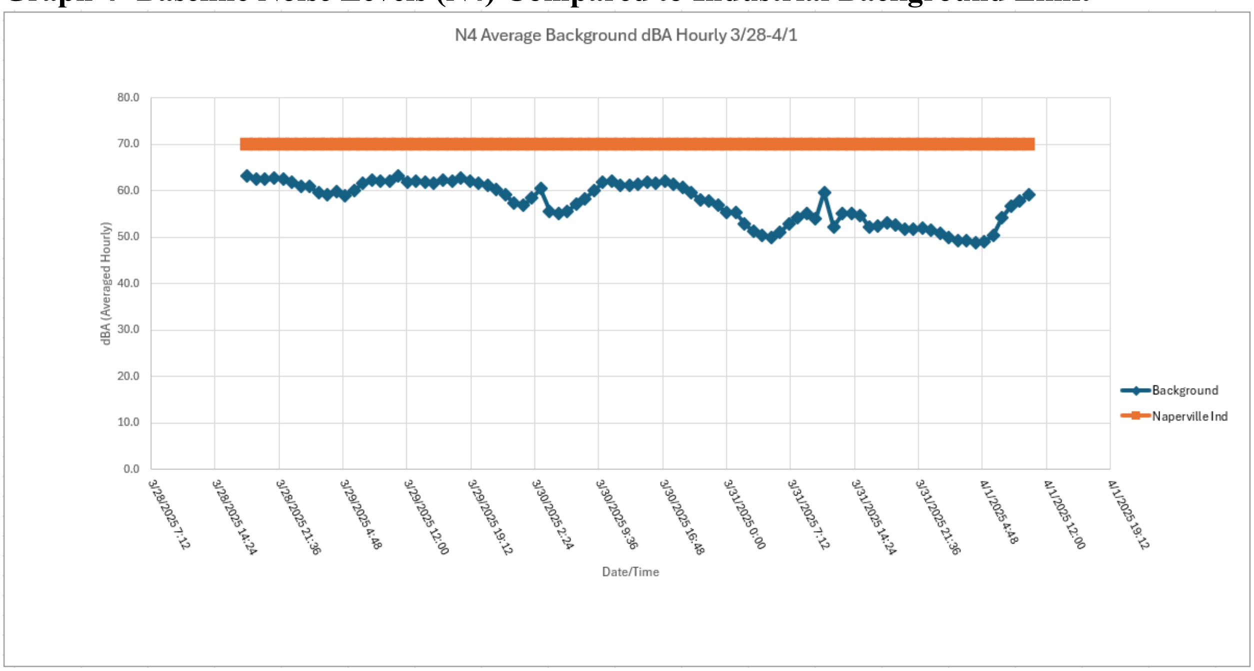
Graph 2- Baseline Noise Levels (N2) Compared to Industrial Background Limit



Graph 3- Baseline Noise Levels (N3) Compared to Residential Background Limit



Graph 4- Baseline Noise Levels (N4) Compared to Industrial Background Limit



Based on the average readings for daytime and nighttime time slices, the lowest average baseline noise level readings were recorded at N1 (located near the residences on the east perimeter of the Site). The loudest baseline noise levels were recorded along the southwest corner of the Site (N2) near Warrenville Road**.**

3.3 Sound Modeling

To predict sound levels created from the operations of the proposed data facility, the internationally accepted sound modeling program, SoundPlan™ was utilized. This program can calculate sound levels at distant points based on the noise source, topography, reflections from buildings, absorption by the atmosphere, vegetation, and any shielding from berms or structures. Subsequently, this software was used to incorporate the proposed Site-specific conditions to generate sound-level contours (as a color flood) and identify the sound levels at any receptor within the model. For the proposed data facility, SoundPlan™ was used to simulate the time-slice-averaged levels generated based on the projected number of vehicles entering and leaving the proposed Site based on the traffic study, roof-mounted HVAC equipment, and backup emergency generators. The time-weighted daytime (Leq, d) and nighttime (Leq, n) averages are observed along with the most intense single hour during generator testing/service (Leq, max hr). The models and figures representing these situations are described below:

Situation 1 - Roof-Mounted HVAC Equipment, Parking Lot Traffic, and Generator Model

This situation model identifies the sound emissions for the traffic, HVAC equipment, and generator testing schedule that may be used for the Site development. Parameters used for modeling this scenario are presented below:

- Generators
  a. Assumed spectrum emission of a 3MW diesel generator used.
  b. It is assumed that the generators will be surrounded with an enclosure capable of providing a sound pressure reading of 77 decibels at nine meters (total sound energy Lw estimated at 104.2 dBA emanating from enclosure walls.
  c. The dimensions of typical 3MW generators suggest that the exhaust is approximately 9.5 feet above the ground surface. As the exhaust is the loudest part of a typical generator, the source was elevated to 9.5 feet above grade.
  d. Frequency of generator operation is assumed to be up to 2 generators running for 30 minute increments (four generators running for a half hour each within one hour) for testing purposes.
  e. A total of 24 generators will run for each building (48 generators total), and generators from both buildings will not be tested on the same day. Each generator will only be tested for one 30-minute interval on a monthly basis.
  f. The model represents a day when testing is performed for the east building generators (nearest the residential property and most sensitive receptors R1-4, R1-5, and R1-6).

- HVAC
  a. Spectrum profile of HVAC units is assumed based on similar-type HVAC equipment for 300 and 400-ton units.
  b. Maximum total sound power is assumed at 96dBA per unit running at a continuous 60% load for the daytime level and 93dBA per unit running at a continuous 50% load for the nighttime level.
  c. A maximum total of 24 units are placed on each building roof in six (6) clusters of four (4).

d. HVAC units are modeled to be running for 24-hours through the day and night at 60 % capacity for the day and 50% capacity at night.

- Roads/Drives and Parking Lots
  a. Modeled after KLOA traffic report daytime and nighttime estimates on facility traffic (3 shifts with 45 employees from 7:00-16:30, 10 employees from 16:30-23:30, and 10 employees from 23:30-7:00). Additional visitor volume in central parking lot assumed at ½ capacity of parking area (approximately 50-60 vehicles).

- Walls
  a. A 22-foot acoustic panel system is assumed to be installed surrounding the northeast corner of the eastern building generator yard (Rw value = 28; -2C, -5CTR and a reflection loss of 2dB). Note the 22-foot visual screen wall provided around the rest of the generator yards is not included in the model as sound attenuation.
  b. A 5-foot concrete parapet wall is assumed to be installed surrounding the perimeter of the building roofline (Rw value = 47; reflection loss 1dB).

This condition was modeled to represent the sound emissions of the facility for the loudest day when generators are being tested. This represents a typical daytime and nighttime sound emission where each generator on the building is tested for 30 minutes during the day. The generator run along the east building was modeled since it is closer to sensitive residential and light industrial receivers, and therefore, represents a conservative modeling approach. Receptors are placed surrounding the property perimeter to simulate noise contribution readings at the perimeter, as identified in the Naperville municipal code, Title 6, Chapter 14 (6-14-4). The color flood maps identify modeled sound pressure levels located 1.8-2.0 meters off the ground surface, and receptors are placed 1.8-2.0 meters off the ground surface. Both daytime (Leq, d) and nighttime (Leq, n) figures and receiver tables are displayed below.

Figure 3: Daily Leq of HVAC, Traffic, and Generators Model

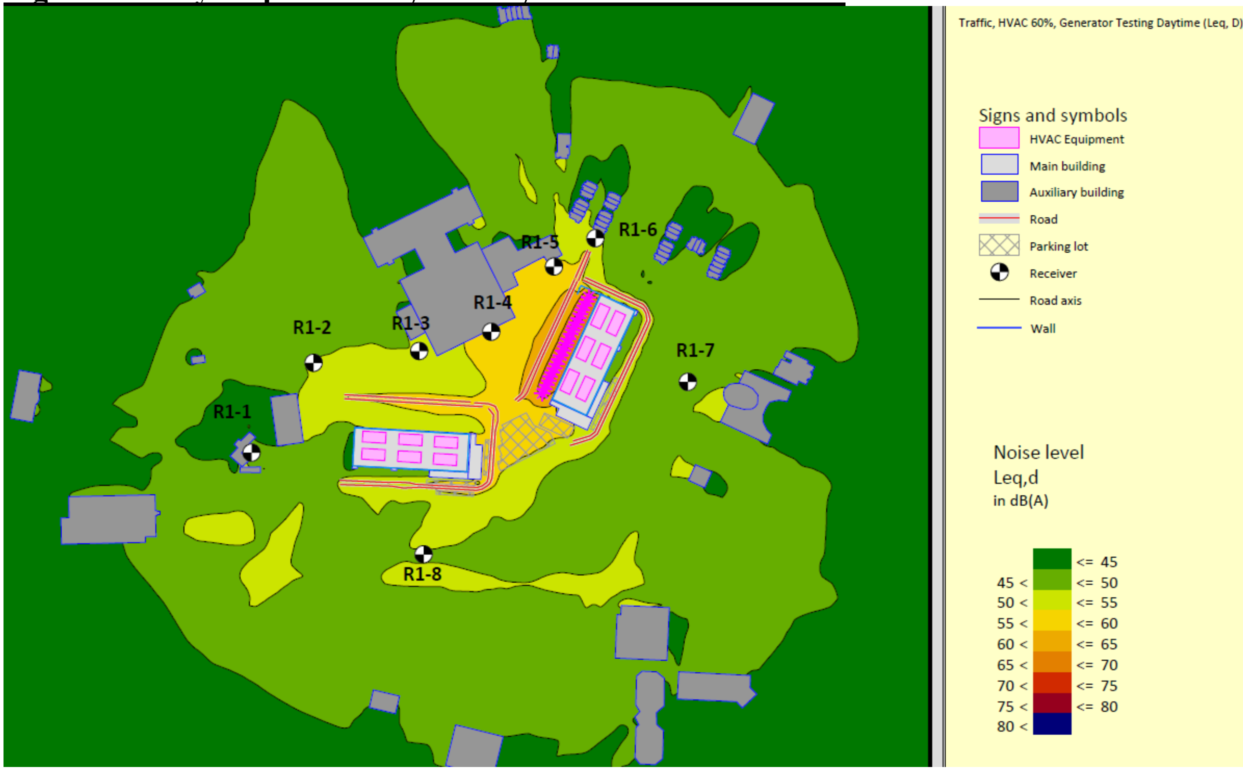


Figure 4: Nighttime Leq of HVAC and Traffic Model

Table 3 – Receiver Table for HVAC, Traffic, and Generator Model (Leq, d and Leq, n)

Receiver	Usage	FI	Leq,d dB(A)
R1-1	SCR	GF	49.3
R1-2	IND	GF	50.0
R1-3	IND	GF	50.4
R1-4	IND	GF	56.3
		1.FL	57.5
		2.FL	58.0
		3.FL	58.5
R1-5	IND	GF	55.7
		1.FL	55.6
R1-6	SCR	GF	51.9
		1.FL	53.5
R1-7	IND	GF	48.6
R1-8	IND	GF	49.8

Receiver	Usage	FI	Leq,n dB(A)
R1-1	SCR	GF	46.5
R1-2	IND	GF	46.5
R1-3	IND	GF	47.0
R1-4	IND	GF	49.8
		1.FL	51.1
		2.FL	52.1
		3.FL	53.0
R1-5	IND	GF	48.2
		1.FL	48.5
R1-6	SCR	GF	47.5
		1.FL	49.1
R1-7	IND	GF	45.5
R1-8	IND	GF	46.7

The figures and tables above display the sound emissions for the proposed facility on a typical day of operation. None of the receivers reported sound pressure levels over their respective residential or light industrial limits for daytime or nighttime operation. The assumptions for Situation 1 are listed above but include utilizing up to 48 rooftop HVAC units that each operate at or below 96 dBA of sound energy (Lw) during the day and 93dBA of sound energy at night. This sound energy is based on data provided for a 400-ton unit operating at or below 60% capacity during the day and 50% capacity at night. Additionally, generator enclosures are expected to meet specifications that reduce total sound pressure readings to 77 dBA at a distance of 30 feet. Additionally, the frequency of regular generator operations will be for testing purposes and include up to 2 generators running for 30 minute increments (four generators running for a half hour each within one hour). Up to 24 generators will be tested in a day and generators from both buildings will not be tested on the same day.

Additionally, the propagated noise levels expected to be emanating from the proposed data center are reported below the recorded background noise levels surrounding the Site. The modeled noise levels from the proposed data center operation were added to the recorded background noise levels to determine if a receptor is likely to perceive any significant increase in noise levels. Generally, noise level increases below one decibel are considered negligible and would not be perceived by a receptor. Noise level increases from 1-2 decibels are barely perceptible and increases at or above three (3) decibels are considered perceptible. All expected noise level increases from the proposed data center operations are considered barely perceptible or negligible. The table below summarizes the perceived difference in noise levels for all receptors that may be caused by the proposed operation of the data center:

Table 4 – Summary of Decibel Increases and Perceived Noise Levels Emanating From Proposed Data Center Operations – Situation 1

Station	Time Duration	Property Type	Background (dBA)	Modeled Emission (dBA)	Total Sum (dBA)	Increase (dBA)	Notes
R1-1	Day (7:00-19:00)	Residential	62	49.3	62.2	0.2	Negligible
	Night (19:00-7:00)	Residential	58.9	46.5	59.1	0.2	Negligible
R1-2	Day (7:00-19:00)	Industrial	60.4	50.0	60.8	0.4	Negligible
	Night (19:00-7:00)	Industrial	58	46.5	58.3	0.3	Negligible
R1-3	Day (7:00-19:00)	Industrial	60.4	50.4	60.8	0.4	Negligible
	Night (19:00-7:00)	Industrial	58	47	58.3	0.3	Negligible
R1-4 (GF)	Day (7:00-19:00)	Industrial	60.4	56.3	61.8	1.4	Barely Perceptible
	Night (19:00-7:00)	Industrial	58	49.8	58.6	0.6	Negligible
R1-4 (1F)	Day (7:00-19:00)	Industrial	60.4	57.5	62.2	1.8	Barely Perceptible
	Night (19:00-7:00)	Industrial	58	51.1	58.8	0.8	Negligible
R1-4 (2F)	Day (7:00-19:00)	Industrial	60.4	58.5	62.6	2.2	Barely Perceptible
	Night (19:00-7:00)	Industrial	58	53	59.2	1.2	Barely Perceptible
R1-4 (3F)	Day (7:00-19:00)	Industrial	60.4	58.5	62.6	2.2	Barely Perceptible
	Night (19:00-7:00)	Industrial	58	53	59.2	1.2	Barely Perceptible
R1-5	Day (7:00-19:00)	Industrial	58.7	55.7	60.5	1.8	Barely Perceptible
	Night (19:00-7:00)	Industrial	57.3	48.2	57.8	0.5	Negligible
R1-6 (GF)	Day (7:00-19:00)	Residential	58.7	51.9	59.5	0.8	Negligible
	Night (19:00-7:00)	Residential	57.3	47.5	57.7	0.4	Negligible
R1-6 (1F)	Day (7:00-19:00)	Residential	58.7	53.5	59.8	1.1	Barely Perceptible
	Night (19:00-7:00)	Residential	57.3	49.1	57.9	0.6	Negligible

R1-7	Day (7:00-19:00)	Residential	58.7	48.6	59.1	0.4	Negligible
	Night (19:00-7:00)	Residential	57.3	45.5	57.6	0.3	Negligible
R1-8	Day (7:00-19:00)	Industrial	63.5	49.8	63.7	0.2	Negligible
	Night (19:00-7:00)	Industrial	58.6	46.7	58.9	0.3	Negligible

Situation 2 - Immediate Sound Pressure for Loudest 1-hour Generator Run

Karis Critical requires a total of 48 backup generators (approx. 3 megawatts each and 24 for each building) to be tested regularly. It is assumed that up to two generators will be tested for 30 minutes at a time, with a maximum of 24 generators run throughout the middle of the day. This model identifies the total sound emissions for the loudest 1-hour period of time that four generators are running for 30 minutes each (loudest hour). The most sensitive situation was modeled for the loudest hour based on the position of sensitive residential and light industrial receptors. Assumptions for this model are provided below.

- Generators
  a. Assumed spectrum emission of a 3MW diesel generator used.
  b. It is assumed that the generators will be surrounded with an enclosure capable of providing a sound pressure reading of 77 decibels at nine meters (total sound energy Lw estimated at 104.2 dBA emanating from enclosure walls.
  c. The dimensions of typical 3MW generators suggest that the exhaust is approximately 9.5 feet above the ground surface. As the exhaust is the loudest part of a typical generator, the source was elevated to 9.5 feet above grade.
  d. Frequency of generator operation is assumed to be up to 2 generators running for 30 minute increments (four (4) generators running for a half hour each within one hour) for testing purposes.
  e. A total of 24 generators will run for each building (48 generators total), and generators from both buildings will not be tested on the same day. Each generator will only be tested for one 30-minute interval on a monthly basis.
  f. The four (4) generators modeled were along the northeast corner of the east building (nearest the residential property and most sensitive receptors R1-4, R1-5, and R1-6).

- HVAC
  a. Spectrum profile of HVAC units is assumed based on similar-type HVAC equipment for 300 and 400-ton units.
  b. Maximum total sound power is assumed at 96dBA per unit running at a continuous 60% load for the daytime level and 93dBA per unit running at a continuous 50% load for the nighttime level.
  c. A maximum total of 24 units are placed on each building roof in six (6) clusters of four (4).
  d. HVAC units are modeled to be running for 24-hours through the day and night at 60 % capacity for the day and 50% capacity at night.

- Roads/Drives and Parking Lots

  Modeled after KLOA traffic report daytime and nighttime estimates on facility traffic (3 shifts with 45 employees from 7:00-16:30, 10 employees from 16:30-23:30, and 10 employees from 23:30-7:00). Additional visitor volume in central parking lot assumed at ½ capacity of parking area (approximately 50-60 vehicles).

  a.
- Walls
  a. A 22-foot acoustic panel system is assumed to be installed surrounding the northeast corner of the eastern building generator yard (Rw value = 28; -2C, -5CTR and a reflection loss of 2dB). Note the 22-foot visual screen wall provided around the rest of the generator yards is not included in the model as sound attenuation.
  b. A 5-foot concrete parapet wall is assumed to be installed surrounding the perimeter of the building roofline (Rw value = 47; reflection loss 1dB).

This condition was modeled to represent the immediate sound emissions of the facility during the loudest estimated daytime hour where four (4) diesel generators are all active for 30 minutes each. This event is the loudest hour during the select days when generator operation is tested and is not expected to be a continuous source of noise emissions. The four (4) generators nearest the closest/most sensitive receptors were modeled. Additionally, generator testing is not scheduled to take place at night, and a nighttime model was not generated (since Situation 1 above models the nighttime noise contributions). The figures and tables below identify the modeled sound emissions for the single hour of generator testing.

Figure 5: Single Hour Generator Run

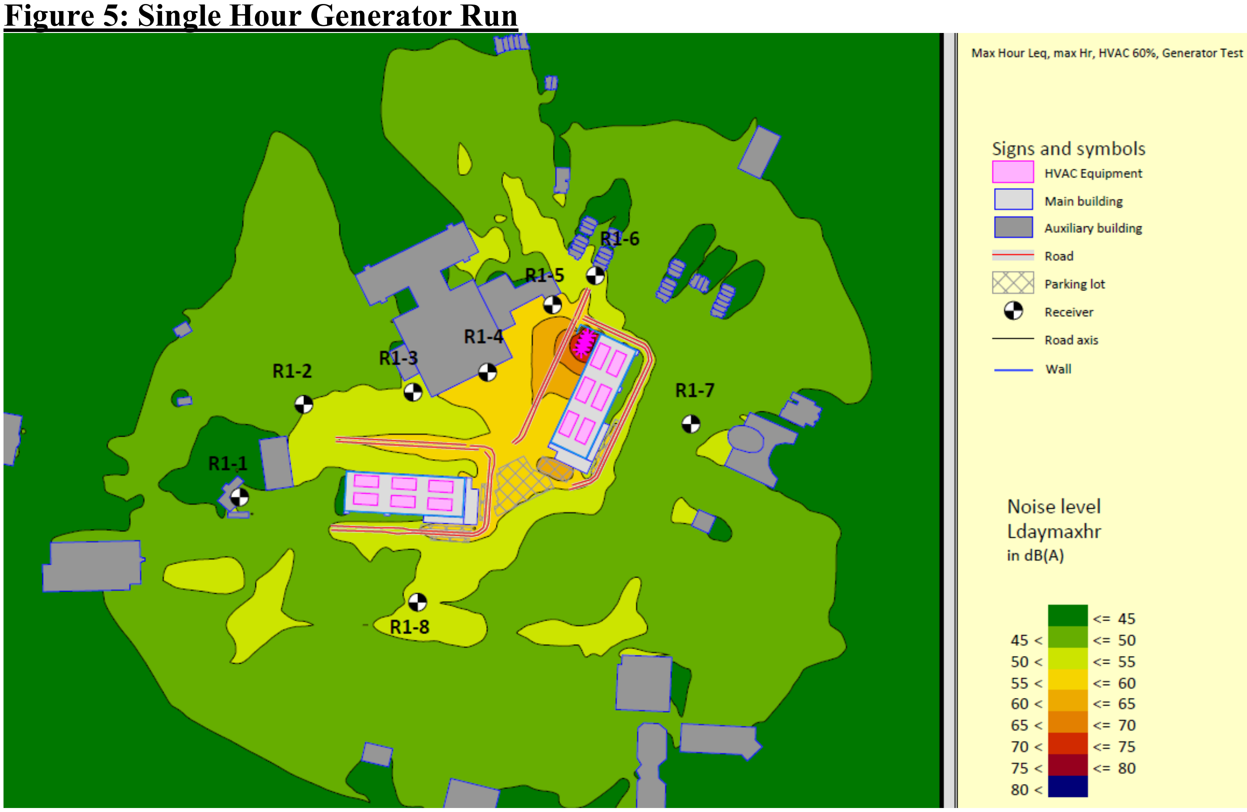


Table 5 – Receiver Table for 1-Hour Generator Run (Daytime)

Receiver	Usage	Fl	Ldaymaxhr dB(A)
R1-1	SCR	GF	49.5
R1-2	IND	GF	49.9
R1-3	IND	GF	50.3
R1-4	IND	GF	57.5
		1.FL	58.7
		2.FL	59.1
		3.FL	59.5
R1-5	IND	GF	58.3
		1.FL	58.3
R1-6	SCR	GF	53.1
		1.FL	54.5
R1-7	IND	GF	48.7
R1-8	IND	GF	50.1

The total hourly Leq sound emission from testing the generators is reported below Naperville's applicable residential and light industrial noise ordinance (55dBA and 70dBA respectively) for the time within the single estimated loudest hour of operation. This scenario assumes that a maximum of four (4) generators will be tested within a daytime hour, if they are each running for 30 minutes (and a maximum of two generators running at a time). It should be noted that a 22-foot acoustical panel wall was installed along the northeast corner of the generator yard attached to the east building. This wall was effective in reducing noise emissions to Receptors R1-5 and R1-6. Generators will not be tested during evening hours. As a result, the modeled loudest daytime hour of generator usage is compliant with Naperville's noise ordinance.

Similar to Situation 1, the propagated noise levels expected to be emanating from the proposed data center from Situation 2 are reported below the recorded background noise levels surrounding the Site. The modeled noise levels from the proposed data center operation were added to the recorded background noise levels to determine if a receptor is likely to perceive any significant increase in noise levels. Generally, noise level increases below one decibel are considered negligible and would not be perceived by a receptor. Noise level increases from 1-2 decibels are barely perceptible and increases at or above three (3) decibels are considered perceptible. All expected noise level increases from the proposed data center operations are considered barely perceptible or negligible. The table below summarizes the perceived difference in noise levels for all receptors that may be caused by the proposed operation of the data center within the loudest anticipated hour of the loudest day of the month:

Table 6 – Summary of Decibel Increases and Perceived Noise Levels Emanating from Proposed Data Center Operations – Situation 2

Station	Time Duration	Property Type	Background (dBA)	Modeled Emission (dBA)	Total Sum (dBA)	Increase (dBA)	Notes
R1-1	Day (7:00-19:00)	Residential	62	49.5	62.2	0.2	Negligible
R1-2	Day (7:00-19:00)	Industrial	60.4	49.9	60.8	0.4	Negligible
R1-3	Day (7:00-19:00)	Industrial	60.4	50.3	60.8	0.4	Negligible
R1-4 (GF)	Day (7:00-19:00)	Industrial	60.4	57.5	62.2	1.8	Barely Perceptible
R1-4 (1F)	Day (7:00-19:00)	Industrial	60.4	58.7	62.6	2.2	Barely Perceptible
R1-4 (2F)	Day (7:00-19:00)	Industrial	60.4	59.1	62.8	2.4	Barely Perceptible
R1-4 (3F)	Day (7:00-19:00)	Industrial	60.4	59.5	63.0	2.6	Barely Perceptible
R1-5	Day (7:00-19:00)	Industrial	58.7	58.3	61.5	2.8	Barely Perceptible
R1-6 (GF)	Day (7:00-19:00)	Residential	58.7	53.1	59.8	1.1	Barely Perceptible
R1-6 (1F)	Day (7:00-19:00)	Residential	58.7	54.5	60.1	1.4	Barely Perceptible
R1-7	Day (7:00-19:00)	Residential	58.7	48.7	59.1	0.4	Negligible
R1-8	Day (7:00-19:00)	Industrial	63.5	50.1	63.7	0.2	Negligible

4.0 CONCLUSIONS

JHA has evaluated the proposed data center development plan, modeled known noise sources, and assumed some effort of sound mitigation to combat nuisance noise (sound wall construction and encasement of generators). Two situations are presented that model (i) the operating noise level for the loudest typical day of facility operation (Situation 1), and (ii), the single loudest hour of operation within the loudest day, where four backup generators are tested within a single hour near the most sensitive receptors (Situation 2). Both modeled situations identified that the total noise contributions from the proposed data center development remain below Naperville's noise ordinance in Title 6, Chapter 14 (6-14-4). Additionally, the noise levels produced by the facility for daily (Leq,d), nighttime (Leq,n) and most intense hour (Leq, h), are below the preexisting background noise measured surrounding the Site. As a result, the operation of the proposed data center is not anticipated to cause nuisance noise levels to exceed the standards set forth by the City of Naperville, and receptors near the proposed data center are unlikely to perceive any significant increase in baseline noise levels under standard data center operations.

FIGURES

JACOB & HEFNER ASSOCIATES
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SITE LOCATION

PROJECT NAME:	Naperville Data Center
CLIENT NAME:	Karis Critical
LOCATION:	1960 W. Lucent Lane
DATE PREPARED:	4/6/2025
SHEET:	FIG. 1 — JOB NO.: H477

H:\H\H477\ENV\Noise Impact Assessment\CAD\FIG 1-2 Location-Layout.dwg

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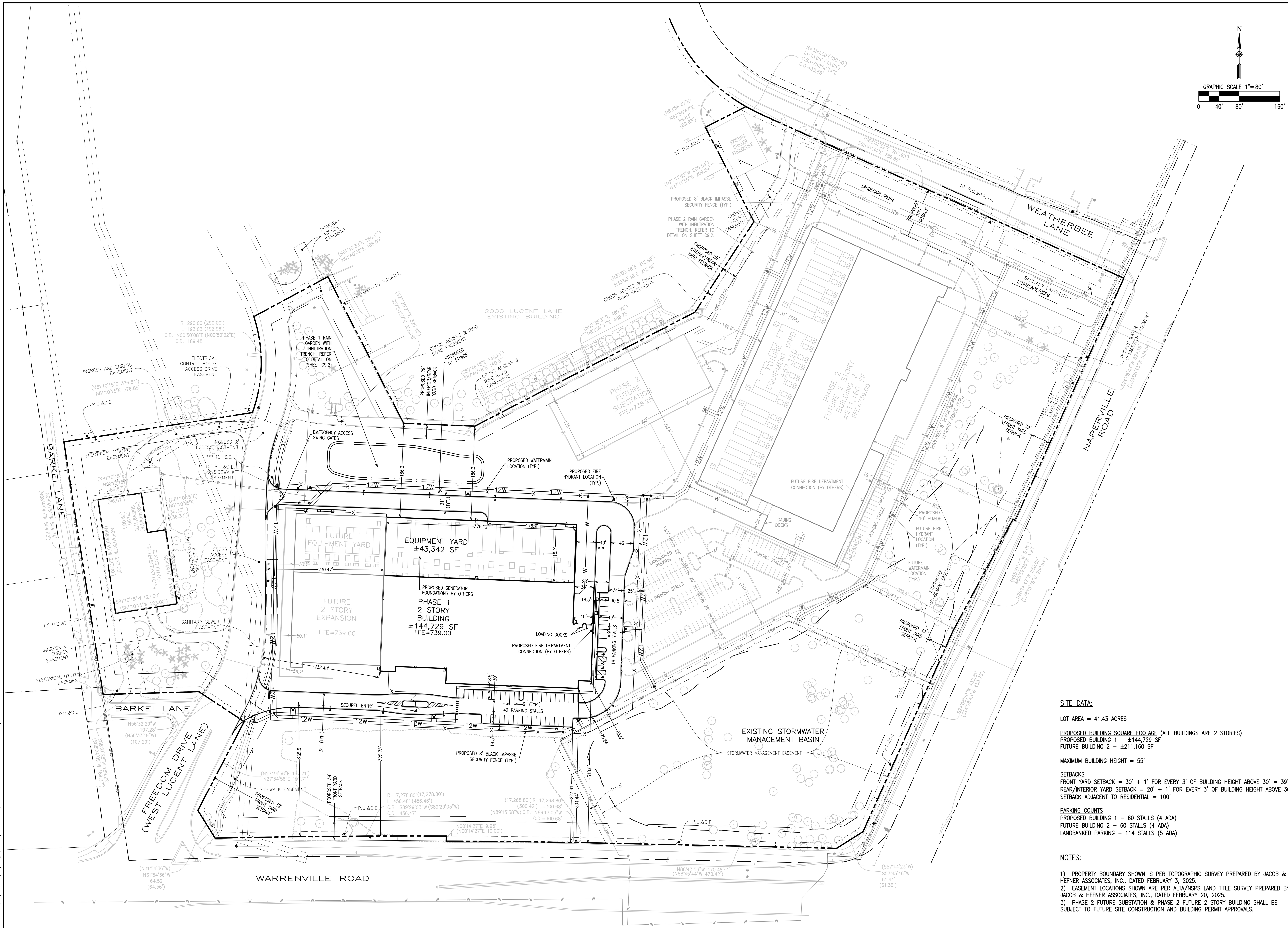
SOUND LEVEL METER MONITORING LOCATIONSz

PROJECT NAME:	Naperville Data Center
CLIENT NAME:	Karis Critical
LOCATION:	1960 W. Lucent Lane
DATE PREPARED:	4/6/2025
SHEET:	FIG. 2 — JOB NO.: H477

H:\H\H477\ENV\Noise Impact Assessment\CAD\FIG 1-2 Location-Meters.dwg

ATTACHMENET 1

Conceptual Site Plan



SITE DATA:

LOT AREA = 41.43 ACRES

PROPOSED BUILDING SQUARE FOOTAGE (ALL BUILDINGS ARE 2 STORIES)
PROPOSED BUILDING 1 – ±144,729 SF
FUTURE BUILDING 2 – ±211,160 SF

MAXIMUM BUILDING HEIGHT = 55'

SETBACKS
FRONT YARD SETBACK = 30' + 1' FOR EVERY 3' OF BUILDING HEIGHT ABOVE 30' = 39'
REAR/INTERIOR YARD SETBACK = 20' + 1' FOR EVERY 3' OF BUILDING HEIGHT ABOVE 30' = 29'
SETBACK ADJACENT TO RESIDENTIAL = 100'

PARKING COUNTS
PROPOSED BUILDING 1 – 60 STALLS (4 ADA)
FUTURE BUILDING 2 – 60 STALLS (4 ADA)
LANDBANKED PARKING – 114 STALLS (5 ADA)

NOTES:

1) PROPERTY BOUNDARY SHOWN IS PER TOPOGRAPHIC SURVEY PREPARED BY JACOB & HEFNER ASSOCIATES, INC., DATED FEBRUARY 3, 2025.
2) EASEMENT LOCATIONS SHOWN ARE PER ALTA/NSPS LAND TITLE SURVEY PREPARED BY JACOB & HEFNER ASSOCIATES, INC., DATED FEBRUARY 20, 2025.
3) PHASE 2 FUTURE SUBSTATION & PHASE 2 FUTURE 2 STORY BUILDING SHALL BE SUBJECT TO FUTURE SITE CONSTRUCTION AND BUILDING PERMIT APPROVALS.

No.	Description	Date
2	REVISED PER CITY	6/11/25
1	ORIGINAL EXHIBIT DATE	4/11/25

SITE PLAN EXHIBIT

1960 W LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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1" = 80'

H477

EXHIBIT

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