

New York State Environmental Quality Review Act

Final Environmental Impact Statement

Project Name:
North East Data LLC Data Center

SEQR Classification: Type I

Location:
5380 Frontier Avenue
Niagara Falls, New York
SBL# 160.14-1.1.2

Project Sponsor:
North East Data LLC
(a wholly-owned subsidiary of Blockfusion USA, Inc.)

Lead Agency:
City of Niagara Falls City Council
City Hall Room 202
745 Main Street
P.O. Box 69
Niagara Falls, New York 14302

Lead Agency Contact Person:
Kevin Forma
Planning Director
City of Niagara Falls
(716) 286-4470

Preparer:
Phillips Lytle LLP
One Canalside
125 Main St.
Buffalo, NY 14203

Preparer Contacts:
Adam S. Walters (716) 847-7023
Lauren M. Adornetto (716) 847-7013

This FEIS was accepted as complete by resolution adopted by the City of Niagara Falls City Council, as Lead Agency at its _____, 2025 meeting.

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1. Executive Summary

1.1. Introduction

This Final Environmental Impact Statement (“FEIS”) is issued by the City of Niagara Falls (“City”) City Council (“City Council”) as Lead Agency for the data center (“Project”) at 5380 Frontier Avenue, Niagara Falls, New York (“Site”), developed and operated by North East Data LLC (“NED”), a wholly-owned subsidiary of Blockfusion USA, Inc. (together with NED, “Blockfusion” or “Project Sponsor”). The FEIS is issued pursuant to and in compliance with Article 8 of the New York State Environmental Conservation Law and its implementing regulations, commonly known as the State Environmental Quality Review Act (“SEQRA”).

The FEIS incorporates by reference the Draft Environmental Impact Statement dated January 15, 2025 (“DEIS”) in its entirety. SEQRA regulations require that the FEIS include the DEIS, including any revisions or supplements to it; copies or a summary of the substantive comments received and their source; and the Lead Agency’s responses to all substantive comments. Consistent with these requirements, Blockfusion prepared this FEIS for City Council review, which consists of responses to the single public comment received on the DEIS (“Noise Comment”), and revisions to the DEIS which consist of an updated noise impact analysis based on an updated noise study (“Updated Noise Study”) for the project performed by the Project Sponsor’s noise consultant, GHD (“GHD”). Updated Noise Study.

1.2. Comments Received and Changes to DEIS

Following the acceptance of the DEIS, the City Council initiated a 31-day Public Comment Period which concluded on or around March 8, 2025. During the Public Comment Period, only the Noise Comment was received. Responses to the Noise Comment are detailed in Section 3

below. In addition, the City Council’s noise consultant, Ostergaard Acoustical Associates (“OAA”) provided comments (“OAA Comments”) on the 2024 noise study provided in the DEIS (“2024 Noise Study”) via letter dated April 11, 2025. On April 29, 2025, representatives from the City, OAA, Blockfusion and GHD met virtually to discuss the OAA Comments and GHD’s preliminary responses and proposed methods to provide responsive material and data to address the OAA Comments. Blockfusion responded to these comments via letter and the Updated Noise Study on May 22, 2025, and further revised the Updated Noise Study on July 17, 2025 to address additional OAA comments received via email on June 11, 2025. The Updated Noise Study responds to the OAA Comments by including additional analysis and data as requested by OAA. Even with the additional analysis, the conclusions of the Updated Noise Study remain consistent with the conclusions of the 2024 Noise Study; that the operation of the Project has no noise impacts on the nearest residentially-zoned property. Correspondence from OAA as well as GHD and Blockfusion’s responses and the Updated Noise Study are included in Appendix A and B. The Updated Noise Study replaces the 2024 Noise Study in the DEIS.

2. Introduction

2.1. The Final Environmental Impact Statement

The FEIS is issued for the Project by the City Council as Lead Agency pursuant to and in compliance with Article 8 of the New York State Environmental Conservation Law and its implementing regulations commonly known as SEQRA. NED, a wholly-owned subsidiary of Blockfusion USA, Inc, is the Project Sponsor.

The FEIS, incorporating by reference the DEIS, forms the basis for Project-related decision making. SEQRA regulations require that the FEIS include the DEIS, including any revisions or supplements to it; copies or a summary of the substantive comments received and their source; and the Lead Agency’s responses to all substantive comments.

After the issuance of this FEIS, the public will be afforded a reasonable time period, not less than 10 calendar days, in which to consider the FEIS. After this reasonable time period has passed, the City Council as Lead Agency will issue a Findings Statement prior to making a determination whether to approve the proposed rezoning of the Site to add a High Energy Usage (“HEU”) Overlay District. The Findings Statement will consider the relevant environmental impacts, facts and conclusions disclosed in this FEIS; weigh and balance relevant environmental impacts with social, economic and other essential considerations; provide a rationale for the Lead Agency’s decision; certify that the requirements of SEQRA have been met; and certify that consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable.

2.2. Chronology of the SEQRA Process

NED developed and operates a data center designed to host and process data for corporate and enterprise clients at the Site. Blockfusion acquired the Site in 2018 and since then has transformed it from an abandoned coal plant into a state-of-the-art data center (the Facility”) focused on sustainable industrial methods that rely upon zero-emission, renewable sources of energy that are abundant in Western New York.

On September 7, 2022 the City Council adopted the HEU Amendments to the Zoning Ordinance (“HEU Amendments”) which require that Blockfusion seek rezoning of the Site to add a HEU Overlay District designation to continue with Project operations, as well as Level II Site Plan Review from the City Planning Board and a Special Use Permit (“SUP”) and certain area variances from the City Zoning Board of Appeals (“ZBA”). Blockfusion submitted an application dated November 2, 2022 (“Application”), together with several supplemental submissions dated December 9, 2022, March 29, 2023, and May 1, 2023, to request all approvals

required by the HEU Amendments for the Project including a rezoning of the Site to HEU Overlay from the City Council, Level 2 Site Plan Review from the City Planning Board (“Planning Board”), and an SUP and variances as needed from the ZBA, *See* City Zoning Ordinance Sections 1319.5.1(C); 1319.5.1(D); 1319.5.1(E); 1319.5.2.

On March 22, 2023 the City Council adopted a resolution (City Res. 2023-21) declaring its intent to act as Lead Agency to conduct a coordinated review of the Project pursuant to SEQRA. In July 2023 the City Council issued a positive declaration (“Positive Declaration”) for the Project, identifying noise as the single area of potential environmental impact associated with Project operations.

While the Application was pending and the SEQRA review proceeded, Blockfusion separately filed a proceeding against the City in Niagara County Supreme Court to challenge the HEU Amendments and their applicability to the pre-existing Project. Following the City Council’s decision to issue the Positive Declaration, the parties continued to negotiate resolution of the Article 78 Proceeding and worked to identify appropriate noise thresholds that would allow the Project to operate and ensure no associated noise impact to the surrounding community. Blockfusion and the City reached a settlement agreement (“Settlement Agreement”) adopted by City Council resolution on December 6, 2023.

Pursuant to the Settlement Agreement, the City Council accepted the draft scope for the DEIS prepared by Blockfusion and appended as Exhibit B to the Settlement Agreement, which thereafter became the final scope upon the passage of 60 days per 6 NYCRR 617.8(h) (the “Final Scope”). On January 15, 2025, the Project Sponsor submitted the DEIS, which was accepted by the City Council on February 5, 2025. Following the acceptance of the DEIS, the City Council

initiated a 31-day public comment period (“Public Comment Period”), which concluded on or around March 8, 2025.

During the Public Comment Period, the single Noise Comment was submitted on the DEIS, which raised general concerns about an unrelated data center elsewhere in the City and discussed the Project’s potential for noise impacts. In addition, on April 11, 2025, the City’s noise consultant, OAA, provided comments on the noise study which was included with the DEIS. Blockfusion’s noise consultant, GHD, provided responses to OAA’s comments and completed an Updated Noise Study dated May 22, 2025. OAA Provided further comments on June 11, which GHD responded to be letter dated July 9, 2025. GHD further revised the Updated Noise Study to provide additional analysis and data requested by OAA on July 17, 2025. All correspondence between OAA and GHD are included as Appendix A to the FEIS. The Updated Noise Study, which is included as Appendix B to the FEIS, contains updated data and analysis as requested by OAA, but reaches the same conclusions as the 2024 Noise Study; that the operation of the Project has no perceptible noise impacts on the nearest residentially-zoned property. No Project changes are proposed since the submission and acceptance of the DEIS.

2.3. Comments Received and Changes to DEIS

During the Public Comment Period, one comment was submitted by a City resident on the DEIS, the Noise Comment, which expressed concern about the Project’s potential for noise impacts. Responses to the Noise Comment are contained in Section 3 below.

In addition, the City’s noise consultant, OAA, provided feedback on the 2024 Noise Study via letter dated April 11, 2025 and via email on June 11, 2025. In response, GHD prepared the Updated Noise Study dated July 17, 2025 to include additional analysis and data as requested by OAA. The conclusions of the Updated Noise Study remain consistent with the conclusions of the 2024 Noise Study; that the operation of the Project has no noise impacts on the nearest

residentially-zoned property. The Updated Noise Study replaces the 2024 Noise Study in the DEIS. Correspondence from OAA as well as GHD and Blockfusion’s responses and the Updated Noise Study are included in Appendices A and B.

2.4. FEIS Consideration Period

SEQRA requires that the Lead Agency shall afford other agencies and the public a minimum of 10 days following the filing of the Notice of Completion in which to consider the FEIS before issuing its written findings statement.

2.5. Incorporation By Reference

The entirety of the DEIS, which was accepted by the City Council on February 5, 2025, is incorporated herein by reference. The DEIS provides an analysis of i) the purpose of and need for the Project; ii) reasonable alternatives to the Project; iii) the Project environmental setting; iv) the potentially significant adverse impact associated with the Project (noise); and v) pre-emptive mitigation measures for the Project (“Pre-emptive Mitigation”). The DEIS found that the multi-million dollar conversion of Blockfusion’s Facility was a massive project that employed many specialized workers and contractors and has created high-paying jobs in the community, and provided a social benefit to the community by reinvigorating a formerly abandoned space and creating modern jobs in the technology sector. The DEIS further found that the operation of the Project with the Pre-emptive Mitigation measures does not result in any noise impacts to surrounding properties, including the closest residentially zoned properties, and that operation of the Project at full capacity does not increase, and in some cases decreases, the overall measured sound levels at the points of reception, when compared to ambient conditions. As such, the DEIS found that there are no significant adverse environmental impacts that could not be avoided or mitigated.

3. Comments and Responses to Comments

This section provides a summary of and response to the Noise Comment received during the Public Comment Period. As noted above, following the acceptance of the DEIS, the City Council initiated a 31 day Public Comment Period which concluded on or around March 8, 2025. During the Public Comment Period, one comment was submitted by a City resident on the DEIS, which discussed the Project's potential for noise impacts, the Noise Comment, attached as Appendix C. A summary of the Noise Comment is provided below, as broken down by specific sub-comments, with Project Sponsor's responses.

Noise Comment Summary 1

Commenter noted they were a resident of Niagara Falls and stated they experienced mechanical grinding noise and low frequency humming and vibrating noise from the cryptocurrency mining operations within the City. Commenter noted these noises had a significant negative impact on their sleep and mood. Commenter noted that the noise could be heard within their home with the windows and doors closed, making some rooms unusable. Commenter noted that the noise is often randomly occurring, and makes their walls vibrate. Commenter noted that they had not experienced noise impacts in the prior 30 years of their residence. Commenter noted that they measured noise at times at an estimated 60-75 decibels despite not living close to cryptocurrency mining operations. Commenter noted that they have experienced noise impacts at Hyde Park Golf Course. Commenter noted they have to sleep with earplugs to block noise impacts, which is sometimes insufficient.

Noise Comment Response 1

The commenter's concerns are noted and Blockfusion understands that noise from data centers is a concern for the City and its residents. To address these concerns with respect to the Project,

the City Council issued the Positive Declaration identifying noise as the single area of potential environmental impact associated with Project operations. As stated in the Positive Declaration, the expert noise study data submitted by Blockfusion in support of the Application established that the Project does not generate a perceptible increase in noise impacts at the nearest residentially zoned district in proximity to the Site. However, because the City Council concluded that “the noise generated will be above the City of Niagara Falls noise thresholds under the High Energy Usage Overlay District zoning ordinance” the City Council issued the Positive Declaration thereby prompting Blockfusion to undergo a comprehensive analysis of the potential noise impacts to surrounding residential areas on Frontier Avenue.

As detailed in the DEIS, this FEIS and the attached Updated Noise Study, Blockfusion’s noise consultant, GHD, established the baseline 15-hour daytime, and 9-hour nighttime Leq noise levels, designed to be representative of the acoustic conditions experienced by sensitive residential points of reception in the absence of any operating noise from the Project (“Ambient Conditions”).

Following the Baseline Monitoring but prior to measurements of the Project’s operational noise impacts, two Pre-emptive Mitigation measures were implemented to ensure noise levels from the Project would remain below Ambient Conditions. The Pre-emptive Mitigation included installation of exhaust fan hoods/cones to redirect sound away from sensitive residential receptors, and installation of automatic fan speed controls on the server building exhaust fans to automatically switch “off” all fans overnight that face the neighboring R-1C Residential District to the east of the Project.

Following the installation of the Pre-Emptive Mitigation, GHD conducted operational sound level monitoring at the same sensitive residential receptors for over 24 hours of continuous

measurements during a period when the Project was operating at full capacity. These Measured Facility Noise Impacts were then compared against the Ambient Conditions to determine what impacts operation of the Project at full capacity would have on surrounding residential receptors. The results of this analysis demonstrated that operation of the Project at full capacity does not increase, and in some cases decreases, the overall measured sound levels at the nearby sensitive residential receptors when compared to Ambient Conditions. *See Updated Noise Study.*

Notwithstanding the above, this FEIS was limited solely to analysis of Blockfusion's operation of the Project, and does not apply to other data center operations which may exist in the vicinity and which may have greater impacts on nearby residential receptors than the Project.

Noise Comment Summary 2

Commenter acknowledged that Blockfusion has taken steps to reduce noise but claimed that when the Facility "fired up a few times" that the resulting noise was extremely loud near the Fashion Outlets of Niagara Falls and was characterized by mechanical grinding noise.

Noise Comment Response 2

It is possible that the commenter is referring to the other, larger Bitcoin mining facilities in the area. The Blockfusion Data Center on Frontier Avenue has been operating pursuant to and consistent with the Settlement Agreement 24 hours per day, 7 days a week, 365 days a year since 2020. The only time that the Facility ceased operation was in May of 2022 when an aging electric transformer owned by National Grid and located near to the Project experienced a failure due to reasons unrelated to the Project. Due to the failure of the electric transformer, power was not restored to the Project for approximately four months, during which time the Project was not operational. More recently, the Facility had to shut down to allow National Grid to work on the

electric transformers serving the Project, and it was during this shutdown that ambient readings were taken to establish baseline ambient conditions without the Facility operating. Additionally, the Project does not involve mechanical operations aside from the operation of cooling fans, which do not propagate grinding noises. Furthermore, as discussed above, the Updated Noise Study indicates that the Project does not increase overall measured sound levels at nearby sensitive residential receptors when compared to Ambient Conditions, and therefore does not likely increase sound levels at the Fashion Outlets of Niagara Falls, located much farther away.

Noise Comment Summary 3

Commenter asserted that the Facility emits “a low frequency humming noise” which is difficult to abate. Commenter notes that while low frequency noise is bothersome and the source of complaints, it is not well reflected in A-weighted measurements which attenuate for low frequency noise. Commenter claims that community regulations do not account for low frequency noise, which can cause impacts even where a noise is below a regulated decibel limit. Commenter further notes that low frequency noise can penetrate walls and can be heard farther and often more at night time.

Noise Comment Response 3

As discussed in the Updated Noise Study, the octave band data derived from at-source measurements of the Facility’s exhaust fans demonstrates that sound produced by the Facility is relatively broadband in character with no discernable spikes in the low or high frequency range. Therefore, given the broadband nature of the noise produced by the Facility, the A-weighted analysis is appropriate. Furthermore, as part of the Pre-emptive Mitigation, all eastward facing fans (facing residential receptors) are shut off during night-time hours, further

mitigating any potential impacts from noise, low frequency or otherwise. Accordingly, the octave band data for the Facility demonstrates there are no discernable impacts from low-frequency noise which have not been analyzed and appropriately mitigated.

Noise Comment Summary 4

Commenter expressed concern for lack of sleep due to exposure to low frequency noise, noting the lack of human studies but citing studies done on mice and requesting consideration that nearby residents may suffer from health impacts due to low frequency noise from the Facility.

Noise Comment Response 4

See response to Noise Comment Summary 1 and 3 above. Blockfusion acknowledges the commenter's concerns regarding sleep impacts on nearby residential receptors. While the 2024 Noise Study indicated that the Project did not have noise impacts to nearby residential receptors, Blockfusion elected to undertake voluntary Pre-emptive Mitigation measures to further reduce Project noise impacts specifically during nighttime hours. The Updated Noise Study confirms that the Project, operating at full capacity-subject to the Pre-emptive Mitigation, does not increase, and in some cases decreases, the overall measured sound levels at the nearby sensitive residential receptors when compared to Ambient Conditions, day time and nighttime.

Furthermore, as explained in Noise Comment Response 3 above, the Facility does not produce dominant low frequency noise.

Noise Comment Summary 5

Commenter expressed concern that residents near the Facility are facing health risks from the neighboring Goodyear tire plant. Commenter questioned the efficacy of the 2024 Noise Study,

claiming it was conducted in the winter for “only a short period of time.” Commenter questioned whether noise impacts would increase with the warmer weather of spring. Commenter noted that their home was being inundated with mechanical grinding noise with the coming of warmer weather. Commenter expressed skepticism with regard to the efficacy of proposed mitigation for the Project.

Noise Comment Response 5

By way of clarification, as noted in Noise Comment Response 2 above, the Facility has been running continuously since 2022 (after starting back up after the National Grid transformer issues), during all times of year. Further, as noted in Noise Comment Response 1, the Updated Noise Study conclusively establishes that the that the Facility, when operating at full capacity, does not increase overall measured sound levels at nearby sensitive residential receptors when compared to Ambient Conditions (day and nighttime). Furthermore as explained in Noise Comment Response 2 & 3, the Facility does not produce mechanical grinding noises or noise impacts from low frequency hums.

Noise Comment Summary 6

Commenter provided information regarding the noise abatement program called “Quieter Home” which, commenter noted, was implemented to mitigate noise in homes in the vicinity of the Buffalo Airport. Commenter questioned whether cryptocurrency mining operations in the City should be required to participate in a similar program as Quieter Home, to provide sound mitigation updates to neighboring residences to mitigate noise impacts.

Noise Comment Response 6

Commenter's sharing of this information is acknowledged and appreciated. As noted in Noise Comment Response 1, the Updated Noise Study conclusively establishes that the Facility, when operating at full capacity, does not increase overall measured sound levels at nearby sensitive residential receptors when compared to Ambient Conditions (day and nighttime). Therefore, the necessity of further noise mitigation is not warranted at this time with regards to noise impacts from the Project. Notwithstanding, this conclusion is limited solely to the impacts associated with the Project and does not apply to other data center operations which may exist in the vicinity and which may have greater impacts on nearby residential receptors than the Project.

4. Changes to the DEIS

As noted above, the only change to the DEIS is to replace the 2024 Noise Study with the Updated Noise Study, which incorporates input from the City's consultant, OAA, and reaches the same conclusion as the 2024 Noise Study; that the operation of the Project has no perceptible noise impacts on the nearest residentially-zoned property.

Doc #12576118.1

Appendix A:

OAA AND Blockfusion/GHD Correspondence



1460 US Highway 9 North Suite 200
Woodbridge, NJ 07095
Voice 973-731-7002
Fax 973-731-6680
acousticalconsultant.com

VIA EMAIL ONLY thomas.deboy@niagarafallsny.gov

11 April 2025

City Council Members
c/o Thomas DeBoy, Esquire
Acting Corporation Counsel
Niagara Falls City Hall
745 Main Street
Niagara Falls, NY 14301

Cc: Mr. Kevin Forma, Director of Planning and Environmental, kevin.forma@niagarafallsny.gov

Re: Review of Draft Environmental Impact Statement - Acoustics
North East Data LLC d/b/a Blockfusion USA, Inc
5380 Frontier Avenue, Niagara Falls, New York
OAA File 4910A

Dear City Council Members:

As requested, Ostergaard Acoustical Associates (OAA) has reviewed acoustical aspects of the above referenced application. OAA has based our review on the following information provided by the City:

- A sound study carried out by the applicant's acoustical consultant, GHD Limited (GHD) dated 31 October 2022 and follow up comment and response letter dated 9 December 2022.
- The Draft Environmental Impact Statement (DEIS) for Data Center Project at 5380 Frontier Avenue, City of Niagara Falls, New York, 14304. This report includes an updated GHD report dated 14 January 2025.
- A site visit and inspection carried out by OAA and Mr. Forma, in coordination with Blockfusion representatives, on 19 March 2025.

As the City is aware, this project involves the transformation of a decommissioned coal-fired power plant into a data center facility. Noise produced by this type of operation is primarily comprised of cooling fans to shed heat generated by data servers. These fans are found in the roof and façade of the data center building as well as along the western portion of the site in the form of twenty-six operation "pods".

The site is located within the I-2, Industrial, district. Because of the project use, it is required to be part of the High Energy Usage Overlay District. North, west and south of the site are other established industrial facilities including a Goodyear manufacturing facility immediately to the north. East of the site is 56th Street which accommodates single-family residences along the corridor. Houses on the west

side of 56th Street are within the I-2 district while those on along the east side are in the R1-C, Residential, district. Of most acoustical interest are the residential receptors in the vicinity, although it is important to note that non-conforming residences within the industrial district are not afforded the same regulations as those within residential districts.

State and local noise codes regulate sound emissions from this site. The City of Niagara Falls primarily discusses noise under Chapter 712: *Noise*, which prohibits creation of excessive and unnecessary loud noises with city limits. Noise limits are provided in octave frequency bands depending on the receiving zoning district. Overall, site sound emissions are limited at residential districts to 55 dB(A) during the daytime hours of 0700 to 2200 hours from Monday through Saturday, and 48 dB(A) during the corresponding nighttime hours as well as at any time on Sunday or Holiday. For industrial receptors, limits are 67 dB(A) during the day and 60 dB(A) during the night. The High Energy Usage District applies further restrictions by requiring uses to not exceed 50 dB(A) at residential districts during the daytime hours, and 40 dB(A) during the nighttime hours. A limit of 65 dB(A) is applied at industrial receptors for these uses. Note that the High Energy Usage District ordinance does not have associated octave band frequency limits.

While there are no New York State noise code limits that apply to site sound emissions, the Department of Environmental Conservation (DEC) has a policy, “Assessing and Mitigating Noise Impacts”, that provides guidance for analyzing and minimizing the acoustical impact applicable to the State Environmental Quality Review Act (SEQR) review. Guidelines require comparison of the equivalent (average) ambient sound level to proposed site sound emissions to determine the extent of any potential acoustical impact, if any. Local noise codes take precedent from a legal aspect however it is always recommended that DEC guidelines should be heavily considered especially in instances where DEC project goals may be more stringent than local noise code limits.

In summary, because the data center is anticipated to operate at all hours, the site is required not to exceed 40 dB(A) at residential districts east of the site. For the non-conforming residential uses to the east, the most stringent code limit would be 60 dB(A) from Chapter 712.

Based on OAA’s review of the information discussed above, we have the following comments and findings (recommendations for the Council to consider are **bold**):

- ❑ A review of all reports shows some discrepancy regarding the number of outdoor pods. In the 2022 GHD report and the 2025 GHD report aerial photos there are 10 pods shown whereas the Exhibit D in the DEIS shows twenty-six pods. The elevation table at the top of Exhibit D

only references eighteen pods. **The applicant and their consultant should clarify and enumerate the major sources of noise associated with the project as of today.**

- ❑ The 2022 and 2025 GHD reports both documented ambient sound levels in the neighborhood during a period when Blockfusion was not operating. There is general agreement between these two studies as both highlight that the lowest hourly average sound level (L_{eq}) was about 53/54 dB(A).
- ❑ The 2025 GHD report concludes that Blockfusion is not contributing to the off-site acoustical environment by comparing data with the facility operating and not operating, citing that the change in sound level is zero. **OAA requests that GHD provide the complete time history of both 2025 surveys, including spectrum data, to understand how sound in the area varies over time.**
- ❑ The 2025 GHD methodology of comparing on and off survey data is generally acceptable. However, both the 2022 and 2025 GHD reports reference acoustical modelling, but model results are not shown. Acoustical modelling is a preferred technique to allow conclusions to be drawn at receptor locations other than sound survey locations. **OAA requests that GHD update the acoustical model for all accounted noise sources, and their referenced mitigation measures, and provide site sound emission results to identify what the contribution of the site is to support their conclusion.**
- ❑ Three mitigation measures are discussed in the 2025 GHD report.
 - Exhaust fan hoods were installed to direct sound to the ground, away from eastern receptors. Based on observations during the site visit, these hoods did not disrupt line-of-site to exhaust fans when standing on 56th Street indicating that they likely provide little-to-no noise mitigation. It may be more prudent to use acoustical silencers here rather than 45 degree hoods. **Blockfusion and GHD should provide additional information about these hoods including the material and cross section showing how sound is redirected by this feature. OAA requests that acoustical models be provided showing conditions with and without hoods to understand their role in site sound mitigation.**
 - OAA finds that the administrative measure of limiting fan speed and/or turning fans off during the nighttime hours can substantially reduce site sound emissions. **OAA**

requests that GHD provide acoustical modelling results for these two scenarios to understand their potential benefit in minimizing site sound emissions.

- o GHD opines that if Blockfusion sound emissions are at least 10 dB below prevailing ambient sound levels, that the site is essentially inaudible. OAA agrees with this. Based on GHD ambient data showing the lowest average sound level of 54 dB(A), Blockfusion emissions of 44 dB(A) or lower would align with this statement. The information requested above will allow OAA to confirm this.

In summary, Blockfusion and GHD make a case that if site sound emissions are 44 dB(A) or below, they have satisfied City requirements. While emissions of 44 dB(A) exceed the High Energy Usage Overlay District night code limit of 40 dB(A) by 4 dB, it is lower than the general City noise code by 4 dB. Should Blockfusion be able to confirm that their site emissions are 44 dB(A) or below at all residential receptors within the residential district, OAA agrees that Blockfusion site sound emissions would generally be inaudible, or at most difficult to discern at off-site residential vantage points. If this is supported with modelling and survey data, the Council could accept this effort as meeting the intent of the High Energy Usage Overlay District noise standards, as the site would not have any negative acoustical impact on any residential district receptors. It is our belief that the non-conforming residential uses in the I-2 district would still benefit from these efforts and allow the conclusion that these receptors are also not negatively impacted, despite having more stringent acoustical limits.

It should go without stating but should Blockfusion add additional equipment in the future, it would be prudent to update acoustical models and sound study to ensure that such additions do not negatively affect residences in the vicinity.

I trust that the above is useful and look forward to answering any questions you may have.

Sincerely,

OSTERGAARD ACOUSTICAL ASSOCIATES



Benjamin C. Mueller, P.E., Principal
bmueller@acousticalconsultant.com

BCM:amc



Phillips Lytle LLP

Kevin Forma
Director of Planning
745 Main Street
Niagara Falls, New York 14301

May 22, 2025

Re: North East Data, LLC - Draft Environmental Impact Statement for Data Center
Project at 5380 Frontier Avenue, City of Niagara Falls, New York, 14304

Dear Director Forma:

As you know, we represent Blockfusion USA, Inc. and its wholly-owned subsidiary, North East Data LLC (together, "**Blockfusion**" or "**Applicant**") in connection with its applications: (i) to the City of Niagara Falls City Council ("**City Council**") for Rezoning ("**Rezoning**") to High Energy Usage Overlay District ("**HEU Overlay**"); (ii) to the City of Niagara Falls Planning Board ("**Planning Board**") for Site Plan Approval; and, (iii) to the City of Niagara Falls Zoning Board of Appeals ("**ZBA**") for a Special Use Permit ("**SUP**") and necessary area variances (the "**Application**") to facilitate the operation of Blockfusion's data center facility ("**Project**" or "**Facility**") located at 5380 Frontier Avenue ("**Site**") in the City of Niagara Falls ("**City**").

As you also know, on behalf of Blockfusion, GHD Limited ("**GHD**") prepared a Noise Impact Study ("**Study**"), dated January 14, 2025, submitted to the City as part of the Draft Environmental Impact Statement (as Exhibit E) as filed by Blockfusion with the City Council on January 15, 2025 pursuant to the State Environmental Quality Review Act ("**SEQRA**"). The City Council accepted the DEIS as complete on February 5, 2025.

On behalf of the City Council as Lead Agency, Ostergaard Acoustical Associates ("**OAA**") reviewed GHD's Study, conducted a Site visit for field observations, and issued a comment letter dated April 11, 2025 (the "**OAA Comments**"). On April 29, 2025, representatives from the City, OAA, Blockfusion, and GHD had the opportunity to meet via WebEx to discuss the OAA Comments and GHD's preliminary responses and proposed methods to provide responsive material and data to address the OAA Comments. Consistent with that discussion, please find enclosed as **Exhibit A** a copy of GHD's letter responses to the OAA Comments, and attached as **Exhibit B** is a Revised

ATTORNEYS AT LAW

ADAM S. WALTERS PARTNER DIRECT 716 847 7023 AWALTERS@PHILLIPSLYTTLE.COM



Study updated by GHD to include additional data and modelling results as requested by the OAA Comments. The DEIS and the enclosures attached hereto comprehensively evaluate noise from the Project and establish that the Project has no noise impacts on the nearest residentially zoned property.

We understand that GHD's letter responses and the Revised Study will be provided to OAA to confirm that the OAA Comments have been addressed. Once OAA confirms the same, the Final Environmental Impact Statement with GHD's letter responses and the Revised Study will be submitted by Blockfusion for the City Council's review and acceptance.

We appreciate that the Planning Board conducted a public hearing on the Application on April 16, 2025. At that meeting, the Planning Board tabled its recommendation on the Application until GHD had an opportunity to respond to the OAA Comments. Assuming that OAA is able to confirm that the OAA Comments have been addressed, we respectfully request the opportunity to appear before the Planning Board at its May 28, 2025 meeting for the issuance of the required recommendation on the Application. Please do not hesitate to reach out if we can provide any further information in support of the Project.

Very truly yours,

Phillips Lytle LLP

By *Adam S. Walters* /s/

Adam S. Walters

ASW

cc: Tom Deboy, Esq. City of Niagara Falls, Corporation Counsel
Daniel Spitzer, Esq. Hodgson Russ LLP, as Counsel to City of Niagara Falls
Benjamin Mueller, P.E., Principal, Ostergaard Acoustical Associates

Exhibit A

Our ref: 12589970-LTR-3

22 May 2025

Ms. Lauren Adornetto
North East Data LLC
c/o Phillips Lytle LLP
125 Main Street
Buffalo, New York
14023-2887

**Response to Review of Draft Environmental Impact Statement - Acoustics
Noise Impact Study – January 14, 2025**

Dear Ms. Adornetto

1. Introduction

GHD Limited (GHD) had prepared a Noise Impact Study (Study), dated January 14, 2025, on behalf of North East Data LLC (North East Data) for the Blockfusion facility (Facility) located at 5380 Frontier Avenue, Niagara Falls, New York (Site).

Ostergaard Acoustical Associates (OAA) has reviewed GHD's Study on behalf of the Lead Agency, the City Council of the City of Niagara Falls, NY ("City"), and has provided comments in the Review of Draft Environmental Impact Statement – Acoustics letter dated April 11, 2025 ("OAA Comments"). On April 29, 2025, representatives from the City, OAA, Blockfusion, and GHD had the opportunity to meet via WebEx and discuss the OAA Comments and GHD's preliminary responses and proposed methods to provide responsive material and data to address the OAA Comments. Consistent with that discussion, please find below GHD's responses to the OAA Comments, which are submitted on behalf of North East Data

In conjunction with these responses, GHD submits an updated copy of the Study ("Revised Study") that incorporates and reflects changes made and additional information added to the Revised Study in response to the OAA Comments.

2. Review Comments

OAA Comments are listed below (bolded and italicized), with GHD's response following each comment.

2.1 Comment Responses

OAA Comment No. 1:

"The applicant and their consultant should clarify and enumerate the major sources of noise associated with the project as of today".

Response: GHD has included Table B.1 in Attachment B of the Revised Study which includes all modelled sound levels and Figure 3 indicating all noise source locations. The updated modelling is inclusive of all PODs now operating on site, which consists of PODS 1 and 2 in refurbished portions of the former industrial buildings and Ground Unit PODs 1 through 26 all as depicted in Figure 3 (expanded to include 16 additional Ground Unit PODs than GHD had previously modeled for a 2022 Noise Impact Study dated October 31 2022 and as supplemented December 9, 2022). GHD clarifies that the Study as prepared and submitted January 14, 2025 and the Revised Study provide monitoring results and analysis inclusive of all operational PODs on Site as depicted in Figure 3 to the Revised Study, and that the sources depicted there and evaluated in the Study are the major noise sources associated with the Facility. The OAA Comments reference a discrepancy in the POD numbers as presented in the elevation table at the top of Exhibit D, which refers to the Site Plan that is attached as Exhibit D to the Draft Environmental Impact Statement. Accordingly, NED has advised that it will provide clarifying revisions to the Exhibit D Site Plan in the forthcoming Final Environmental Impact Statement to enumerate noise sources consistent with Figure 3 to the Revised Study.

OAA Comment No. 2:

“OAA requests that GHD provide the complete time history of both 2024 surveys, including spectrum data, to understand how sound in the area varies over time.”

Response: GHD has included full time trace graphs in the Revised Study for both monitoring locations during both monitoring campaigns which are inclusive of continuous 1-minute Leq data. 1/1 octave band data for each hour at each location has also been included in tabular format to showcase the sound characteristics of both the ambient and operational measurements. All time traces and octave band data can be found in Attachment A of the updated Study.

OAA Comment No. 3:

“OAA requests that GHD update the acoustical model for all accounted noise sources, and their referenced mitigation measures, and provide site sound emission results to identify what the contribution of the site is to support their conclusion.”

Response: GHD has included Table B.2 - Acoustic Assessment Summary in the Revised Study which details off-site noise impacts from the Facility predicted by the updated modelling. Table B.2 shows the impacts both with and without the prescribed mitigation measures so as to properly quantify the effects of the mitigation.

GHD notes that while the operational monitoring measurements indicate that the Facility's impacts are 10 dBA or more under ambient (on account of the fact that operations do not raise the overall surrounding area sound levels), the modelling shows a Facility impact closer to ~8 dBA under ambient. This very small difference of approximately 2 dBA is due to the relatively conservative nature of the modelling parameters (order of reflections, building reflections, ground absorption effects, assumed full operating times of fans.). We believe this discrepancy between modelled and measured impacts is essentially insignificant and that the Facility has had noise mitigation installed to the maximum extent practicable as the Study's monitoring campaigns demonstrate that Facility operations do not result in any appreciable increase to the existing ambient noise levels at the LTM locations at the nearest residential zoning district boundary.

OAA Comment No. 4:

“Blockfusion and GHD should provide additional information about these hoods including the material and cross section showing how sound is redirected by this feature. OAA requests that acoustical models be provided showing conditions with and without hoods to understand their role in site sound mitigation.”

Response: Shop drawings as provided to NED from the hood manufacturer are included as Attachment C to the Revised Study showing dimensions of the installed 90-degree fiberglass cone hoods. The acoustic modelling results provided in Attachment B account for the effects of these hoods by applying a directivity correction to the

relevant exhaust fan point sources redirecting the sound propagation downwards. As indicated in Table B.2, the modelling indicates a Facility impact of approximately 8 dBA under ambient due to the relatively conservative nature of the modelling parameters. The Study demonstrates the Facility impacts are closer to 10 dBA under ambient because the Measured Facility Impacts were found not to cause any perceptible increase over Ambient Conditions at the residential district boundary.

OAA Comment No. 5:

“OAA requests that GHD provide acoustical modelling results for these two scenarios [east facing fans on and off] to understand their potential benefit in minimizing site sound emissions.”

Response: GHD has included Table B.2- Acoustic Assessment Summary in the Revised Study demonstrating off-site impacts of the Facility predicted by the updated modelling. Table B.2 shows the impacts both with and without the prescribed mitigation measures (both fan hoods and administrative controls on nighttime fan speed) so as to properly quantify the effects of the mitigation.

We trust that the responses contained herein along with the updated Study and relevant information are sufficient to address all comments in the Review of Draft Environmental Impact Statement – Acoustics letter dated April 11, 2025.

Should you have any questions on the above, please do not hesitate to contact us.

Regards,



Sam East
Vibrations and Acoustics Professional
+1 519 340-4426
Samuel.East@ghd.com



Mike Masschaele, BES LEL
GHD North America Air & Noise Service Line Leader
+1 519 340-3818
Mike.Masschaele@ghd.com

Encl.

Copy to: Adam Walters, Phillips Lytle LLP

From: Kevin Forma <kevin.forma@niagarafallsny.gov>
Sent: Wednesday, June 11, 2025 4:06:10 PM
To: Lauren Adornetto <ladornetto@phillipslytle.com>
Cc: Spitzer, Daniel A. <DSpitzer@hodgsonruss.com>
Subject: Fw: Blockfusion- GHD Responses to OAA Comments

External Email - Use Caution

Hi Lauren,

Below are the initial informal comments we received in response to GHD's reply. Ben is working on some formal responses and I'm looking to provide some dates for us, GHD, and Ostergaard to get together to discuss these in more detail.

Kevin

OAA comment 1 asked to ensure all models included all sources. It seems they have agreed to clarify this and that most of their last report did account for all current sources.

OAA comment 2 asked for time history data for the on and off surveys. They took data in 1 minute averages, which is not as fine a resolution as I would normally like to see, but overall acceptable. You can see how dynamic the sound in the area is by how much the time history plots vary (See their Attachment A pg 18 of 31). Even during the night lulls are in the low 50's with occasional intermittent sound (assumed from traffic passbys) regularly raise levels up to 65 dBA even during the night. While I do not contest this, I find it unacceptable to be calculating day and night averages across a multiple hour period. These calculations allow transient sources to "bump" up presented results which is not accurate. Their analysis should be based on the L90 statistic, which is the sound that occurs for 90% of the time and represents the background sound in an area. This metric is appropriate as their site produces steady sound around the clock.

Comment 2 also requested octave band frequency data, which tells us more information about possible tones. They provided this as hourly average data in Attachment B, which again was not the appropriate statistic to evaluate steady sounds. Even so, I looked at before and after results during some of the quiet hours between 0000 and 0400 hours. While the overall sound level presented in their report remains unchanged, when looking at frequencies we see that sound levels in the 500, 1000, and 2000, Hz octave bands increased by 4 to 9 dB. This change is particularly noticed in the 2000 Hz octave band which is likely associated with fan noise. My analysis does not support that their site blends in with other sound in the area. We would request they either provide the spectrum data for the modelled sources or perhaps repeat the post survey to show that these frequencies are not specific to their site.

Comment 3 requested that they provide model results showing the site sound emissions they calculated with and without the proposed mitigation measures. These are provided in Attachment B. Model results show that the proposed hoods reduce sound levels by 1 to 3 dB and average, which is not a noticeable noise reduction. The data show that at Location LTM1 emissions are expected to be around 50 dBA whereas LTM2 which is further south will be around 46 dBA. The sound emissions analysis I carried out above came in 3 dB higher for LTM1 and 9 dB higher for LTM2.

Comment 4 had them provide additional information about the hood, which they provided a detail drawing. In my opinion it is not 90 degrees as named, which also explains why so little noise reduction occurs from this effort.

Comment 5 asked for a model scenario with turning east fans OFF. They did not provide data for this scenario.

Benjamin Mueller, P.E.

Principal

Ostergaard Acoustical Associates

1460 Route 9N Ste 209 Woodbridge NJ 07095

bmuller@acousticalconsultant.com

973-731-7002

Our ref: 12589970-LTR-4

08 July 2025

Mr. Adam Walters, Esq.
North East Data LLC
c/o Phillips Lytle LLP
125 Main Street
Buffalo, New York
14023-2887

**Responses to June 11 Additional Comments from OAA: Review of Draft Environmental Impact Statement – Acoustics
Noise Impact Study – January 14, 2025**

Dear Mr. Walters

1. Introduction

GHD Limited (GHD) prepared a Noise Impact Study (Study), dated January 14, 2025, on behalf of North East Data LLC (North East Data) for the Blockfusion facility (Facility) located at 5380 Frontier Avenue, Niagara Falls, New York (Site). The Study was prepared in accordance with the final (“Final Scope”) issued by the City outlining the requirements of the environmental impact statement (“EIS”) pursuant to the City’s review of the Facility under the State Environmental Quality Review Act (“SEQRA”).

Ostergaard Acoustical Associates (OAA) has reviewed GHD’s Study on behalf of the Lead Agency, the City Council of the City of Niagara Falls, NY (“City”), and has provided comments by letter dated April 11, 2025 (“OAA Comments”). On April 29, 2025, representatives from the City, OAA, Blockfusion, and GHD had the opportunity to meet via WebEx and discuss the OAA Comments and GHD’s preliminary responses and proposed methods to provide responsive material and data to address the OAA Comments.

Responses to the OAA Comments along with a revised Study was submitted to the City on May 22, 2025. On June 11, 2025, GHD received additional comments (“OAA Additional Comments”) from OAA requesting additional clarification on GHD’s revised Study. On June 20, 2025 a second call via WebEx was held with City representatives and OAA to discuss the OAA Additional Comments and GHD’s preliminary responses and proposed methods to provide responsive material and data to address the OAA Additional Comments. Based on that call, GHD responds to each of the OAA Additional Comments as follows:

2. Review Comments

OAA Additional Comments are listed below (bolded and italicized), with GHD’s response following each comment.

2.1 Comment Responses

OAA Additional Comment No. 1:

“OAA comment 1 asked to ensure all models included all sources. It seems they have agreed to clarify this and that most of their last report did account for all current sources.”

Response: GHD has no further input on this comment as there is agreement with OAA that all modelling source location and sound level data has been provided. All sources on site have been included in the modelling.

OAA Additional Comment No. 2:

“OAA comment 2 asked for time history data for the on and off surveys. They took data in 1 minute averages, which is not as fine a resolution as I would normally like to see, but overall acceptable. You can see how dynamic the sound in the area is by how much the time history plots vary (See their Attachment A pg 18 of 31). Even during the night lulls are in the low 50’s with occasional intermittent sound (assumed from traffic passbys) regularly raise levels up to 65 dBA even during the night. While I do not contest this, I find it unacceptable to be calculating day and night averages across a multiple hour period. These calculations allow transient sources to “bump” up presented results which is not accurate. Their analysis should be based on the L90 statistic, which is the sound that occurs for 90% of the time and represents the background sound in an area. This metric is appropriate as their site produces steady sound around the clock.”

Response: GHD understands OAA’s perspective on the use of L90 versus Leq. However, given that this is an urban environment and that traffic passbys occur regularly throughout the night (as opposed to a rural setting with very limited nighttime traffic passbys), GHD believes that the 15-hour and 9-hour Leq measurements provided in the Study is the more appropriate methodology to establish ambient noise levels at this particular location. In fact, GHD strongly maintains that the L90 evaluation is a less technically accurate metric for quantifying the existing baseline conditions in this instance. As the transient traffic noise on 56th Street and other surrounding roadways is a core part of the existing conditions during both day and nighttime hours, artificially removing nearly all traffic noise (as the L90 metric does) underestimates baseline noise conditions in this area. Existing baseline conditions are comprised of both steady state noise (Covanta, Goodyear, other surrounding industry, etc.) sources and transient (roadway) sources. The Leq metric captures both of these source types (industry and traffic) and therefore provides a more holistic and accurate representation of the actual existing baseline conditions compared to the L90 metric which only accounts for the steady state component. GHD also notes that the LTM1 and LTM2 monitoring locations were chosen to have setback distances from 56th Street which are representative of the setback distances of the nearest houses/residents so that traffic noise measured would be representative of what is actually experienced at the houses along 56th Street.

Notwithstanding, per OAA’s request, GHD will incorporate the 15-hour and 9-hour L90 levels into the revised Study and, as discuss with OAA on the June 20th call, this data will be presented alongside the 15-hour and 9-hour Leq levels previously presented. The Leq and L90 data to be included in the revised Study are summarized below:

Leq results:

Measurement Location	Ambient Conditions – No Blockfusion (February 2024)		Operational Conditions – Post Noise Mitigation (November 2024)		Difference Between Ambient and Operational Measurements
	Daytime (15-hour Leq)	Nighttime (9-hour Leq)	Daytime (15-hour Leq)	Nighttime (9-hour Leq)	
	(dBA)	(dBA)	(dBA)	(dBA)	+/-
LTM1- 56 th Street & Devlin Intersection	67	58	67	58	0 / 0
LTM2 – 246 56 th Street (100' setback)	61	54	60	54	-1 / 0

L90 results:

Measurement Location	Ambient Conditions – No Blockfusion (February 2024)		Operational Conditions – Post Noise Mitigation (November 2024)		Difference Between Ambient and Operational Measurements
	Daytime (15-hour L90)	Nighttime (9-hour L90)	Daytime (15-hour L90)	Nighttime (9-hour L90)	
	(dBA)	(dBA)	(dBA)	(dBA)	+/-
LTM1- 56 th Street & Devlin Intersection	58	53	60	53	+2 / 0
LTM2 – 246 56 th Street (100' setback)	55	51	57	53	+2 / +2

As can be seen from the above data, utilizing L90 to establish background noise levels filters out episodic noise events such as passby traffic and other episodic noise sources common in an urban residential neighborhoods. As a result of this artificially low background level, the L90 metric shows a slight increase of approximately +2 dBA between baseline and operational measurements. While GHDs objections to the use of the L90 metric is noted above, it should also be noted that even utilizing L90, there is only a very minor increase above background and a +2 dBA change in noise exposure is widely accepted to not be significantly perceptible to most individuals. In fact, per NYSDEC Guidance on Assessing and Mitigating Noise Impacts, “increases ranging from 0-3 dB should have no appreciable effect on receptors.” The Final Scope provides that the EIS should evaluate noise impacts pursuant to the NYSDEC Noise Guidance. Accordingly, even utilizing L90 to establish background, the Facility’s operations have no appreciable noise impact on the surrounding community.

OAA Additional Comment No. 3:

“ Comment 2 also requested octave band frequency data, which tells us more information about possible tones. They provided this as hourly average data in Attachment B, which again was not the appropriate statistic to evaluate steady sounds. Even so, I looked at before and after results during some of the quiet hours between 0000 and 0400 hours. While the overall sound level presented in their report remains unchanged, when looking at frequencies we see that sound levels in the 500, 1000, and 2000, Hz octave bands increased by 4 to 9 dB. This change is particularly noticed in the 2000 Hz octave band which is likely associated with fan noise. My analysis does not support that their site blends in with other sound in the area. We would request they either provide the spectrum data for the modelled sources or perhaps repeat the post survey to show that these frequencies are not specific to their site.”

Response: GHD believes that this comment is premised on an inaccurate presumption that the identified change in the 2000 Hz octave band is associated with fan noise. At source measurement data of the on-site

exhaust fans and intakes shows relatively broadband sound levels across all mid-frequency octaves. There is no discernible spike in the 2000 Hz band which could be the cause of the discrepancy between baseline and operational measurements identified by OAA. While GHD cannot definitively say what the cause of this 2000 Hz specific discrepancy is, it can be confidentially asserted, based on this at-source sound level data, that it is not driven by on-site sources including fans. It should also be noted that this comment selectively makes reference to the worst-case/quietest time window of 00:00 to 04:00 early morning hours while the overall nighttime period is defined by a longer 9-hour time window from 22:00 to 07:00. More importantly, as part of the mitigation plan introduced by Blockfusion, all eastward facing exhaust fans are turned off during nighttime hours. Nonetheless, GHD will update the revised Study to be inclusive of an additional attachment Table showing the octave band spectrum of each source modelled on Site.

Table 1 At-Source Exhaust Fan Measured Sound Level Data (1 m from source)

Octave Band (Hz)	31.5	63	125	250	500	1000	2000	4000	8000
Sound Pressure Level (dB)	88.2	82.8	83.8	85.8	86.5	85.7	77.7	72.5	65.7
A-Weighted Sound Pressure Level (dBA)	48.8	56.6	67.7	77.2	83.3	85.7	78.9	73.5	64.6

Table 2 At-Source Intake Measured Sound Level Data (1.4 m from source)

Octave Band (Hz)	31.5	63	125	250	500	1000	2000	4000	8000
Sound Pressure Level (dB)	82.5	73.8	79.7	80.5	78.1	75.8	74.5	69.6	58.3
A-Weighted Sound Pressure Level (dBA)	43.1	47.6	63.6	71.9	74.9	75.8	75.7	70.6	57.2

OAA Additional Comment No. 4:

“Comment 3 requested that they provide model results showing the site sound emissions they calculated with and without the proposed mitigation measures. These are provided in Attachment B. Model results show that the proposed hoods reduce sound levels by 1 to 3 dB and average, which is not a noticeable noise reduction. The data show that at Location LTM1 emissions are expected to be around 50 dBA whereas LTM2 which is further south will be around 46 dBA. The sound emissions analysis I carried out above came in 3 dB higher for LTM1 and 9 dB higher for LTM2.”

Response: This comment was not discussed in detail during the June 20 Meeting between the City, OAA, GHD and Phillips Lytle. Overall, it is believed this is not a major point of contention as discussion was largely focused on the other comments. GHD notes some potential confusion with the last sentence of this comment which seems to imply that OAA is evaluating Facility impacts to be 53 dBA (50 + 3) at LTM1 and 55 dBA (46 + 9) at LTM2. GHD confirms that LTM2 is located further away from the Facility than LTM1 and logically would have lower impacts, not higher. In addition, as discussed during the June 20 Meeting, the greatest mitigation impact was intended to be provided by the nighttime automatic shut-off of the east facing cooling fans, in conjunction with the proposed fan hoods. The use of both mitigation measures in concert provides demonstrably significant noise reductions as established in the Study.

OAA Additional Comment No. 5:

“Comment 4 had them provide additional information about the hood, which they provided a detail drawing. In my opinion it is not 90 degrees as named, which also explains why so little noise reduction occurs from this effort.”

Response: As discussed on our call, GHD has provided a labelled detailed drawing provided directly from the manufacturer showing hoods, which establish that the hood angles are approximately 90 degrees. This drawing will be included in the revised Study.

OAA Additional Comment No. 5:

“Comment 5 asked for a model scenario with turning east fans OFF. They did not provide data for this scenario.”

Response: GHD believes this comment is likely the result of some minor confusion about the nature of the mitigation undertaken by Blockfusion. The mitigated scenario results provided in GHDs Noise Impact Study are inclusive of both the installed hoods and the eastern facing exhaust fans being turned off during nighttime hours. These were the two mitigation measures employed by Blockfusion to further reduce the Facility’s noise emissions.

3. Conclusion

If the above satisfactorily address the OAA Additional Comments, please advise and GHD will prepare an updated copy of the Study (“Revised Study”) that incorporates and reflects changes made and additional information added to the Revised Study in response to the OAA Additional Comments.

Regards,



Sam East
Vibrations and Acoustics Professional
+1 519 340-4426
Samuel.East@ghd.com



Mike Masschaele, BES LEL
GHD North America Air & Noise Service Line Leader
+1 519 340-3818
Mike.Masschaele@ghd.com

Encl.

Copy to: Adam Herron, Esq., Phillips Lytle LLP

Appendix B:
Updated Noise Study

Our ref: 12589970-LTR-3

Privileged and Confidential

17 July 2025

Mr. Adam Walters, Esq.
North East Data LLC
c/o Phillips Lytle LLP
125 Main Street
Buffalo, New York
14023-2887

GHD Noise Impact Study – North East Data Facility
5380 Frontier Avenue, Niagara Falls, New York, USA

Dear Mr. Walters

1. Introduction

GHD Limited (GHD) completed an updated Noise Impact Study (Study) for North East Data LLC (North East Data) for the Blockfusion facility (Facility) located at 5380 Frontier Avenue, Niagara Falls, New York (Site). On July 26, 2023 the City of Niagara Falls' (City) issued a positive declaration (Positive Declaration) pursuant to the State Environmental Quality Review Act (SEQRA), with regards to North East Data's application for a High Energy Overlay District. The Study was completed in accordance with, and fully satisfies, the requirements for the Study laid out in the Final Scope issued by the City for the Environmental Impact Statement (EIS) of the Facility required pursuant to the Positive Declaration and was updated to provide additional supporting information as requested by Ostergaard Acoustical Associates' review of Draft Environmental Impact Statement on behalf of the City of Niagara Falls – Acoustics letter dated April 11, 2025 (the "OAA Comments").

The purpose of this updated Study was to assess the overall sound levels at the nearest residential zoned sensitive noise receptors (i.e., homes) immediately east of 56th Street. To accomplish this, the Study takes the ambient sound levels at two points of reception representative of these homes (PORs), measured when neither the Facility nor any of its noise emitting equipment was operating (Ambient Conditions); and compares it against the measured sound levels at the PORs while the Facility was operating at full capacity (Measured Facility Sound Levels).

The goal of the Study is to establish whether operation of the Facility results in an appreciable increase over the Ambient Conditions experienced at the PORs at the RI-C Residential District boundary (R1-C).

The Facility was used historically as a coal-fired power plant but experienced a period of unproductive vacancy until approximately 2018 when North East Data invested \$35 million to acquire and remediate the Site, and to develop the current data center operations, including the purchase and installation of electrical infrastructure and fire-safe housing for data center equipment. The Facility is designed to support modern technological operations, including digital mining and artificial intelligence, powered by the region's unique renewable resources.

The Facility operates 24 hours a day, 7 days a week, and is located on property zoned Industrial I2 (I2). The land in all directions immediately surrounding the Facility is also zoned I2 and includes intensive industrial operations including: Goodyear Niagara Falls Chemical Plant to the north; an unimproved industrial parcel and a contractor's yard to the east; Covanta Niagara LP waste-to-energy incineration plant to the south; Occidental Chemical Corporation's manufacturing plant to the southwest, and; active railroad operations to the west.

There is no residential zoned land immediately bordering the Facility's property line. The land further to the east of the Facility beyond 56th Street is zoned R1-C. The R1-C district's boundary is approximately 800 feet from the Facility's property line. There are sporadic existing residential uses within the boundaries of the I2 District located to the east of the Facility along the west side of 56th Street approximately 690 feet from the Facility property line to the residential use's building façade.

In September & October, 2024, North East Data installed, on the advice of GHD, two forms of noise controls at the Facility (Mitigation). These Mitigation controls were inclusive of: (1) exhaust fan cones to redirect sound energy propagation away from the PORs towards the ground, and; (2) automatic fan speed controls on the exhaust fans facing the PORs to limit fan operations and noise generation during nighttime hours. These are relatively simple, cost effective methods to help ensure noise from the Facility does not adversely impact the residentially zoned area to the east.

2. Methodology & Criteria

The City has set noise limits for the Facility that, are extremely low (far less than ambient conditions) and, without a variance, would prohibit noise levels generated by the Facility:

- a. From exceeding forty (40) dBA nightly between 10pm and 7am and on weekends, or to exceed fifty (50) dBA during any other time, as measured at the nearest residentially zoned property line; and
- b. From exceeding sixty-five (65) dBA as measured at any Facility property line (Noise Limits).

However, since the results of the Study establish that the Ambient Conditions in the area far exceed the City's Noise Limits, this Study aims to directly compare the Ambient Conditions and the Facility sound impacts on the PORs to determine whether noise from the Facility exceeds ambient conditions.

The approach utilized in this Study provides insight into how loud the Facility is relative to other existing sources of noise in the surrounding area, as well as how much of the measured noise can be attributed to the Facility.

The Facility was scheduled for an unrelated 32 hour full shutdown between February 21-22, 2024 due to work being performed by National Grid on the energy service to the Facility. This pre-scheduled shutdown period provided an ideal opportunity to conduct baseline monitoring (Baseline Monitoring) of the Ambient Conditions east of the Facility impacting the PORs given the total absence of noise (including exhaust fans and other HVAC equipment) emanating from the Facility for an extended period. GHD conducted the Baseline Monitoring over a continuous period of greater than 24 hours from February 21-22, 2024. Weather conditions for the Baseline Monitoring were ideal with low winds (<10 mph) and minimal or no precipitation, along with moderate humidity.

A second operational monitoring campaign was conducted over a continuous period of greater than 24 hours when the Facility was fully operational (Operational Monitoring) to directly compare the Facility Sound Impacts to the Ambient Conditions. The Operational Monitoring took place from November 7-8, 2024 shortly after GHD's recommended Mitigation measures had been installed. This approach gives the clearest illustration as to the noise impact contribution of the Facility. GHD evaluated the differences between the measured Ambient Conditions and Measured Facility Sound Levels to assess whether the Facility's operations cause an increase in ambient noise levels at the nearest residential district boundaries to the Site.

Two (2) noise monitoring stations were deployed at the following worst case PORs to ensure that the Ambient Conditions surrounding the entire Facility were accurately captured in the eastward direction at the nearest residential homes situated on residentially zoned lands:

1. LTM1 – Intersection of 56th Street and Devlin Avenue, east side of 56th
2. LTM2 – Empty Property Lot at 246 56th Street setback approximately 100' to the east from 56th Street centerline

The noise monitoring locations are detailed on the following Figure 1:



Figure 1 Noise Monitoring Stations (LTM1 & LTM2)

The noise monitoring was conducted using Type 1 precision sound level meters which were calibrated pre and post measurement periods. The sound level monitoring stations were deployed in a secure position (locked and chained to a fence, utility pole, tree, etc.).

The February ambient sound level measurements were taken using Larson Davis LxT systems inclusive of the following equipment:

- LTM1 Location: a Sound Level Meter (SLM) (Serial Number 0003969), a PRMLxT1 preamplifier, and a 1/2-inch free field condenser microphone.
- LTM2 Location: a SLM (Serial Number 0003240), a PRMLxT1 preamplifier, and a 1/2-inch free field condenser microphone.

The November operational sound level measurements were taken using a Larson Davis LxT and 821 system inclusive of the following equipment:

- LTM1 Location: an 821 SoundExpert SLM (Serial Number 40021), a PRM821 preamplifier, and a ½-inch free field condenser microphone.
- LTM2 Location: a LxT SLM (Serial Number 0002683), a PRMLxT1 preamplifier, and a ½-inch free field condenser microphone.

The SLMs were calibrated and checked at 114 decibels (dBA) before and after the measurement period using a Larson Davis CAL200 Acoustic Calibrator.

The microphone was positioned approximately 5' above ground level at each location. The monitoring system setups are detailed on Figure 2 below:



Figure 2 LTM1 (left) and LTM2 (right) Monitoring Location Setup – February Setup Pictured (same as November)

Meteorological conditions at the time of both measurement periods consisted of low winds (<10 mph), minimal to no precipitation, and relatively low humidity.

Operational Monitoring following installation of the Mitigation was also conducted at the same two locations for consistency and an accurate comparison.

GHD utilized 15-hour and 9-hour Leq measurements (equivalent average sound level over the period of the measurement) as the primary metric of comparison for day (07:00 – 22:00) and night (22:00 – 07:00) periods, respectively. The daytime Leq was inclusive of all daytime hours measurements captured during both days of the monitoring periods.

GHD further reported the L90 measurements (the minimum sound level measured 90% of the time) as a secondary metric of comparison for day and night periods.

3. Measured Existing Ambient Conditions

GHD conducted Baseline Monitoring at the two noise monitoring locations (LTM1 and LTM2) east of the Facility for over 24 hours of continuous ambient noise measurements from February 21-22, 2024 while the Facility was not operational. The monitoring was done to establish the baseline 15-hour daytime, and 9-hour nighttime Leq & L90 noise level Ambient Conditions and was designed to be representative of the acoustic conditions experienced by the POR locations in the absence of operating noise from the Facility.

The average 15-hour and 9-hour Leqs & L90s during the Long-Term Monitoring for day and night periods were as follows:

Table 3.1 Ambient Condition 15-hour and 9-hour Leq Sound Levels (Day and Night)

Monitoring Location	LTM Location 1	LTM Location 2
15-hour Daytime Leq Sound Level (dBA) (07:00 – 22:00)	67	61
9-hour Nighttime Leq Sound Level (dBA) (22:00 – 07:00)	58	54
15-hour Daytime L90 Sound Level (dBA) (07:00 – 22:00)	58	55
9-hour Nighttime L90 Sound Level (dBA) (22:00 – 07:00)	53	51

For each monitoring location, the full ambient noise measurement time traces and hourly 1/1 octave band data can be found in Figures A.1 and A.2 and Tables A.1 and A.2 of Attachment A, respectively.

At the time the Ambient Condition measurements were taken, it was observed by GHD during deployment of the monitoring equipment that the ambient noise in these locations was dominated by local road traffic on 56th Street, background traffic “hum”, audible mechanical equipment noise at the various surrounding industrial facilities and the water tower, as well as wildlife (birds, crickets, etc.). There are many significant sources of noise in the immediate area (Covanta, Occidental, Goodyear, 56th St, Buffalo Ave etc.) that collectively contribute to the existing measured Ambient Conditions.

4. Acoustical Modelling and Noise Mitigation Summary

Through prior field work and source noise measurements at the Facility, GHD has developed an acoustic model of the overall Facility comprised of all the various significant sources of noise emitted from the Facility (exhaust fans, intakes, transformers, etc.). Cadna A Acoustical Modelling Software (Cadna A), version 2024, was used to model the potential impacts of the significant noise sources to the adjacent PORs. Cadna A calculates sound level emissions based on the ISO 9613-2 standard "Acoustics – Attenuation of Sound during Propagation Outdoors".

The worst-case cumulative Facility-wide sound levels estimated at the PORs included attenuation affects due to geometric divergence, atmospheric attenuation, barriers/berms, ground absorption and directivity, as applicable for all significant noise sources. Off-site buildings were input as intervening structures.

CadnaA modelling assumptions used in this Study included:

- **Noise Sources:** All sources were modelled using the 1/1 octave band data. All source power level octave band data can be found in Attachment B.
- **Reflection Order:** A maximum reflection order of 2 was used to evaluate indirect noise impact from one reflecting surface
- **Ground Absorption:** Ground absorption coefficients of 0.25 for asphalt and 1.0 for grass were used to model ground absorption around the Site and adjacent properties
- **Receptor Elevation:** POR receptor heights were modelled at 1.5m above grade in accordance with the most up to date proposed regulatory requirements
- **Tonality:** A +5 dBA adjustment was applied for tonal sources if applicable
- **Building Surfaces:** The buildings are modelled as reflective surfaces
- **Terrain:** The surrounding area was modelled based on site specific topography
- **Foliage:** No attenuation due to foliage was included to be conservative

Figure 3 below shows the location plan of modelled sound level sources. Full sound level data used in the modelling for each source can be found in Table C.1 of Attachment C.

An Acoustic Assessment Summary is provided in Table C.2 of Attachment C which details off-site noise impacts from the Facility predicted by the updated modelling. The Table show the impacts both with and without the prescribed mitigation measures (both fan hoods and administrative controls on nighttime fan speed) so as to properly quantify the effects of the mitigation.

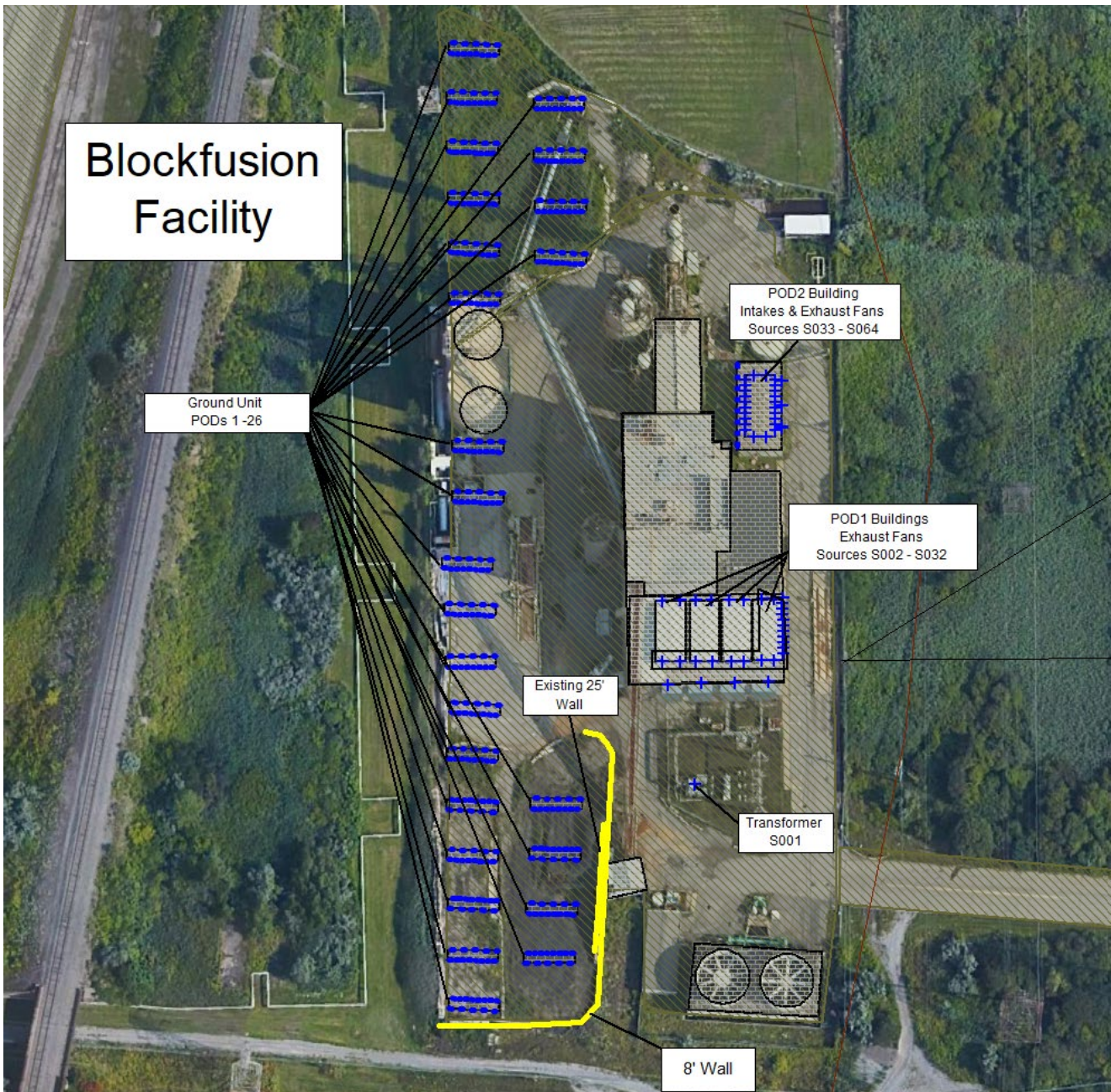


Figure 3 Noise Source Location Plan

Based on a review of the noise modelling results which found some potential minor (but not perceptible) increases in ambient noise levels, GHD advised North East Data that any potential Facility noise impacts could be reduced at the LTM1 and LTM2 PORs by installing the following Mitigation:

1. Mitigation Measure 1: Exhaust Fan Hoods/Cones

GHD recommended that exhaust fan hoods/cones be installed on all server building exhaust ventilation fans to help redirect the sound propagation away from the PORs and towards the ground. The exhaust fans are

located on the roofs of the server buildings and as such have a high degree of exposure to the PORs. Figure 3 detailing the post installation of the exhaust hoods (in white) is shown below:



Figure 4 Exhaust Fans Hoods/Cones Installed on POD1 (right) and POD2 (left) Server Buildings

GHD has updated the Study to include shop drawings showing dimensions of the installed hoods as Attachment D. The modelling accounts for the effects of these hoods by applying a directivity correction to the relevant exhaust fan point sources redirecting the sound propagation downwards.

2. Mitigation Measure 2: Exhaust Fan Operation Fan Speed Limiter – Administrative Control

To further reduce more sensitive nighttime noise impacts, GHD recommended that North East Data install automatic fan speed controls on the server building exhaust fans facing the PORs. It was found that based on the colder nighttime ambient temperatures, cooling demands of the server buildings could be met by only operating the exhaust fans facing away from the PORs thus the fans on the east side facing the PORs could be turned off at night further reducing Facility noise impacts.

North East Data confirmed on October 31, 2024 that the Mitigation measures had been fully implemented at the Facility.

GHDs acoustical modelling predicted that the implementation of both these measures would likely result in a cumulative ~-3 dBA reduction in Facility modelled noise impacts at LTM1 and LTM2 locations. The overall predicted impacts of the model were found to be at least 8 dBA quieter than existing ambient levels in all scenarios (locations & times of day).

Table C.2 showcases the overall modelled Facility sound levels at the two monitoring locations both before and after the implementation of the mitigation measures.

3. Logarithmic Sound Conditions

It is accepted engineering practice that a noise source 10 dBA quieter than another source can be said to be insignificant in terms of perceptibility and capacity to change the overall sound level. For example, according to the New York State Department of Environmental Conservation (NYSDEC) guidance on assessing noise impacts, a facility operating at 10 dBA below ambient noise levels does not increase perceptible future noise levels. Essentially, due to the logarithmic nature of sound perception, where there are two noise sources that are 10 dBA or more different, only the louder noise source can be heard.

In this case, and as discussed further below, the Study quantified two sets of noise conditions, the Ambient Conditions, and the noise produced by the Facility. Modeling and actual Measured Facility Noise Impacts were found to not have any perceptible increase in the Ambient Conditions. As such, the Facility is at least 10 dBA quieter than Ambient Conditions.

5. Measured Facility Noise Impacts Post Noise Mitigation

Following the installation of the Mitigation described above, GHD conducted sound level monitoring at the two noise monitoring locations-LTM1 & LTM2-for over 24 hours of continuous noise measurements from November 7-8, 2024 while the Facility was operating at full capacity. The monitoring was done to establish the 15-hour daytime and 9-hour nighttime Leq noise levels during Facility operations experienced by the POR locations in the presence of the Facility impacts.

The average 15-hour and 9-hour Leqs & L90s during the operational monitoring for day and night periods were as follows:

Table 5.1 Blockfusion Operational Monitoring 15-hour and 9-hour Leq Sound Levels (Day and Night)

Monitoring Location	LTM Location 1	LTM Location 2
15-hour Daytime Leq Sound Level (dBA) (07:00 – 22:00)	67	60
9-hour Nighttime Leq Sound Level (dBA) (22:00 – 07:00)	58	54
15-hour Daytime L90 Sound Level (dBA) (07:00 – 22:00)	60	57
9-hour Nighttime L90 Sound Level (dBA) (22:00 – 07:00)	53	53

For each monitoring location, the full operational noise measurement time traces and hourly 1/1 octave band data can be found in Figures A.3 and A.4 and Table A.3 and A.4 of Attachment A, respectively.

At the time the operational measurements were taken, it was observed by GHD during the deployment of the monitoring equipment that sources of noise in these locations was very similar to conditions during the ambient measurements. Dominant sources were again local road traffic on 56th Street, background traffic “hum”, audible mechanical equipment from surrounding industrial facilities and the water tower, as well as wildlife (birds, crickets, etc.). GHD also observed many significant sources of noise in the immediate area (Covanta, Occidental, Goodyear, 56th St, Buffalo Ave etc.) that collectively contribute to the Measured Facility Sound Levels.

6. Summary and Comparison

Table 6.1 below compares and summarizes the Ambient Conditions noise measurements against the Measured Facility Sound Levels after incorporation of the Mitigation.

Table 6.1 Comparison of Ambient vs. Operational Measurements (Leq)

Measurement Location	Ambient Conditions – No Blockfusion (February 2024)		Operational Conditions – Post Noise Mitigation (November 2024)		Difference Between Ambient and Operational Measurements
	Daytime (15-hour Leq)	Nighttime (9-hour Leq)	Daytime (15-hour Leq)	Nighttime (9-hour Leq)	
	(dBA)	(dBA)	(dBA)	(dBA)	+/-
LTM1- 56 th Street & Devlin Intersection	67	58	67	58	0 / 0
LTM2 – 246 56 th Street (100' setback)	61	54	60	54	-1 / 0

Table 6.2 Comparison of Ambient vs. Operational Measurements (L90)

Measurement Location	Ambient Conditions – No Blockfusion (February 2024)		Operational Conditions – Post Noise Mitigation (November 2024)		Difference Between Ambient and Operational Measurements
	Daytime (15-hour L90)	Nighttime (9-hour L90)	Daytime (15-hour L90)	Nighttime (9-hour L90)	
	(dBA)	(dBA)	(dBA)	(dBA)	+/-
LTM1- 56 th Street & Devlin Intersection	58	53	60	53	+2 / 0
LTM2 – 246 56 th Street (100' setback)	55	51	57	53	+2 / +2

As detailed in Leq measurements found in Table 6.1, operation of the Facility with the Mitigation does not increase the overall measured sound levels in the surrounding area or PORs when compared to Ambient Conditions.

As mentioned in Section 2, GHD has considered the L90 metric as a secondary metric of comparison. GHD maintains that the 15-hour and 9-hour Leq measurements provided are the more appropriate methodology to establish ambient noise levels at the surrounding locations of interest. The transient traffic noise on 56th Street and other surrounding roadways is a core part of the existing conditions during both day and nighttime hours. Removing nearly all traffic noise (as the L90 metric does) underestimates baseline noise conditions in the surrounding area. Existing baseline conditions are comprised of both steady state noise (surrounding industry) sources and transient (roadway) sources. The Leq metric captures both of these source types and therefore provides a more holistic and accurate representation of the actual existing conditions compared to the L90 metric which only accounts for the steady state component. The L90 metric can provide valuable insight into steady state noise impacts (i.e. Blockfusion and other surrounding industry) but it is not the best metric for the establishment of existing conditions. Using the more conservative L90 metric, GHD noted a very minor increase above existing conditions of a +2 dBA change in noise exposure. A +2 dBA change is widely accepted as not significantly perceptible to most individuals and, per NYSDEC Noise Guidance, “increases ranging from 0-3 dB should have no appreciable effect on receptors”.

Accordingly, based on this Study, both the Leq and L90 metrics support the conclusion that the Facility does not have an appreciable noise impact on the surrounding community. As noted above, a noise source must be

at least 10 dBA less than ambient conditions to avoid logarithmically raising ambient noise levels. When considering the Leq measurements, which present a more appropriate Ambient Conditions evaluation, the Facility does not raise ambient noise levels at all while operational.

7. Conclusion

The operation of the Facility incorporating the Mitigation does not result in any perceptible increase as it does not exceed ambient noise levels at the nearest residential district boundaries along 56th Street. Given that the Measured Facility Sound Impacts have zero overall increase in Ambient Conditions in daytime 15-hour and nighttime 9-hour Leq values, the Facility is operating at least 10 dBA below Ambient Conditions. Based on these results, no additional mitigation measures are recommended apart from those Mitigation already installed at the Facility.

Should you have any questions on the above, please do not hesitate to contact us.

Regards,



Sam East
Acoustics Professional
+1 519 340-4426
samuel.east@ghd.com



Mike Masschaele, BES LEL (Reviewer)
Noise and Vibration Practice Leader – North America
+1 519 340-3818
michael.masschaele@ghd.com

Encl.

Copy to: Adam Herron – Phillips Lytle

Attachments

Attachment A

**Ambient and Operational Sound Level
Measurements – Time Traces and Octave
Bands**

Figure A.1 - LTM1 Ambient Noise Level Time Trace February 21-22, 2024

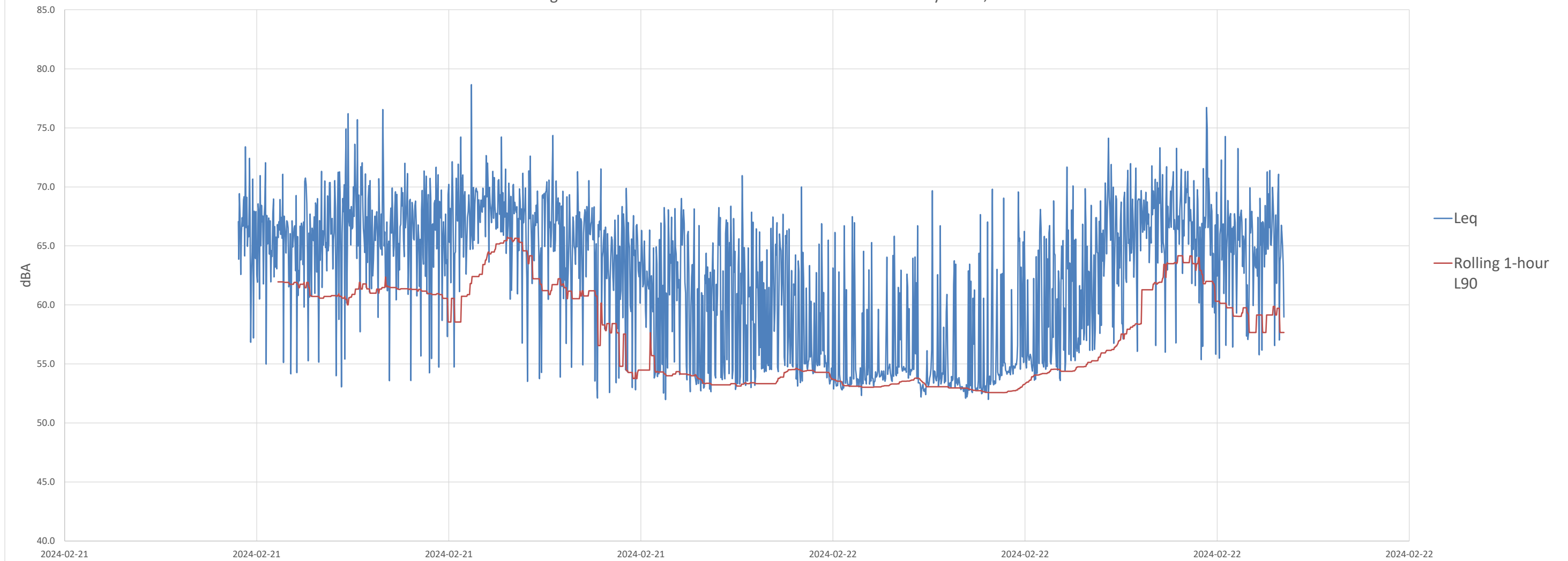


Fig A.2 - LTM2 Ambient Noise Levels Time Trace February 21 - 22, 2024

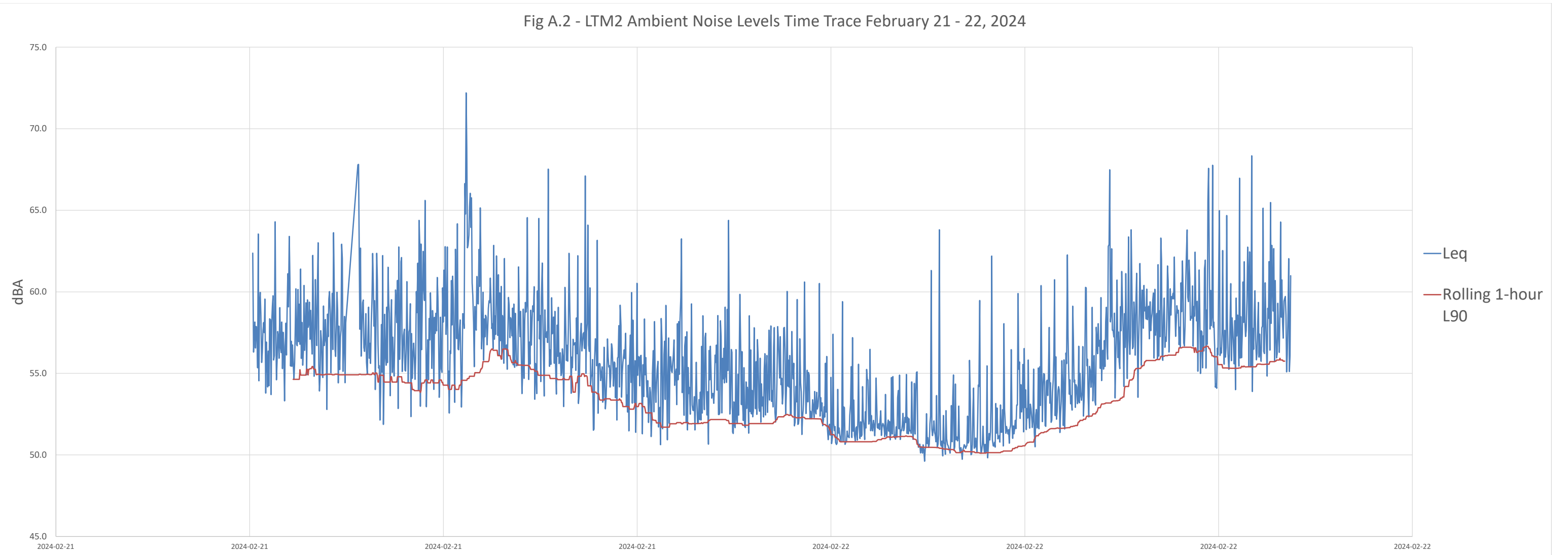


Figure A.3 - LTM1 Operational Measurements Time Trace November 7-8, 2024

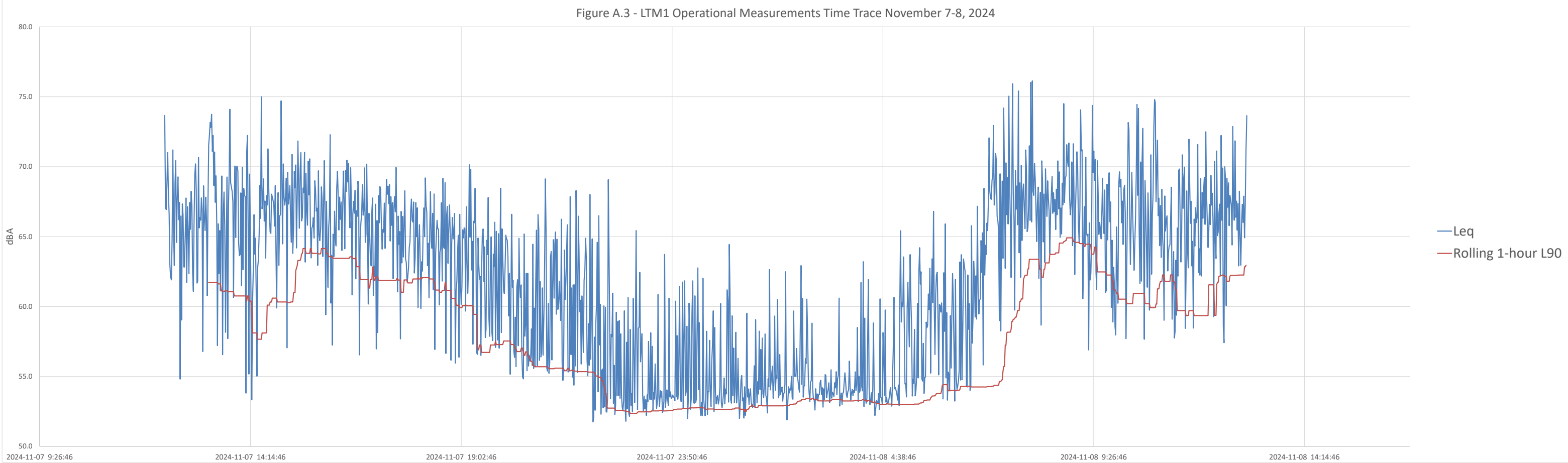


Figure A.4 - LTM2 Operational Measurements Time Trace November 7-8, 2024

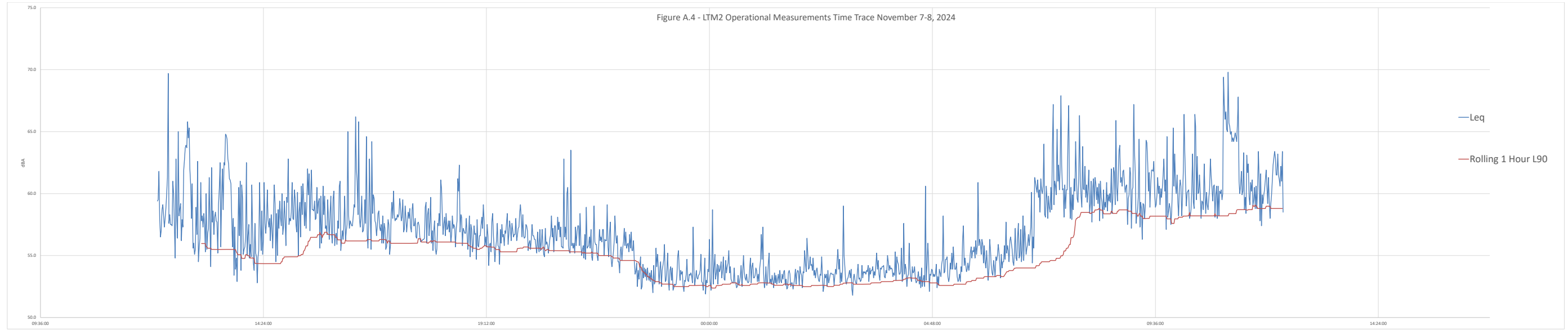


Table A.1

LTM1 Ambient Noise Level 1/1 Octave Bands

Date	Time	Sound Pressure Level (dB)								
		31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
2024-02-21	09:08:24	66.3	65.7	64.9	64.8	62.4	64.6	58.9	51.3	44.1
2024-02-21	10:00:00	65.8	66.4	65.5	63.7	61.2	63.7	57.3	50.8	43.2
2024-02-21	11:00:00	67.4	68.6	65.0	64.9	64.0	65.1	59.4	52.6	45.7
2024-02-21	12:00:00	68.0	69.1	66.6	67.5	64.2	65.3	59.5	53.0	45.3
2024-02-21	13:00:00	69.2	67.8	65.6	66.0	62.6	64.6	58.3	50.8	44.1
2024-02-21	14:00:00	67.0	68.8	69.0	70.2	63.8	65.5	59.0	50.1	44.4
2024-02-21	15:00:00	66.9	67.6	66.9	66.0	63.3	66.6	59.7	50.3	43.6
2024-02-21	16:00:00	64.3	67.4	68.5	65.2	62.4	65.5	58.7	50.6	44.8
2024-02-21	17:00:00	64.9	66.4	66.3	64.3	61.7	64.7	57.6	48.2	42.4
2024-02-21	18:00:00	64.0	64.1	63.3	61.5	59.3	62.7	55.5	46.0	41.9
2024-02-21	19:00:00	63.5	65.2	63.9	61.4	58.4	61.1	53.5	43.3	40.8
2024-02-21	20:00:00	63.5	65.1	63.0	62.0	58.1	60.3	53.1	43.5	40.8
2024-02-21	21:00:00	64.4	64.1	63.2	61.2	58.6	60.7	54.2	43.6	40.7
2024-02-21	22:00:00	65.5	64.2	61.0	62.1	57.9	59.9	52.1	41.6	40.3
2024-02-21	23:00:00	66.8	64.3	60.9	60.9	55.6	57.1	50.2	40.3	40.1
2024-02-22	00:00:00	66.6	62.5	57.6	60.7	55.7	55.8	48.2	40.0	40.1
2024-02-22	01:00:00	63.3	60.5	54.5	60.2	54.0	53.5	46.9	38.7	40.0
2024-02-22	02:00:00	63.0	62.2	58.0	60.9	55.4	54.1	48.5	42.7	40.4
2024-02-22	03:00:00	63.1	62.7	59.4	60.0	55.6	55.8	49.4	42.6	40.4
2024-02-22	04:00:00	64.1	62.3	57.8	61.2	56.5	56.5	49.3	43.5	41.4
2024-02-22	05:00:00	63.9	63.8	61.3	62.4	58.5	60.2	53.5	46.0	42.2
2024-02-22	06:00:00	71.7	68.3	67.2	65.0	61.4	62.6	56.2	47.7	42.9
2024-02-22	07:00:00	70.2	68.1	66.3	65.8	62.2	64.8	58.4	49.9	43.5
2024-02-22	08:00:00	66.5	68.1	67.1	65.5	63.3	66.0	59.9	51.2	46.4
2024-02-22	09:00:00	65.8	67.2	67.3	66.0	63.3	64.8	59.0	51.6	44.7
2024-02-22	10:00:00	65.9	66.8	64.6	64.2	61.7	63.8	57.3	50.7	44.5
2024-02-22	11:00:00	66.8	65.4	63.4	63.6	61.8	63.2	57.4	49.9	43.5

Table A.2

LTM2 Ambient Noise Level 1/1 Octave Bands

Date & Time	Sound Pressure Level (dB)								
	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
2/21/2024 9:40	63.9	64.6	60.4	60.6	56.2	53.7	48.9	42.7	42.2
2/21/2024 10:00	64.3	66.8	60.7	59.5	55.5	53.8	48.3	42.4	42.0
2/21/2024 11:00	64.1	66.5	62.8	60.5	56.1	54.8	50.7	44.2	42.0
2/21/2024 12:00	69.8	72.8	66.9	64.9	63.3	66.2	63.4	59.2	51.4
2/21/2024 13:00	65.7	66.9	62.6	59.9	56.6	54.6	49.6	42.9	41.9
2/21/2024 14:00	65.0	66.1	62.7	60.8	57.0	56.8	52.9	46.9	43.4
2/21/2024 15:00	65.8	65.4	63.8	60.8	57.1	56.1	51.4	45.1	42.0
2/21/2024 16:00	61.6	64.4	63.7	59.8	55.7	54.8	49.3	43.7	41.9
2/21/2024 17:00	62.2	64.0	61.8	59.5	56.1	54.0	46.8	40.0	41.6
2/21/2024 18:00	61.0	61.3	58.2	56.8	52.8	52.4	46.0	40.9	41.4
2/21/2024 19:00	60.8	61.4	59.7	57.0	53.0	51.4	44.7	39.5	41.4
2/21/2024 20:00	61.7	61.4	58.1	58.0	53.5	51.0	45.3	39.6	41.3
2/21/2024 21:00	63.8	61.9	61.4	57.9	53.6	50.8	44.8	39.5	41.3
2/21/2024 22:00	63.8	61.5	57.8	57.6	53.7	50.5	44.1	39.1	41.3
2/21/2024 23:00	63.9	61.1	56.6	57.0	53.0	48.9	43.0	39.0	41.2
2/22/2024 0:00	63.4	59.7	54.9	55.7	52.1	47.2	41.6	38.9	41.2
2/22/2024 1:00	61.4	58.2	52.5	56.3	51.9	45.2	39.0	38.2	41.2
2/22/2024 2:00	61.3	59.3	55.2	56.4	52.0	46.3	42.5	39.9	41.2
2/22/2024 3:00	61.7	60.5	56.1	55.6	51.4	46.6	42.2	39.9	41.2
2/22/2024 4:00	61.7	59.6	56.1	57.0	51.8	46.8	41.0	39.3	41.3
2/22/2024 5:00	61.5	61.1	56.9	56.6	52.5	50.6	45.8	40.9	41.4
2/22/2024 6:00	65.4	64.1	62.1	59.5	55.2	53.1	47.3	41.7	41.6
2/22/2024 7:00	64.1	64.7	62.2	59.7	55.6	54.8	49.4	43.2	41.8
2/22/2024 8:00	64.0	65.1	62.7	60.9	56.1	55.2	50.3	43.4	42.1
2/22/2024 9:00	64.3	66.2	63.8	60.9	58.0	54.9	50.3	45.3	42.1
2/22/2024 10:00	65.8	67.4	64.1	60.7	57.1	54.9	51.2	46.8	43.2
2/22/2024 11:00	64.2	64.7	61.5	59.5	56.0	54.4	51.3	44.1	41.9

Table A.3

LTM1 1/1 Octave Band Frequencies - Operational Measurements November 7-8, 2024

Date & Time	Sound Pressure Level (dB)								
	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
2024-11-07 12:17:39	69.1	71.6	66.1	65.4	66.0	68.1	63.7	55.7	47.9
2024-11-07 13:00:00	65.6	68.4	72.9	68.6	65.7	65.6	60.1	52.9	46.8
2024-11-07 14:00:00	72.0	76.4	72.7	73.9	67.6	66.8	64.6	65.4	55.8
2024-11-07 15:00:00	68.0	66.7	65.7	62.6	61.8	65.0	58.3	49.4	43.3
2024-11-07 16:00:00	68.5	66.2	62.4	63.8	63.3	66.2	58.9	48.6	45.3
2024-11-07 17:00:00	66.5	67.6	68.9	66.2	61.8	64.6	57.3	45.4	36.0
2024-11-07 18:00:00	63.3	62.7	60.6	62.7	60.6	62.3	55.7	45.5	36.2
2024-11-07 19:00:00	63.5	60.9	62.0	62.2	60.5	61.0	54.9	41.8	34.4
2024-11-07 20:00:00	62.8	61.3	61.4	60.5	56.4	54.9	48.9	37.8	29.6
2024-11-07 21:00:00	63.0	60.5	57.7	59.5	58.2	60.0	51.9	40.1	31.1
2024-11-07 22:00:00	64.6	61.5	58.6	61.5	57.3	58.0	50.5	38.7	29.9
2024-11-07 23:00:00	64.5	68.5	63.0	63.6	62.8	64.8	62.2	54.4	42.4
2024-11-08 0:00:00	63.5	60.5	58.3	62.0	57.3	55.1	50.3	37.7	30.9
2024-11-08 1:00:00	64.4	60.5	58.9	61.0	56.8	52.1	47.6	34.2	23.8
2024-11-08 2:00:00	64.4	60.6	58.6	62.1	56.8	51.5	46.3	33.6	22.8
2024-11-08 3:00:00	64.9	65.0	59.8	61.1	57.2	55.0	49.5	38.7	29.3
2024-11-08 4:00:00	65.8	70.5	65.8	64.9	60.9	59.5	53.8	46.2	38.8
2024-11-08 5:00:00	65.1	63.8	70.8	64.2	59.8	62.0	56.4	43.4	37.1
2024-11-08 6:00:00	68.8	67.0	69.2	68.1	64.6	66.2	61.6	53.3	45.5
2024-11-08 7:00:00	68.0	66.0	66.4	68.1	64.9	66.8	58.7	49.1	40.8
2024-11-08 8:00:00	69.5	68.4	65.8	65.6	61.1	62.4	57.2	47.4	37.8
2024-11-08 9:00:00	71.5	68.1	71.7	65.2	63.2	65.3	60.0	51.6	43.6
2024-11-08 10:00:00	68.7	65.2	63.1	64.3	61.0	61.8	55.7	45.8	35.9
2024-11-08 11:00:00	70.3	67.7	64.4	66.6	65.8	66.2	59.1	48.5	40.2

Table A.4

LTM2 1/1 Octave Band Frequencies - Operational Measurements November 7-8, 2024

Date	Time	Sound Pressure Level (dB)								
		31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
2024-11-07	12:04:04	63.8	66.3	67.2	60.9	58.0	55.6	53.2	45.4	34.2
2024-11-07	13:00:00	62.3	65.2	66.5	59.5	55.9	54.4	51.5	44.0	33.7
2024-11-07	14:00:00	62.0	61.9	60.3	57.3	55.1	53.8	49.1	40.9	30.2
2024-11-07	15:00:00	64.0	63.9	63.9	58.8	55.9	54.6	49.3	41.0	33.3
2024-11-07	16:00:00	63.6	62.8	63.2	60.7	57.7	54.5	49.3	40.6	32.6
2024-11-07	17:00:00	63.3	61.6	59.7	58.4	55.9	53.3	47.6	36.8	28.9
2024-11-07	18:00:00	62.6	61.1	58.6	58.1	55.8	52.9	48.2	37.0	28.2
2024-11-07	19:00:00	61.3	59.0	56.8	57.3	55.5	52.0	47.1	34.9	25.0
2024-11-07	20:00:00	61.9	60.0	58.9	56.7	55.3	51.3	48.2	34.8	24.4
2024-11-07	21:00:00	61.9	60.7	60.8	56.7	54.9	51.1	47.3	35.0	25.2
2024-11-07	22:00:00	62.8	60.0	59.1	59.1	55.2	50.9	48.0	35.8	26.2
2024-11-07	23:00:00	62.6	60.9	57.6	59.4	56.4	52.5	50.1	40.1	31.4
2024-11-08	00:00:00	63.4	59.6	58.5	58.0	55.7	50.6	48.0	34.7	25.2
2024-11-08	01:00:00	63.1	59.5	56.8	58.1	55.4	50.2	47.5	34.3	28.9
2024-11-08	02:00:00	63.5	60.0	57.4	58.5	56.2	50.4	47.3	33.9	24.1
2024-11-08	03:00:00	63.2	59.5	56.7	58.5	55.8	49.9	47.3	32.3	22.4
2024-11-08	04:00:00	63.9	61.3	58.4	58.8	55.9	50.7	47.5	36.8	27.7
2024-11-08	05:00:00	63.9	62.0	59.6	60.8	56.5	51.8	47.8	38.1	29.0
2024-11-08	06:00:00	64.4	63.1	60.1	60.2	56.6	53.3	49.7	39.0	29.5
2024-11-08	07:00:00	66.3	65.8	63.9	63.1	58.6	56.4	53.5	44.7	35.4
2024-11-08	08:00:00	66.3	65.7	63.4	62.4	57.5	55.7	52.0	43.2	35.6
2024-11-08	09:00:00	67.1	67.7	63.8	62.5	58.5	55.6	52.0	43.4	34.9
2024-11-08	10:00:00	67.7	66.3	63.9	60.8	58.1	55.8	52.8	43.9	35.1
2024-11-08	11:00:00	69.6	68.5	64.9	62.5	59.1	58.6	56.2	48.8	42.4
2024-11-08	12:00:00	69.6	70.1	63.1	61.7	58.7	56.2	53.4	44.6	37.6

Attachment B

Source Octave Band Data

Table B.1
Noise Source Sound Level Summary
North East Data LLC
5380 Frontier Ave, Niagara Falls, New York

Cadna A ID	Noise Source Description		1/1 Octave Band Data								Unadjusted Total Sound Power Level (dBA)	Tonal Penalty Assessment (dBA)	Height Absolute (m)	Reference/Comments		
			31.5	63	125	250	500	1000	2000	4000					8000	
S001	Transformer	PWL (dB)	89.5	88.3	96.4	89.5	90.1	86	82.9	75.5	66	99.3				
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1					
		PWL (dBA)	50.1	62.1	80.3	80.9	86.9	86.0	84.1	76.5	64.9	91.5	No	0	5.5	GHD Site Measurement
S003	POD1 Building 4 Exhaust Fans	PWL (dB)	97.2	94.6	94.0	96.3	95.8	91.1	82.8	75.6	69.1	103.1				
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1					
		PWL (dBA)	57.8	68.4	77.9	87.7	92.6	91.1	84.0	76.6	68.0	96.1	No	0	22.0	GHD Site Measurement
S033	POD2 Exhaust Fans	PWL (dB)	99.2	93.8	94.8	96.8	97.5	96.7	88.7	83.5	76.7	104.7				
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1					
		PWL (dBA)	59.8	67.6	78.7	88.2	94.3	96.7	89.9	84.5	75.6	99.7	No	0	12.0	GHD Site Measurement
S064	POD2 Intakes	PWL (dB)	90.6	81.9	87.8	88.6	86.2	83.9	82.6	77.7	66.4	95.5				
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1					
		PWL (dBA)	51.2	55.7	71.7	80.0	83.0	83.9	83.8	78.7	65.3	89.4	No	0	4.5	GHD Site Measurement
S065	Ground Unit Intakes	PWL (dB)	83.8	85.6	85.1	78.6	79.8	80.9	78.5	76.1	63.5	91.2				
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1					
		PWL (dBA)	44.4	59.4	69.0	70.0	76.6	80.9	79.7	77.1	62.4	85.2	No	0	4.0	GHD Site Measurement
S195	Ground Unit Exhausts	PWL (dB)	86.8	92.0	89.6	86.8	85.9	86.0	84.3	80.4	71.9	96.7				
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1					
		PWL (dBA)	47.4	65.8	73.5	78.2	82.7	86.0	85.5	81.4	70.8	90.7	No	0	4.3	GHD Site Measurement

Attachment C

Acoustic Modelling Results

Table C.1

Noise Source Summary
North East Data LLC
5380 Frontier Ave, Niagara Falls, New York

Cadna A ID	Source Description	Sound Power Level ¹ (dBA)	Source Characteristics ²	Source Location ³	Noise Control Measures ⁴	Source Type
Steady State Sources						
S001	Transformer	91.5	S	O	U	Point
S002	POD1 Intake Sidewall	83.7	S	O	U	Point
S003 - S016	POD1 Building 4 Exhaust Fan	96.1	S	O	U	Point
S017 - S028	POD1 Exhaust Fans	96.1	S	O	AC, O	Point
S029 - S032	POD1 Intake Sidewall	83.7	S	O	U	Point
S033 - S056	POD2 Exhaust Fan	99.7	S	O	AC, O	Point
S057 - S063	POD2 Intake Sidewall	95.2	S	O	U	Point
S064	POD2 Intake	88.8	S	O	U	Vertical Area
S065 - S194	Ground Unit Intakes	85.2	S	O	U	Vertical Area
S195 - S402	Ground Unit Exhaust	90.7	S	O	U	Vertical Area

Notes:

¹ Sound Power Level (PWL) in dBA, excludes +5 dBA total penalty if applicable.

² Sound characteristics:

- S – Steady
- Q – Quasi-steady impulsive
- I – Impulsive
- B – Buzzing
- T – Tonal
- C – Cyclic

³ Source location:

- O – Outside of building
- I – Inside of building

⁴ Noise control measures:

- S – Silencer, acoustic louvre, muffler
- A – Acoustic lining, plenum
- B – Barrier, berm, screening
- L – Lagging
- E – Acoustic enclosure
- O – Other
- U – Uncontrolled
- AC – Administrative control

Table C.2
Acoustic Assessment Summary
North East Data LLC
5380 Frontier Ave, Niagara Falls, New York

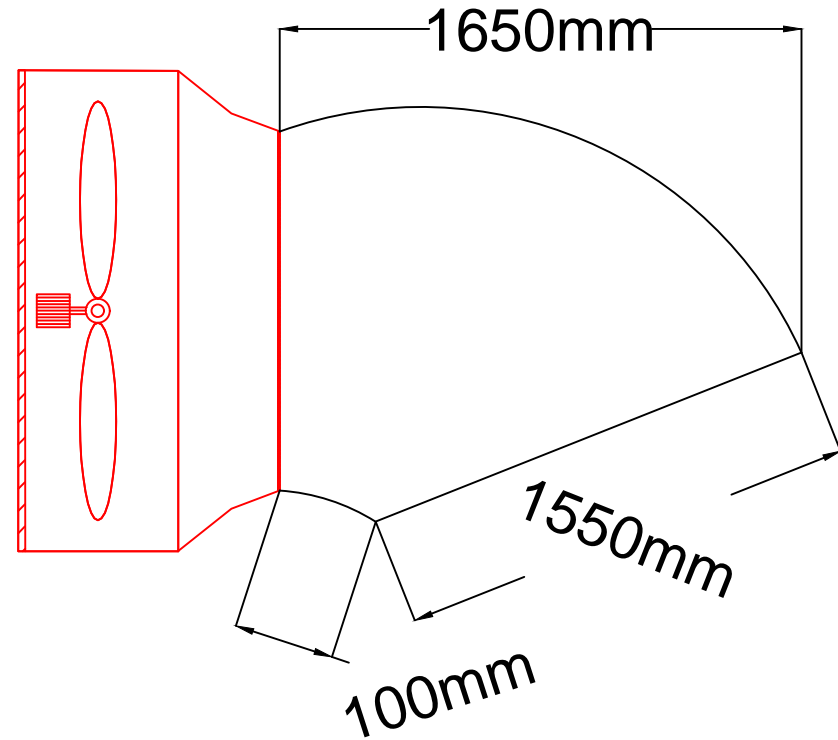
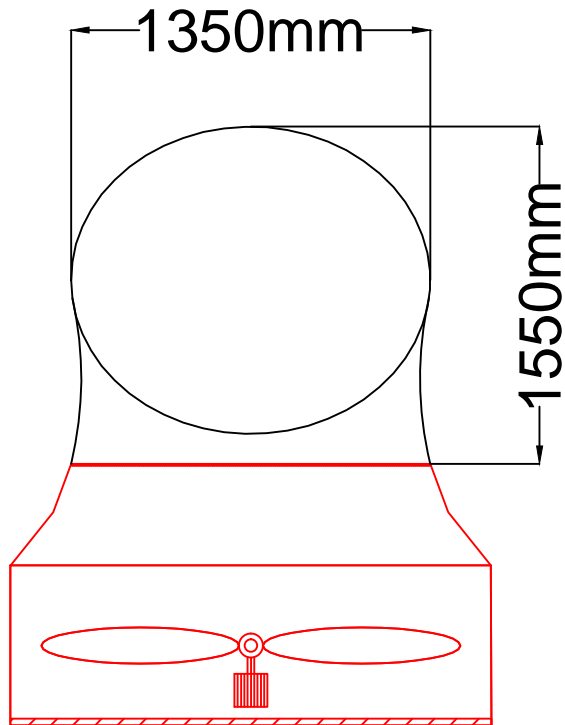
Point of Reception ID	Point of Reception Description	Time of Day	Unmitigated Sound Levels (L _{EQ}) (dBA)	Mitigated Sound Levels (L _{EQ}) (dBA)	Existing Ambient Conditions (L _{EQ}) (dBA)	Insignificant Relative to Ambient? (Yes/No)	Class Number	Verified by Acoustic Audit
Steady State Noise Impact								
POR1	LTM1 at 56th	07:00–21:00	54	53	67	Yes	N/A	No
		22:00–07:00	52	50	58	Yes	N/A	No
POR2	LTM2 Setback from 56th	07:00–21:00	51	49	61	Yes	N/A	No
		22:00–07:00	49	46	54	Yes	N/A	No

Attachment D

Exhaust Hood Drawing

57" Fan 90 Degree Cone

Airflow: 60,720CMH



Appendix C:
Noise Comment

Bitcoin - Environmental Impact Statement for Public Review and Comment

From >
Date Thu 2/27/2025 3:42 PM
To NFNy Planning <nfny.planning@niagarafallsny.gov>

Hello

I am a resident of Niagara Falls who has been subjected to absolutely unrelenting mechanical grinding noise and low frequency humming and vibrating noise created by bitcoin plants in this city. This has absolutely had a huge impact on my life and has caused me to have sleepless nights, irritability and many other symptoms. At times I feel extremely jittery or nervous especially when the noise is active. Sometimes the noise is so loud even with closed windows that it goes over the volume of the TV or radio. I currently have rooms in my household that are unusable because of bitcoin noise. I definitely still hear bitcoin noise in my house even though regulations have been placed especially at night and sometimes it is very loud still. While I cannot say I hear bitcoin noise inside the house 24/7 because there are seemingly random times that the noise goes away and there are random times when the noise is really, really bad. The noise is a loud more vibrating noise that makes the walls vibrate which I have determined to be a low frequency noise that is coming from fans on a bitcoin plant. The noise penetrates my walls and windows even when shut. I have lived here for over 30 years and I have never had an issue with any kind of noise coming into my house in the past even with open windows. I have personally measured the decibels at my open window even last summer between 60-75db which is crazy since I don't even live that close to the plant. While I know this is not the most accurate measurement it does give me a bit of an idea of what I am hearing. The warmer weather in the summer is when the noise is the worst and this is specifically the time when people want to go outside and use the outdoors for various purposes. In addition I have tried to escape the noise but I have personally tracked the noise and I have found that I had to go all the way to a certain point on hyde park golf course in order for the noise to stop. That's quite a long distance from any bitcoin plant that is in the vicinity of Buffalo Avenue.

In order to sleep I have had to resort to sleeping with earplugs which do not block out all of the noise but they do get most of it but on nights when it is really bad even the earplugs are not sufficient to block the noise enough to sleep.

I understand the bitcoin plant has done things to reduce the noise since I heard it however I did notice when the plant fired up a few times during that time and it was extremely loud especially in the area of the fashion outlets mall where I just happened to be when I heard a horrible mechanical grinding noise from the parking lots of the mall. This is a great way to welcome shoppers and tourists to Niagara Falls.

While I am definitely not an noise expert after all I am just a resident I do know the noise the fans at the bitcoin mine makes a low frequency humming noise. Its possible to use things like noise abatement walls to block mid and high frequency noise the low frequency noise is more difficult to deal with. While everyone does perceive noise differently this low frequency noise is particularly

bothersome to a lot of people because they are not reflected well in A-weighted measurements (a common frequency weighting applied to noise measurements that attenuates low-frequency noise). Low frequency humming doesn't contribute much to A-weighted noise levels but is often the source of complaints. Most community regulations are put in place in the 50-60db range but do not account for this low frequency noise or hum. So while the decibels may be under the community's legal limit there is still this low frequency hum in the air which is what is most bothersome for most people. Low frequency noise also penetrates walls, and thus houses more easily and carries a farther distance thus it is a very insidious annoying noise, and its a lot more than annoying for most people than other sounds. Also while sometimes low frequency noise is not heard during the day it is heard more at night when people are trying to sleep.

I don't think I need to sit here and write a dissertation about what the lack of sleep can do to people because the effects of the lack of sleep on humans are well known and as we all know it can lead to a variety of health conditions especially with long term exposure none of which are good.

While there hasn't been a lot of studies on constant exposure to low frequency noise in humans there have been studies on mice that show constant exposure to low frequency noise causes impaired balance in them. Perhaps the planning committee should consider the fact that residents in the area of the plant will be constantly exposed to low frequency noise from this plant and may suffer health problems down the road because of it.

[https://link.edgepilot.com/s/a89af63a/rZ8iXZ_dtku-o_Mv82n73g?
u=https://pubmed.ncbi.nlm.nih.gov/22768129/](https://link.edgepilot.com/s/a89af63a/rZ8iXZ_dtku-o_Mv82n73g?u=https://pubmed.ncbi.nlm.nih.gov/22768129/)

Residents living near this bitcoin plant are already being poisoned by the Goodyear plant and really do not need another source of poison or health risk in their lives.

My concern is that the noise study was done in the winter and only for a short period of time. What happens in the summer and spring when the temperatures warm up and people want to open their windows and go outside? I know I am very much looking forward to spring along with the entire community after the winter we have had. At the time of writing this the weather has just warmed up and it only took 1 day of slightly warmer weather for the bitcoin noise to come right back after the cold spell. So now my house is infested with mechanical grinding noise once again. The last thing I want is another bitcoin plant blowing mechanical grinding noise right into my window. This is also not a temporary thing, the plant will be running 24/7 while they did agree to turn off some of the fans at night and on weekends I am skeptical that that will help due to the low frequency hum of the fans penetrating windows and houses.

I would also like to call your attention to a noise abatement program called the Quieter Home program that was put in place near the Buffalo Airport. This was done to noise proof houses that were in the vicinity of the airport and were affected by the noise so the occupants could go on living a normal life. This would at least let people stay in their houses and hopefully not hear too much noise. If anyone feels like the noise from the bitcoin plant interferes with their lives the bitcoin plant should be paying for upgrades to the house in order to noise proof it similar to this program. The bitcoin plant makes more than enough money mining bitcoin to do this. This is just an example of one program that was put in place near a noisy facility to make it more pleasant for people living nearby and is part of being a good neighbor to the area. If the plant is to operate in the city and there are residential complaints a Quieter home program needs to be put in place and houses near the plant need to be upgraded as necessary at the expense of the plant making the noise.

[https://link.edgepilot.com/s/fe29c65d/01r1CQSFgUeC5BLfaY6Ktw?
u=https://www.buffaloairport.com/airport-info/about-the-airport/noise-abatement](https://link.edgepilot.com/s/fe29c65d/01r1CQSFgUeC5BLfaY6Ktw?u=https://www.buffaloairport.com/airport-info/about-the-airport/noise-abatement)

Thank you for reading this.

A concerned resident of Niagara falls