



February 20, 2026

Homestead Land Holdings Limited
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Attention: Jack Mangan
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Re: Noise Impact Study of the Proposed Residential Development
1316 Carling Avenue, Ottawa, ON
Pinchin File: 361094

Pinchin Ltd. (Pinchin) was retained by Homestead Land Holdings Limited (Client) to prepare a noise impact study report for its proposed residential development (Development) at 1316 Carling Avenue, Ottawa, ON. This report has been prepared to evaluate the noise impacts from external sources and road traffic on the Development and the Development on nearby noise sensitive receptors. The purpose of the study is to support re-zoning and/or site plan control applications for the proposed Development.

The proposed Development will include the construction of one residential building. The building will include three levels of underground parking, twenty levels of residential units, and one level of penthouse for mechanical equipment. Outdoor amenity spaces are located on the ground level and on the 10th floor.

Figure 1, Appendix B shows the locations of the proposed Development and nearby roads. Additional drawings showing the site plan, floor and elevation plans are included in Appendix C.

1.0 NOISE CRITERIA

In this study, noise criteria outlined in the City of Ottawa's Environmental Noise Control Guidelines (ENCG) [1] and the Ontario Ministry of Environment, Conservation and Parks (MECP) Publication NPC-300 [2] were adopted. The applicable noise criteria for this proposed redevelopment are described as follows:

1.1 Outdoor Noise Criteria

The daytime noise criterion for outdoor living areas (OLAs) is 55 dBA for road and rail noise sources. Where it is not technically, economically, or administratively feasible to meet the 55 dBA limit, up to 60 dBA is permissible with warning clauses. Where the daytime sound level is greater than 60 dBA, control measures are required to reduce the sound level to 60 dBA or less.

The proposed Development has made provisions for a variety of protected indoor amenities such as screening room, party and exercise rooms, etc. that are accessible to all future occupants/owners in the



proposed Development. In addition, there are balconies and terraces for the respective suites, and it should be noted that typically, balconies in residential condominium buildings are not considered OLAs unless both of the following conditions exist: they are at least 4 m in depth and there is no provision for protected amenities within the development. On the 5th floor, there are private balconies that exceed 4 m in depth.

1.2 External Building Façade Criteria

Where the sound levels at the exterior of the building facades exceed 55 dBA at living/dining room windows during daytime hours and 50 dBA at bedroom windows during nighttime periods, the unit must be provided with forced air heating with provision for central air conditioning. Where the sound levels exceed by more than 10 dB (i.e. 65 dBA at living/dining room windows and 60 dBA at bedroom windows), central air conditioning must be incorporated into the building design prior to occupancy. Upgraded window glazing construction may be required and warning clauses are applicable as well.

1.3 Noise Criteria for Stationary Sources

The applicable MECP noise criteria at a point of reception (POR) are dictated by MECP Publication NPC-300 [2] for Class 1 Areas. These guidelines state that the one-hour sound exposures (Leq, 1 hour) from stationary noise sources in Class 1 areas shall not exceed:

- the higher of 50 dBA or background noise between 0700h and 1900h;
- the higher of 50 dBA or background noise between 1900h and 2300h; and
- the higher of 45 dBA or background noise between 2300h and 0700h (excluding outdoor PORs).

The sound level limits for the testing of an emergency generator are 5 dBA higher than the above limits.

For the purpose of this study, the ambient background sound levels at some internal receptors (INT_R01 to INT_R05) were determined using CadnaA-TNM. The calculations were based on the existing road traffic on Highway 417, Carling Avenue and Merivale Road. Details of background noise calculations and adjustment are included in Appendix D.

2.0 POINT OF RECEPTION DESCRIPTION

To evaluate the noise impact from road and external stationary sources on the Development, fourteen onsite noise sensitive receptors (INT_R01 to INT_R14) were selected from the Development's most affected locations. Receptors INT_R01 and INT_R02 represent the façade windows at the northwest corner of the building. Receptors INT_R03 to INT_R05 represent the façade windows at the northeast corner of the building. Receptor INT_R06 represents the façade windows on the east side of the building.



Receptor INT_R07 represents the façade windows at the southeast corner of the building. Receptor INT_R08 represents the façade windows on the west side of the building. Receptor INT_R09 represents the outdoor living area on the 10th floor. Receptors INT_R10 and INT_R11 represent the private balconies on the 5th floor. Receptors INT_R12 to INT_R14 represent the outdoor living area on the ground.

To evaluate the noise impact from the Development on surrounding noise sensitive land uses, four (4) receptors (ET_R1 to ET_R4) were selected. Receptor ET_R1 represents the south façade windows on the existing apartment building at 1316 Carling Avenue. Receptor ET_R3 represents a two-storey home located to the southwest of the Development. Receptor ET_R2 is an associated outdoor POR. Receptor ET_R4 represents a two-storey home located to the southeast of the Development.

The following table lists the selected receptor details:

| Point of Reception ID | Point of Reception Location | Point of Reception Height, m |
|------------------------------|------------------------------------|-------------------------------------|
| ET_R1 | External - Apartment at 1316 | 55 |
| ET_R2 | External POR/OLA | 1.5 |
| ET_R3 | External 2-Storey Home | 4.5 |
| ET_R4 | External 2-Storey Home | 4.5 |
| INT_R01 | West Facade - 20 m | 20 |
| INT_R02 | North Facade - 56.5 m | 56.5 |
| INT_R03 | North Facade - 56.5 m | 56.5 |
| INT_R04 | North Facade - 20 m | 20 |
| INT_R05 | North Facade - 4.5 m | 4.5 |
| INT_R06 | East Facade Windows - 20 m | 20 |
| INT_R07 | East Facade Windows - 10.5 m | 10.5 |
| INT_R08 | West Facade - 56.5 m | 56.5 |
| INT_R09 | OLA - 10th Floor | 28.6 |



| Point of Reception ID | Point of Reception Location | Point of Reception Height, m |
|-----------------------|-----------------------------|------------------------------|
| INT_R10 | OLA - 5th Floor | 14.1 |
| INT_R11 | OLA - 5th Floor | 14.1 |
| INT_R12 | OLA - Ground | 1.5 |
| INT_R13 | OLA - Ground | 1.5 |
| INT_R14 | OLA - Ground | 1.5 |

Locations of the selected receptors are shown in Figure 2, Appendix B.

3.0 NOISE IMPACT ASSESSMENT

3.1 Noise Impact from Transportation Sources on the Development

A review of aerial photos showed that there are three roadways – Highway 417, Carling Avenue and Merivale Road. Highway 417 is located to the northwest of the Development, approximately 230 m away. Carling Avenue is a 6-lane divided arterial road located to the north of the Development. Merivale Road is a 4-lane undivided arterial road located to the southeast of the Development. The review of aerial photo showed that there are no CN/CP railway lines within 500 m of the Development.

The AADT volumes for the identified roads were calculated based on Table 1, Appendix B of the ENCG. Details of traffic data and vehicle breakdowns are provided in Table D1, Appendix D.

The sound levels at the proposed Development due to road traffic noise were calculated using the CadnaA implementation of the Traffic Noise Model (TNM). The TNM (Current Version 3.2) was published by the United States Federal Highway Administration in 2023. The combination of CadnaA-TNM enables the modelling of complex terrain and barrier configurations and the utilization of advanced traffic noise modelling algorithms. Another consideration for the selection of CadnaA-TNM in this study was that it enables the calculations of multiple roads and receptors at the same time. The TNM model is recognized by both the Ontario Ministry of Transportation (MTO) and MECP in their guides [3, 4].

To validate the accuracy of CadnaA-TNM calculations, Appendix D includes a sample comparison of the calculation results from CadnaA-TNM and STAMSON. The comparisons show that the difference in the calculated sound levels is 0.24 dBA.



It should be noted that, per NPC-300, in calculating the traffic noise impact, reflections from building facades were excluded in the calculations. This applies to the calculations of ambient background traffic noise at selected receptors as well.

The predicted road traffic noise impacts on the Development are provided in Table 1, Appendix A. Table 2, Appendix A, summarizes the predicted sound levels at selected units and outdoor living areas, as well as the applicable noise control requirements. The elevation plans show that there are rooftop barriers around the rooftop amenity spaces on the 5th and 10th floors. The heights of the barriers range from 1.2 m to 2.3 m. In addition, there is another barrier, approximately 4.1 m high, around the cooling tower on the penthouse floor. The barriers were included in the calculations.

Details of CadnaA-TNM calculation results are provided in Appendices A and D.

The predicted traffic noise impacts range from 50 dBA to 65 dBA at the selected onsite receptors. The predicted levels indicate that the units should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Types A and C are required to be included in agreements of offers of purchase and sale, lease/rental agreements and condominium declarations. Details of the warning clauses are included in Appendix E.

It was confirmed by the Client that all units will be equipped with central air conditioning and HRV systems. As such, the construction will exceed the City's and MECP ventilation requirements.

Since the predicted traffic noise impacts do not exceed 65 dBA and 60 dBA during daytime and nighttime hours, respectively, no special construction requirements on building components (i.e. windows, doors and walls) are warranted. Constructions meeting the Ontario Building Code (OBC) would be sufficient to provide the required sound attenuation.

The proposed Development is located approximately 7 km to the north of the Ottawa International Airport. Annex 10 of the City's Official Plan shows that the Airport Vicinity Development Zone (AVDZ) extends up to the interchange of Highway 417 and Maitland Avenue to the northwest of the Airport. The distance from the proposed Development to the nearest AVDZ is approximately 2 km. Therefore, the aircraft noise impact was deemed acoustically insignificant, and the aircraft warning clause is not required.

3.2 Noise Impact from External Stationary Sources on the Development

A review of aerial photos of the area shows that there are eight commercial/residential buildings that are located within 100 m of the proposed Development. It should be noted that the high-rise apartment building at 1316 Carling Avenue is owned and operated by the Client.



To collect the equipment sound information, a site visit was conducted on Thursday September 18, 2025. At the Client's building (1316 Carling Avenue), significant sources were identified and, where possible, acoustic measurements were conducted to quantify the radiated sound select equipment.

The Client tried to request the permissions for access to the other nearby building owners/operators. However, permission was not granted. As such, Pinchin estimated the rooftop equipment sound information based on the review of aerial photos and observations during the site visit.

Based on the information collected during the site visit, the significant noise sources associated with the external buildings are provided in Table 3, Appendix A, and include the following:

External Sources:

- One (1) A/C unit (source AC1);
- One (1) make-up air unit (source MAU);
- One (1) exhaust (source EX1);
- One (1) building air intake (source IN1);
- Two (2) generators (sources GEN1 and GEN2); and
- Twenty-two (22) HVAC units (sources HVAC1 to HVAC22).

Equipment sound data were based on measurements collected during the site visit and Pinchin's past measurements on similar sized equipment. Table 3, Appendix A, lists the equipment sound information.

In modelling the noise impact from the rooftop equipment, all HVAC units were assumed operating for 60 minutes, 45 minutes and 30 minutes during daytime, evening and nighttime hours, respectively. The selected duty cycles are in line with operations of typical comfort heating equipment used at commercial and residential buildings.

The predicted noise impacts from stationary sources and emergency generator testing are summarized in Tables 4 and 5, Appendix A, respectively. Noise impact contour maps are presented in Figures 3 and 4, As shown in Tables 4 and 5, Appendix A, the predicted stationary source noise impacts meet the MECP applicable sound level limits at selected onsite receptors. As such, noise control measures are not required.

3.3 Noise Impact from the Development on Nearby Sensitive Receptors

Based on the information provided by the Client, the significant noise sources associated with the proposed Development are included in Table 3, Appendix A, and may include the following:

- Two (2) garage exhaust fans (sources INT_EF1, 2);



- One (1) emergency generator (source INT_GEN);
- One (1) make-up air unit (source INT_MUA); and
- One (1) cooling tower (sources INT_CT_Air, INT_CT_Back, INT_CT_Motor, INT_CT_End, and INT_CT_Top).

Pinchin was advised by the Client that the proposed equipment would be materially similar to the equipment used at the Client’s other development projects in Ottawa and Kingston, Ontario. Consequently, manufacturers’ sound data for the generator, make-up unit, and the cooling tower at the other developments were provided by the Client and are included in Appendix F. The sound power level for the garage fans was calculated based on the published engineering method.

CadnaA was used to predict the noise impact from external sources on the Development. The modeling protocol was similar to the modelling of the external sources.

In modelling the noise impact from the proposed equipment, the following assumptions were made. The emergency generator was assumed testing for 30 minutes during daytime hours. The Client indicates that the cooling tower will be equipped with variable speed motor(s). Consequently, the cooling tower was modelled operating for 60 minutes during daytime hours, 45 minutes during evening hours, and 30 minutes during nighttime hours. The selected duty cycles are in line with operations of typical comfort heating equipment used at residential facilities. Both the make-up air unit and the garage fans were modelled operating continuously during daytime, evening, and nighttime hours.

The following table summarizes the modelled equipment operating schedule:

| Equipment | Daytime Operation | Evening Operation | Nighttime Operation |
|---------------------------------------|--------------------------|--------------------------|----------------------------|
| Emergency Generator Testing (INT_GEN) | 30 min/hr | No Operation | No Operation |
| Cooling Tower (INT_CT) | 60 min/hr | 45 min/hr | 30 min/hr |
| Garage Exhaust Fans (INT_EF1, 2) | 60 min/hr | 60 min/hr | 60 min/hr |
| Make-up Air Unit (INT_MUA) | 60 min/hr | 60 min/hr | 60 min/hr |

Tables 6 and 7 summarize the compliance status of the Development at each receptor location. Noise impact contour maps are presented in Figures 5 and 6, Appendix B.

As shown in Tables 6 and 7, Appendix A, the predicted Development source noise impacts meet the MECP applicable sound level limits at selected onsite receptors. As such, noise control measures are not required.



4.0 CONCLUSIONS

A detailed noise impact assessment of the proposed Development was completed by modelling the noise impacts from road traffic and external stationary sources on the Development. The assessment shows that the traffic noise impact on the Development meets the NPC-300 noise criteria, with the included control measure (rooftop parapet/glass panels) and proposed installation of central air conditioning systems. In addition, the following warning clause Types A and C are required. Appendix E also includes the warning clause from the City of Ottawa's Guide.

Warning Clause Type A – From MECP NPC-300

"Purchasers/tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

Warning Clause Type C – From MECP NPC-300

"This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

The predicted noise impacts from external stationary sources and emergency generators meet the NPC-300 noise criteria. Noise control measures are not required.

The predicted noise impacts from the Development on external sensitive receptors meet the NPC-300 noise criteria. Noise control measures are not required.

5.0 TERMS AND LIMITATIONS

This work was performed subject to the Terms and Limitations presented or referenced in the proposal for this project.

Information provided by Pinchin is intended for Client use only. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law. Any use by a third party of reports or documents authored by Pinchin or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranties are implied or expressed.



6.0 CLOSURE

Should you have any questions or concerns regarding the contents of this study, please contact the undersigned.

Sincerely,

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7.0 REFERENCES

1. City of Ottawa, Environmental Noise Control Guidelines: Introduction and Glossary, January 2016.
2. Ministry of the Environment Publication NPC-300, "Environmental Noise Guideline Stationary and Transportation Sources – Approval and Planning", August 2013.
3. Ministry of Transportation, Environmental Guide for Noise, 2022.
4. Ministry of the Environment, Conservation and Parks, Methods to Determine Sound Levels Due to Road and Rail Traffic (Draft), February 2020.

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Template: Master Noise Impact Study Letter, ERC, March 5, 2020

APPENDIX A
Tables
(9 Pages)

Table 1 - Road Traffic Noise Prediction Results

| Point of Reception ID | Point of Reception Location | Point of Reception Height, m | Daytime Sound Level, dBA ^[1] | Nighttime Sound Level, dBA ^[2] |
|-----------------------|------------------------------|------------------------------|---|---|
| INT_R01 | West Facade - 20 m | 20 | 63 | 55 |
| INT_R02 | North Facade - 56.5 m | 56.5 | 64 | 56 |
| INT_R03 | North Facade - 56.5 m | 56.5 | 65 | 57 |
| INT_R04 | North Facade - 20 m | 20 | 63 | 56 |
| INT_R05 | North Facade - 4.5 m | 4.5 | 57 | 50 |
| INT_R06 | East Facade Windows - 20 m | 20 | 63 | 56 |
| INT_R07 | East Facade Windows - 10.5 m | 10.5 | 59 | 51 |
| INT_R08 | West Facade - 56.5 m | 56.5 | 63 | 55 |
| INT_R09 | OLA - 10th Floor | 28.6 | 51 | - |
| INT_R10 | OLA - 5th Floor | 14.1 | 49 | - |
| INT_R11 | OLA - 5th Floor | 14.1 | 51 | - |
| INT_R12 | OLA - Ground | 1.5 | 54 | - |
| INT_R13 | OLA - Ground | 1.5 | 57 | - |
| INT_R14 | OLA - Ground | 1.5 | 53 | - |

Notes

1. The daytime period is from 7 am to 11 pm.
2. The nighttime period is from 11 pm to 7 am.

Table 2: Summary of Noise Control Measures

| Point of Reception ID [1] | Façade/Location Description [2] | Predicted Unmitigated Sound Level at Most Affected Facades (Leq, dBA) [3] | | Approximate Distance to Road, m [4] | Exterior Window STC Requirements [5] | Ventilation Requirements [6] | Wall Requirements [7] | Approximate Barrier Height [8] | Warning Clauses [9] |
|---------------------------|---------------------------------|---|------------------|-------------------------------------|--------------------------------------|------------------------------|-----------------------|--------------------------------|---------------------|
| | | Daytime (16 hr) | Nighttime (8 hr) | | | | | | |
| INT_R01 | West Façade - 20 m | 63 | 55 | 250.0 | OBC | Provision | OBC | n/a | Type C |
| INT_R02 | North Façade - 56.5 m | 64 | 56 | 250.0 | OBC | Provision | OBC | n/a | Type C |
| INT_R03 | North Façade - 56.5 m | 65 | 57 | 250.0 | OBC | Provision | OBC | n/a | Type C |
| INT_R04 | North Façade - 20 m | 63 | 56 | 250.0 | OBC | Provision | OBC | n/a | Type C |
| INT_R05 | North Façade - 4.5 m | 57 | 50 | 250.0 | OBC | n/a | OBC | n/a | n/a |
| INT_R06 | East Façade Windows - 20 m | 63 | 56 | 280.0 | OBC | Provision | OBC | n/a | Type C |
| INT_R07 | East Façade Windows - 10.5 m | 59 | 51 | 300.0 | OBC | n/a | OBC | n/a | n/a |
| INT_R08 | West Façade - 56.5 m | 63 | 55 | 280.0 | OBC | Provision | OBC | n/a | Type C |
| INT_R09 | OLA - 10th Floor | 51 | - | 300.0 | n/a | n/a | n/a | 1.2 | n/a |
| INT_R10 | OLA - 5th Floor | 49 | - | 300.0 | n/a | n/a | n/a | 1.2 - 2.3 | n/a |
| INT_R11 | OLA - 5th Floor | 51 | - | 300.0 | n/a | n/a | n/a | 1.2 - 2.3 | n/a |
| INT_R12 | OLA - Ground | 54 | - | 270.0 | n/a | n/a | n/a | n/a | n/a |
| INT_R13 | OLA - Ground | 57 | - | 290.0 | n/a | n/a | n/a | n/a | Type A |
| INT_R14 | OLA - Ground | 53 | - | 320.0 | n/a | n/a | n/a | n/a | n/a |

Notes:

- [1] Where applicable, the PORs are referred to the room dimensions. See the floor plans in Appendix C.
- [2] The north façade faces Carling Avenue.
- [3] CadnaA-TNM predicted sound levels at the planes of windows or outdoor living areas in dBA.
- [4] Approximate distances to Highway 417.
- [5] OBC - the window should be designed to meet the Ontario Building Code requirements.
- [6] Provision - the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion.
- [7] OBC - the wall should be designed and constructed to meet the Ontario Building Code requirements.
- [8] Acoustic barrier along the perimeter of the 5th and 10th floor terrace spaces.
- [9] For details on warning clauses, see Appendix E.

Table 3: External and Internal Noise Source Summary Table

| Source ID ^[1] | Source Description | Lw(A) ^[2] | Source Location ^[3] | Sound Characteristics ^[4] | Noise Control Measures ^[5] | Source of Data ^[6] |
|--------------------------|--------------------|----------------------|--------------------------------|--------------------------------------|---------------------------------------|-------------------------------|
| AC1 | AC Unit | 78 | O | S | U | Mea |
| CT1 | Cooling Tower | 88 | O | S | U | File |
| EX1 | Exhaust | 86 | O | S | U | Mea |
| GEN1 | Generator | 96 | O | S | E, S | Mea |
| GEN2 | Generator | 96 | O | S | E, S | Same as GEN1 |
| HVAC1 | HVAC Unit | 79 | O | S | U | File |
| HVAC10 | HVAC Unit | 79 | O | S | U | File |
| HVAC11 | HVAC Unit | 79 | O | S | U | File |
| HVAC12 | HVAC Unit | 79 | O | S | U | File |
| HVAC13 | HVAC Unit | 79 | O | S | U | File |
| HVAC14 | HVAC Unit | 79 | O | S | U | File |
| HVAC15 | HVAC Unit | 84 | O | S | U | File |
| HVAC16 | HVAC Unit | 79 | O | S | U | File |
| HVAC17 | HVAC Unit | 84 | O | S | U | File |
| HVAC18 | HVAC Unit | 79 | O | S | U | File |
| HVAC19 | HVAC Unit | 84 | O | S | U | File |
| HVAC2 | HVAC Unit | 84 | O | S | U | File |
| HVAC20 | HVAC Unit | 79 | O | S | U | File |
| HVAC21 | HVAC Unit | 79 | O | S | U | File |
| HVAC22 | HVAC Unit | 79 | O | S | U | File |
| HVAC3 | HVAC Unit | 84 | O | S | U | File |
| HVAC4 | HVAC Unit | 79 | O | S | U | File |
| HVAC5 | HVAC Unit | 79 | O | S | U | File |
| HVAC6 | HVAC Unit | 79 | O | S | U | File |
| HVAC7 | HVAC Unit | 79 | O | S | U | File |
| HVAC8 | HVAC Unit | 79 | O | S | U | File |
| HVAC9 | HVAC Unit | 79 | O | S | U | File |

Table 3: External and Internal Noise Source Summary Table

| Source ID ^[1] | Source Description | Lw(A) ^[2] | Source Location ^[3] | Sound Characteristics ^[4] | Noise Control Measures ^[5] | Source of Data ^[6] |
|--------------------------|----------------------------|----------------------|--------------------------------|--------------------------------------|---------------------------------------|-------------------------------|
| IN1 | Building Air Intake | 84 | O | S | U | Mea |
| INT_CT_Air | Cooling Tower - Air Inlet | 89 | O | S | U | File |
| INT_CT_Back | Cooling Tower - Back | 83 | O | S | U | File |
| INT_CT_End | Cooling Tower - End | 81 | O | S | U | File |
| INT_CT_Motor | Cooling Tower - Connection | 83 | O | S | U | File |
| INT_CT_Top | Cooling Tower - Top | 89 | O | S | U | File |
| INT_EF1 | Garage Exhaust | 77 | O | S | U | Cal |
| INT_EF2 | Garage Exhaust | 77 | O | S | U | Cal |
| INT_GEN | Back-up Generator - Ground | 96 | O | S | U | File |
| INT_MAU | Make-up Air Unit | 88 | O | S | U | File |
| MAU | Make-up Air Unit | 88 | O | S | U | File |

Notes:

- [1] Wherever possible, the Source ID is identical with that used in the ESDM report.
- [2] Sound Power Levels of continuous noise sources, in dBA, do not include sound characteristic adjustments per NPC-104.
 Sound Power Levels of impulsive noise sources, in dBAI, are A-weighted incorporating an impulsive time weighting.
- [3] Source Location:
 O - located/installed outside the building, including on the roof
 I - located/installed inside the building
- [4] Sound Characteristic
 S = Steady
 Q = Quasi-Steady Impulsive
- [5] Noise Control Measures
 S = Silencer/Muffler/Louver
 A = Acoustic lining, plenum
 B = Barrier, berm, screening
- [6] Mea - Measured
 Cal - Engineering calculations
 File - Past measurements on similar equipment

Table 4: Acoustic Assessment Summary Table - From External Stationary Sources on the Development

| Point of Reception ID | Point of Reception Description | Time Period ^[1] | Total Level at POR (L _{eq} , 1-hr) ^[2] | Verified by Acoustic Audit (Yes/No) | Performance Limit (L _{eq} 1-hr) ^[3] | Compliance with Performance Limit (Yes/No) |
|-----------------------|--------------------------------|----------------------------|--|-------------------------------------|---|--|
| INT_R01 | West Facade - 20 m | Daytime | 45 | No | 58 | Yes |
| | | Evening | 43 | No | 57 | Yes |
| | | Nighttime | 42 | No | 47 | Yes |
| INT_R02 | North Facade - 56.5 m | Daytime | 50 | No | 59 | Yes |
| | | Evening | 48 | No | 58 | Yes |
| | | Nighttime | 47 | No | 49 | Yes |
| INT_R03 | North Facade - 56.5 m | Daytime | 50 | No | 60 | Yes |
| | | Evening | 49 | No | 59 | Yes |
| | | Nighttime | 48 | No | 49 | Yes |
| INT_R04 | North Facade - 20 m | Daytime | 48 | No | 58 | Yes |
| | | Evening | 47 | No | 57 | Yes |
| | | Nighttime | 45 | No | 48 | Yes |
| INT_R05 | North Facade - 4.5 m | Daytime | 48 | No | 51 | Yes |
| | | Evening | 47 | No | 50 | Yes |
| | | Nighttime | 45 | No | 45 | Yes |
| INT_R06 | East Facade Windows - 20 m | Daytime | 47 | No | 50 | Yes |
| | | Evening | 46 | No | 50 | Yes |
| | | Nighttime | 44 | No | 45 | Yes |
| INT_R07 | East Facade Windows - 10.5 m | Daytime | 45 | No | 50 | Yes |
| | | Evening | 44 | No | 50 | Yes |
| | | Nighttime | 43 | No | 45 | Yes |
| INT_R08 | West Facade - 56.5 m | Daytime | 45 | No | 50 | Yes |
| | | Evening | 44 | No | 50 | Yes |
| | | Nighttime | 42 | No | 45 | Yes |
| INT_R09 | OLA - 10th Floor | Daytime | 35 | No | 50 | Yes |
| | | Evening | 34 | No | 50 | Yes |
| INT_R10 | OLA - 5th Floor | Daytime | 36 | No | 50 | Yes |
| | | Evening | 34 | No | 50 | Yes |

| | | | | | | |
|---------|-----------------|---------|----|----|----|-----|
| INT_R11 | OLA - 5th Floor | Daytime | 37 | No | 50 | Yes |
| | | Evening | 36 | No | 50 | Yes |
| INT_R12 | OLA - Ground | Daytime | 41 | No | 50 | Yes |
| | | Evening | 40 | No | 50 | Yes |
| INT_R13 | OLA - Ground | Daytime | 38 | No | 50 | Yes |
| | | Evening | 37 | No | 50 | Yes |
| INT_R14 | OLA - Ground | Daytime | 40 | No | 50 | Yes |
| | | Evening | 39 | No | 50 | Yes |

Notes:

- [1] The predictable worst-case one (1) hour period was considered in the study.
- [2] Worst-case one hour equivalent sound level from all applicable sources operating in dBA.
- [3] Background noise calculations (@INT_R01 to INT_R05) or NPC-300 exclusionary sound level limits of one hour L_{eq} for Class 1 Areas.

Table 5: Acoustic Assessment Summary Table - From External Emergency Generators on the Development

| Point of Reception ID | Point of Reception Description | Time Period ^[1] | Total Level at POR (L _{eq} , 1-hr) ^[2] | Verified by Acoustic Audit (Yes/No) | Performance Limit (L _{eq} 1-hr) ^[3] | Compliance with Performance Limit (Yes/No) |
|-----------------------|--------------------------------|----------------------------|--|-------------------------------------|---|--|
| INT_R01 | West Facade - 20 m | Daytime | 35 | No | 63 | Yes |
| INT_R02 | North Facade - 56.5 m | Daytime | 47 | No | 64 | Yes |
| INT_R03 | North Facade - 56.5 m | Daytime | 48 | No | 65 | Yes |
| INT_R04 | North Facade - 20 m | Daytime | 54 | No | 63 | Yes |
| INT_R05 | North Facade - 4.5 m | Daytime | 56 | No | 56 | Yes |
| INT_R06 | East Facade Windows - 20 m | Daytime | 51 | No | 55 | Yes |
| INT_R07 | East Facade Windows - 10.5 m | Daytime | 47 | No | 55 | Yes |
| INT_R08 | West Facade - 56.5 m | Daytime | 26 | No | 55 | Yes |
| INT_R09 | OLA - 10th Floor | Daytime | 27 | No | 55 | Yes |
| INT_R10 | OLA - 5th Floor | Daytime | 26 | No | 55 | Yes |
| INT_R11 | OLA - 5th Floor | Daytime | 29 | No | 55 | Yes |
| INT_R12 | OLA - Ground | Daytime | 30 | No | 55 | Yes |
| INT_R13 | OLA - Ground | Daytime | 30 | No | 55 | Yes |
| INT_R14 | OLA - Ground | Daytime | 29 | No | 55 | Yes |

Notes:

- [1] The predictable worst-case one (1) hour period was considered in the study.
- [2] Worst-case one hour equivalent sound level from all applicable sources operating in dBA.
- [3] Background noise calculations (@INT_R01 to INT_R05) or NPC-300 exclusionary sound level limits of one hour L_{eq} for Class 1 Areas.

Table 6: Acoustic Assessment Summary Table - From the Development Stationary Sources on External Sensitive Receptors

| Point of Reception ID | Point of Reception Description | Time Period ^[1] | Total Level at POR (L _{eq} , 1-hr) ^[2] | Verified by Acoustic Audit (Yes/No) | Performance Limit (L _{eq} 1-hr) ^[3] | Compliance with Performance Limit (Yes/No) |
|-----------------------|--------------------------------|----------------------------|--|-------------------------------------|---|--|
| ET_R1 | External - Apartment at 1316 | Daytime | 47 | No | 50 | Yes |
| | | Evening | 46 | No | 50 | Yes |
| | | Nighttime | 45 | No | 45 | Yes |
| ET_R2 | External POR/OLA | Daytime | 35 | No | 50 | Yes |
| | | Evening | 35 | No | 50 | Yes |
| | | Nighttime | 34 | No | 45 | Yes |
| ET_R3 | External 2-Storey Home | Daytime | 43 | No | 50 | Yes |
| | | Evening | 43 | No | 50 | Yes |
| | | Nighttime | 43 | No | 45 | Yes |
| ET_R4 | External 2-Storey Home | Daytime | 32 | No | 50 | Yes |
| | | Evening | 31 | No | 50 | Yes |
| | | Nighttime | 31 | No | 45 | Yes |

Notes:

- [1] The predictable worst-case one (1) hour period was considered in the study.
- [2] Worst-case one hour equivalent sound level from all applicable sources operating in dBA.
- [3] NPC-300 exclusionary sound level limits of one hour L_{eq} for Class 1 Areas.

Table 7: Acoustic Assessment Summary Table - From the Development Generator Testing on External Sensitive Receptors

| Point of Reception ID | Point of Reception Description | Time Period ^[1] | Total Level at POR (L _{eq} , 1-hr) ^[2] | Verified by Acoustic Audit (Yes/No) | Performance Limit (L _{eq} 1-hr) ^[3] | Compliance with Performance Limit (Yes/No) |
|-----------------------|--------------------------------|----------------------------|--|-------------------------------------|---|--|
| ET_R1 | External - Apartment at 1316 | Daytime | 32 | No | 55 | Yes |
| ET_R2 | External POR/OLA | Daytime | 28 | No | 55 | Yes |
| ET_R3 | External 2-Storey Home | Daytime | 29 | No | 55 | Yes |
| ET_R4 | External 2-Storey Home | Daytime | 31 | No | 55 | Yes |

Notes:

- [1] The predictable worst-case one (1) hour period was considered in the study.
- [2] Worst-case one hour equivalent sound level from all applicable sources operating in dBA.
- [3] NPC-300 exclusionary sound level limits of one hour L_{eq} for Class 1 Areas, plus 5 dB for emergency equipment testing.

APPENDIX B
Figures
(6 Pages)

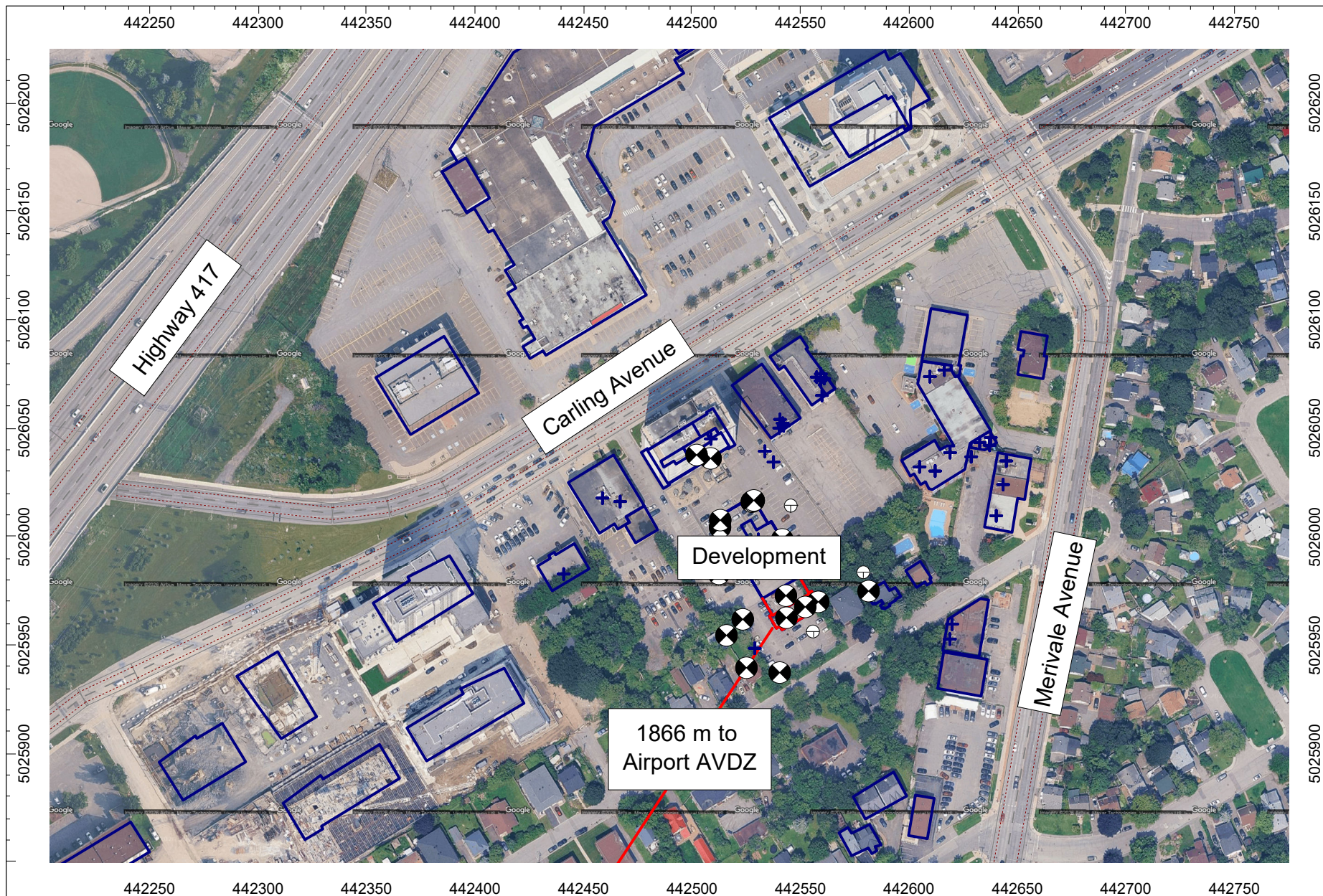


Figure 1 - Scaled Area Plan, Showing the Development and Nearby Roads



Drawn by: WNL

Scale: 1:2,500

Date: February 20, 2026

Homestead Land Holdings Limited, 1316 Carling Avenue, Ottawa, Ontario

Pinchin Project: 361094



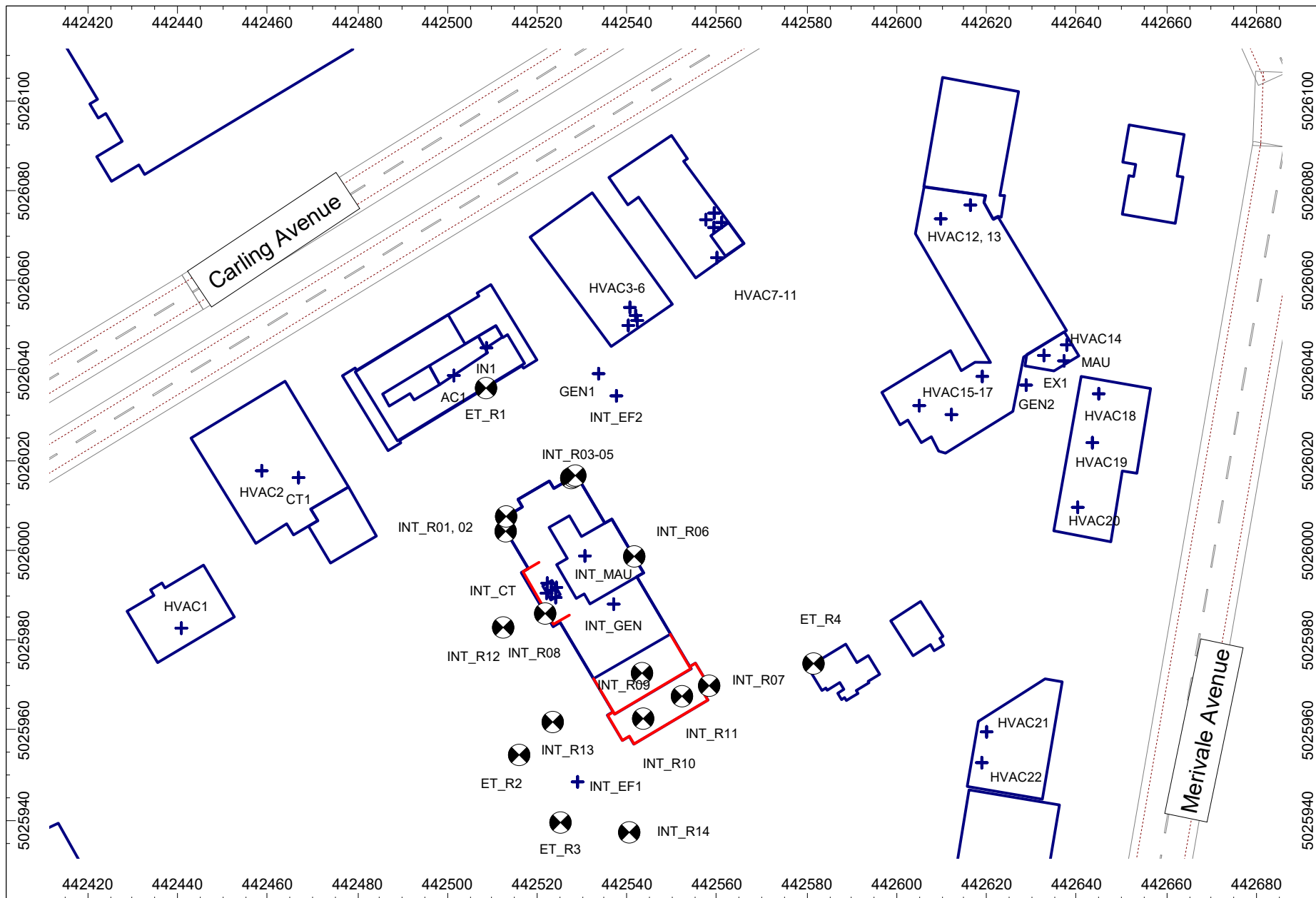


Figure 2 - Site Plan, Showing the Significant Sources and Receptors



Drawn by: WNL

Scale: 1:1,200

Date: February 20, 2026

Homestead Land Holdings Limited, 1316 Carling Avenue, Ottawa, Ontario

Pinchin Project: 361094



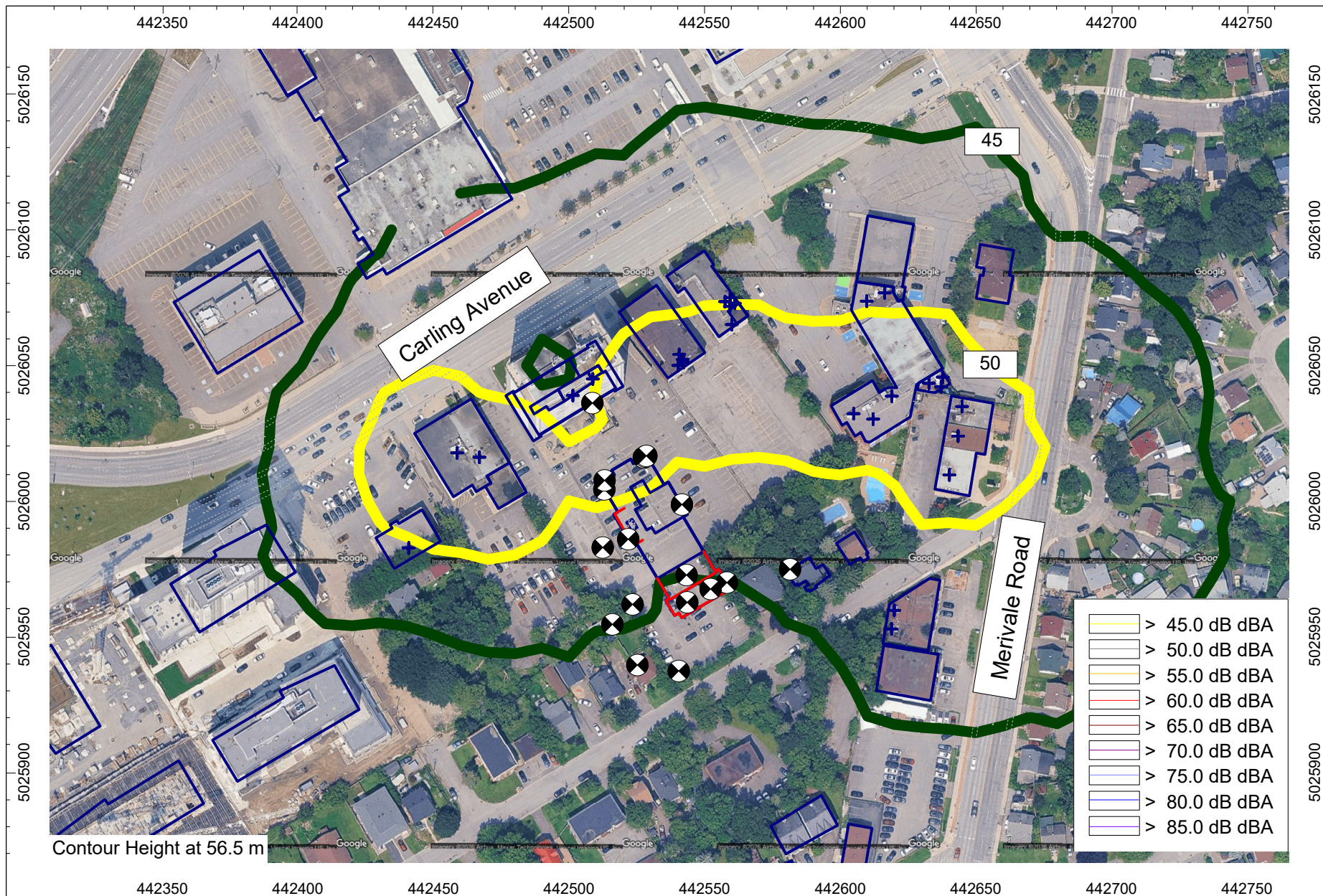


Figure 3 - Noise Impact Contour Map from External Stationary Sources on Development

Homestead Land Holdings Limited, 1316 Carling Avenue, Ottawa, Ontario

Pinchin Project: 361094



Drawn by: WNL

Scale: 1:2,000

Date: February 20, 2026



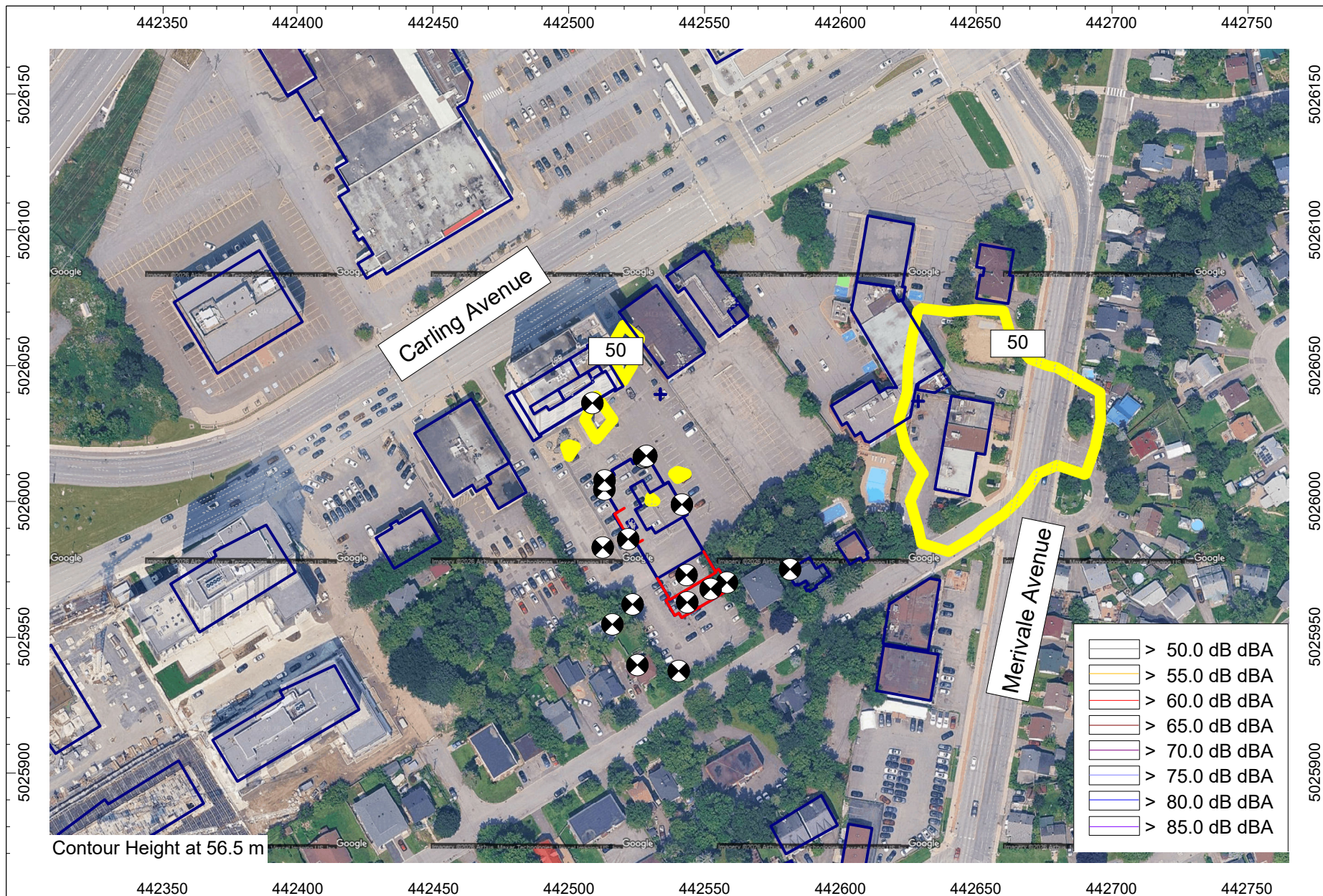


Figure 4 - Noise Impact Contour Map from External Generators on Development

Homestead Land Holdings Limited, 1316 Carling Avenue, Ottawa, Ontario

Pinchin Project: 361094



Drawn by: WNL

Scale: 1:2,000

Date: February 20, 2026



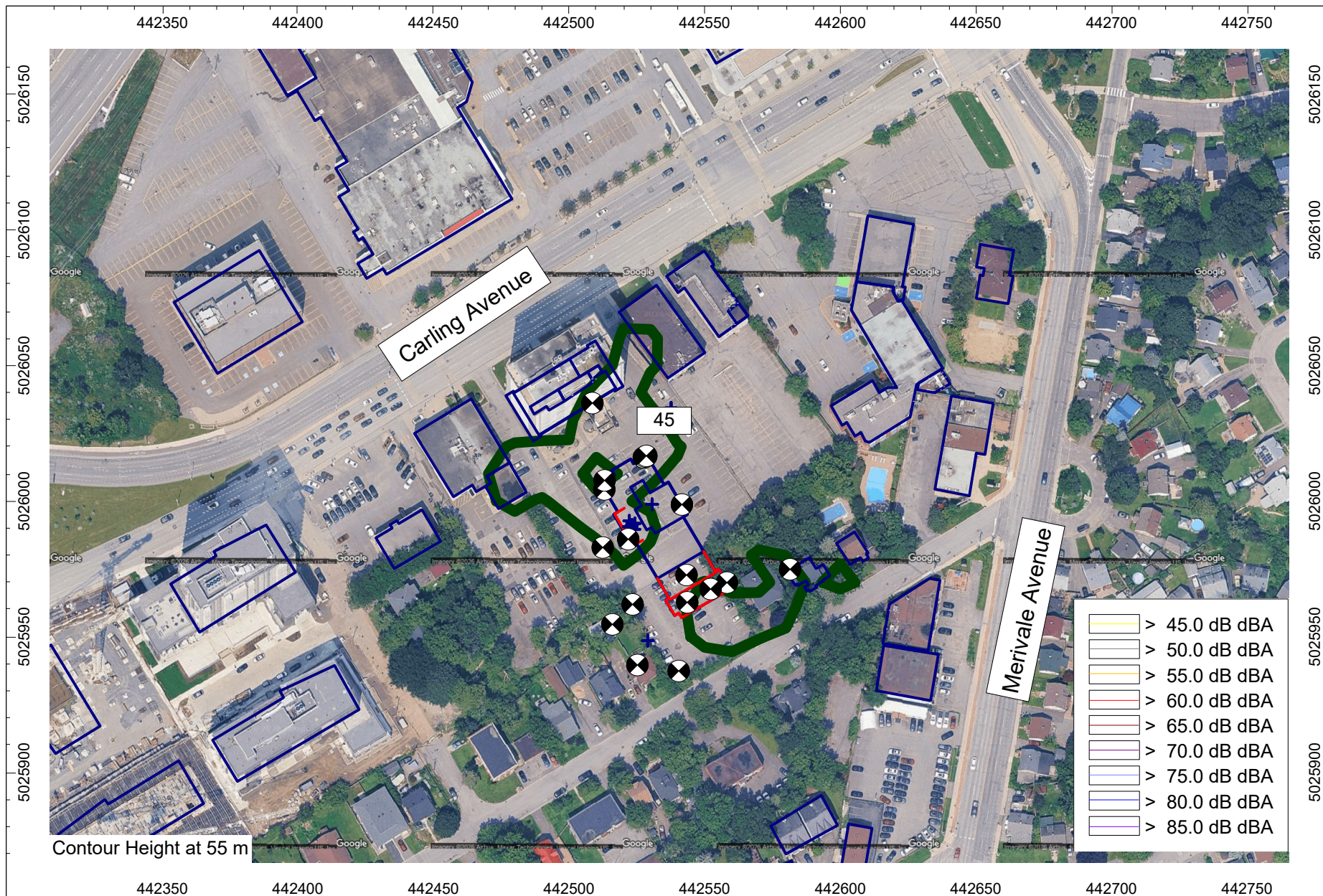


Figure 5 - Noise Impact Contour Map from Development Stationary Sources on External Receptors

Homestead Land Holdings Limited, 1316 Carling Avenue, Ottawa, Ontario

Pinchin Project: 361094



Drawn by: WNL

Scale: 1:2,000

Date: February 20, 2026



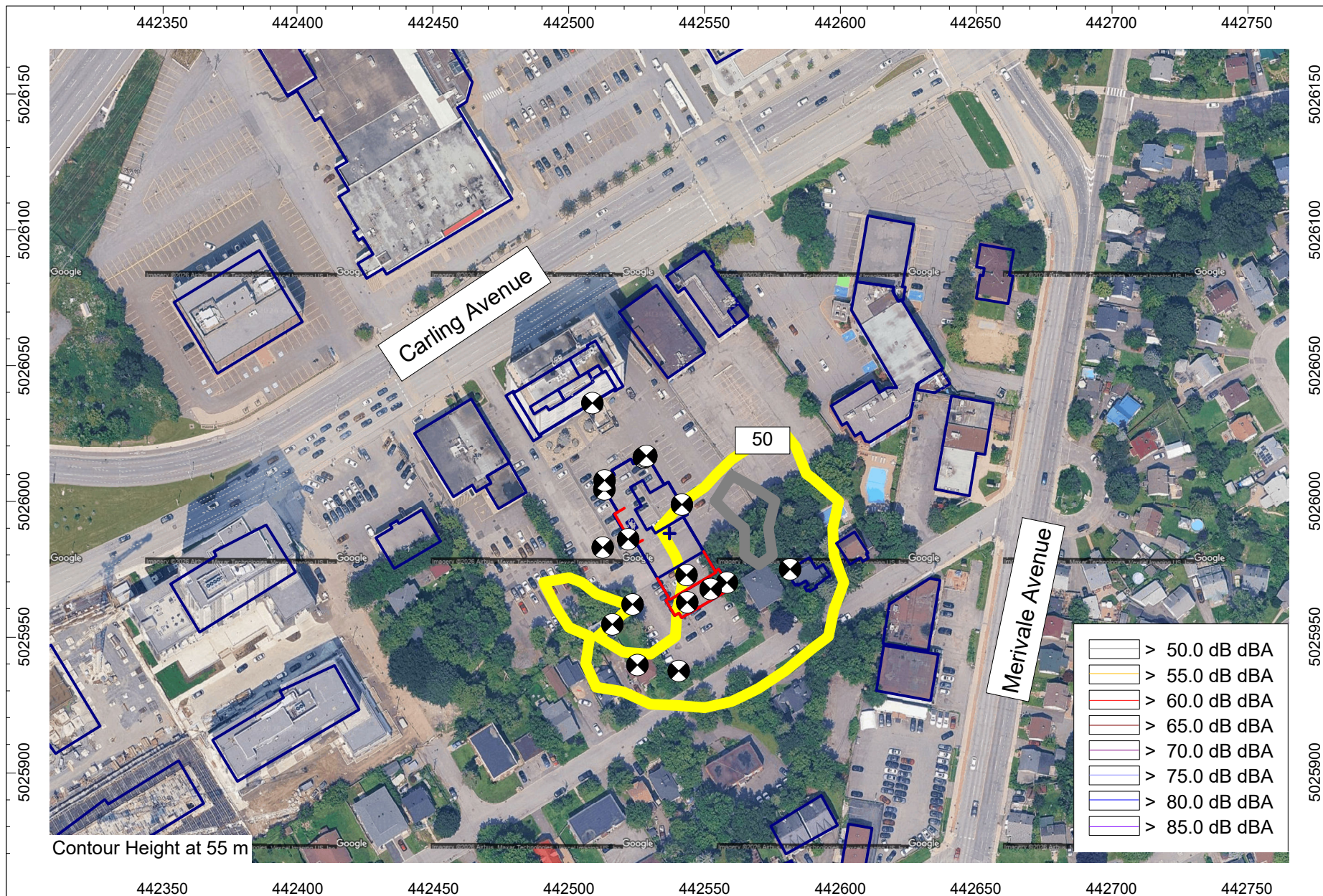


Figure 6 - Noise Impact Contour Map from Development Generator on External Receptors

Homestead Land Holdings Limited, 1316 Carling Avenue, Ottawa, Ontario

Pinchin Project: 361094



Drawn by: WNL

Scale: 1:2,000

Date: February 20, 2026



APPENDIX C
Additional Drawings
(13 Pages)

DO NOT SCALE DRAWINGS
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 CODE.

| Revisions | | |
|-----------|------------|----------------------|
| No. | Date | Description |
| 1 | 10-10-2025 | Issued For Zoning |
| 2 | 21-01-2025 | Re-issued for Zoning |
| 3 | 11-02-2025 | Re-issued for Zoning |



③ SOUTH EAST PERSPECTIVE



② NORTH WEST PERSPECTIVE

HOMESTEAD

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Project
**1316 CARLING AVE
 APARTMENTS**
 1316 CARLING AVE.,
 OTTAWA, ON

Drawings
PERSPECTIVES

| | |
|-------------|------------|
| Drawn By | Checked By |
| Scale | Date |
| Project No. | Revision |
| Drawing No. | 4 |
| A001 | |

| UNIT MIX | Area | Count |
|----------------------|------|-------|
| 1 BEDROOM | | |
| 700 ft ² | | 19 |
| 710 ft ² | | 27 |
| 720 ft ² | | 1 |
| 800 ft ² | | 28 |
| 810 ft ² | | 10 |
| 820 ft ² | | 11 |
| 1 BEDROOM + DEN | | |
| 800 ft ² | | 10 |
| 1 BEDROOM BF | | |
| 710 ft ² | | 10 |
| 720 ft ² | | 10 |
| 2 BEDROOM | | |
| 830 ft ² | | 5 |
| 850 ft ² | | 18 |
| 860 ft ² | | 8 |
| 860 ft ² | | 1 |
| 1010 ft ² | | 3 |
| 1030 ft ² | | 5 |
| 1040 ft ² | | 15 |
| 1060 ft ² | | 16 |
| 1170 ft ² | | 5 |
| 1180 ft ² | | 3 |
| 1200 ft ² | | 1 |
| 1220 ft ² | | 1 |
| 1250 ft ² | | 3 |
| 2 BEDROOM + DEN | | |
| 900 ft ² | | 15 |
| 1070 ft ² | | 3 |
| 1080 ft ² | | 1 |
| 1110 ft ² | | 10 |
| 1120 ft ² | | 10 |
| 1130 ft ² | | 3 |
| 1130 ft ² | | 3 |
| 2 BEDROOM BF | | |
| 850 ft ² | | 19 |
| 860 ft ² | | 2 |
| | | 201 |

| UNIT MIX / FLOOR | 1 BRDM (59-68m ²) | 1 BRDM +DEN (74-83m ²) | 2 BRDM (77-116m ²) | 2 BRDM +DEN (92-105m ²) | TOTAL | TOTAL |
|--------------------------|-------------------------------|------------------------------------|--------------------------------|-------------------------------------|-------|-------|
| UNIT AREA | B.F. | B.F. | B.F. | B.F. | B.F. | B.F. |
| LEVEL 1 | 1 | 0 | 1 | 0 | 9 | 1 |
| LEVEL 2-4 (X3 floors) | 3 | 0 | 0 | 0 | 7 | 1 |
| LEVEL 5-9 (X5 floors) | 3 | 0 | 0 | 0 | X3=21 | X3=3 |
| LEVEL 11-20 (X10 floors) | 2 | 1 | 1 | 1 | X3=6 | X3=39 |
| TOTAL | 48 | 10 | 11 | 0 | 88 | 21 |

| LOT COVERAGE | |
|--|--|
| GROUND FLOOR AREA (Building footprint) | 1,332.5 m ² |
| LANDSCAPE AREA | 4,567.5 m ² (including 825 m ² PARKLAND + 76.75 m ² Patios + 531 m ² Hardscape + 208 m ² Ramp enclosure + 1,453 m ² Softscape + 1473.75 m ² Asphalt) |
| TOTAL DEVELOPED AREA | 5,900 m ² |
| UNDEVELOPED (Existing building) AREA | 2,752.8 m ² |
| TOTAL LOT AREA | 8,652.8 m ² (including 825 m ² PARKLAND) |

| BUILDING AREAS | | | |
|--|---|--|---|
| | GROSS FLOOR AREA | AMINITIES (INDOOR) | TERRACES (OUTDOOR) |
| UNDERGROUND PARKING GARAGE L3 & L2 | - | - | - |
| UNDERGROUND PARKING GARAGE L1 | - | 232.25 m ² (Communal) | - |
| GROUND FLOOR AREA | 924.5 m ² (9,951.23 ft ²) | - | 600 m ² (6,458.35 ft ²) (Communal) |
| 2ND - 4TH FLOOR AREA (X3 STOREYS) | (1,130 m ² X3 =) 3,417 m ² (12,260.1 X3 =) 36,780.3 ft ² | (91.72m ² X 3 =) 275.16 m ² | - |
| 5TH FLOOR AREA | 867 m ² (9,332.3 ft ²) | 34.23 m ² | 258 m ² |
| 6TH - 9TH FLOOR AREA (X4 STOREYS) | (867 m ² X4 =) 3,468 m ² (9,332.3 X4 =) 37,329.2 ft ² | (76.88 m ² X 4 =) 307.52 m ² | - |
| 10TH FLOOR AREA | 711 m ² (7,653.14 ft ²) | 175.05 m ² (Communal) | 36.48 m ² |
| TYPICAL FLOOR AREA (11TH - 20TH) (X10 STOREYS) | (697.45 m ² X10 =) 6,974.5 m ² (7,507.3 X10 =) 75,073 ft ² | - | 57.12 m ² |
| SUM GROSS AREA | 16362 m ² (176,119.17 ft ²) | 407.3 m ² | 780.52m ² , 1,051.93 m ² |
| SUM AMINITIES (Indoor, Balconies and Terraces) | - | 2,239.75 m ² (Including 1,200.93 m ² communal) | - |
| NUMBER OF STOREYS (above grade) | - | 20 storeys | - |

| City of Ottawa Zoning By-Law 2008-250 | | | |
|---|---|---------------------------------|--------------|
| ZONING MECHANISM | REQUIRED / PERMITTED | PROPOSED | RELIEF REQ'D |
| AMINITIES | | | |
| Amenity Area for Residential Development (MIN.) | 6 m ² for every Residential Unit 6 x 201 = 1206 m ² | 2,238.5 m ² | - |
| Amenity Area Provided as Communal Space | MIN. 50 % X 1206 m ² = 603 m ² | 1,200.93 m ² (99.5%) | - |

| Parking Schedule | | |
|------------------|---------------------------|-------|
| Level | Type | Count |
| PARKING P3 | Small Space 2400x4000 | 1 |
| PARKING P3 | Small Space 2400x5000 | 28 |
| PARKING P3 | Small Space 2000x5000 | 5 |
| PARKING P3 | Standard Space 2000x5000 | 86 |
| PARKING P2 | Small Space 2400x4000 | 1 |
| PARKING P2 | Small Space 2400x5000 | 28 |
| PARKING P2 | Small Space 2000x5000 | 5 |
| PARKING P2 | Standard Space 2000x5000 | 84 |
| PARKING P1 | BF Space Type A 3400x5000 | 2 |
| PARKING P1 | BF Space Type B 2700x5000 | 2 |
| PARKING P1 | Small Space 2400x5000 | 1 |
| PARKING P1 | Small Space 2000x5000 | 23 |
| PARKING P1 | Small Space 2000x4000 | 5 |
| PARKING P1 | Standard Space 2000x5000 | 83 |
| GROUND FLOOR | BF Space Type A 3400x5000 | 3 |
| GROUND FLOOR | BF Space Type B 2700x5000 | 3 |
| GROUND FLOOR | Standard Space 2000x5000 | 17 |

SMALL SPACES : 97
STANDARD SPACES : 278
B.F. SPACES : 10
REQUIRED: TABLE 101 R12 HIGHRISE AREA X7Y
0.5 RESIDENT DWELLING + 0.1 VISITOR + 0.6
(No parking for first 12 units)
189 UNITS x 0.8 = 151 SPACES REQUIRED
(19 VISITOR + 94 RESIDENTIAL)
SPACES A B TOTAL
251-900 4 4 8
301-350 4 5 9
351-400 5 5 10

BIKE SPACES:
REQUIRED: 0.5 RESIDENT / DWELLING
201 UNITS x 0.5 = 101 SPACES REQUIRED
PROPOSED: 211 SPACES FOR 201 UNITS = 1.05 PARKING RATE
(130 Vertical spaces + 81 horizontal spaces)

PARKING P3 LEVEL: 80 BIKE SPACES (82 V + 28 H)
PARKING P2 LEVEL: 80 BIKE SPACES (82 V + 28 H)
PARKING P1 LEVEL: 51 BIKE SPACES (58 V + 25 H)

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| Revisions | | |
|-----------|------------|--------------------|
| No. | Date | Description |
| 1 | 04-09-2025 | Conceptual Design |
| 2 | 10-10-2025 | Issued For Zoning |
| 3 | 11-02-2025 | Revised for Zoning |



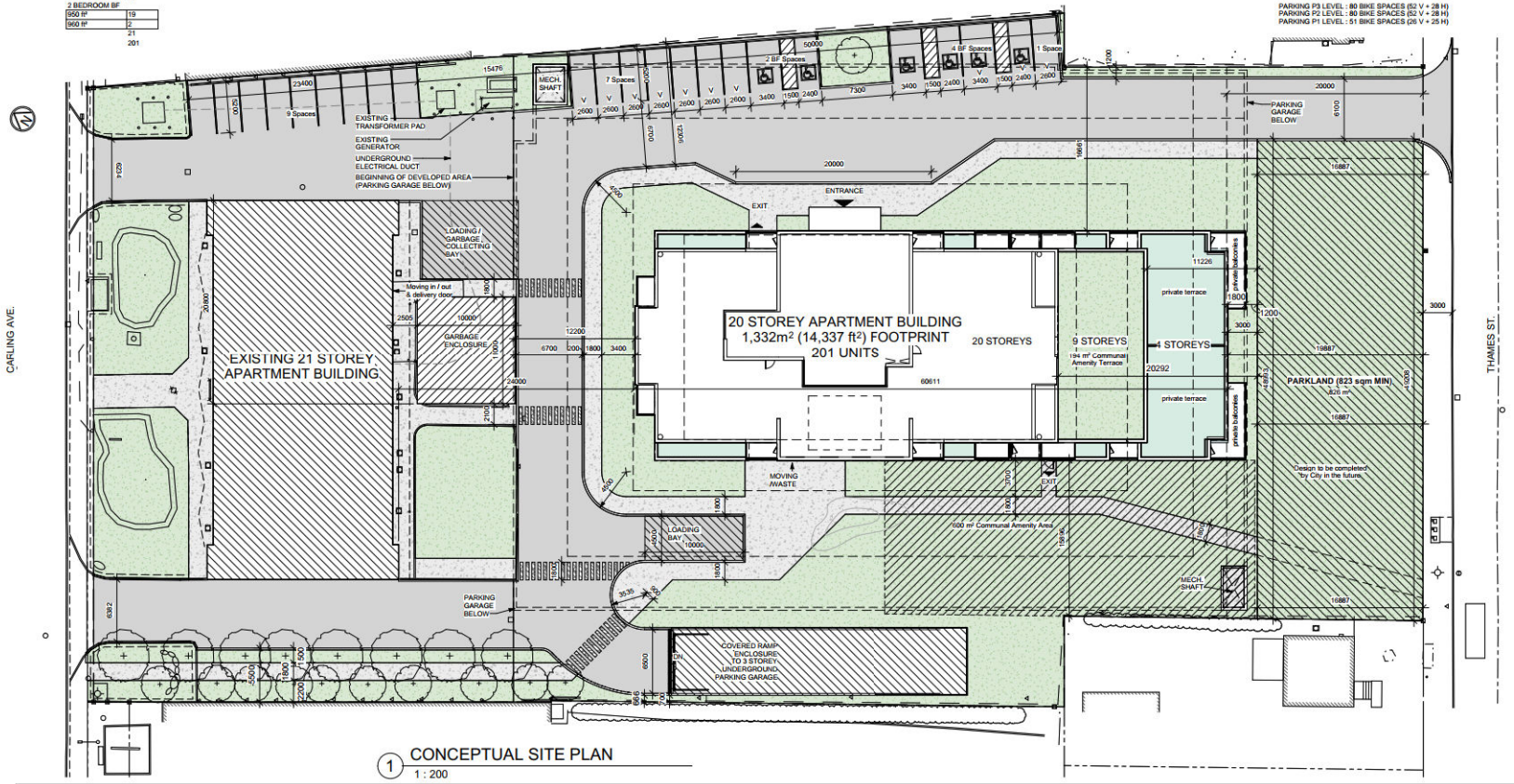
Alexander Wilson Architect Inc.
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Kippure, Ontario, K7L 2L1
t 613-648-5744
e 613-648-1111

Project
1316 CARLING AVE APARTMENTS

1316 CARLING AVE.,
OTTAWA, ON

Site Plan

| | |
|-------------|------------|
| Drawn By | Checked By |
| Scale | Date |
| Project No. | Revision |
| Drawing No. | |

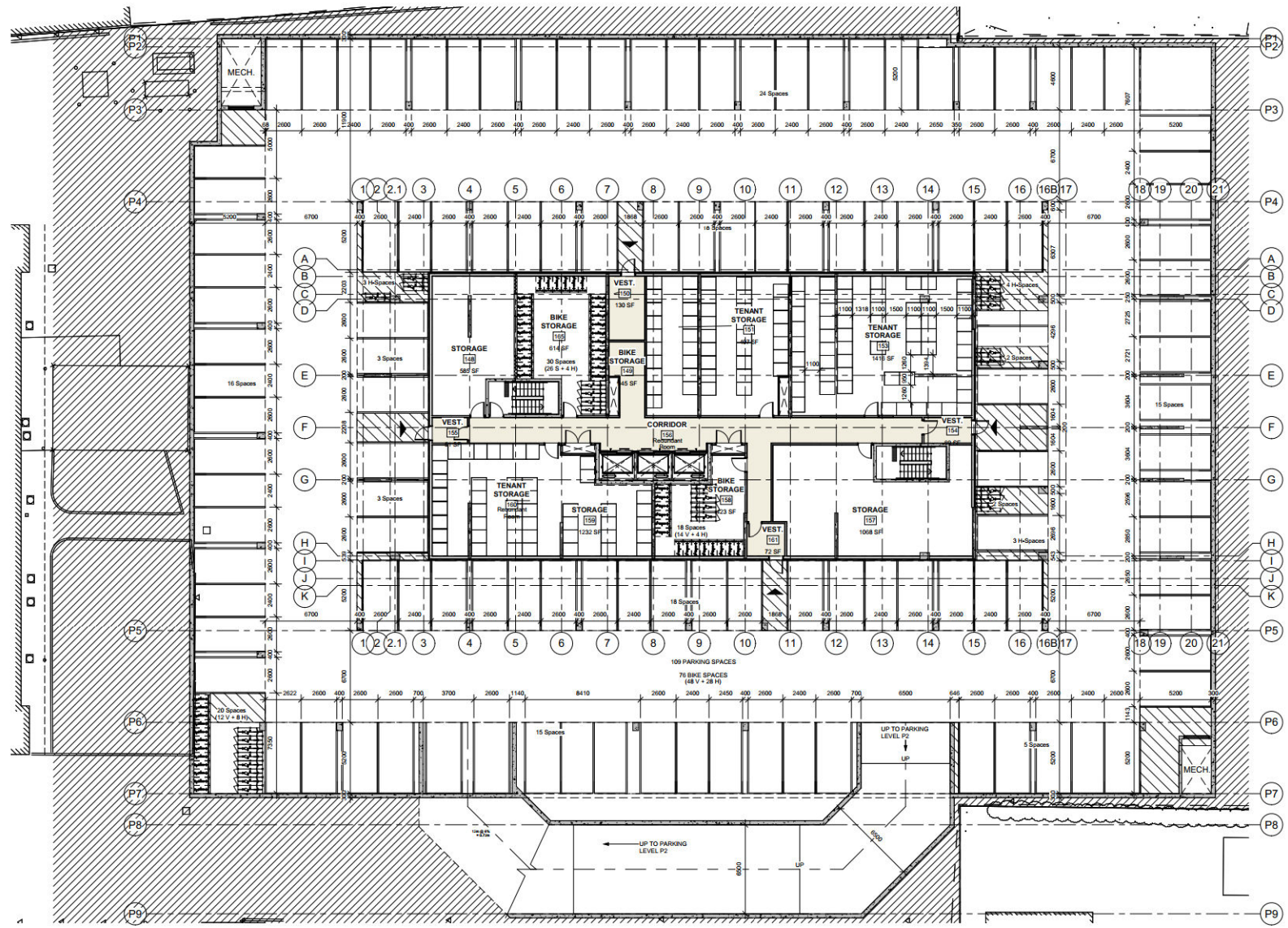


1 CONCEPTUAL SITE PLAN
1:200

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| Revisions | | |
|-----------|------------|----------------------|
| No. | Date | Description |
| 1 | 04-09-2025 | Conceptual Design |
| 2 | 10-10-2025 | Issued For Zoning |
| 3 | 11-01-2025 | Re-issued For Zoning |
| 4 | 11-02-2025 | Re-issued For Zoning |

| Parking Schedule | | |
|------------------|---------------------------|-------|
| Level | Type | Count |
| PARKING P3 | Small Space 2400x4000 | 1 |
| PARKING P3 | Small Space 2400x4000 | 28 |
| PARKING P3 | Small Space 2900x4800 | 5 |
| PARKING P3 | Standard Space 2000x5000 | 85 |
| PARKING P2 | Small Space 2400x4000 | 1 |
| PARKING P2 | Small Space 2400x5000 | 28 |
| PARKING P2 | Small Space 2900x4800 | 5 |
| PARKING P2 | Standard Space 2000x5000 | 84 |
| PARKING P1 | BF Space Type A 3400x5000 | 2 |
| PARKING P1 | BF Space Type B 2750x5000 | 2 |
| PARKING P1 | Small Space 2400x4000 | 1 |
| PARKING P1 | Small Space 2400x5000 | 13 |
| PARKING P1 | Small Space 2900x4800 | 5 |
| PARKING P1 | Standard Space 2000x5000 | 83 |
| GROUND FLOOR | BF Space Type A 3400x5000 | 1 |
| GROUND FLOOR | BF Space Type B 2750x5000 | 3 |
| GROUND FLOOR | Standard Space 2000x5000 | 17 |



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Project
**1316 CARLING AVE
 APARTMENTS**
 1316 CARLING AVE.,
 OTTAWA, ON

Drawings
PARKING LEVEL P3

| | |
|---------------|------------|
| Drawn By | Checked By |
| Scale | Date |
| 1:1/8 | 06/2025 |
| Sheet No. | Revisions |
| 203 | 4 |
| Drawing No. | |
| A100-3 | |

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| Revisions | | |
|-----------|------------|----------------------|
| No. | Date | Description |
| 1 | 04-09-2025 | Conceptual Design |
| 2 | 10-10-2025 | Issued For Zoning |
| 3 | 11-01-2025 | Re-issued for Zoning |
| 4 | 11-02-2025 | Re-issued for Zoning |

| Parking Schedule | | |
|------------------|---------------------------|-------|
| Level | Type | Count |
| PARKING P3 | Small Space 2400x4000 | 1 |
| PARKING P3 | Small Space 2400x5000 | 28 |
| PARKING P3 | Standard Space 2000x5000 | 85 |
| PARKING P2 | Small Space 2400x4000 | 1 |
| PARKING P2 | Small Space 2400x5000 | 28 |
| PARKING P2 | Standard Space 2000x5000 | 84 |
| PARKING P1 | BF Space Type A 3450x5000 | 2 |
| PARKING P1 | BF Space Type B 2750x5000 | 2 |
| PARKING P1 | Small Space 2400x4000 | 1 |
| PARKING P1 | Small Space 2400x5000 | 13 |
| PARKING P1 | Small Space 2000x4000 | 5 |
| PARKING P1 | Standard Space 2000x5000 | 83 |
| GROUND FLOOR | BF Space Type A 3450x5000 | 1 |
| GROUND FLOOR | BF Space Type B 2750x5000 | 3 |
| GROUND FLOOR | Standard Space 2000x5000 | 377 |

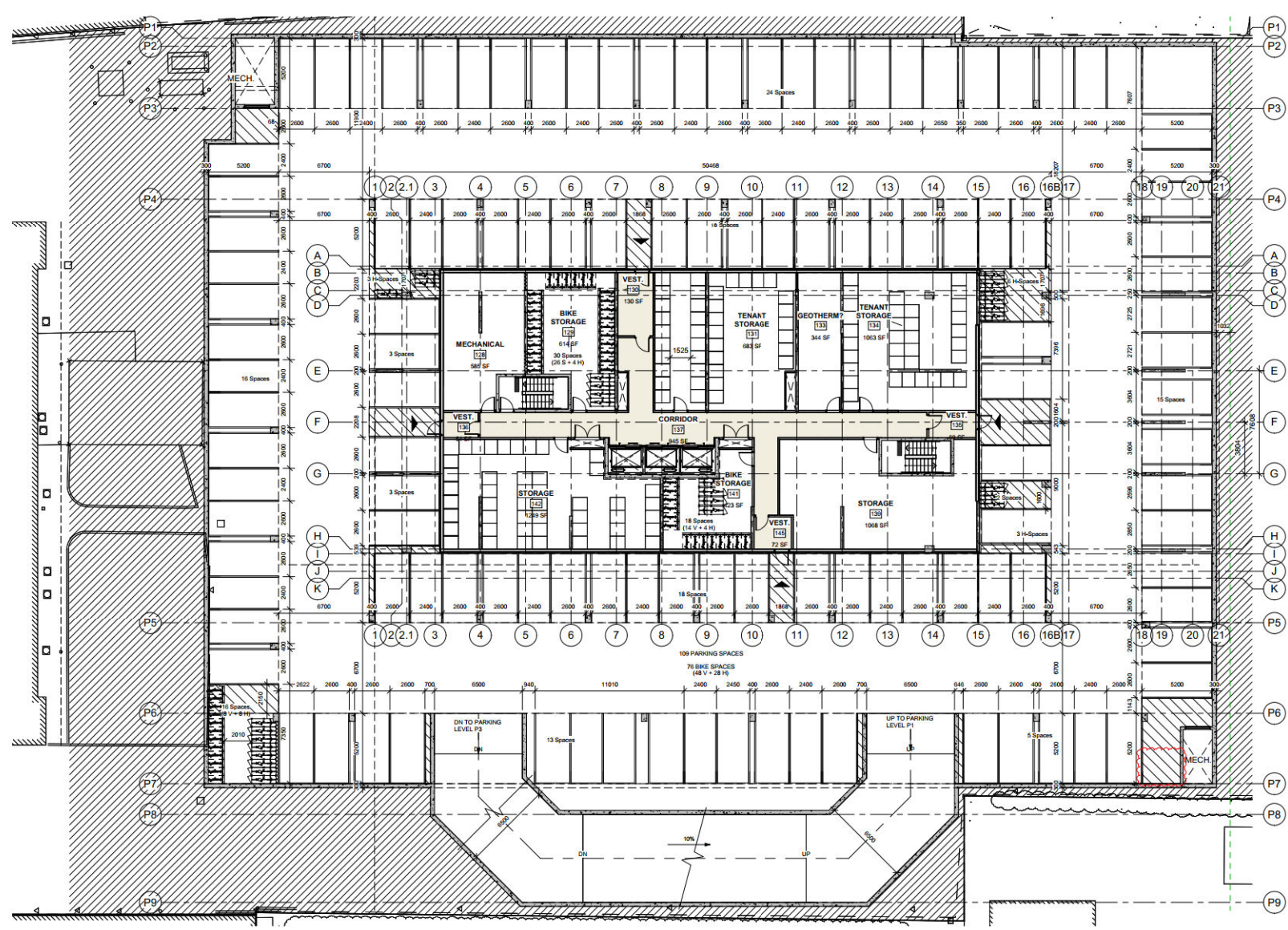


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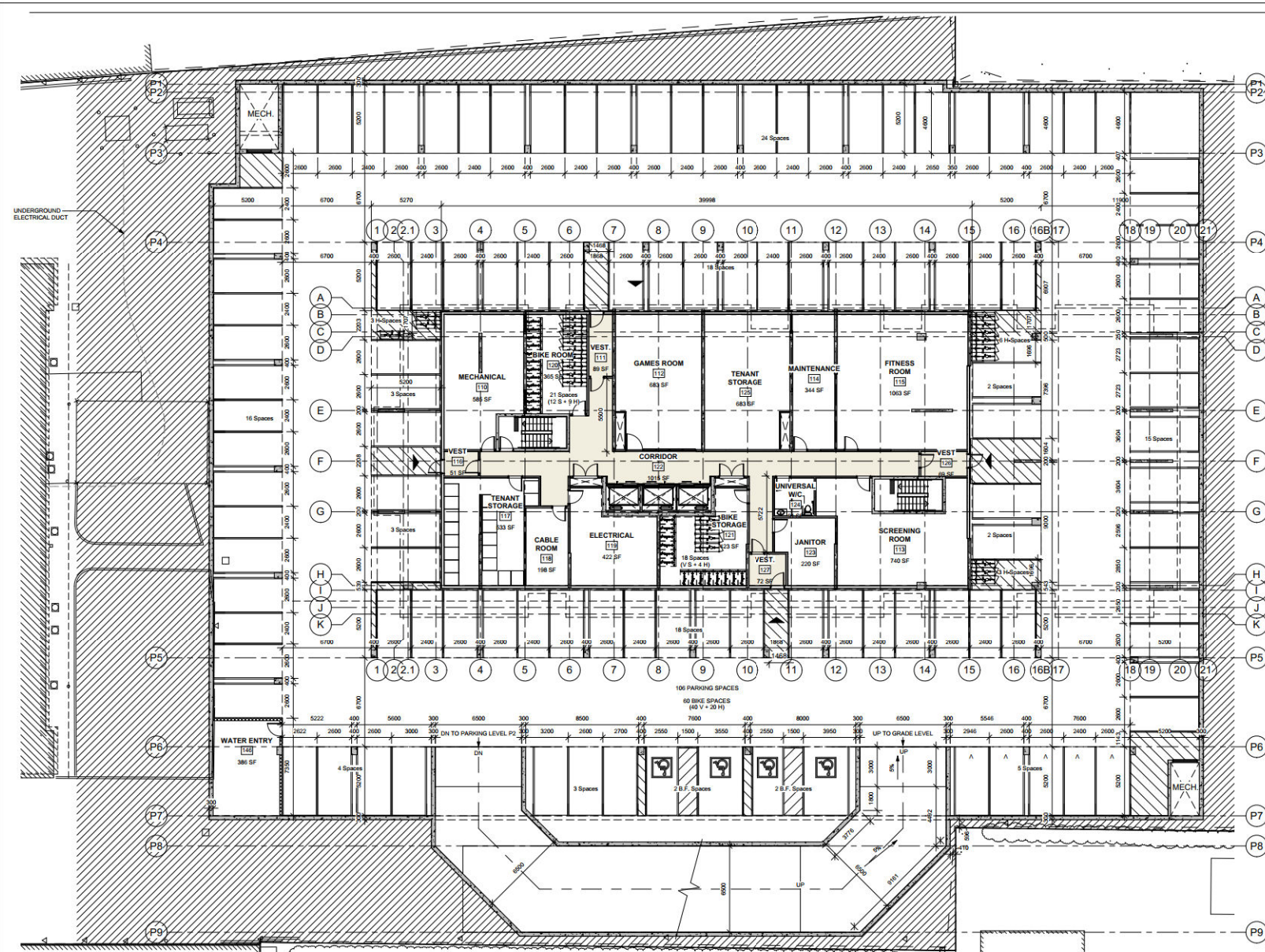
Project
1316 CARLING AVE APARTMENTS
 1316 CARLING AVE.,
 OTTAWA, ON

Drawings
PARKING LEVEL P2

| | |
|-------------|----------------|
| Drawn By | Checked By |
| Scale | Date |
| Project No. | Revision |
| Sheet No. | 4 |
| Drawing No. | A100.02 |



1 PARKING LEVEL P2
 1 : 125



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| Revisions | | |
|-----------|------------|----------------------|
| No. | Date | Description |
| 1 | 04-09-2025 | Conceptual Design |
| 2 | 10-10-2025 | Issued For Zoning |
| 3 | 11-01-2025 | Re-issued for Zoning |
| 4 | 11-02-2025 | Re-issued for Zoning |

| Parking Schedule | | |
|------------------|---------------------------|-------|
| Level | Type | Count |
| PARKING P3 | Small Space 2400x4800 | 1 |
| PARKING P3 | Small Space 2400x5000 | 28 |
| PARKING P3 | Small Space 2900x4800 | 5 |
| PARKING P3 | Standard Space 2000x5000 | 89 |
| PARKING P2 | Small Space 2400x4800 | 1 |
| PARKING P2 | Small Space 2400x5000 | 28 |
| PARKING P2 | Small Space 2900x4800 | 5 |
| PARKING P2 | Standard Space 2000x5000 | 84 |
| PARKING P1 | BF Space Type A 3450x5000 | 2 |
| PARKING P1 | BF Space Type B 2750x5000 | 2 |
| PARKING P1 | Small Space 2400x4800 | 1 |
| PARKING P1 | Small Space 2400x5000 | 23 |
| PARKING P1 | Small Space 2900x4800 | 5 |
| PARKING P1 | Standard Space 2000x5000 | 83 |
| GROUND FLOOR | BF Space Type A 3450x5000 | 1 |
| GROUND FLOOR | BF Space Type B 2750x5000 | 3 |
| GROUND FLOOR | Standard Space 2000x5000 | 377 |



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Project
**1316 CARLING AVE
 APARTMENTS**

1316 CARLING AVE.
 OTTAWA, ON

Drawings
PARKING LEVEL P1

| | | | |
|-------------|---------------|------------|---------|
| Drawn By | EMC/A.E. | Checked By | |
| Scale | 1:125 | Date | 09/2025 |
| Project No. | 2025 | Revision | 4 |
| Drawing No. | A100.1 | | |

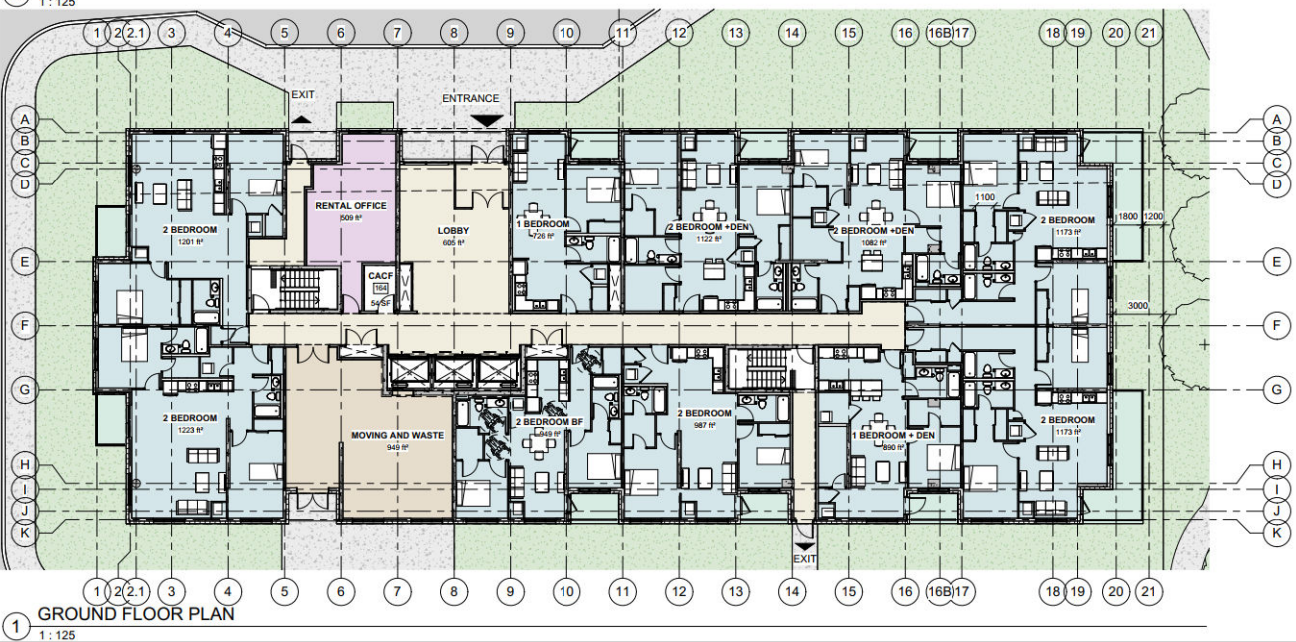
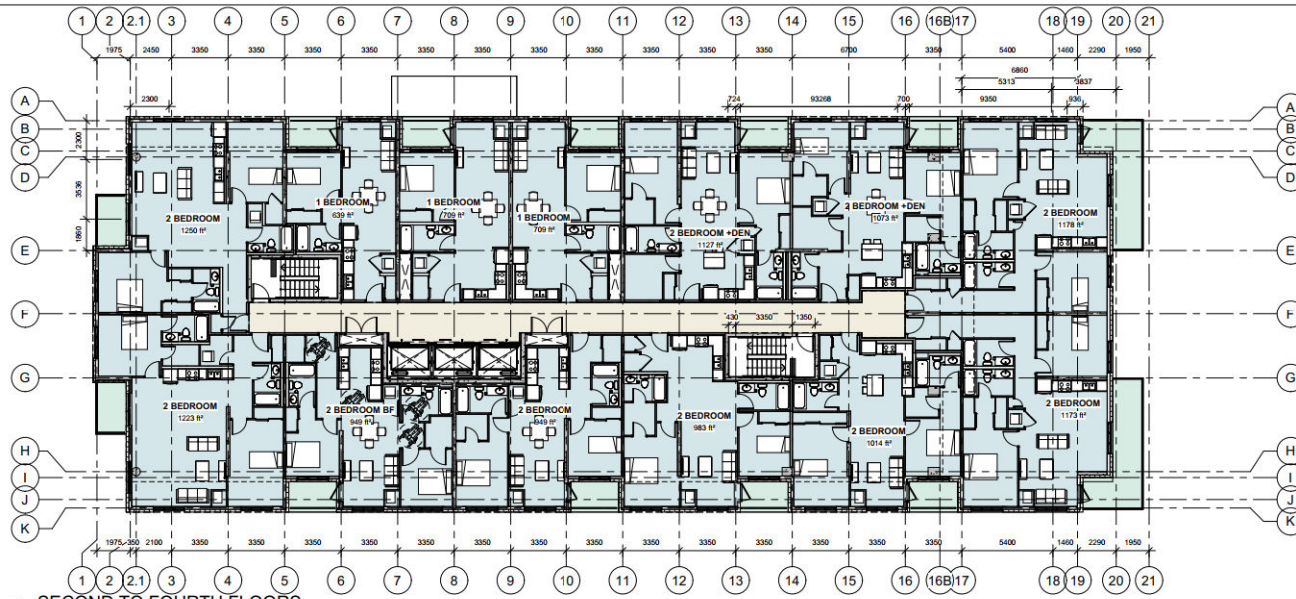
1 PARKING LEVEL P1
 1:125

| UNIT MIX | |
|-----------------|-------|
| Area | Count |
| 1 BEDROOM | |
| 642 SF | 19 |
| 702 SF | 1 |
| 710 SF | 27 |
| 730 SF | 1 |
| 1 BEDROOM + DEN | 48 |
| 800 SF | 10 |
| 850 SF | 1 |
| 1 BEDROOM BF | 11 |
| 710 SF | 10 |
| 2 BEDROOM | 10 |
| 830 SF | 5 |
| 950 SF | 18 |
| 980 SF | 9 |
| 990 SF | 1 |
| 1010 SF | 3 |
| 1030 SF | 5 |
| 1040 SF | 16 |
| 1060 SF | 16 |
| 1170 SF | 3 |
| 1180 SF | 3 |
| 1200 SF | 1 |
| 1220 SF | 4 |
| 1250 SF | 8 |
| 2 BEDROOM + DEN | 88 |
| 850 SF | 3 |
| 1070 SF | 3 |
| 1080 SF | 1 |
| 1110 SF | 10 |
| 1120 SF | 1 |
| 1130 SF | 3 |
| 1130 SF | 3 |
| 2 BEDROOM BF | 23 |
| 700 SF | 19 |
| 800 SF | 2 |
| 21 | 201 |

15% BARRIER/FREE REQUIRED (30 OF 201 UNITS)

| UNITS BY FLOOR | |
|-------------------|-------|
| Comments | Count |
| GROUND FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| SECOND FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| THIRD FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| FOURTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| FIFTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| SIXTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| SEVENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| EIGHTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| NINTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| TENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| ELEVENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| TWELFTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| THIRTEENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| FOURTEENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| FIFTEENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| SIXTEENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| SEVENTEENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| EIGHTEENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| NINETEENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |
| TWENTIETH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 2 |

| UNITS BY FLOOR | |
|-------------------|-------|
| Comments | Count |
| TWELFTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| THIRTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| FOURTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| FIFTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| SIXTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| SEVENTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| EIGHTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| NINETEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| TWENTIETH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |



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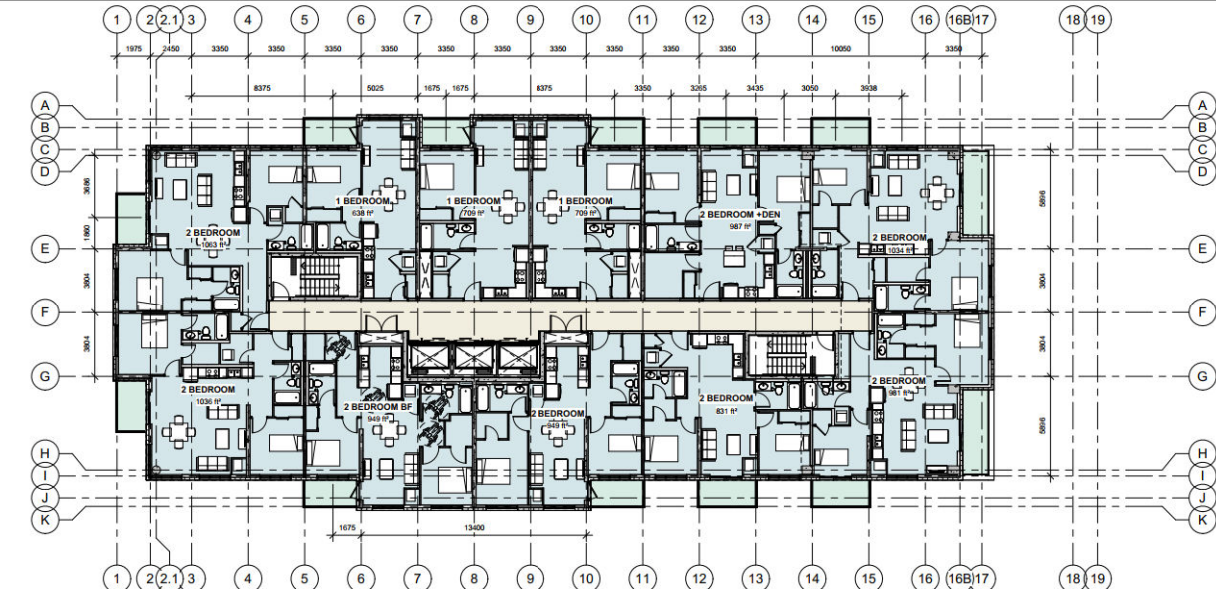
Drawings
GROUND TO FOURTH FLOORS

| | |
|-------------|------------|
| Drawn By | Checked By |
| Scale | Date |
| Project No. | Revision |
| Drawing No. | A103 |

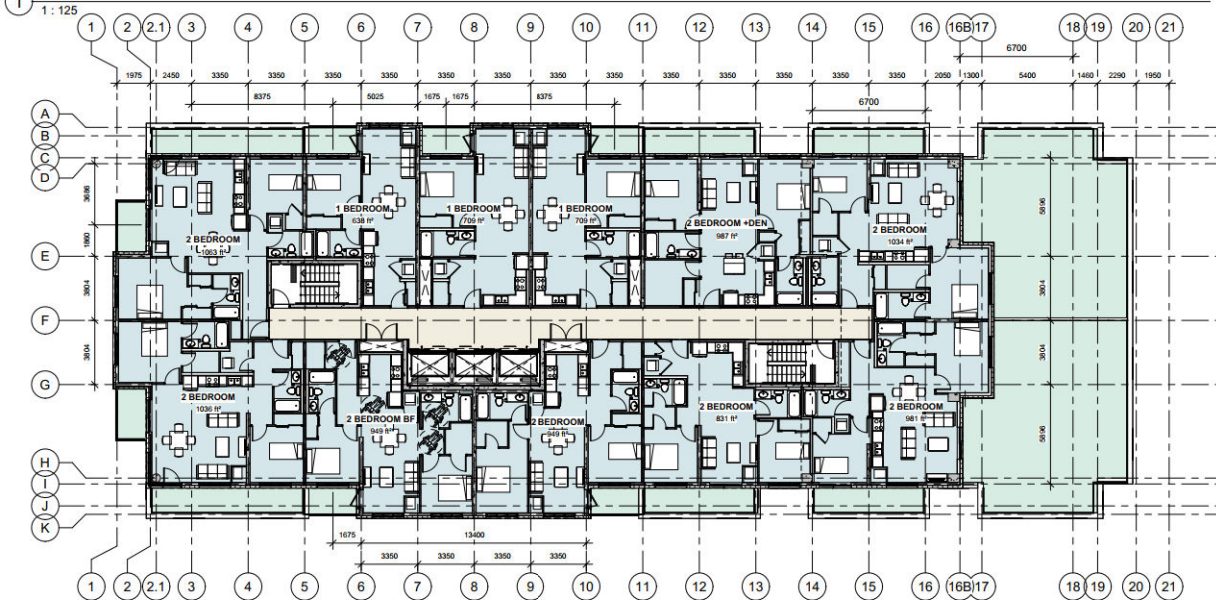
| UNIT MIX | |
|-----------------|-------|
| Area | Count |
| 1 BEDROOM | |
| 640 sq' 19 | |
| 700 sq' 1 | |
| 710 sq' 27 | |
| 730 sq' 1 | |
| 48 | |
| 1 BEDROOM + DEN | |
| 650 sq' 10 | |
| 800 sq' 1 | |
| 11 | |
| 1 BEDROOM BF | |
| 710 sq' 10 | |
| 10 | |
| 2 BEDROOM | |
| 830 sq' 5 | |
| 850 sq' 18 | |
| 880 sq' 8 | |
| 950 sq' 1 | |
| 1010 sq' 2 | |
| 1030 sq' 2 | |
| 1040 sq' 16 | |
| 1090 sq' 16 | |
| 1170 sq' 5 | |
| 1180 sq' 3 | |
| 1200 sq' 1 | |
| 1220 sq' 4 | |
| 1250 sq' 2 | |
| 48 | |
| 2 BEDROOM + DEN | |
| 890 sq' 5 | |
| 1070 sq' 3 | |
| 1080 sq' 1 | |
| 1110 sq' 10 | |
| 1120 sq' 1 | |
| 1130 sq' 2 | |
| 43 | |
| 2 BEDROOM BF | |
| 850 sq' 13 | |
| 910 sq' 2 | |
| 201 | |

| UNITS BY FLOOR | |
|-----------------|-------|
| Comments | Count |
| GROUND FLOOR | |
| 1 BEDROOM | 1 |
| 1 BEDROOM + DEN | 1 |
| 2 BEDROOM | 5 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 1 |
| 2 BEDROOM BF | 1 |
| 10 | |
| SECOND FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 1 |
| 13 | |
| THIRD FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 1 |
| 13 | |
| FOURTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 1 |
| 13 | |
| FIFTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 7 |
| 2 BEDROOM + DEN | 2 |
| 2 BEDROOM BF | 1 |
| 11 | |
| SIXTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 6 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 11 | |
| SEVENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 6 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 11 | |
| EIGHTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 6 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 11 | |
| NINTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 6 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 11 | |
| TENTH FLOOR | |
| 1 BEDROOM | 3 |
| 2 BEDROOM | 2 |
| 2 BEDROOM BF | 2 |
| 7 | |
| ELEVENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 3 | |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |

| UNITS BY FLOOR | |
|-------------------|-------|
| Comments | Count |
| TWELFTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |
| THIRTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |
| FOURTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |
| FIFTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |
| SIXTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |
| SEVENTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |
| EIGHTEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |
| NINETEENTH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |
| TWENTIETH FLOOR | |
| 1 BEDROOM | 2 |
| 1 BEDROOM + DEN | 1 |
| 1 BEDROOM BF | 1 |
| 2 BEDROOM | 3 |
| 2 BEDROOM + DEN | 1 |
| 2 BEDROOM BF | 1 |
| 9 | |



① SIXTH TO NINTH FLOORS



② FIFTH FLOOR

1 : 125

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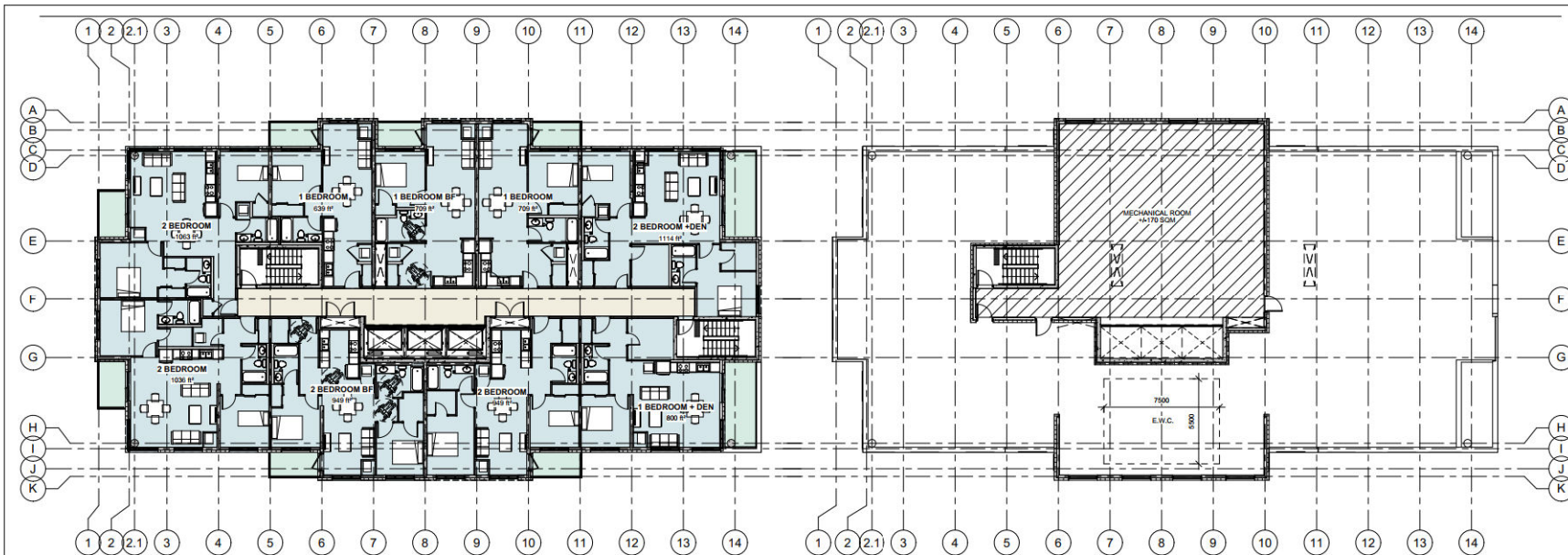
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FIFTH TO NINTH FLOORS

| | |
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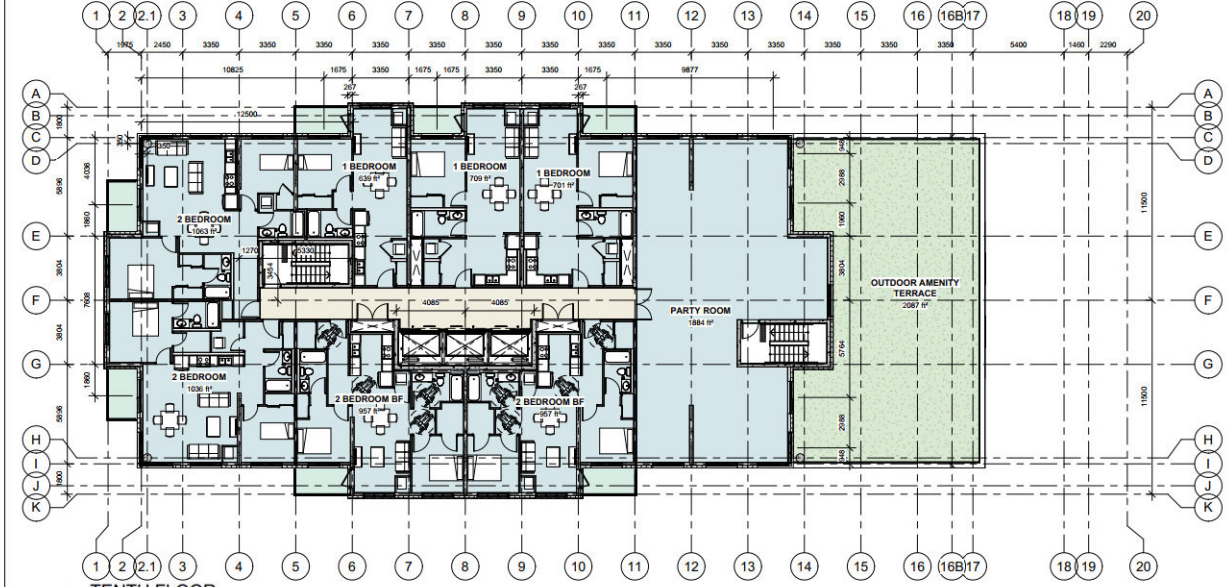
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3 ELEVENTH TO TWENTIETH FLOORS
1:125

2 MECHANICAL ROOF
1:125



1 TENTH FLOOR
1:125



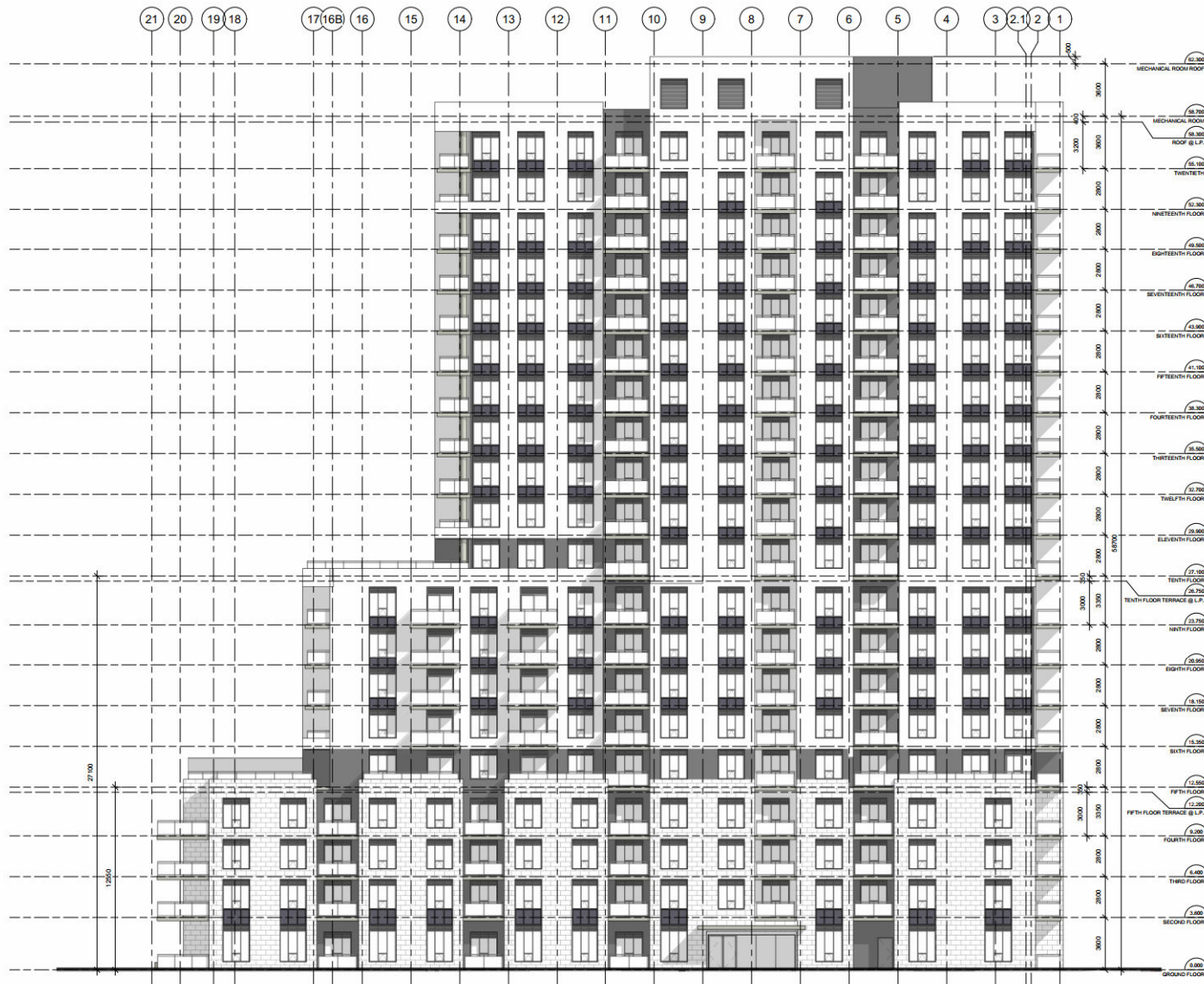
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Drawings
TENTH FLOOR TO ROOF

| | |
|-------------|-------------|
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| Scale | Date |
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1 EAST ELEVATION
1 : 125

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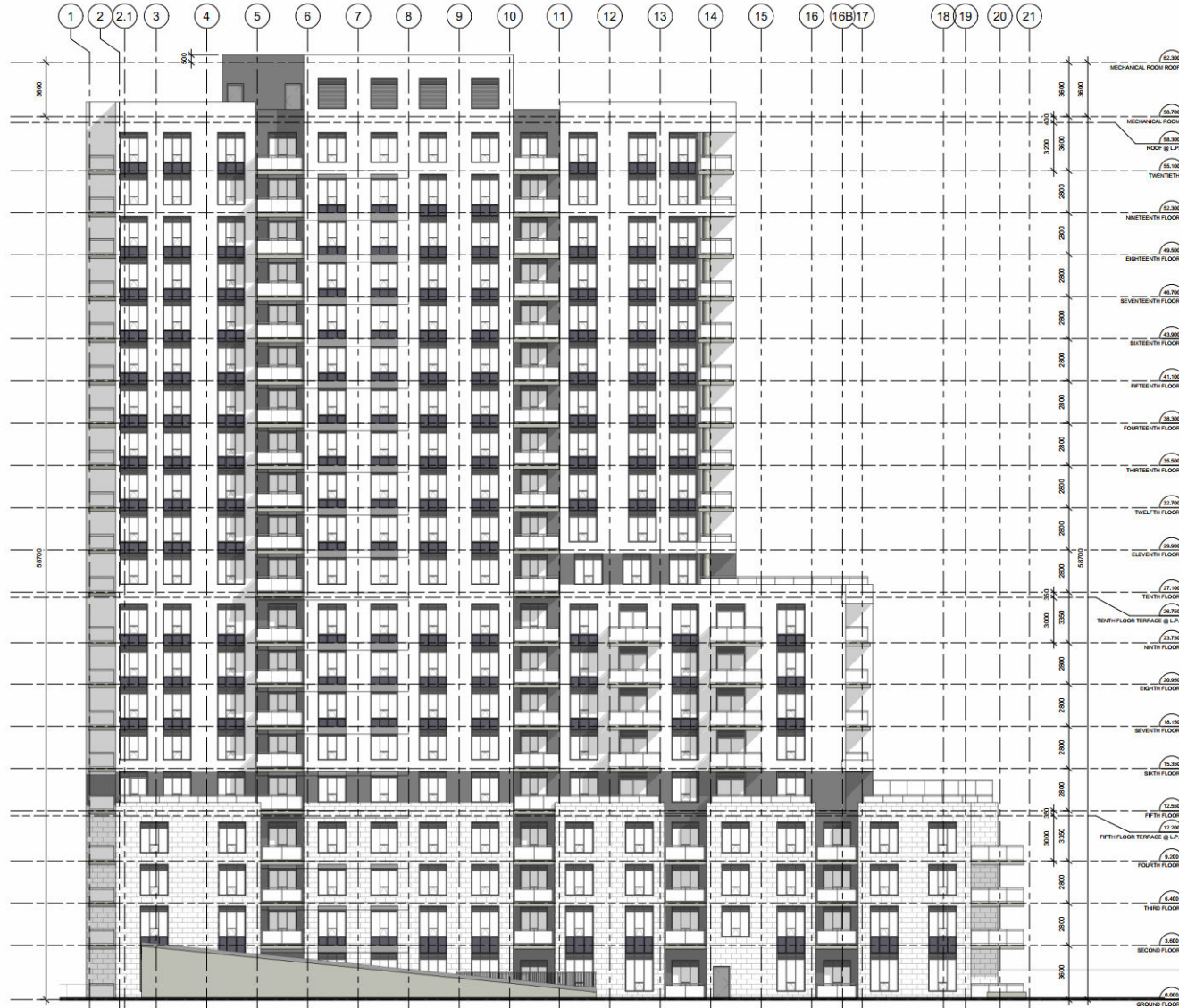
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Drawing
EAST ELEVATION

| | |
|-------------|------------|
| Drawn By | Checked By |
| Date | Date |
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| Drawing No. | A301 |



1 WEST ELEVATION
1 : 125

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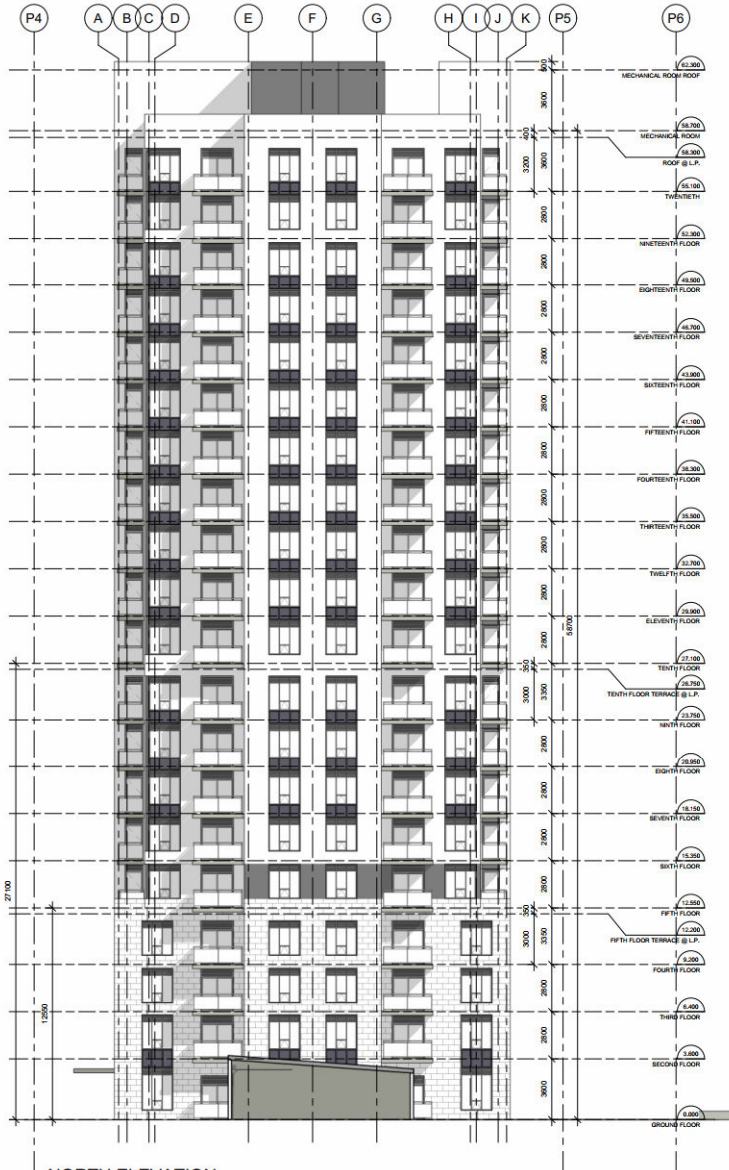
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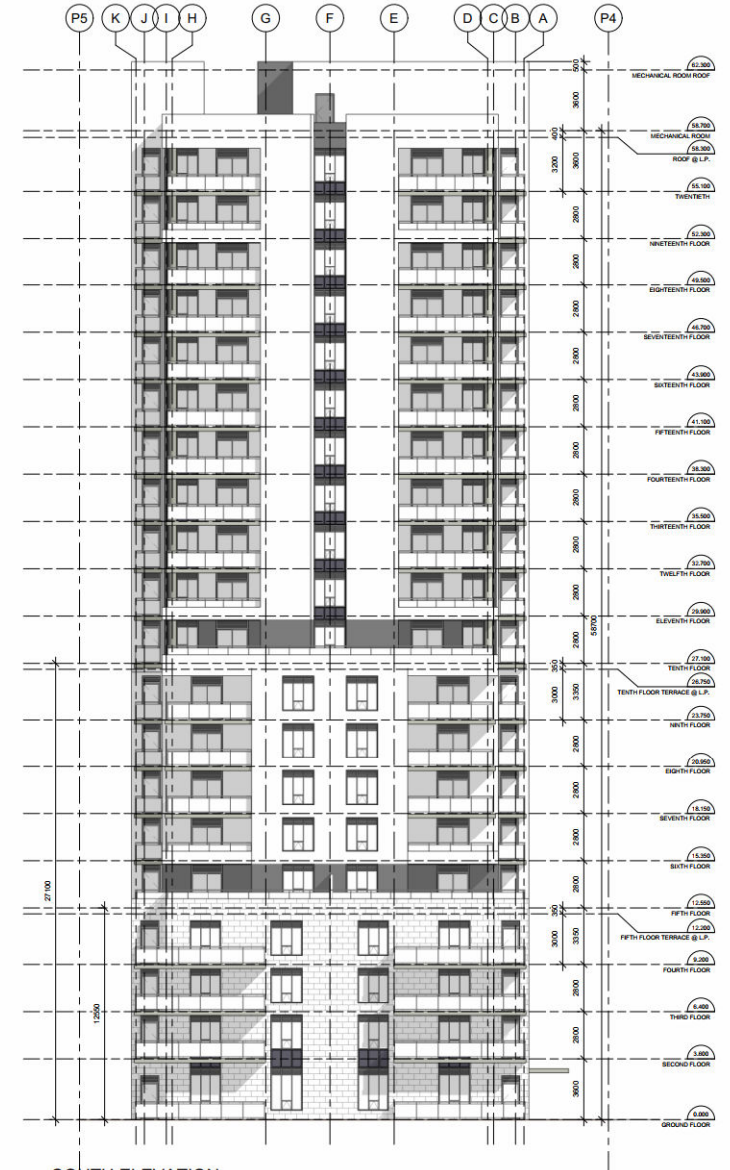
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Drawing
WEST ELEVATION

| | |
|-------------|------------|
| Drawn By | Checked By |
| Date | Date |
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| Drawing No. | A302 |



1 NORTH ELEVATION
1 : 125



2 SOUTH ELEVATION
1 : 125

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Project
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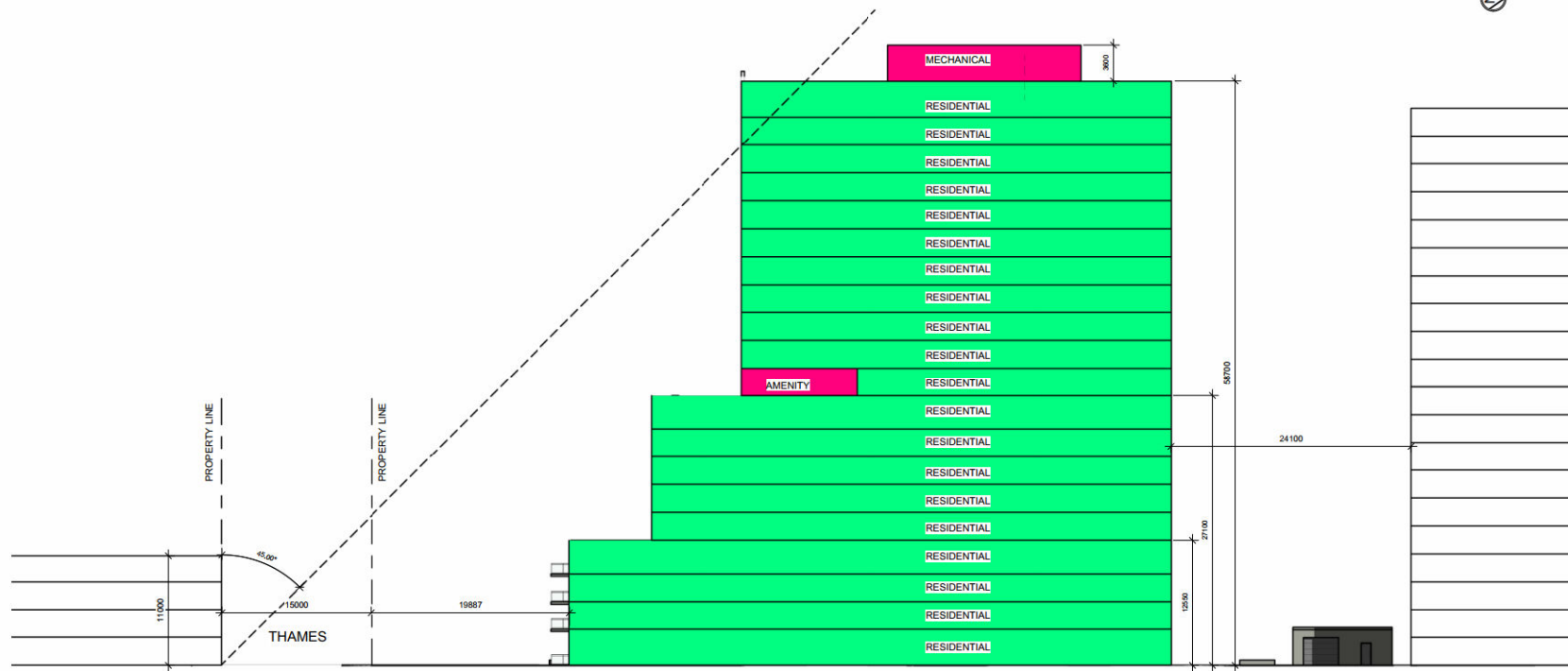
1316 CARLING AVE.,
OTTAWA, ON

North & South
ELEVATIONS

| | |
|-------------|------------|
| Drawn By | Checked By |
| Date | Date |
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 OTTAWA, ON

Drawing:
TRANSITION DIAGRAM (South - North)

| | | | |
|--------------|----------|-------------|-------|
| Drawn By: | EMC/A.E. | Checked By: | |
| Scale: | 1:200 | Date: | 09/03 |
| Project No.: | 203 | Revision: | 4 |
| Drawing No.: | A310 | | |

① TRANSITION (South - North)
 1 : 200

APPENDIX D
Traffic Data, CadnaA-TNM Sample Calculations and Adjustment
(22 Pages)

Table D1 - Summary of Traffic Data and Projections

| | Highway 417 EB (5 Lanes) | Highway 417 WB (5 Lanes) | Carling Avenue (Arterial) - EB | Carling Avenue (Arterial) - WB | Merivale Road (Arterial) | Notes |
|-------------------------|--------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------|--|
| AADT - Ultimate | 91665 | 91665 | 25000 | 25000 | 30000 | Table B1, City of Ottawa Environmental Noise Control Guidelines (ENCG) |
| Day Split | 92% | 92% | 92% | 92% | 92% | 92 / 8 %, City of Ottawa (ENCG) |
| Cars, 24 Hours | 80665 | 80665 | 22000 | 22000 | 26400 | 88%, City of Ottawa (ENCG) |
| Medium Trucks, 24 Hours | 6417 | 6417 | 1750 | 1750 | 2100 | 7%, City of Ottawa (ENCG) |
| Heavy Trucks, 24 Hours | 4583 | 4583 | 1250 | 1250 | 1500 | 5%, City of Ottawa (ENCG) |

Table D2 - Summary of Existing Traffic Data and Projections, for Background Noise Calculations

| | Highway 417 - WB/WB | Carling Avenue (Arterial) | Merivale Road (Arterial) | Notes |
|-------------------------|---------------------|---------------------------|--------------------------|--|
| AADT - Existing Years | 175600 | 15066 | 13216 | City of Ottawa Open Data: 2021 / 2021 / 2024 |
| Day Split | 92% | 92% | 92% | 92 / 8 %, City of Ottawa (ENCG) |
| Medium Trucks, 24 Hours | 6125 | 334 | 293 | 7% of total trucks @ 6.0%, 3.8%, 3.8%, City of Ottawa (ENCG) |
| Heavy Trucks, 24 Hours | 4375 | 239 | 209 | 5% of total trucks @ 6.0%, 3.8%, 3.8%, City of Ottawa (ENCG) |

Table D3 - Ambient Background Sound Level Calculations and Adjustment

| | CadnaA-TNM Calculations - Day/Evening [1] | Adjusted Daytime Level, Minus 2 dB [2] | Adjusted Evening Level, Minus 3 dB [2] | CadnaA-TNM Calculations - Nighttime [1] | Adjusted Nighttime Level, Minus 5 dB [2] |
|-------------------|--|---|---|--|---|
| Receptors INT_R01 | 60 | 58 | 57 | 52 | 47 |
| Receptors INT_R02 | 61 | 59 | 58 | 54 | 49 |
| Receptors INT_R03 | 62 | 60 | 59 | 54 | 49 |
| Receptors INT_R04 | 60 | 58 | 57 | 53 | 48 |
| Receptors INT_R05 | 53 | 51 | 50 | 45 | 40 |

Notes:

1. The CadnaA-TNM calculations use the existing AADT traffic data obtained from MTO and City's Open Data for years 2021 and 2024.

The truck percentages were also obtained from the above data sources.

The AADT data were split between day/evening and nighttime at the ratio of 92/8 per the City's guide.

2. The adjustment was based on the assumption that the quietest hour noise level may be even lower than the calculated level.

Daytime Adjustment: minus 2 dB

Evening Adjustment: minus 3 dB

Nighttime Adjustment: minus 5 dB

For the nighttime calculations, 8% of total vehicles is included in the modelling. This is equivalent to an adjustment of 6-7 dB.

Hence, the total adjustment for the nighttime sound level is about -(11 to 12) dB, from the 24-hour calculations.

CadnaA-TNM Calculation Results on Ultimate Traffic Noise Impact - Summary

| Name | Sel. | M. | ID | Level Lr | | | Limit. Value | | | Land Use | | | Height | | Coordinates | | |
|------------------------------|------|----|---------|----------|---------|-------|--------------|---------|-------|----------|------|------------|--------|---|-------------|------------|-------|
| | | | | Day | Evening | Night | Day | Evening | Night | Type | Auto | Noise Type | | | X | Y | Z |
| | | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | | (m) | r | (m) | (m) | (m) |
| West Facade - 20 m | | | INT_R01 | 62.6 | -75.3 | 55.0 | 0.0 | 0.0 | 0.0 | | x | Total | 20.00 | r | 442513.01 | 5026004.26 | 20.00 |
| North Facade - 56.5 m | | | INT_R02 | 63.6 | -74.1 | 56.0 | 0.0 | 0.0 | 0.0 | | x | Total | 56.50 | r | 442513.10 | 5026007.56 | 56.50 |
| North Facade - 56.5 m | | | INT_R03 | 64.6 | -73.6 | 57.1 | 0.0 | 0.0 | 0.0 | | x | Total | 56.50 | r | 442527.56 | 5026016.09 | 56.50 |
| North Facade - 20 m | | | INT_R04 | 63.3 | -73.9 | 55.7 | 0.0 | 0.0 | 0.0 | | x | Total | 20.00 | r | 442528.05 | 5026016.39 | 20.00 |
| North Facade - 4.5 m | | | INT_R05 | 57.4 | -76.5 | 49.8 | 0.0 | 0.0 | 0.0 | | x | Total | 4.50 | r | 442528.47 | 5026016.63 | 4.50 |
| East Facade Windows - 20 m | | | INT_R06 | 63.2 | -73.7 | 55.6 | 0.0 | 0.0 | 0.0 | | x | Total | 20.00 | r | 442541.60 | 5025998.66 | 20.00 |
| East Facade Windows - 10.5 m | | | INT_R07 | 59.0 | -75.3 | 51.4 | 0.0 | 0.0 | 0.0 | | x | Total | 10.50 | r | 442558.25 | 5025969.90 | 10.50 |
| West Facade - 56.5 m | | | INT_R08 | 62.9 | -75.9 | 55.3 | 0.0 | 0.0 | 0.0 | | x | Total | 56.50 | r | 442521.79 | 5025985.93 | 56.50 |
| OLA - 10th Floor | | | INT_R09 | 50.6 | -79.0 | 43.0 | 0.0 | 0.0 | 0.0 | | x | Total | 1.50 | g | 442543.31 | 5025972.72 | 28.60 |
| OLA - 5th Floor | | | INT_R10 | 49.1 | -79.0 | 41.5 | 0.0 | 0.0 | 0.0 | | x | Total | 1.50 | g | 442543.57 | 5025962.59 | 14.10 |
| OLA - 5th Floor | | | INT_R11 | 50.6 | -78.6 | 43.0 | 0.0 | 0.0 | 0.0 | | x | Total | 1.50 | g | 442552.19 | 5025967.56 | 14.10 |
| OLA - Ground | | | INT_R12 | 54.4 | -77.4 | 46.8 | 0.0 | 0.0 | 0.0 | | x | Total | 1.50 | r | 442512.42 | 5025982.86 | 1.50 |
| OLA - Ground | | | INT_R13 | 56.9 | -77.4 | 49.3 | 0.0 | 0.0 | 0.0 | | x | Total | 1.50 | r | 442523.44 | 5025961.83 | 1.50 |
| OLA - Ground | | | INT_R14 | 52.7 | -77.2 | 45.1 | 0.0 | 0.0 | 0.0 | | x | Total | 1.50 | r | 442540.44 | 5025937.27 | 1.50 |

Receiver
Name: West Facade - 20 m
ID: INT_R01
X: 442513.01 m
Y: 5026004.26 m
Z: 20.00 m

| Road, TNM, Name: "Carling Ave. Eastbound", ID: "RD_CarlingEB" | | | | | | | | | | | | | |
|---|-----------|------------|----------|-------|-----|---------------|-------------|------------|--------------|-------------|--------------|------------|-------------|
| Nr. | X (m) | Y (m) | Z (m) | Refl. | DEN | Freq. (Hz) | Lw dB(A) | Ad (dB) | Aair (dB) | Agr (dB) | Afol (dB) | RL (dB) | Lr dB(A) |
| 44 | 442620.43 | 5026144.87 | 0.10 | 0 | D | A | 59.9 | -19.3 | 0.0 | 42.6 | 0.0 | 0.0 | -2.0 |
| 165 | 442571.75 | 5026115.12 | 0.10 | 0 | D | A | 59.9 | -19.4 | 0.0 | 36.9 | 0.0 | 0.0 | 3.6 |
| 420 | 442441.94 | 5026035.77 | 0.10 | 0 | D | A | 59.9 | -15.3 | 0.0 | 16.9 | 0.0 | 0.0 | 27.7 |
| 422 | 442409.49 | 5026015.94 | 0.10 | 0 | D | A | 59.9 | -17.8 | 0.0 | -5.4 | 0.0 | 0.0 | 47.5 |
| 466 | 442617.56 | 5026149.56 | 0.10 | 0 | D | A | 59.9 | -19.4 | 0.0 | 42.8 | 0.0 | 0.0 | -2.3 |
| 535 | 442568.88 | 5026119.81 | 0.10 | 0 | D | A | 59.9 | -19.6 | 0.0 | 36.7 | 0.0 | 0.0 | 3.6 |
| 732 | 442439.07 | 5026040.47 | 0.10 | 0 | D | A | 59.9 | -15.8 | 0.0 | 12.6 | 0.0 | 0.0 | 31.5 |
| 736 | 442406.62 | 5026020.63 | 0.10 | 0 | D | A | 59.9 | -18.1 | 0.0 | -3.9 | 0.0 | 0.0 | 45.7 |
| 811 | 442620.43 | 5026144.87 | 1.52 | 0 | D | A | 57.1 | -19.3 | 0.0 | 43.4 | 0.0 | 0.0 | -5.6 |
| 905 | 442571.75 | 5026115.12 | 1.52 | 0 | D | A | 57.1 | -19.4 | 0.0 | 38.6 | 0.0 | 0.0 | -1.0 |
| 1043 | 442441.94 | 5026035.77 | 1.52 | 0 | D | A | 57.1 | -15.3 | 0.0 | 17.0 | 0.0 | 0.0 | 24.8 |
| 1046 | 442409.49 | 5026015.94 | 1.52 | 0 | D | A | 57.1 | -17.8 | 0.0 | -5.1 | 0.0 | 0.0 | 44.4 |
| 1079 | 442617.56 | 5026149.56 | 1.52 | 0 | D | A | 57.1 | -19.4 | 0.0 | 43.9 | 0.0 | 0.0 | -6.1 |
| 1184 | 442568.88 | 5026119.81 | 1.52 | 0 | D | A | 57.1 | -19.6 | 0.0 | 38.1 | 0.0 | 0.0 | -0.6 |
| 1313 | 442439.07 | 5026040.47 | 1.52 | 0 | D | A | 57.1 | -15.8 | 0.0 | 11.7 | 0.0 | 0.0 | 29.6 |
| 1315 | 442406.62 | 5026020.63 | 1.52 | 0 | D | A | 57.1 | -18.1 | 0.0 | -3.2 | 0.0 | 0.0 | 42.2 |
| 1369 | 442620.43 | 5026144.87 | 3.66 | 0 | D | A | 57.0 | -19.3 | 0.0 | 41.8 | 0.0 | 0.0 | -4.1 |
| 1408 | 442571.75 | 5026115.12 | 3.66 | 0 | D | A | 57.0 | -19.4 | 0.0 | 38.6 | 0.0 | 0.0 | -1.1 |
| 1501 | 442441.94 | 5026035.77 | 3.66 | 0 | D | A | 57.0 | -15.3 | 0.0 | 13.1 | 0.0 | 0.0 | 28.6 |
| 1505 | 442409.49 | 5026015.94 | 3.66 | 0 | D | A | 57.0 | -17.8 | 0.0 | -5.1 | 0.0 | 0.0 | 44.3 |
| 1538 | 442617.56 | 5026149.56 | 3.66 | 0 | D | A | 57.0 | -19.3 | 0.0 | 41.9 | 0.0 | 0.0 | -4.3 |
| 1619 | 442568.88 | 5026119.81 | 3.66 | 0 | D | A | 57.0 | -19.6 | 0.0 | 37.8 | 0.0 | 0.0 | -0.4 |
| 1762 | 442439.07 | 5026040.47 | 3.66 | 0 | D | A | 57.0 | -15.8 | 0.0 | 8.8 | 0.0 | 0.0 | 32.4 |
| 1764 | 442406.62 | 5026020.63 | 3.66 | 0 | D | A | 57.0 | -18.0 | 0.0 | -3.2 | 0.0 | 0.0 | 42.1 |
| 4106 | 442374.45 | 5025997.00 | 0.10 | 0 | D | A | 59.9 | -20.0 | 0.0 | -4.0 | 0.0 | 0.0 | 43.9 |
| 4117 | 442337.32 | 5025979.24 | 0.10 | 0 | D | A | 59.9 | -22.2 | 0.0 | 43.9 | 0.0 | 0.0 | -6.2 |
| 4121 | 442281.63 | 5025952.59 | 0.10 | 0 | D | A | 59.9 | -21.6 | 0.0 | 48.4 | 0.0 | 0.0 | -10.2 |
| 4124 | 442372.08 | 5026001.97 | 0.10 | 0 | D | A | 59.9 | -20.1 | 0.0 | -4.0 | 0.0 | 0.0 | 43.8 |
| 4136 | 442334.95 | 5025984.20 | 0.10 | 0 | D | A | 59.9 | -22.2 | 0.0 | 42.4 | 0.0 | 0.0 | -4.7 |
| 4143 | 442279.26 | 5025957.56 | 0.10 | 0 | D | A | 59.9 | -21.6 | 0.0 | 46.9 | 0.0 | 0.0 | -8.6 |
| 5395 | 442374.45 | 5025997.00 | 1.52 | 0 | D | A | 57.1 | -20.0 | 0.0 | -2.1 | 0.0 | 0.0 | 39.2 |
| 5404 | 442372.08 | 5026001.97 | 1.52 | 0 | D | A | 57.1 | -20.1 | 0.0 | -2.1 | 0.0 | 0.0 | 39.0 |
| 5409 | 442334.95 | 5025984.20 | 1.52 | 0 | D | A | 57.1 | -22.2 | 0.0 | 45.5 | 0.0 | 0.0 | -10.6 |
| 5412 | 442374.45 | 5025997.00 | 3.66 | 0 | D | A | 57.0 | -20.0 | 0.0 | -2.5 | 0.0 | 0.0 | 39.5 |
| 5422 | 442372.08 | 5026001.97 | 3.66 | 0 | D | A | 57.0 | -20.1 | 0.0 | -2.4 | 0.0 | 0.0 | 39.3 |
| 5716 | 442775.44 | 5026238.50 | 0.10 | 0 | D | A | 59.9 | -24.4 | 0.0 | 40.5 | 0.0 | 0.0 | -4.9 |
| 5722 | 442693.72 | 5026189.30 | 0.10 | 0 | D | A | 59.9 | -21.7 | 0.0 | 46.9 | 0.0 | 0.0 | -8.6 |
| 5726 | 442772.60 | 5026243.22 | 0.10 | 0 | D | A | 59.9 | -24.4 | 0.0 | 40.4 | 0.0 | 0.0 | -4.9 |
| 5727 | 442690.89 | 5026194.01 | 0.10 | 0 | D | A | 59.9 | -21.7 | 0.0 | 46.8 | 0.0 | 0.0 | -8.6 |
| 6010 | 442775.44 | 5026238.50 | 1.52 | 0 | D | A | 57.1 | -24.4 | 0.0 | 41.5 | 0.0 | 0.0 | -8.7 |
| 6020 | 442772.60 | 5026243.22 | 1.52 | 0 | D | A | 57.1 | -24.4 | 0.0 | 41.4 | 0.0 | 0.0 | -8.7 |
| 6050 | 442775.44 | 5026238.50 | 3.66 | 0 | D | A | 57.0 | -24.3 | 0.0 | 38.6 | 0.0 | 0.0 | -6.0 |
| 6055 | 442693.72 | 5026189.30 | 3.66 | 0 | D | A | 57.0 | -21.6 | 0.0 | 45.1 | 0.0 | 0.0 | -9.8 |
| 6059 | 442772.60 | 5026243.22 | 3.66 | 0 | D | A | 57.0 | -24.3 | 0.0 | 38.6 | 0.0 | 0.0 | -6.0 |
| 6062 | 442690.89 | 5026194.01 | 3.66 | 0 | D | A | 57.0 | -21.6 | 0.0 | 44.8 | 0.0 | 0.0 | -9.5 |
| 6293 | 442182.39 | 5025894.52 | 0.10 | 0 | D | A | 59.9 | -24.1 | 0.0 | 34.0 | 0.0 | 0.0 | 1.8 |
| 6294 | 442179.05 | 5025898.89 | 0.10 | 0 | D | A | 59.9 | -24.2 | 0.0 | 36.0 | 0.0 | 0.0 | -0.3 |
| 6316 | 442182.39 | 5025894.52 | 1.52 | 0 | D | A | 57.1 | -24.1 | 0.0 | 34.4 | 0.0 | 0.0 | -1.4 |
| 6317 | 442179.05 | 5025898.89 | 1.52 | 0 | D | A | 57.1 | -24.2 | 0.0 | 37.5 | 0.0 | 0.0 | -4.6 |
| 6320 | 442182.39 | 5025894.52 | 3.66 | 0 | D | A | 57.0 | -24.1 | 0.0 | 33.5 | 0.0 | 0.0 | -0.7 |
| 6321 | 442179.05 | 5025898.89 | 3.66 | 0 | D | A | 57.0 | -24.2 | 0.0 | 36.8 | 0.0 | 0.0 | -4.0 |

| Road, TNM, Name: "Highway 417 Eastbound", ID: "RD_417EB" | | | | | | | | | | | | | |
|--|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 738 | 442262.34 | 5026074.48 | 5.35 | 0 | D | A | 71.6 | -20.9 | 0.0 | 0.5 | 0.0 | 0.0 | 50.2 |
| 739 | 442191.78 | 5025984.42 | 5.85 | 0 | D | A | 71.6 | -22.7 | 0.0 | 0.6 | 0.0 | 0.0 | 48.3 |
| 740 | 442253.29 | 5026081.57 | 5.35 | 0 | D | A | 71.6 | -21.3 | 0.0 | -0.1 | 0.0 | 0.0 | 50.4 |
| 742 | 442182.73 | 5025991.51 | 5.85 | 0 | D | A | 71.6 | -22.9 | 0.0 | 1.0 | 0.0 | 0.0 | 47.7 |
| 763 | 442372.44 | 5026219.66 | 4.35 | 0 | D | A | 71.6 | -22.2 | 0.0 | 59.4 | 0.0 | 0.0 | -9.9 |
| 766 | 442322.62 | 5026152.96 | 4.85 | 0 | D | A | 71.6 | -21.6 | 0.0 | 44.7 | 0.0 | 0.0 | 5.3 |
| 786 | 442363.23 | 5026226.54 | 4.35 | 0 | D | A | 71.6 | -22.5 | 0.0 | 59.3 | 0.0 | 0.0 | -10.2 |
| 793 | 442313.40 | 5026159.84 | 4.85 | 0 | D | A | 71.6 | -22.0 | 0.0 | 43.5 | 0.0 | 0.0 | 6.1 |
| 2128 | 442115.08 | 5025886.95 | 6.10 | 0 | D | A | 71.6 | -24.2 | 0.0 | 40.5 | 0.0 | 0.0 | 6.9 |
| 2133 | 442032.28 | 5025782.10 | 6.10 | 0 | D | A | 71.6 | -26.3 | 0.0 | 31.6 | 0.0 | 0.0 | 13.7 |
| 2134 | 442106.06 | 5025894.07 | 6.10 | 0 | D | A | 71.6 | -24.3 | 0.0 | 42.8 | 0.0 | 0.0 | 4.5 |
| 2136 | 442023.25 | 5025789.23 | 6.10 | 0 | D | A | 71.6 | -26.4 | 0.0 | 31.5 | 0.0 | 0.0 | 13.7 |
| 2138 | 442262.34 | 5026074.48 | 6.78 | 0 | D | A | 68.8 | -20.9 | 0.0 | -0.5 | 0.0 | 0.0 | 48.4 |
| 2139 | 442191.78 | 5025984.42 | 7.28 | 0 | D | A | 68.8 | -22.7 | 0.0 | -0.4 | 0.0 | 0.0 | 46.6 |
| 2140 | 442253.29 | 5026081.57 | 6.78 | 0 | D | A | 68.8 | -21.3 | 0.0 | -0.8 | 0.0 | 0.0 | 48.4 |
| 2142 | 442182.73 | 5025991.51 | 7.28 | 0 | D | A | 68.8 | -22.9 | 0.0 | -0.2 | 0.0 | 0.0 | 46.1 |
| 2230 | 442505.67 | 5026428.31 | 3.60 | 0 | D | A | 71.6 | -22.8 | 0.0 | 54.7 | 0.0 | 0.0 | -5.9 |
| 2289 | 442495.67 | 5026433.99 | 3.60 | 0 | D | A | 71.6 | -22.9 | 0.0 | 54.7 | 0.0 | 0.0 | -6.0 |
| 2326 | 442322.62 | 5026152.96 | 6.28 | 0 | D | A | 68.8 | -21.6 | 0.0 | 45.0 | 0.0 | 0.0 | 2.2 |
| 2338 | 442313.40 | 5026159.84 | 6.28 | 0 | D | A | 68.8 | -22.0 | 0.0 | 44.4 | 0.0 | 0.0 | 2.4 |
| 2666 | 442262.34 | 5026074.48 | 8.91 | 0 | D | A | 66.3 | -20.9 | 0.0 | -0.2 | 0.0 | 0.0 | 45.6 |
| 2667 | 442191.78 | 5025984.42 | 9.41 | 0 | D | A | 66.3 | -22.7 | 0.0 | -0.3 | 0.0 | 0.0 | 43.9 |
| 2668 | 442253.29 | 5026081.57 | 8.91 | 0 | D | A | 66.3 | -21.3 | 0.0 | -0.5 | 0.0 | 0.0 | 45.6 |
| 2671 | 442182.73 | 5025991.51 | 9.41 | 0 | D | A | 66.3 | -22.9 | 0.0 | 0.2 | 0.0 | 0.0 | 43.2 |
| 2680 | 442115.08 | 5025886.95 | 7.53 | 0 | D | A | 68.8 | -24.2 | 0.0 | 39.7 | 0.0 | 0.0 | 5.0 |
| 2687 | 442032.28 | 5025782.10 | 7.53 | 0 | D | A | 68.8 | -26.3 | 0.0 | 33.2 | 0.0 | 0.0 | 9.3 |
| 2689 | 442106.06 | 5025894.07 | 7.53 | 0 | D | A | 68.8 | -24.3 | 0.0 | 43.5 | 0.0 | 0.0 | 1.0 |
| 2694 | 442023.25 | 5025789.23 | 7.53 | 0 | D | A | 68.8 | -26.4 | 0.0 | 33.0 | 0.0 | 0.0 | 9.4 |
| 3840 | 442505.67 | 5026428.31 | 5.03 | 0 | D | A | 68.8 | -22.8 | 0.0 | 55.1 | 0.0 | 0.0 | -9.0 |
| 3929 | 442495.67 | 5026433.99 | 5.03 | 0 | D | A | 68.8 | -22.9 | 0.0 | 54.9 | 0.0 | 0.0 | -9.0 |
| 3996 | 442322.62 | 5026152.96 | 8.41 | 0 | D | A | 66.3 | -21.6 | 0.0 | 43.3 | 0.0 | 0.0 | 1.3 |
| 4009 | 442313.40 | 5026159.84 | 8.41 | 0 | D | A | 66.3 | -22.0 | 0.0 | 43.0 | 0.0 | 0.0 | 1.2 |
| 4191 | 442412.50 | 5026276.22 | 4.10 | 0 | D | A | 71.6 | -25.0 | 0.0 | 57.6 | 0.0 | 0.0 | -11.0 |
| 4254 | 442402.87 | 5026282.50 | 4.10 | 0 | D | A | 71.6 | -25.3 | 0.0 | 57.2 | 0.0 | 0.0 | -10.9 |
| 4619 | 442115.08 | 5025886.95 | 9.66 | 0 | D | A | 66.3 | -24.2 | 0.0 | 34.2 | 0.0 | 0.0 | 7.9 |
| 4625 | 442032.28 | 5025782.10 | 9.66 | 0 | D | A | 66.3 | -26.3 | 0.0 | 33.9 | 0.0 | 0.0 | 6.1 |
| 4629 | 442106.06 | 5025894.07 | 9.66 | 0 | D | A | 66.3 | -24.3 | 0.0 | 41.1 | 0.0 | 0.0 | 0.9 |
| 4634 | 442023.25 | 5025789.23 | 9.66 | 0 | D | A | 66.3 | -26.4 | 0.0 | 33.6 | 0.0 | 0.0 | 6.3 |
| 4704 | 441930.31 | 5025652.68 | 6.10 | 0 | D | A | 71.6 | -26.8 | 0.0 | 1.2 | 0.0 | 0.0 | 43.6 |
| 4705 | 441921.27 | 5025659.79 | 6.10 | 0 | D | A | 71.6 | -26.9 | 0.0 | 1.2 | 0.0 | 0.0 | 43.6 |
| 5189 | 442505.67 | 5026428.31 | 7.16 | 0 | D | A | 66.3 | -22.8 | 0.0 | 52.8 | 0.0 | 0.0 | -9.3 |
| 5290 | 442495.67 | 5026433.99 | 7.16 | 0 | D | A | 66.3 | -22.9 | 0.0 | 52.6 | 0.0 | 0.0 | -9.2 |
| 5656 | 441930.31 | 5025652.68 | 7.53 | 0 | D | A | 68.8 | -26.8 | 0.0 | -0.4 | 0.0 | 0.0 | 42.4 |
| 5657 | 441921.27 | 5025659.79 | 7.53 | 0 | D | A | 68.8 | -26.9 | 0.0 | -0.4 | 0.0 | 0.0 | 42.3 |
| 5776 | 442568.08 | 5026538.68 | 3.10 | 0 | D | A | 71.6 | -29.7 | 0.0 | 48.8 | 0.0 | 0.0 | -6.9 |
| 5829 | 442558.05 | 5026544.29 | 3.10 | 0 | D | A | 71.6 | -29.8 | 0.0 | 48.9 | 0.0 | 0.0 | -7.1 |
| 6005 | 441930.31 | 5025652.68 | 9.66 | 0 | D | A | 66.3 | -26.8 | 0.0 | 0.8 | 0.0 | 0.0 | 38.8 |
| 6006 | 441921.27 | 5025659.79 | 9.66 | 0 | D | A | 66.3 | -26.9 | 0.0 | 0.7 | 0.0 | 0.0 | 38.8 |
| 6098 | 442568.08 | 5026538.68 | 4.53 | 0 | D | A | 68.8 | -29.7 | 0.0 | 49.2 | 0.0 | 0.0 | -10.1 |
| 6151 | 442558.05 | 5026544.29 | 4.53 | 0 | D | A | 68.8 | -29.8 | 0.0 | 49.3 | 0.0 | 0.0 | -10.3 |
| 6265 | 442568.08 | 5026538.68 | 6.66 | 0 | D | A | 66.3 | -29.7 | 0.0 | 46.0 | 0.0 | 0.0 | -9.4 |
| 6284 | 442558.05 | 5026544.29 | 6.66 | 0 | D | A | 66.3 | -29.8 | 0.0 | 46.2 | 0.0 | 0.0 | -9.6 |

| Road, TNM, Name: "Highway 417 Westbound", ID: "RD_417WB" | | | | | | | | | | | | | |
|--|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 1327 | 442356.29 | 5026233.08 | 4.35 | 0 | D | A | 71.6 | -22.8 | 0.0 | 59.5 | 0.0 | 0.0 | -10.7 |
| 1328 | 442306.31 | 5026166.12 | 4.85 | 0 | D | A | 71.6 | -22.3 | 0.0 | 43.2 | 0.0 | 0.0 | 6.1 |
| 1345 | 442297.09 | 5026173.00 | 4.85 | 0 | D | A | 71.6 | -22.7 | 0.0 | 42.6 | 0.0 | 0.0 | 6.2 |
| 2144 | 442159.04 | 5025977.64 | 6.60 | 0 | D | A | 71.6 | -21.8 | 0.0 | 0.4 | 0.0 | 0.0 | 49.4 |
| 2145 | 442150.01 | 5025984.75 | 6.60 | 0 | D | A | 71.6 | -22.0 | 0.0 | 0.9 | 0.0 | 0.0 | 48.7 |
| 2293 | 442246.15 | 5026088.11 | 6.10 | 0 | D | A | 71.6 | -21.6 | 0.0 | 7.4 | 0.0 | 0.0 | 42.6 |
| 2297 | 442237.12 | 5026095.24 | 6.10 | 0 | D | A | 71.6 | -21.9 | 0.0 | 5.0 | 0.0 | 0.0 | 44.7 |

| Road, TNM, Name: "Highway 417 Westbound", ID: "RD_417WB" | | | | | | | | | | | | | |
|--|-----------|------------|-------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 2302 | 442066.16 | 5025858.15 | 6.10 | 0 | D | A | 71.6 | -25.2 | 0.0 | 40.9 | 0.0 | 0.0 | 5.5 |
| 2307 | 441984.37 | 5025751.18 | 6.10 | 0 | D | A | 71.6 | -27.2 | 0.0 | 30.3 | 0.0 | 0.0 | 14.1 |
| 2311 | 442057.03 | 5025865.13 | 6.10 | 0 | D | A | 71.6 | -25.4 | 0.0 | 37.5 | 0.0 | 0.0 | 8.8 |
| 2317 | 441975.23 | 5025758.16 | 6.10 | 0 | D | A | 71.6 | -27.3 | 0.0 | 29.9 | 0.0 | 0.0 | 14.4 |
| 2347 | 442306.31 | 5026166.12 | 6.28 | 0 | D | A | 68.8 | -22.3 | 0.0 | 43.8 | 0.0 | 0.0 | 2.7 |
| 2365 | 442297.09 | 5026173.00 | 6.28 | 0 | D | A | 68.8 | -22.7 | 0.0 | 43.9 | 0.0 | 0.0 | 2.3 |
| 3528 | 442523.28 | 5026494.73 | 3.60 | 0 | D | A | 71.6 | -24.4 | 0.0 | 49.0 | 0.0 | 0.0 | -1.8 |
| 3620 | 442513.23 | 5026500.31 | 3.60 | 0 | D | A | 71.6 | -24.5 | 0.0 | 49.1 | 0.0 | 0.0 | -2.0 |
| 3673 | 442450.33 | 5026370.48 | 4.10 | 0 | D | A | 71.6 | -24.1 | 0.0 | 58.0 | 0.0 | 0.0 | -10.6 |
| 3752 | 442440.65 | 5026376.69 | 4.10 | 0 | D | A | 71.6 | -24.3 | 0.0 | 58.2 | 0.0 | 0.0 | -10.9 |
| 3754 | 442159.04 | 5025977.64 | 8.03 | 0 | D | A | 68.8 | -21.8 | 0.0 | -0.4 | 0.0 | 0.0 | 47.4 |
| 3755 | 442150.01 | 5025984.75 | 8.03 | 0 | D | A | 68.8 | -22.0 | 0.0 | -0.1 | 0.0 | 0.0 | 46.9 |
| 3935 | 442246.15 | 5026088.11 | 7.53 | 0 | D | A | 68.8 | -21.6 | 0.0 | 5.4 | 0.0 | 0.0 | 41.9 |
| 3938 | 442237.12 | 5026095.24 | 7.53 | 0 | D | A | 68.8 | -21.9 | 0.0 | 2.5 | 0.0 | 0.0 | 44.4 |
| 3951 | 442066.16 | 5025858.15 | 7.53 | 0 | D | A | 68.8 | -25.2 | 0.0 | 40.1 | 0.0 | 0.0 | 3.5 |
| 3954 | 441984.37 | 5025751.18 | 7.53 | 0 | D | A | 68.8 | -27.2 | 0.0 | 31.6 | 0.0 | 0.0 | 10.0 |
| 3970 | 442057.03 | 5025865.13 | 7.53 | 0 | D | A | 68.8 | -25.4 | 0.0 | 39.2 | 0.0 | 0.0 | 4.2 |
| 3979 | 441975.23 | 5025758.16 | 7.53 | 0 | D | A | 68.8 | -27.3 | 0.0 | 31.1 | 0.0 | 0.0 | 10.4 |
| 4056 | 442401.00 | 5026295.47 | 4.10 | 0 | D | A | 71.6 | -24.6 | 0.0 | 56.8 | 0.0 | 0.0 | -9.8 |
| 4104 | 442391.50 | 5026301.95 | 4.10 | 0 | D | A | 71.6 | -24.9 | 0.0 | 56.5 | 0.0 | 0.0 | -9.8 |
| 4282 | 442306.31 | 5026166.12 | 8.41 | 0 | D | A | 66.3 | -22.3 | 0.0 | 42.3 | 0.0 | 0.0 | 1.7 |
| 4308 | 442297.09 | 5026173.00 | 8.41 | 0 | D | A | 66.3 | -22.7 | 0.0 | 41.5 | 0.0 | 0.0 | 2.1 |
| 4739 | 442523.28 | 5026494.73 | 5.03 | 0 | D | A | 68.8 | -24.4 | 0.0 | 49.4 | 0.0 | 0.0 | -4.9 |
| 4792 | 442513.23 | 5026500.31 | 5.03 | 0 | D | A | 68.8 | -24.5 | 0.0 | 49.4 | 0.0 | 0.0 | -5.0 |
| 5068 | 442159.04 | 5025977.64 | 10.16 | 0 | D | A | 66.3 | -21.8 | 0.0 | 0.1 | 0.0 | 0.0 | 44.4 |
| 5069 | 442150.01 | 5025984.75 | 10.16 | 0 | D | A | 66.3 | -22.0 | 0.0 | 0.5 | 0.0 | 0.0 | 43.8 |
| 5292 | 442246.15 | 5026088.11 | 9.66 | 0 | D | A | 66.3 | -21.6 | 0.0 | 3.3 | 0.0 | 0.0 | 41.5 |
| 5296 | 442237.12 | 5026095.24 | 9.66 | 0 | D | A | 66.3 | -21.9 | 0.0 | 2.4 | 0.0 | 0.0 | 42.1 |
| 5303 | 442066.16 | 5025858.15 | 9.66 | 0 | D | A | 66.3 | -25.2 | 0.0 | 37.2 | 0.0 | 0.0 | 3.9 |
| 5309 | 441984.37 | 5025751.18 | 9.66 | 0 | D | A | 66.3 | -27.2 | 0.0 | 30.7 | 0.0 | 0.0 | 8.5 |
| 5316 | 442057.03 | 5025865.13 | 9.66 | 0 | D | A | 66.3 | -25.4 | 0.0 | 36.1 | 0.0 | 0.0 | 4.9 |
| 5318 | 441975.23 | 5025758.16 | 9.66 | 0 | D | A | 66.3 | -27.3 | 0.0 | 28.9 | 0.0 | 0.0 | 10.2 |
| 5499 | 441900.22 | 5025643.01 | 6.10 | 0 | D | A | 71.6 | -28.7 | 0.0 | 1.3 | 0.0 | 0.0 | 41.6 |
| 5501 | 441891.20 | 5025650.15 | 6.10 | 0 | D | A | 71.6 | -28.8 | 0.0 | 13.2 | 0.0 | 0.0 | 29.6 |
| 5595 | 442523.28 | 5026494.73 | 7.16 | 0 | D | A | 66.3 | -24.4 | 0.0 | 46.3 | 0.0 | 0.0 | -4.3 |
| 5654 | 442513.23 | 5026500.31 | 7.16 | 0 | D | A | 66.3 | -24.5 | 0.0 | 46.4 | 0.0 | 0.0 | -4.6 |
| 5954 | 441900.22 | 5025643.01 | 7.53 | 0 | D | A | 68.8 | -28.7 | 0.0 | -0.1 | 0.0 | 0.0 | 40.2 |
| 5956 | 441891.20 | 5025650.15 | 7.53 | 0 | D | A | 68.8 | -28.8 | 0.0 | 10.6 | 0.0 | 0.0 | 29.4 |
| 6243 | 441900.22 | 5025643.01 | 9.66 | 0 | D | A | 66.3 | -28.7 | 0.0 | 0.8 | 0.0 | 0.0 | 36.8 |
| 6244 | 441891.20 | 5025650.15 | 9.66 | 0 | D | A | 66.3 | -28.8 | 0.0 | 9.6 | 0.0 | 0.0 | 28.0 |

| Road, TNM, Name: "Carling Ave. Westbound", ID: "RD_CarlingWB" | | | | | | | | | | | | | |
|---|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 1823 | 442598.97 | 5026150.75 | 0.10 | 0 | D | A | 59.9 | -20.7 | 0.0 | 30.9 | 0.0 | 0.0 | 8.3 |
| 1846 | 442554.92 | 5026123.41 | 0.10 | 0 | D | A | 59.9 | -18.1 | 0.0 | 46.2 | 0.0 | 0.0 | -4.3 |
| 2016 | 442596.07 | 5026155.42 | 0.10 | 0 | D | A | 59.9 | -20.8 | 0.0 | 35.7 | 0.0 | 0.0 | 3.4 |
| 2030 | 442552.02 | 5026128.09 | 0.10 | 0 | D | A | 59.9 | -18.3 | 0.0 | 45.8 | 0.0 | 0.0 | -4.2 |
| 2409 | 442598.97 | 5026150.75 | 1.52 | 0 | D | A | 57.1 | -20.6 | 0.0 | 32.0 | 0.0 | 0.0 | 4.5 |
| 2421 | 442554.92 | 5026123.41 | 1.52 | 0 | D | A | 57.1 | -18.1 | 0.0 | 47.7 | 0.0 | 0.0 | -8.6 |
| 2540 | 442596.07 | 5026155.42 | 1.52 | 0 | D | A | 57.1 | -20.8 | 0.0 | 37.0 | 0.0 | 0.0 | -0.7 |
| 2558 | 442552.02 | 5026128.09 | 1.52 | 0 | D | A | 57.1 | -18.3 | 0.0 | 47.2 | 0.0 | 0.0 | -8.4 |
| 3051 | 442598.97 | 5026150.75 | 3.66 | 0 | D | A | 57.0 | -20.6 | 0.0 | 29.5 | 0.0 | 0.0 | 6.9 |
| 3062 | 442554.92 | 5026123.41 | 3.66 | 0 | D | A | 57.0 | -18.0 | 0.0 | 47.3 | 0.0 | 0.0 | -8.4 |
| 3225 | 442596.07 | 5026155.42 | 3.66 | 0 | D | A | 57.0 | -20.7 | 0.0 | 34.6 | 0.0 | 0.0 | 1.6 |
| 3253 | 442552.02 | 5026128.09 | 3.66 | 0 | D | A | 57.0 | -18.3 | 0.0 | 46.4 | 0.0 | 0.0 | -7.7 |
| 4636 | 442430.45 | 5026046.39 | 0.10 | 0 | D | A | 59.9 | -17.4 | 0.0 | 6.7 | 0.0 | 0.0 | 35.8 |
| 4639 | 442401.83 | 5026029.05 | 0.10 | 0 | D | A | 59.9 | -19.1 | 0.0 | -4.0 | 0.0 | 0.0 | 44.7 |
| 4641 | 442427.60 | 5026051.10 | 0.10 | 0 | D | A | 59.9 | -17.8 | 0.0 | 3.7 | 0.0 | 0.0 | 38.5 |
| 4642 | 442398.98 | 5026033.75 | 0.10 | 0 | D | A | 59.9 | -19.4 | 0.0 | -4.0 | 0.0 | 0.0 | 44.5 |
| 5502 | 442430.45 | 5026046.39 | 1.52 | 0 | D | A | 57.1 | -17.3 | 0.0 | 6.5 | 0.0 | 0.0 | 33.3 |
| 5504 | 442401.83 | 5026029.05 | 1.52 | 0 | D | A | 57.1 | -19.1 | 0.0 | -3.0 | 0.0 | 0.0 | 41.0 |
| 5505 | 442427.60 | 5026051.10 | 1.52 | 0 | D | A | 57.1 | -17.8 | 0.0 | -3.4 | 0.0 | 0.0 | 42.7 |

| Road, TNM, Name: "Carling Ave. Westbound", ID: "RD_CarlingWB" | | | | | | | | | | | | | |
|---|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 5506 | 442398.98 | 5026033.75 | 1.52 | 0 | D | A | 57.1 | -19.4 | 0.0 | -2.8 | 0.0 | 0.0 | 40.5 |
| 5658 | 442430.45 | 5026046.39 | 3.66 | 0 | D | A | 57.0 | -17.3 | 0.0 | -2.3 | 0.0 | 0.0 | 41.9 |
| 5659 | 442401.83 | 5026029.05 | 3.66 | 0 | D | A | 57.0 | -19.1 | 0.0 | -2.7 | 0.0 | 0.0 | 40.6 |
| 5661 | 442427.60 | 5026051.10 | 3.66 | 0 | D | A | 57.0 | -17.7 | 0.0 | -2.0 | 0.0 | 0.0 | 41.2 |
| 5662 | 442398.98 | 5026033.75 | 3.66 | 0 | D | A | 57.0 | -19.4 | 0.0 | -2.8 | 0.0 | 0.0 | 40.4 |
| 5730 | 442722.47 | 5026224.87 | 0.10 | 0 | D | A | 59.9 | -23.9 | 0.0 | 42.3 | 0.0 | 0.0 | -6.3 |
| 5740 | 442654.79 | 5026184.55 | 0.10 | 0 | D | A | 59.9 | -21.4 | 0.0 | 48.2 | 0.0 | 0.0 | -9.7 |
| 5742 | 442719.65 | 5026229.60 | 0.10 | 0 | D | A | 59.9 | -23.9 | 0.0 | 42.2 | 0.0 | 0.0 | -6.3 |
| 5751 | 442651.98 | 5026189.27 | 0.10 | 0 | D | A | 59.9 | -21.5 | 0.0 | 47.5 | 0.0 | 0.0 | -9.0 |
| 5895 | 442284.40 | 5026013.44 | 0.10 | 0 | D | A | 59.9 | -22.1 | 0.0 | -3.8 | 0.0 | 0.0 | 41.5 |
| 5897 | 442285.00 | 5026018.91 | 0.10 | 0 | D | A | 59.9 | -23.4 | 0.0 | -3.7 | 0.0 | 0.0 | 40.2 |
| 6025 | 442722.47 | 5026224.87 | 1.52 | 0 | D | A | 57.1 | -23.9 | 0.0 | 43.5 | 0.0 | 0.0 | -10.2 |
| 6041 | 442719.65 | 5026229.60 | 1.52 | 0 | D | A | 57.1 | -23.9 | 0.0 | 43.4 | 0.0 | 0.0 | -10.2 |
| 6064 | 442722.47 | 5026224.87 | 3.66 | 0 | D | A | 57.0 | -23.9 | 0.0 | 40.8 | 0.0 | 0.0 | -7.7 |
| 6070 | 442654.79 | 5026184.55 | 3.66 | 0 | D | A | 57.0 | -21.4 | 0.0 | 44.6 | 0.0 | 0.0 | -9.0 |
| 6072 | 442719.65 | 5026229.60 | 3.66 | 0 | D | A | 57.0 | -23.9 | 0.0 | 40.6 | 0.0 | 0.0 | -7.6 |
| 6079 | 442651.98 | 5026189.27 | 3.66 | 0 | D | A | 57.0 | -21.4 | 0.0 | 45.1 | 0.0 | 0.0 | -9.5 |
| 6152 | 442374.01 | 5026015.66 | 0.10 | 0 | D | A | 59.9 | -21.9 | 0.0 | -5.5 | 0.0 | 0.0 | 43.6 |
| 6153 | 442372.21 | 5026020.86 | 0.10 | 0 | D | A | 59.9 | -22.0 | 0.0 | -4.0 | 0.0 | 0.0 | 42.0 |
| 6154 | 442284.40 | 5026013.44 | 1.52 | 0 | D | A | 57.1 | -22.0 | 0.0 | 0.7 | 0.0 | 0.0 | 34.4 |
| 6155 | 442285.00 | 5026018.91 | 1.52 | 0 | D | A | 57.1 | -23.2 | 0.0 | 0.9 | 0.0 | 0.0 | 33.1 |
| 6240 | 442284.40 | 5026013.44 | 3.66 | 0 | D | A | 57.0 | -21.7 | 0.0 | -0.6 | 0.0 | 0.0 | 35.8 |
| 6242 | 442285.00 | 5026018.91 | 3.66 | 0 | D | A | 57.0 | -22.8 | 0.0 | -0.1 | 0.0 | 0.0 | 34.3 |
| 6247 | 442347.56 | 5026009.50 | 0.10 | 0 | D | A | 59.9 | -24.4 | 0.0 | -3.1 | 0.0 | 0.0 | 38.6 |
| 6248 | 442346.90 | 5026014.96 | 0.10 | 0 | D | A | 59.9 | -24.2 | 0.0 | -3.9 | 0.0 | 0.0 | 39.7 |
| 6300 | 442374.01 | 5026015.66 | 1.52 | 0 | D | A | 57.1 | -21.8 | 0.0 | -4.9 | 0.0 | 0.0 | 40.1 |
| 6301 | 442372.21 | 5026020.86 | 1.52 | 0 | D | A | 57.1 | -21.9 | 0.0 | -2.0 | 0.0 | 0.0 | 37.2 |
| 6306 | 442374.01 | 5026015.66 | 3.66 | 0 | D | A | 57.0 | -21.8 | 0.0 | -4.6 | 0.0 | 0.0 | 39.8 |
| 6307 | 442372.21 | 5026020.86 | 3.66 | 0 | D | A | 57.0 | -21.9 | 0.0 | -2.3 | 0.0 | 0.0 | 37.4 |
| 6310 | 442786.22 | 5026263.44 | 0.10 | 0 | D | A | 59.9 | -26.3 | 0.0 | 39.8 | 0.0 | 0.0 | -6.2 |
| 6311 | 442783.34 | 5026268.12 | 0.10 | 0 | D | A | 59.9 | -26.3 | 0.0 | 39.8 | 0.0 | 0.0 | -6.2 |
| 6312 | 442347.56 | 5026009.50 | 1.52 | 0 | D | A | 57.1 | -24.3 | 0.0 | 0.0 | 0.0 | 0.0 | 32.7 |
| 6313 | 442346.90 | 5026014.96 | 1.52 | 0 | D | A | 57.1 | -24.1 | 0.0 | -0.6 | 0.0 | 0.0 | 33.6 |
| 6318 | 442347.56 | 5026009.50 | 3.66 | 0 | D | A | 57.0 | -24.1 | 0.0 | -0.4 | 0.0 | 0.0 | 33.3 |
| 6319 | 442346.90 | 5026014.96 | 3.66 | 0 | D | A | 57.0 | -23.9 | 0.0 | -1.2 | 0.0 | 0.0 | 34.2 |
| 6330 | 442786.22 | 5026263.44 | 1.52 | 0 | D | A | 57.1 | -26.3 | 0.0 | 40.7 | 0.0 | 0.0 | -9.9 |
| 6331 | 442783.34 | 5026268.12 | 1.52 | 0 | D | A | 57.1 | -26.3 | 0.0 | 40.7 | 0.0 | 0.0 | -9.9 |
| 6332 | 442786.22 | 5026263.44 | 3.66 | 0 | D | A | 57.0 | -26.3 | 0.0 | 37.9 | 0.0 | 0.0 | -7.2 |
| 6333 | 442783.34 | 5026268.12 | 3.66 | 0 | D | A | 57.0 | -26.3 | 0.0 | 37.9 | 0.0 | 0.0 | -7.2 |

| Road, TNM, Name: "Merivale Road", ID: "RD_Merivale" | | | | | | | | | | | | | |
|---|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 2696 | 442611.39 | 5025689.87 | 0.10 | 0 | D | A | 59.1 | -22.8 | 0.0 | 11.8 | 0.0 | 0.0 | 24.5 |
| 2730 | 442631.28 | 5025804.38 | 0.10 | 0 | D | A | 59.1 | -19.7 | 0.0 | 48.7 | 0.0 | 0.0 | -9.3 |
| 2814 | 442666.08 | 5026004.77 | 0.10 | 0 | D | A | 59.1 | -19.3 | 0.0 | 50.0 | 0.0 | 0.0 | -10.2 |
| 2845 | 442676.02 | 5026062.02 | 0.10 | 0 | D | A | 59.1 | -20.3 | 0.0 | 46.2 | 0.0 | 0.0 | -7.4 |
| 2850 | 442621.74 | 5025688.07 | 0.10 | 0 | D | A | 59.1 | -22.9 | 0.0 | 11.2 | 0.0 | 0.0 | 25.0 |
| 2983 | 442676.42 | 5026002.97 | 0.10 | 0 | D | A | 59.1 | -19.8 | 0.0 | 48.6 | 0.0 | 0.0 | -9.3 |
| 3004 | 442686.36 | 5026060.23 | 0.10 | 0 | D | A | 59.1 | -20.7 | 0.0 | 47.1 | 0.0 | 0.0 | -8.8 |
| 4313 | 442611.39 | 5025689.87 | 3.66 | 0 | D | A | 57.1 | -22.8 | 0.0 | 10.3 | 0.0 | 0.0 | 24.1 |
| 4460 | 442676.02 | 5026062.02 | 3.66 | 0 | D | A | 57.1 | -20.3 | 0.0 | 46.5 | 0.0 | 0.0 | -9.6 |
| 4461 | 442621.74 | 5025688.07 | 3.66 | 0 | D | A | 57.1 | -22.9 | 0.0 | 9.7 | 0.0 | 0.0 | 24.6 |
| 4491 | 442641.62 | 5025802.58 | 3.66 | 0 | D | A | 57.1 | -20.0 | 0.0 | 48.2 | 0.0 | 0.0 | -11.0 |
| 4616 | 442686.36 | 5026060.23 | 3.66 | 0 | D | A | 57.1 | -20.7 | 0.0 | 46.5 | 0.0 | 0.0 | -10.1 |
| 4795 | 442611.39 | 5025689.87 | 1.52 | 0 | D | A | 56.0 | -22.8 | 0.0 | 12.0 | 0.0 | 0.0 | 21.3 |
| 4899 | 442621.74 | 5025688.07 | 1.52 | 0 | D | A | 56.0 | -22.9 | 0.0 | 11.8 | 0.0 | 0.0 | 21.3 |
| 6234 | 442652.37 | 5026154.12 | 0.10 | 0 | D | A | 59.1 | -20.3 | 0.0 | 48.5 | 0.0 | 0.0 | -9.8 |
| 6299 | 442573.28 | 5026323.09 | 0.10 | 0 | D | A | 59.1 | -23.8 | 0.0 | 39.8 | 0.0 | 0.0 | -4.5 |
| 6315 | 442573.28 | 5026323.09 | 3.66 | 0 | D | A | 57.1 | -23.8 | 0.0 | 38.3 | 0.0 | 0.0 | -4.9 |
| 6323 | 442573.28 | 5026323.09 | 1.52 | 0 | D | A | 56.0 | -23.8 | 0.0 | 40.9 | 0.0 | 0.0 | -8.7 |
| 6334 | 442531.76 | 5026374.17 | 0.10 | 0 | D | A | 59.1 | -28.3 | 0.0 | 41.7 | 0.0 | 0.0 | -10.9 |
| 6348 | 442531.76 | 5026374.17 | 3.66 | 0 | D | A | 57.1 | -28.3 | 0.0 | 39.8 | 0.0 | 0.0 | -11.0 |

CadnaA-TNM Calculation Results on Background Traffic Noise - Summary

| Name | Sel. | M. | ID | Level Lr | | | Limit. Value | | | Land Use | | | Height | | Coordinates | | |
|-----------------------|------|----|---------|----------|---------|-------|--------------|---------|-------|----------|------|------------|--------|---|-------------|------------|-------|
| | | | | Day | Evening | Night | Day | Evening | Night | Type | Auto | Noise Type | | | X | Y | Z |
| | | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | | (m) | | (m) | (m) | (m) |
| West Facade - 20 m | | | INT_R01 | 59.7 | -77.2 | 52.1 | 0.0 | 0.0 | 0.0 | | x | Total | 20.00 | r | 442513.01 | 5026004.26 | 20.00 |
| North Facade - 56.5 m | | | INT_R02 | 61.4 | -76.6 | 53.8 | 0.0 | 0.0 | 0.0 | | x | Total | 56.50 | r | 442513.10 | 5026007.56 | 56.50 |
| North Facade - 56.5 m | | | INT_R03 | 61.5 | -75.0 | 53.9 | 0.0 | 0.0 | 0.0 | | x | Total | 56.50 | r | 442527.56 | 5026016.09 | 56.50 |
| North Facade - 20 m | | | INT_R04 | 60.4 | -75.4 | 52.9 | 0.0 | 0.0 | 0.0 | | x | Total | 20.00 | r | 442528.05 | 5026016.39 | 20.00 |
| North Facade - 4.5 m | | | INT_R05 | 52.6 | -77.0 | 45.0 | 0.0 | 0.0 | 0.0 | | x | Total | 4.50 | r | 442528.47 | 5026016.63 | 4.50 |

Receiver
Name: West Facade - 20 m
ID: INT_R01
X: 442513.01 m
Y: 5026004.26 m
Z: 20.00 m

| Road, TNM, Name: "Highway 417", ID: "RD_417" | | | | | | | | | | | | | |
|--|-----------|------------|----------|-------|-----|---------------|-------------|------------|--------------|-------------|--------------|------------|-------------|
| Nr. | X (m) | Y (m) | Z (m) | Refl. | DEN | Freq. (Hz) | Lw dB(A) | Ad (dB) | Aair (dB) | Agr (dB) | Afol (dB) | RL (dB) | Lr dB(A) |
| 16 | 442226.98 | 5026090.28 | 6.35 | 0 | D | A | 73.8 | -21.6 | 0.0 | 3.6 | 0.0 | 0.0 | 48.6 |
| 25 | 442307.06 | 5026192.31 | 4.85 | 0 | D | A | 73.8 | -21.0 | 0.0 | 43.8 | 0.0 | 0.0 | 9.0 |
| 52 | 442341.68 | 5026236.42 | 4.20 | 1 | D | A | 73.8 | -30.5 | 0.0 | 45.5 | 0.0 | 1.0 | -3.2 |
| 55 | 442257.27 | 5026066.51 | 6.35 | 0 | D | A | 73.8 | -20.5 | 0.0 | -0.2 | 0.0 | 0.0 | 53.5 |
| 57 | 442317.33 | 5026143.03 | 5.22 | 0 | D | A | 73.8 | -22.7 | 0.0 | 45.0 | 0.0 | 0.0 | 6.1 |
| 99 | 442368.95 | 5026208.81 | 4.26 | 1 | D | A | 73.8 | -27.4 | 0.0 | 51.6 | 0.0 | 1.0 | -6.2 |
| 123 | 442378.04 | 5026289.74 | 3.85 | 0 | D | A | 73.8 | -22.5 | 0.0 | 61.2 | 0.0 | 0.0 | -9.9 |
| 159 | 442441.65 | 5026384.96 | 3.35 | 0 | D | A | 73.8 | -24.3 | 0.0 | 58.6 | 0.0 | 0.0 | -9.1 |
| 191 | 442387.84 | 5026304.41 | 3.77 | 1 | D | A | 73.8 | -22.1 | 0.0 | 54.4 | 0.0 | 1.0 | -3.7 |
| 214 | 442410.05 | 5026268.35 | 3.85 | 0 | D | A | 73.8 | -21.6 | 0.0 | 57.7 | 0.0 | 0.0 | -5.5 |
| 279 | 442473.66 | 5026363.57 | 3.35 | 0 | D | A | 73.8 | -23.7 | 0.0 | 58.8 | 0.0 | 0.0 | -8.7 |
| 314 | 442410.08 | 5026268.40 | 3.85 | 1 | D | A | 73.8 | -22.2 | 0.0 | 59.9 | 0.0 | 1.0 | -9.3 |
| 318 | 442226.98 | 5026090.28 | 7.78 | 0 | D | A | 71.1 | -21.6 | 0.0 | 2.0 | 0.0 | 0.0 | 47.6 |
| 323 | 442307.06 | 5026192.31 | 6.28 | 0 | D | A | 71.1 | -21.0 | 0.0 | 44.0 | 0.0 | 0.0 | 6.2 |
| 370 | 442341.68 | 5026236.42 | 5.63 | 1 | D | A | 71.1 | -30.5 | 0.0 | 46.2 | 0.0 | 1.0 | -6.5 |
| 371 | 442257.27 | 5026066.51 | 7.78 | 0 | D | A | 71.1 | -20.5 | 0.0 | 0.1 | 0.0 | 0.0 | 50.6 |
| 373 | 442317.33 | 5026143.03 | 6.65 | 0 | D | A | 71.1 | -22.7 | 0.0 | 46.0 | 0.0 | 0.0 | 2.5 |
| 415 | 442368.95 | 5026208.81 | 5.68 | 1 | D | A | 71.1 | -27.4 | 0.0 | 52.3 | 0.0 | 1.0 | -9.6 |
| 522 | 442387.84 | 5026304.41 | 5.20 | 1 | D | A | 71.1 | -22.1 | 0.0 | 55.4 | 0.0 | 1.0 | -7.4 |
| 550 | 442410.05 | 5026268.35 | 5.28 | 0 | D | A | 71.1 | -21.6 | 0.0 | 58.9 | 0.0 | 0.0 | -9.3 |
| 852 | 442534.47 | 5026547.36 | 3.10 | 0 | D | A | 73.8 | -23.5 | 0.0 | 41.3 | 0.0 | 0.0 | 9.0 |
| 928 | 442568.45 | 5026529.26 | 3.10 | 0 | D | A | 73.8 | -23.2 | 0.0 | 49.0 | 0.0 | 0.0 | 1.6 |
| 931 | 442099.99 | 5025926.02 | 7.10 | 0 | D | A | 73.8 | -24.6 | 0.0 | 43.4 | 0.0 | 0.0 | 5.8 |
| 936 | 442130.32 | 5025902.31 | 7.10 | 0 | D | A | 73.8 | -24.1 | 0.0 | 44.9 | 0.0 | 0.0 | 4.8 |
| 943 | 442004.69 | 5025801.73 | 6.10 | 0 | D | A | 73.8 | -25.1 | 0.0 | 22.3 | 0.0 | 0.0 | 26.4 |
| 951 | 442035.39 | 5025778.50 | 6.10 | 0 | D | A | 73.8 | -24.8 | 0.0 | 33.0 | 0.0 | 0.0 | 16.0 |
| 1056 | 442534.47 | 5026547.36 | 4.53 | 0 | D | A | 71.1 | -23.4 | 0.0 | 41.8 | 0.0 | 0.0 | 5.9 |
| 1131 | 442568.45 | 5026529.26 | 4.53 | 0 | D | A | 71.1 | -23.2 | 0.0 | 49.2 | 0.0 | 0.0 | -1.3 |
| 1136 | 442162.48 | 5026006.95 | 7.10 | 0 | D | A | 73.8 | -25.0 | 0.0 | 0.8 | 0.0 | 0.0 | 48.0 |
| 1138 | 442193.17 | 5025983.71 | 7.10 | 0 | D | A | 73.8 | -24.2 | 0.0 | 2.1 | 0.0 | 0.0 | 47.5 |
| 1141 | 442226.98 | 5026090.28 | 9.91 | 0 | D | A | 66.1 | -21.6 | 0.0 | 1.0 | 0.0 | 0.0 | 43.5 |
| 1147 | 442307.06 | 5026192.31 | 8.41 | 0 | D | A | 66.1 | -21.0 | 0.0 | 42.5 | 0.0 | 0.0 | 2.7 |
| 1212 | 442341.68 | 5026236.42 | 7.76 | 1 | D | A | 66.1 | -30.5 | 0.0 | 44.2 | 0.0 | 1.0 | -9.5 |
| 1217 | 442257.27 | 5026066.51 | 9.91 | 0 | D | A | 66.1 | -20.5 | 0.0 | 0.6 | 0.0 | 0.0 | 45.1 |
| 1220 | 442317.33 | 5026143.03 | 8.79 | 0 | D | A | 66.1 | -22.7 | 0.0 | 42.7 | 0.0 | 0.0 | 0.8 |
| 1277 | 442368.95 | 5026208.81 | 7.82 | 1 | D | A | 66.1 | -27.4 | 0.0 | 48.6 | 0.0 | 1.0 | -10.9 |
| 1455 | 442387.84 | 5026304.41 | 7.33 | 1 | D | A | 66.1 | -22.1 | 0.0 | 52.8 | 0.0 | 1.0 | -9.8 |
| 1685 | 442099.99 | 5025926.02 | 8.53 | 0 | D | A | 71.1 | -24.6 | 0.0 | 43.9 | 0.0 | 0.0 | 2.6 |
| 1687 | 442130.32 | 5025902.31 | 8.53 | 0 | D | A | 71.1 | -24.1 | 0.0 | 45.1 | 0.0 | 0.0 | 1.9 |
| 1917 | 442004.69 | 5025801.73 | 7.53 | 0 | D | A | 71.1 | -25.1 | 0.0 | 22.5 | 0.0 | 0.0 | 23.5 |
| 1921 | 442035.39 | 5025778.50 | 7.53 | 0 | D | A | 71.1 | -24.8 | 0.0 | 34.9 | 0.0 | 0.0 | 11.4 |
| 1923 | 442162.48 | 5026006.95 | 8.53 | 0 | D | A | 71.1 | -25.0 | 0.0 | -0.8 | 0.0 | 0.0 | 46.9 |
| 1924 | 442193.17 | 5025983.71 | 8.53 | 0 | D | A | 71.1 | -24.2 | 0.0 | -0.2 | 0.0 | 0.0 | 47.1 |
| 2105 | 441902.17 | 5025670.99 | 6.10 | 0 | D | A | 73.8 | -28.3 | 0.0 | 13.5 | 0.0 | 0.0 | 32.0 |
| 2108 | 441931.93 | 5025646.57 | 6.10 | 0 | D | A | 73.8 | -28.1 | 0.0 | 1.2 | 0.0 | 0.0 | 44.4 |
| 2469 | 442534.47 | 5026547.36 | 6.66 | 0 | D | A | 66.1 | -23.4 | 0.0 | 38.5 | 0.0 | 0.0 | 4.2 |
| 2497 | 442568.45 | 5026529.26 | 6.66 | 0 | D | A | 66.1 | -23.2 | 0.0 | 46.0 | 0.0 | 0.0 | -3.1 |
| 2619 | 441902.17 | 5025670.99 | 7.53 | 0 | D | A | 71.1 | -28.3 | 0.0 | 11.0 | 0.0 | 0.0 | 31.8 |
| 2621 | 441931.93 | 5025646.57 | 7.53 | 0 | D | A | 71.1 | -28.1 | 0.0 | -0.4 | 0.0 | 0.0 | 43.4 |
| 2984 | 442099.99 | 5025926.02 | 10.66 | 0 | D | A | 66.1 | -24.6 | 0.0 | 41.8 | 0.0 | 0.0 | -0.3 |
| 2988 | 442130.32 | 5025902.31 | 10.66 | 0 | D | A | 66.1 | -24.1 | 0.0 | 44.0 | 0.0 | 0.0 | -2.0 |
| 2991 | 442004.69 | 5025801.73 | 9.66 | 0 | D | A | 66.1 | -25.1 | 0.0 | 21.9 | 0.0 | 0.0 | 19.1 |

| Road, TNM, Name: "Highway 417", ID: "RD_417" | | | | | | | | | | | | | |
|--|-----------|------------|-------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 2992 | 442035.39 | 5025778.50 | 9.66 | 0 | D | A | 66.1 | -24.8 | 0.0 | 33.9 | 0.0 | 0.0 | 7.4 |
| 2994 | 442162.48 | 5026006.95 | 10.66 | 0 | D | A | 66.1 | -25.0 | 0.0 | -0.4 | 0.0 | 0.0 | 41.5 |
| 2995 | 442193.17 | 5025983.71 | 10.66 | 0 | D | A | 66.1 | -24.2 | 0.0 | -0.6 | 0.0 | 0.0 | 42.6 |
| 3675 | 441902.17 | 5025670.99 | 9.66 | 0 | D | A | 66.1 | -28.3 | 0.0 | 9.8 | 0.0 | 0.0 | 28.1 |
| 3676 | 441931.93 | 5025646.57 | 9.66 | 0 | D | A | 66.1 | -28.1 | 0.0 | 0.8 | 0.0 | 0.0 | 37.2 |

| Road, TNM, Name: "Carling Ave", ID: "RD_Carling" | | | | | | | | | | | | | |
|--|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 1727 | 442554.74 | 5026134.39 | 0.10 | 0 | D | A | 56.2 | -18.9 | 0.0 | 45.3 | 0.0 | 0.0 | -8.1 |
| 1776 | 442619.39 | 5026171.63 | 0.10 | 0 | D | A | 56.2 | -19.0 | 0.0 | 33.4 | 0.0 | 0.0 | 3.7 |
| 1897 | 442567.97 | 5026111.43 | 0.10 | 0 | D | A | 56.2 | -17.9 | 0.0 | 37.7 | 0.0 | 0.0 | 0.6 |
| 1908 | 442611.07 | 5026136.25 | 0.10 | 0 | D | A | 56.2 | -20.6 | 0.0 | 42.1 | 0.0 | 0.0 | -6.5 |
| 1926 | 442396.56 | 5026032.32 | 0.10 | 0 | D | A | 56.2 | -19.7 | 0.0 | -4.0 | 0.0 | 0.0 | 40.4 |
| 1927 | 442423.01 | 5026050.67 | 0.10 | 0 | D | A | 56.2 | -18.3 | 0.0 | 2.6 | 0.0 | 0.0 | 35.3 |
| 2003 | 442411.66 | 5026010.54 | 0.10 | 0 | D | A | 56.2 | -18.3 | 0.0 | -3.8 | 0.0 | 0.0 | 41.6 |
| 2007 | 442438.12 | 5026028.90 | 0.10 | 0 | D | A | 56.2 | -16.2 | 0.0 | 18.2 | 0.0 | 0.0 | 21.8 |
| 2230 | 442619.39 | 5026171.63 | 1.52 | 0 | D | A | 53.7 | -19.0 | 0.0 | 34.9 | 0.0 | 0.0 | -0.2 |
| 2357 | 442567.97 | 5026111.43 | 1.52 | 0 | D | A | 53.7 | -17.8 | 0.0 | 40.0 | 0.0 | 0.0 | -4.2 |
| 2367 | 442611.07 | 5026136.25 | 1.52 | 0 | D | A | 53.7 | -20.6 | 0.0 | 43.0 | 0.0 | 0.0 | -9.9 |
| 2498 | 442396.56 | 5026032.32 | 1.52 | 0 | D | A | 53.7 | -19.7 | 0.0 | -2.8 | 0.0 | 0.0 | 36.8 |
| 2499 | 442423.01 | 5026050.67 | 1.52 | 0 | D | A | 53.7 | -18.3 | 0.0 | -3.3 | 0.0 | 0.0 | 38.7 |
| 2531 | 442411.66 | 5026010.54 | 1.52 | 0 | D | A | 53.7 | -18.3 | 0.0 | -3.3 | 0.0 | 0.0 | 38.7 |
| 2532 | 442438.12 | 5026028.90 | 1.52 | 0 | D | A | 53.7 | -16.2 | 0.0 | 15.9 | 0.0 | 0.0 | 21.7 |
| 2633 | 442266.35 | 5025970.50 | 0.10 | 0 | D | A | 56.2 | -21.7 | 0.0 | 44.9 | 0.0 | 0.0 | -10.5 |
| 2634 | 442325.89 | 5025997.42 | 0.10 | 0 | D | A | 56.2 | -22.3 | 0.0 | -3.9 | 0.0 | 0.0 | 37.8 |
| 2638 | 442365.58 | 5026015.36 | 0.10 | 0 | D | A | 56.2 | -20.2 | 0.0 | -5.6 | 0.0 | 0.0 | 41.5 |
| 2645 | 442376.49 | 5025991.21 | 0.10 | 0 | D | A | 56.2 | -19.8 | 0.0 | -4.0 | 0.0 | 0.0 | 40.4 |
| 3002 | 442325.89 | 5025997.42 | 1.52 | 0 | D | A | 53.7 | -22.3 | 0.0 | -0.3 | 0.0 | 0.0 | 31.7 |
| 3004 | 442365.58 | 5026015.36 | 1.52 | 0 | D | A | 53.7 | -20.2 | 0.0 | -4.8 | 0.0 | 0.0 | 38.3 |
| 3010 | 442376.49 | 5025991.21 | 1.52 | 0 | D | A | 53.7 | -19.7 | 0.0 | -2.3 | 0.0 | 0.0 | 36.3 |
| 3075 | 442619.39 | 5026171.63 | 3.66 | 0 | D | A | 49.8 | -19.0 | 0.0 | 31.2 | 0.0 | 0.0 | -0.4 |
| 3192 | 442567.97 | 5026111.43 | 3.66 | 0 | D | A | 49.8 | -17.8 | 0.0 | 40.4 | 0.0 | 0.0 | -8.5 |
| 3216 | 442701.75 | 5026220.21 | 0.10 | 0 | D | A | 56.2 | -22.6 | 0.0 | 43.8 | 0.0 | 0.0 | -10.3 |
| 3222 | 442780.77 | 5026268.02 | 0.10 | 0 | D | A | 56.2 | -25.0 | 0.0 | 40.0 | 0.0 | 0.0 | -8.9 |
| 3234 | 442899.29 | 5026339.74 | 0.10 | 0 | D | A | 56.2 | -24.6 | 0.0 | 36.0 | 0.0 | 0.0 | -4.5 |
| 3245 | 442715.47 | 5026197.54 | 0.10 | 0 | D | A | 56.2 | -22.5 | 0.0 | 44.6 | 0.0 | 0.0 | -11.0 |
| 3261 | 442794.49 | 5026245.35 | 0.10 | 0 | D | A | 56.2 | -25.0 | 0.0 | 36.9 | 0.0 | 0.0 | -5.8 |
| 3273 | 442913.01 | 5026317.07 | 0.10 | 0 | D | A | 56.2 | -24.7 | 0.0 | 39.5 | 0.0 | 0.0 | -8.0 |
| 3579 | 442396.56 | 5026032.32 | 3.66 | 0 | D | A | 49.8 | -19.7 | 0.0 | -2.8 | 0.0 | 0.0 | 32.9 |
| 3581 | 442423.01 | 5026050.67 | 3.66 | 0 | D | A | 49.8 | -18.2 | 0.0 | -2.8 | 0.0 | 0.0 | 34.3 |
| 3620 | 442411.66 | 5026010.54 | 3.66 | 0 | D | A | 49.8 | -18.3 | 0.0 | -2.9 | 0.0 | 0.0 | 34.3 |
| 3621 | 442438.12 | 5026028.90 | 3.66 | 0 | D | A | 49.8 | -16.1 | 0.0 | 14.2 | 0.0 | 0.0 | 19.4 |
| 3689 | 442899.29 | 5026339.74 | 1.52 | 0 | D | A | 53.7 | -24.6 | 0.0 | 36.9 | 0.0 | 0.0 | -7.8 |
| 3696 | 442794.49 | 5026245.35 | 1.52 | 0 | D | A | 53.7 | -25.0 | 0.0 | 38.1 | 0.0 | 0.0 | -9.4 |
| 3933 | 442325.89 | 5025997.42 | 3.66 | 0 | D | A | 49.8 | -22.3 | 0.0 | -1.2 | 0.0 | 0.0 | 28.7 |
| 3934 | 442365.58 | 5026015.36 | 3.66 | 0 | D | A | 49.8 | -20.2 | 0.0 | -4.8 | 0.0 | 0.0 | 34.3 |
| 3942 | 442376.49 | 5025991.21 | 3.66 | 0 | D | A | 49.8 | -19.7 | 0.0 | -2.6 | 0.0 | 0.0 | 32.7 |
| 3956 | 442899.29 | 5026339.74 | 3.66 | 0 | D | A | 49.8 | -24.6 | 0.0 | 34.0 | 0.0 | 0.0 | -8.8 |
| 3972 | 442794.49 | 5026245.35 | 3.66 | 0 | D | A | 49.8 | -25.0 | 0.0 | 34.8 | 0.0 | 0.0 | -10.0 |
| 4058 | 442191.61 | 5025927.68 | 0.10 | 0 | D | A | 56.2 | -24.5 | 0.0 | 42.3 | 0.0 | 0.0 | -10.6 |
| 4065 | 442207.08 | 5025906.17 | 0.10 | 0 | D | A | 56.2 | -24.2 | 0.0 | 36.0 | 0.0 | 0.0 | -4.0 |
| 4202 | 442207.08 | 5025906.17 | 1.52 | 0 | D | A | 53.7 | -24.2 | 0.0 | 36.9 | 0.0 | 0.0 | -7.4 |

| Road, TNM, Name: "Merivale Road", ID: "RD_Merivale" | | | | | | | | | | | | | |
|---|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 2648 | 442611.39 | 5025689.87 | 0.10 | 0 | D | A | 53.6 | -22.8 | 0.0 | 12.0 | 0.0 | 0.0 | 18.8 |
| 2693 | 442631.28 | 5025804.38 | 0.10 | 0 | D | A | 53.6 | -19.7 | 0.0 | 33.3 | 0.0 | 0.0 | 0.5 |
| 2816 | 442621.74 | 5025688.07 | 0.10 | 0 | D | A | 53.6 | -22.9 | 0.0 | 11.3 | 0.0 | 0.0 | 19.3 |
| 3276 | 442611.39 | 5025689.87 | 1.52 | 0 | D | A | 51.0 | -22.8 | 0.0 | 12.0 | 0.0 | 0.0 | 16.2 |
| 3321 | 442631.28 | 5025804.38 | 1.52 | 0 | D | A | 51.0 | -19.7 | 0.0 | 34.8 | 0.0 | 0.0 | -3.5 |
| 3422 | 442621.74 | 5025688.07 | 1.52 | 0 | D | A | 51.0 | -22.9 | 0.0 | 11.9 | 0.0 | 0.0 | 16.2 |

| Road, TNM, Name: "Merivale Road", ID: "RD_Merivale" | | | | | | | | | | | | | |
|---|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 3709 | 442611.39 | 5025689.87 | 3.66 | 0 | D | A | 48.6 | -22.8 | 0.0 | 10.3 | 0.0 | 0.0 | 15.5 |
| 3741 | 442631.28 | 5025804.38 | 3.66 | 0 | D | A | 48.6 | -19.7 | 0.0 | 32.8 | 0.0 | 0.0 | -3.9 |
| 3817 | 442621.74 | 5025688.07 | 3.66 | 0 | D | A | 48.6 | -22.9 | 0.0 | 9.7 | 0.0 | 0.0 | 16.0 |
| 4198 | 442573.28 | 5026323.09 | 0.10 | 0 | D | A | 53.6 | -23.8 | 0.0 | 39.9 | 0.0 | 0.0 | -10.1 |

Sample CadnaA-TNM and STAMSON Calculation Results

STAMSON 5.0 NORMAL REPORT Date:
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: qr6_e.te Time Period: Day/Night 16/8 hours
Description: Sample STAMSON Calculations at Receptor U6_E Without
Barriers, and Comparison with CadnaA-TNM Calculations

Road data, segment # 1: QEW-South (day/night)

Car traffic volume : 32597/16296 veh/TimePeriod *
Medium truck volume : 1438/719 veh/TimePeriod *
Heavy truck volume : 4314/2157 veh/TimePeriod *
Posted speed limit : 100 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 33700
Percentage of Annual Growth : 2.00
Number of Years of Growth : 27.00
Medium Truck % of Total Volume : 3.75
Heavy Truck % of Total Volume : 11.25
Day (16 hrs) % of Total Volume : 66.67

Data for Segment # 1: QEW-South (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 37.50 / 37.50 m
Receiver height : 5.50 / 5.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: QEW-North (day/night)

```

-----
Car traffic volume : 32597/16296 veh/TimePeriod *
Medium truck volume : 1438/719 veh/TimePeriod *
Heavy truck volume : 4314/2157 veh/TimePeriod *
Posted speed limit : 100 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

```

* Refers to calculated road volumes based on the following input:

```

24 hr Traffic Volume (AADT or SADT): 33700
Percentage of Annual Growth : 2.00
Number of Years of Growth : 27.00
Medium Truck % of Total Volume : 3.75
Heavy Truck % of Total Volume : 11.25
Day (16 hrs) % of Total Volume : 66.67

```

Data for Segment # 2: QEW-North (day/night)

```

-----
Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 52.00 / 52.00 m
Receiver height : 5.50 / 5.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

```

Results segment # 1: QEW-South (day)

Source height = 1.83 m

ROAD (0.00 + 73.08 + 0.00) = 73.08 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|--------|
| -90 | 90 | 0.53 | 80.40 | 0.00 | -6.09 | -1.23 | 0.00 | 0.00 | 0.00 | 73.08 |

Segment Leq : 73.08 dBA

Results segment # 2: QEW-North (day)

Source height = 1.83 m

ROAD (0.00 + 70.91 + 0.00) = 70.91 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|--------|
| -90 | 90 | 0.53 | 80.40 | 0.00 | -8.26 | -1.23 | 0.00 | 0.00 | 0.00 | 70.91 |

Segment Leq : 70.91 dBA

Total Leq All Segments: 75.14 dBA

Results segment # 1: QEW-South (night)

Source height = 1.83 m

ROAD (0.00 + 73.08 + 0.00) = 73.08 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|--------|
| -90 | 90 | 0.53 | 80.40 | 0.00 | -6.09 | -1.23 | 0.00 | 0.00 | 0.00 | 73.08 |

Segment Leq : 73.08 dBA

Results segment # 2: QEW-North (night)

Source height = 1.83 m

ROAD (0.00 + 70.91 + 0.00) = 70.91 dBA

| Angle1 | Angle2 | Alpha | RefLeq | P.Adj | D.Adj | F.Adj | W.Adj | H.Adj | B.Adj | SubLeq |
|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|--------|
|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|--------|

 -90 90 0.53 80.40 0.00 -8.26 -1.23 0.00 0.00 0.00 70.91

Segment Leq : 70.91 dBA

Total Leq All Segments: 75.14 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 75.14
 (NIGHT): 75.14

CadnaA – TNM Calculation Results:

TOTAL Leq FROM ALL SOURCES (DAY): 74.9
(NIGHT): 74.9

The difference is 0.24 dBA!

| Name | ID | Level Lr | | | Limit. Value | | | Land Use | | | Height | Coordinates | | |
|--------------------|------|----------|---------|-------|--------------|---------|-------|----------|------|------------|--------|-------------|------------|------|
| | | Day | Evening | Night | Day | Evening | Night | Type | Auto | Noise Type | | X | Y | Z |
| | | (dBA) | (dB A) | (dBA) | (dB A) | (dBA) | (dBA) | | | | (m) | (m) | (m) | (m) |
| Unit 6 East Facade | U6_E | 74.9 | -68.6 | 74.9 | 0.0 | 0.0 | 0.0 | | x | Total | 5.50 | 652572.55 | 4776615.33 | 5.50 |

Receiver

Name: Unit 6 East Facade

ID: U6_E

X: 652572.55 m

Y: 4776615.33 m

Z: 5.50 m

Road, TNM, Name: "QEW Southbound", ID: "QEW_S"

| Nr. | X (m) | Y (m) | Z (m) | Refl. | DEN | Freq. (Hz) | Lw dB(A) | Ad (dB) | Aair (dB) | Agr (dB) | Afol (dB) | RL (dB) | Lr dB(A) |
|-----|-----------|------------|----------|-------|-----|---------------|-------------|------------|--------------|-------------|--------------|------------|-------------|
| 1 | 652603.25 | 4776632.08 | 0.10 | 0 | D | A | 68.7 | -13.2 | 0.0 | -3.5 | 0.0 | 0.0 | 59.0 |
| 2 | 652596.50 | 4776642.17 | 0.10 | 0 | D | A | 68.7 | -13.4 | 0.0 | -3.4 | 0.0 | 0.0 | 58.7 |
| 3 | 652589.74 | 4776652.25 | 0.10 | 0 | D | A | 68.7 | -14.5 | 0.0 | -3.0 | 0.0 | 0.0 | 57.3 |
| 4 | 652582.98 | 4776662.34 | 0.10 | 0 | D | A | 68.7 | -15.9 | 0.0 | -2.8 | 0.0 | 0.0 | 55.6 |
| 5 | 652602.49 | 4776633.21 | 0.10 | 1 | D | A | 68.7 | -25.8 | 0.0 | 12.5 | 0.0 | 2.0 | 28.4 |
| 6 | 652609.48 | 4776636.25 | 0.10 | 0 | D | A | 68.7 | -14.9 | 0.0 | -4.5 | 0.0 | 0.0 | 58.4 |
| 7 | 652602.73 | 4776646.34 | 0.10 | 0 | D | A | 68.7 | -15.0 | 0.0 | -4.5 | 0.0 | 0.0 | 58.2 |
| 8 | 652592.59 | 4776661.47 | 0.10 | 0 | D | A | 68.7 | -13.3 | 0.0 | -4.4 | 0.0 | 0.0 | 59.8 |
| 9 | 652609.49 | 4776636.24 | 0.10 | 1 | D | A | 68.7 | -26.9 | 0.0 | 10.7 | 0.0 | 2.0 | 29.1 |
| 10 | 652602.76 | 4776646.29 | 0.10 | 1 | D | A | 68.7 | -27.4 | 0.0 | 10.8 | 0.0 | 2.0 | 28.5 |
| 27 | 652573.94 | 4776675.14 | 0.10 | 0 | D | A | 68.7 | -15.7 | 0.0 | -2.2 | 0.0 | 0.0 | 55.2 |
| 28 | 652562.45 | 4776690.90 | 0.10 | 0 | D | A | 68.7 | -17.8 | 0.0 | -1.2 | 0.0 | 0.0 | 52.1 |
| 29 | 652545.22 | 4776714.54 | 0.10 | 0 | D | A | 68.7 | -17.3 | 0.0 | 0.3 | 0.0 | 0.0 | 51.1 |
| 30 | 652580.00 | 4776679.56 | 0.10 | 0 | D | A | 68.7 | -16.4 | 0.0 | -4.0 | 0.0 | 0.0 | 56.4 |
| 31 | 652568.51 | 4776695.32 | 0.10 | 0 | D | A | 68.7 | -18.3 | 0.0 | -3.5 | 0.0 | 0.0 | 54.0 |
| 32 | 652551.28 | 4776718.96 | 0.10 | 0 | D | A | 68.7 | -17.6 | 0.0 | -2.5 | 0.0 | 0.0 | 53.6 |
| 33 | 652621.10 | 4776604.23 | 0.10 | 0 | D | A | 68.7 | -14.5 | 0.0 | -2.8 | 0.0 | 0.0 | 57.0 |
| 34 | 652611.42 | 4776619.48 | 0.10 | 0 | D | A | 68.7 | -12.4 | 0.0 | -3.4 | 0.0 | 0.0 | 59.7 |
| 35 | 652621.10 | 4776604.23 | 0.10 | 1 | D | A | 68.7 | -23.6 | 0.0 | 12.3 | 0.0 | 2.0 | 30.9 |
| 36 | 652611.42 | 4776619.48 | 0.10 | 1 | D | A | 68.7 | -24.3 | 0.0 | 12.3 | 0.0 | 2.0 | 30.1 |
| 37 | 652627.44 | 4776608.24 | 0.10 | 0 | D | A | 68.7 | -15.4 | 0.0 | -4.3 | 0.0 | 0.0 | 57.7 |
| 38 | 652617.75 | 4776623.50 | 0.10 | 0 | D | A | 68.7 | -13.8 | 0.0 | -4.5 | 0.0 | 0.0 | 59.4 |
| 39 | 652631.42 | 4776601.96 | 0.10 | 1 | D | A | 68.7 | -31.2 | 0.0 | 10.5 | 0.0 | 2.0 | 25.1 |
| 40 | 652626.15 | 4776610.26 | 0.10 | 1 | D | A | 68.7 | -24.4 | 0.0 | 10.5 | 0.0 | 2.0 | 31.8 |
| 41 | 652617.33 | 4776624.18 | 0.10 | 1 | D | A | 68.7 | -25.0 | 0.0 | 10.6 | 0.0 | 2.0 | 31.1 |
| 42 | 652603.25 | 4776632.08 | 3.66 | 0 | D | A | 66.4 | -13.2 | 0.0 | -0.9 | 0.0 | 0.0 | 54.1 |
| 43 | 652596.50 | 4776642.17 | 3.66 | 0 | D | A | 66.4 | -13.4 | 0.0 | -1.2 | 0.0 | 0.0 | 54.2 |
| 44 | 652589.74 | 4776652.25 | 3.66 | 0 | D | A | 66.4 | -14.5 | 0.0 | -1.2 | 0.0 | 0.0 | 53.1 |
| 45 | 652582.98 | 4776662.34 | 3.66 | 0 | D | A | 66.4 | -15.9 | 0.0 | -1.1 | 0.0 | 0.0 | 51.6 |
| 46 | 652609.48 | 4776636.25 | 3.66 | 0 | D | A | 66.4 | -14.9 | 0.0 | -1.0 | 0.0 | 0.0 | 52.5 |
| 47 | 652602.73 | 4776646.34 | 3.66 | 0 | D | A | 66.4 | -15.0 | 0.0 | -0.8 | 0.0 | 0.0 | 52.2 |
| 48 | 652592.59 | 4776661.47 | 3.66 | 0 | D | A | 66.4 | -13.3 | 0.0 | -1.1 | 0.0 | 0.0 | 54.2 |
| 67 | 652573.94 | 4776675.14 | 3.66 | 0 | D | A | 66.4 | -15.7 | 0.0 | -0.5 | 0.0 | 0.0 | 51.2 |
| 68 | 652562.45 | 4776690.90 | 3.66 | 0 | D | A | 66.4 | -17.8 | 0.0 | -0.3 | 0.0 | 0.0 | 48.9 |
| 69 | 652545.22 | 4776714.54 | 3.66 | 0 | D | A | 66.4 | -17.3 | 0.0 | -0.4 | 0.0 | 0.0 | 49.5 |
| 70 | 652580.00 | 4776679.56 | 3.66 | 0 | D | A | 66.4 | -16.4 | 0.0 | -0.5 | 0.0 | 0.0 | 50.5 |
| 71 | 652568.51 | 4776695.32 | 3.66 | 0 | D | A | 66.4 | -18.3 | 0.0 | -0.3 | 0.0 | 0.0 | 48.4 |
| 72 | 652551.28 | 4776718.96 | 3.66 | 0 | D | A | 66.4 | -17.6 | 0.0 | 0.1 | 0.0 | 0.0 | 48.8 |
| 73 | 652645.08 | 4776565.39 | 0.10 | 0 | D | A | 68.7 | -18.1 | 0.0 | -0.2 | 0.0 | 0.0 | 50.8 |
| 74 | 652632.30 | 4776586.23 | 0.10 | 0 | D | A | 68.7 | -15.6 | 0.0 | -1.6 | 0.0 | 0.0 | 54.7 |
| 75 | 652636.71 | 4776579.04 | 0.10 | 1 | D | A | 68.7 | -19.4 | 0.0 | 12.1 | 0.0 | 2.0 | 35.2 |
| 76 | 652626.66 | 4776595.43 | 0.10 | 1 | D | A | 68.7 | -31.2 | 0.0 | 12.2 | 0.0 | 2.0 | 23.3 |
| 77 | 652651.48 | 4776569.32 | 0.10 | 0 | D | A | 68.7 | -18.4 | 0.0 | -2.9 | 0.0 | 0.0 | 53.2 |
| 78 | 652638.70 | 4776590.15 | 0.10 | 0 | D | A | 68.7 | -16.2 | 0.0 | -3.8 | 0.0 | 0.0 | 56.4 |
| 79 | 652641.43 | 4776585.69 | 0.10 | 1 | D | A | 68.7 | -20.1 | 0.0 | 10.9 | 0.0 | 2.0 | 35.8 |
| 80 | 652621.10 | 4776604.23 | 3.66 | 0 | D | A | 66.4 | -14.5 | 0.0 | -1.2 | 0.0 | 0.0 | 53.1 |
| 81 | 652611.42 | 4776619.48 | 3.66 | 0 | D | A | 66.4 | -12.4 | 0.0 | -1.5 | 0.0 | 0.0 | 55.5 |
| 82 | 652627.44 | 4776608.24 | 3.66 | 0 | D | A | 66.4 | -15.4 | 0.0 | -0.6 | 0.0 | 0.0 | 51.6 |
| 83 | 652617.75 | 4776623.50 | 3.66 | 0 | D | A | 66.4 | -13.8 | 0.0 | -0.8 | 0.0 | 0.0 | 53.4 |
| 84 | 652631.42 | 4776601.96 | 3.66 | 1 | D | A | 66.4 | -31.2 | 0.0 | 9.1 | 0.0 | 2.0 | 24.2 |
| 85 | 652603.25 | 4776632.08 | 1.52 | 0 | D | A | 64.6 | -13.2 | 0.0 | -1.6 | 0.0 | 0.0 | 52.9 |
| 86 | 652596.50 | 4776642.17 | 1.52 | 0 | D | A | 64.6 | -13.4 | 0.0 | -1.5 | 0.0 | 0.0 | 52.6 |

Road, TNM, Name: "QEW Southbound", ID: "QEW_S"

| Nr. | X (m) | Y (m) | Z (m) | Ref. | DEN | Freq. (Hz) | Lw dB(A) | Ad (dB) | Aair (dB) | Agr (dB) | Afol (dB) | RL (dB) | Lr dB(A) |
|-----|-----------|------------|----------|------|-----|---------------|-------------|------------|--------------|-------------|--------------|------------|-------------|
| 87 | 652589.74 | 4776652.25 | 1.52 | 0 | D | A | 64.6 | -14.5 | 0.0 | -1.2 | 0.0 | 0.0 | 51.3 |
| 88 | 652582.98 | 4776662.34 | 1.52 | 0 | D | A | 64.6 | -15.9 | 0.0 | -0.6 | 0.0 | 0.0 | 49.2 |
| 89 | 652602.49 | 4776633.21 | 1.52 | 1 | D | A | 64.6 | -25.8 | 0.0 | 11.0 | 0.0 | 2.0 | 25.8 |
| 90 | 652609.48 | 4776636.25 | 1.52 | 0 | D | A | 64.6 | -14.9 | 0.0 | -1.5 | 0.0 | 0.0 | 51.2 |
| 91 | 652602.73 | 4776646.34 | 1.52 | 0 | D | A | 64.6 | -15.0 | 0.0 | -1.3 | 0.0 | 0.0 | 50.9 |
| 92 | 652592.59 | 4776661.47 | 1.52 | 0 | D | A | 64.6 | -13.3 | 0.0 | -0.4 | 0.0 | 0.0 | 51.6 |
| 93 | 652609.49 | 4776636.24 | 1.52 | 1 | D | A | 64.6 | -26.9 | 0.0 | 11.6 | 0.0 | 2.0 | 24.1 |
| 114 | 652573.94 | 4776675.14 | 1.52 | 0 | D | A | 64.6 | -15.7 | 0.0 | 0.3 | 0.0 | 0.0 | 48.6 |
| 115 | 652562.45 | 4776690.90 | 1.52 | 0 | D | A | 64.6 | -17.8 | 0.0 | 0.9 | 0.0 | 0.0 | 45.9 |
| 116 | 652545.22 | 4776714.54 | 1.52 | 0 | D | A | 64.6 | -17.3 | 0.0 | 1.2 | 0.0 | 0.0 | 46.1 |
| 117 | 652580.00 | 4776679.56 | 1.52 | 0 | D | A | 64.6 | -16.4 | 0.0 | 1.0 | 0.0 | 0.0 | 47.2 |
| 118 | 652568.51 | 4776695.32 | 1.52 | 0 | D | A | 64.6 | -18.3 | 0.0 | 1.5 | 0.0 | 0.0 | 44.8 |
| 119 | 652551.28 | 4776718.96 | 1.52 | 0 | D | A | 64.6 | -17.6 | 0.0 | 1.7 | 0.0 | 0.0 | 45.2 |
| 124 | 652621.10 | 4776604.23 | 1.52 | 0 | D | A | 64.6 | -14.5 | 0.0 | -0.4 | 0.0 | 0.0 | 50.5 |
| 125 | 652611.42 | 4776619.48 | 1.52 | 0 | D | A | 64.6 | -12.4 | 0.0 | -1.3 | 0.0 | 0.0 | 53.4 |
| 126 | 652621.10 | 4776604.23 | 1.52 | 1 | D | A | 64.6 | -23.6 | 0.0 | 11.7 | 0.0 | 2.0 | 27.3 |
| 127 | 652611.42 | 4776619.48 | 1.52 | 1 | D | A | 64.6 | -24.3 | 0.0 | 11.3 | 0.0 | 2.0 | 26.9 |
| 128 | 652627.44 | 4776608.24 | 1.52 | 0 | D | A | 64.6 | -15.4 | 0.0 | 0.2 | 0.0 | 0.0 | 49.0 |
| 129 | 652617.75 | 4776623.50 | 1.52 | 0 | D | A | 64.6 | -13.8 | 0.0 | -1.0 | 0.0 | 0.0 | 51.7 |
| 130 | 652631.42 | 4776601.96 | 1.52 | 1 | D | A | 64.6 | -31.2 | 0.0 | 12.3 | 0.0 | 2.0 | 19.1 |
| 131 | 652626.15 | 4776610.26 | 1.52 | 1 | D | A | 64.6 | -24.4 | 0.0 | 12.2 | 0.0 | 2.0 | 26.0 |
| 132 | 652617.33 | 4776624.18 | 1.52 | 1 | D | A | 64.6 | -25.0 | 0.0 | 11.9 | 0.0 | 2.0 | 25.6 |
| 133 | 652645.08 | 4776565.39 | 3.66 | 0 | D | A | 66.4 | -18.1 | 0.0 | -0.2 | 0.0 | 0.0 | 48.6 |
| 134 | 652632.30 | 4776586.23 | 3.66 | 0 | D | A | 66.4 | -15.6 | 0.0 | -0.7 | 0.0 | 0.0 | 51.4 |
| 135 | 652636.71 | 4776579.04 | 3.66 | 1 | D | A | 66.4 | -19.4 | 0.0 | 9.6 | 0.0 | 2.0 | 35.3 |
| 136 | 652626.66 | 4776595.43 | 3.66 | 1 | D | A | 66.4 | -31.2 | 0.0 | 9.1 | 0.0 | 2.0 | 24.2 |
| 137 | 652651.48 | 4776569.32 | 3.66 | 0 | D | A | 66.4 | -18.4 | 0.0 | 0.3 | 0.0 | 0.0 | 47.7 |
| 138 | 652638.70 | 4776590.15 | 3.66 | 0 | D | A | 66.4 | -16.2 | 0.0 | -0.2 | 0.0 | 0.0 | 50.4 |
| 139 | 652641.43 | 4776585.69 | 3.66 | 1 | D | A | 66.4 | -20.1 | 0.0 | 9.1 | 0.0 | 2.0 | 35.3 |
| 140 | 652516.48 | 4776753.26 | 0.10 | 0 | D | A | 68.7 | -18.8 | 0.0 | 2.6 | 0.0 | 0.0 | 47.3 |
| 141 | 652481.94 | 4776799.27 | 0.10 | 0 | D | A | 68.7 | -21.7 | 0.0 | 5.0 | 0.0 | 0.0 | 42.1 |
| 142 | 652522.48 | 4776757.77 | 0.10 | 0 | D | A | 68.7 | -19.0 | 0.0 | -0.7 | 0.0 | 0.0 | 50.4 |
| 143 | 652487.94 | 4776803.77 | 0.10 | 0 | D | A | 68.7 | -21.8 | 0.0 | 1.3 | 0.0 | 0.0 | 45.7 |
| 157 | 652645.08 | 4776565.39 | 1.52 | 0 | D | A | 64.6 | -18.1 | 0.0 | 0.9 | 0.0 | 0.0 | 45.6 |
| 158 | 652632.30 | 4776586.23 | 1.52 | 0 | D | A | 64.6 | -15.6 | 0.0 | 0.5 | 0.0 | 0.0 | 48.4 |
| 159 | 652636.71 | 4776579.04 | 1.52 | 1 | D | A | 64.6 | -19.4 | 0.0 | 12.7 | 0.0 | 2.0 | 30.5 |
| 160 | 652626.66 | 4776595.43 | 1.52 | 1 | D | A | 64.6 | -31.2 | 0.0 | 12.0 | 0.0 | 2.0 | 19.4 |
| 161 | 652651.48 | 4776569.32 | 1.52 | 0 | D | A | 64.6 | -18.4 | 0.0 | 1.6 | 0.0 | 0.0 | 44.5 |
| 162 | 652638.70 | 4776590.15 | 1.52 | 0 | D | A | 64.6 | -16.2 | 0.0 | 1.2 | 0.0 | 0.0 | 47.2 |
| 163 | 652641.43 | 4776585.69 | 1.52 | 1 | D | A | 64.6 | -20.1 | 0.0 | 12.1 | 0.0 | 2.0 | 30.5 |
| 166 | 652516.48 | 4776753.26 | 3.66 | 0 | D | A | 66.4 | -18.8 | 0.0 | -0.4 | 0.0 | 0.0 | 48.0 |
| 167 | 652481.94 | 4776799.27 | 3.66 | 0 | D | A | 66.4 | -21.7 | 0.0 | -0.5 | 0.0 | 0.0 | 45.2 |
| 168 | 652522.48 | 4776757.77 | 3.66 | 0 | D | A | 66.4 | -19.0 | 0.0 | 0.5 | 0.0 | 0.0 | 47.0 |
| 169 | 652487.94 | 4776803.77 | 3.66 | 0 | D | A | 66.4 | -21.8 | 0.0 | 0.7 | 0.0 | 0.0 | 44.0 |
| 176 | 652660.51 | 4776539.16 | 0.10 | 0 | D | A | 68.7 | -18.7 | 0.0 | 1.5 | 0.0 | 0.0 | 48.5 |
| 177 | 652667.02 | 4776542.88 | 0.10 | 0 | D | A | 68.7 | -18.9 | 0.0 | -1.7 | 0.0 | 0.0 | 51.5 |
| 184 | 652516.48 | 4776753.26 | 1.52 | 0 | D | A | 64.6 | -18.8 | 0.0 | 1.7 | 0.0 | 0.0 | 44.1 |
| 185 | 652481.94 | 4776799.27 | 1.52 | 0 | D | A | 64.6 | -21.7 | 0.0 | 2.7 | 0.0 | 0.0 | 40.1 |
| 186 | 652522.48 | 4776757.77 | 1.52 | 0 | D | A | 64.6 | -19.0 | 0.0 | 2.0 | 0.0 | 0.0 | 43.7 |
| 187 | 652487.94 | 4776803.77 | 1.52 | 0 | D | A | 64.6 | -21.8 | 0.0 | 2.5 | 0.0 | 0.0 | 40.3 |
| 190 | 652680.97 | 4776502.24 | 0.10 | 0 | D | A | 68.7 | -20.1 | 0.0 | 4.2 | 0.0 | 0.0 | 44.4 |
| 191 | 652687.57 | 4776505.80 | 0.10 | 0 | D | A | 68.7 | -20.3 | 0.0 | 0.3 | 0.0 | 0.0 | 48.2 |
| 194 | 652660.51 | 4776539.16 | 3.66 | 0 | D | A | 66.4 | -18.7 | 0.0 | -0.2 | 0.0 | 0.0 | 47.9 |
| 195 | 652667.02 | 4776542.88 | 3.66 | 0 | D | A | 66.4 | -18.9 | 0.0 | 0.4 | 0.0 | 0.0 | 47.1 |
| 198 | 652706.40 | 4776453.02 | 0.10 | 0 | D | A | 68.7 | -21.8 | 0.0 | 16.2 | 0.0 | 0.0 | 30.7 |
| 199 | 652692.77 | 4776480.36 | 0.10 | 0 | D | A | 68.7 | -35.2 | 0.0 | 5.1 | 0.0 | 0.0 | 28.4 |
| 200 | 652719.31 | 4776443.93 | 0.10 | 0 | D | A | 68.7 | -25.2 | 0.0 | 13.7 | 0.0 | 0.0 | 29.8 |
| 201 | 652705.68 | 4776471.27 | 0.10 | 0 | D | A | 68.7 | -24.2 | 0.0 | 2.1 | 0.0 | 0.0 | 42.4 |
| 213 | 652680.97 | 4776502.24 | 3.66 | 0 | D | A | 66.4 | -20.1 | 0.0 | -0.6 | 0.0 | 0.0 | 46.9 |
| 214 | 652687.57 | 4776505.80 | 3.66 | 0 | D | A | 66.4 | -20.3 | 0.0 | 0.3 | 0.0 | 0.0 | 45.9 |
| 215 | 652660.51 | 4776539.16 | 1.52 | 0 | D | A | 64.6 | -18.7 | 0.0 | 1.1 | 0.0 | 0.0 | 44.7 |
| 216 | 652667.02 | 4776542.88 | 1.52 | 0 | D | A | 64.6 | -18.9 | 0.0 | 1.8 | 0.0 | 0.0 | 43.9 |
| 217 | 652459.61 | 4776828.68 | 0.10 | 0 | D | A | 68.7 | -28.6 | 0.0 | 6.2 | 0.0 | 0.0 | 34.0 |

| Road, TNM, Name: "QEW Southbound", ID: "QEW_S" | | | | | | | | | | | | | |
|--|-----------|------------|------|------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Ref. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 218 | 652448.55 | 4776842.72 | 0.10 | 0 | D | A | 68.7 | -28.6 | 0.0 | 29.6 | 0.0 | 0.0 | 10.6 |
| 219 | 652432.90 | 4776862.57 | 0.10 | 0 | D | A | 68.7 | -27.2 | 0.0 | 33.6 | 0.0 | 0.0 | 7.9 |
| 220 | 652452.35 | 4776850.01 | 0.10 | 0 | D | A | 68.7 | -23.8 | 0.0 | 3.1 | 0.0 | 0.0 | 41.8 |
| 221 | 652431.60 | 4776876.34 | 0.10 | 0 | D | A | 68.7 | -33.5 | 0.0 | 25.9 | 0.0 | 0.0 | 9.3 |
| 228 | 652706.40 | 4776453.02 | 3.66 | 0 | D | A | 66.4 | -21.8 | 0.0 | 13.3 | 0.0 | 0.0 | 31.3 |
| 229 | 652692.77 | 4776480.36 | 3.66 | 0 | D | A | 66.4 | -35.2 | 0.0 | -0.7 | 0.0 | 0.0 | 31.9 |
| 230 | 652719.31 | 4776443.93 | 3.66 | 0 | D | A | 66.4 | -25.2 | 0.0 | 13.1 | 0.0 | 0.0 | 28.1 |
| 231 | 652705.68 | 4776471.27 | 3.66 | 0 | D | A | 66.4 | -24.2 | 0.0 | 0.2 | 0.0 | 0.0 | 42.0 |
| 232 | 652680.97 | 4776502.24 | 1.52 | 0 | D | A | 64.6 | -20.1 | 0.0 | 1.5 | 0.0 | 0.0 | 42.9 |
| 233 | 652687.57 | 4776505.80 | 1.52 | 0 | D | A | 64.6 | -20.3 | 0.0 | 2.1 | 0.0 | 0.0 | 42.2 |
| 237 | 652731.63 | 4776400.53 | 0.10 | 0 | D | A | 68.7 | -24.0 | 0.0 | 16.5 | 0.0 | 0.0 | 28.2 |
| 238 | 652738.44 | 4776403.68 | 0.10 | 0 | D | A | 68.7 | -24.1 | 0.0 | 14.2 | 0.0 | 0.0 | 30.5 |
| 239 | 652706.40 | 4776453.02 | 1.52 | 0 | D | A | 64.6 | -21.8 | 0.0 | 16.7 | 0.0 | 0.0 | 26.0 |
| 240 | 652692.77 | 4776480.36 | 1.52 | 0 | D | A | 64.6 | -35.2 | 0.0 | 2.1 | 0.0 | 0.0 | 27.3 |
| 241 | 652719.31 | 4776443.93 | 1.52 | 0 | D | A | 64.6 | -25.2 | 0.0 | 15.4 | 0.0 | 0.0 | 24.0 |
| 242 | 652705.68 | 4776471.27 | 1.52 | 0 | D | A | 64.6 | -24.2 | 0.0 | 2.6 | 0.0 | 0.0 | 37.8 |
| 243 | 652459.61 | 4776828.68 | 3.66 | 0 | D | A | 66.4 | -28.6 | 0.0 | -0.3 | 0.0 | 0.0 | 38.1 |
| 244 | 652448.55 | 4776842.72 | 3.66 | 0 | D | A | 66.4 | -28.6 | 0.0 | 27.3 | 0.0 | 0.0 | 10.6 |
| 245 | 652432.90 | 4776862.57 | 3.66 | 0 | D | A | 66.4 | -27.2 | 0.0 | 30.7 | 0.0 | 0.0 | 8.5 |
| 246 | 652452.35 | 4776850.01 | 3.66 | 0 | D | A | 66.4 | -23.8 | 0.0 | 0.9 | 0.0 | 0.0 | 41.7 |
| 247 | 652431.60 | 4776876.34 | 3.66 | 0 | D | A | 66.4 | -33.5 | 0.0 | 23.7 | 0.0 | 0.0 | 9.2 |
| 248 | 652406.44 | 4776893.90 | 0.10 | 0 | D | A | 68.7 | -26.2 | 0.0 | 34.8 | 0.0 | 0.0 | 7.7 |
| 249 | 652385.22 | 4776917.98 | 0.10 | 0 | D | A | 68.7 | -33.0 | 0.0 | 25.8 | 0.0 | 0.0 | 9.9 |
| 250 | 652425.43 | 4776883.68 | 0.10 | 0 | D | A | 68.7 | -32.6 | 0.0 | 28.4 | 0.0 | 0.0 | 7.8 |
| 251 | 652404.21 | 4776907.77 | 0.10 | 0 | D | A | 68.7 | -26.4 | 0.0 | 32.5 | 0.0 | 0.0 | 9.8 |
| 255 | 652731.63 | 4776400.53 | 3.66 | 0 | D | A | 66.4 | -24.0 | 0.0 | 13.6 | 0.0 | 0.0 | 28.8 |
| 256 | 652738.44 | 4776403.68 | 3.66 | 0 | D | A | 66.4 | -24.1 | 0.0 | 13.2 | 0.0 | 0.0 | 29.1 |
| 262 | 652371.93 | 4776933.54 | 0.10 | 0 | D | A | 68.7 | -30.2 | 0.0 | 25.8 | 0.0 | 0.0 | 12.7 |
| 263 | 652353.61 | 4776955.29 | 0.10 | 0 | D | A | 68.7 | -30.6 | 0.0 | 20.1 | 0.0 | 0.0 | 18.0 |
| 264 | 652340.89 | 4776970.40 | 0.10 | 0 | D | A | 68.7 | -35.5 | 0.0 | 20.1 | 0.0 | 0.0 | 13.1 |
| 265 | 652375.33 | 4776941.14 | 0.10 | 0 | D | A | 68.7 | -29.3 | 0.0 | 33.4 | 0.0 | 0.0 | 6.0 |
| 266 | 652353.69 | 4776966.84 | 0.10 | 0 | D | A | 68.7 | -30.4 | 0.0 | 24.3 | 0.0 | 0.0 | 14.0 |
| 267 | 652459.61 | 4776828.68 | 1.52 | 0 | D | A | 64.6 | -28.6 | 0.0 | 3.6 | 0.0 | 0.0 | 32.4 |
| 268 | 652448.55 | 4776842.72 | 1.52 | 0 | D | A | 64.6 | -28.6 | 0.0 | 30.0 | 0.0 | 0.0 | 6.0 |
| 269 | 652432.90 | 4776862.57 | 1.52 | 0 | D | A | 64.6 | -27.2 | 0.0 | 31.7 | 0.0 | 0.0 | 5.6 |
| 270 | 652452.35 | 4776850.01 | 1.52 | 0 | D | A | 64.6 | -23.8 | 0.0 | 3.4 | 0.0 | 0.0 | 37.4 |
| 271 | 652431.60 | 4776876.34 | 1.52 | 0 | D | A | 64.6 | -33.5 | 0.0 | 26.1 | 0.0 | 0.0 | 5.0 |
| 272 | 652406.44 | 4776893.90 | 3.66 | 0 | D | A | 66.4 | -26.2 | 0.0 | 30.3 | 0.0 | 0.0 | 9.8 |
| 273 | 652385.22 | 4776917.98 | 3.66 | 0 | D | A | 66.4 | -33.0 | 0.0 | 21.6 | 0.0 | 0.0 | 11.8 |
| 274 | 652425.43 | 4776883.68 | 3.66 | 0 | D | A | 66.4 | -32.6 | 0.0 | 26.8 | 0.0 | 0.0 | 7.0 |
| 275 | 652404.21 | 4776907.77 | 3.66 | 0 | D | A | 66.4 | -26.4 | 0.0 | 31.7 | 0.0 | 0.0 | 8.3 |
| 276 | 652731.63 | 4776400.53 | 1.52 | 0 | D | A | 64.6 | -24.0 | 0.0 | 16.8 | 0.0 | 0.0 | 23.8 |
| 277 | 652738.44 | 4776403.68 | 1.52 | 0 | D | A | 64.6 | -24.1 | 0.0 | 15.6 | 0.0 | 0.0 | 24.9 |
| 287 | 652371.93 | 4776933.54 | 3.66 | 0 | D | A | 66.4 | -30.2 | 0.0 | 21.7 | 0.0 | 0.0 | 14.5 |
| 288 | 652353.61 | 4776955.29 | 3.66 | 0 | D | A | 66.4 | -30.6 | 0.0 | 16.3 | 0.0 | 0.0 | 19.5 |
| 289 | 652340.89 | 4776970.40 | 3.66 | 0 | D | A | 66.4 | -35.5 | 0.0 | 16.4 | 0.0 | 0.0 | 14.4 |
| 290 | 652375.33 | 4776941.14 | 3.66 | 0 | D | A | 66.4 | -29.3 | 0.0 | 30.3 | 0.0 | 0.0 | 6.8 |
| 291 | 652353.69 | 4776966.84 | 3.66 | 0 | D | A | 66.4 | -30.4 | 0.0 | 21.5 | 0.0 | 0.0 | 14.5 |
| 292 | 652406.44 | 4776893.90 | 1.52 | 0 | D | A | 64.6 | -26.2 | 0.0 | 35.0 | 0.0 | 0.0 | 3.3 |
| 293 | 652385.22 | 4776917.98 | 1.52 | 0 | D | A | 64.6 | -33.0 | 0.0 | 26.1 | 0.0 | 0.0 | 5.4 |
| 294 | 652425.43 | 4776883.68 | 1.52 | 0 | D | A | 64.6 | -32.6 | 0.0 | 28.5 | 0.0 | 0.0 | 3.5 |
| 295 | 652404.21 | 4776907.77 | 1.52 | 0 | D | A | 64.6 | -26.4 | 0.0 | 32.7 | 0.0 | 0.0 | 5.5 |
| 301 | 652371.93 | 4776933.54 | 1.52 | 0 | D | A | 64.6 | -30.2 | 0.0 | 26.1 | 0.0 | 0.0 | 8.3 |
| 302 | 652353.61 | 4776955.29 | 1.52 | 0 | D | A | 64.6 | -30.6 | 0.0 | 19.9 | 0.0 | 0.0 | 14.1 |
| 303 | 652340.89 | 4776970.40 | 1.52 | 0 | D | A | 64.6 | -35.5 | 0.0 | 19.9 | 0.0 | 0.0 | 9.2 |
| 304 | 652375.33 | 4776941.14 | 1.52 | 0 | D | A | 64.6 | -29.3 | 0.0 | 33.7 | 0.0 | 0.0 | 1.5 |
| 305 | 652353.69 | 4776966.84 | 1.52 | 0 | D | A | 64.6 | -30.4 | 0.0 | 25.0 | 0.0 | 0.0 | 9.2 |
| 310 | 652746.69 | 4776367.35 | 0.10 | 0 | D | A | 68.7 | -30.9 | 0.0 | 17.1 | 0.0 | 0.0 | 20.8 |
| 311 | 652753.60 | 4776370.26 | 0.10 | 0 | D | A | 68.7 | -30.9 | 0.0 | 14.2 | 0.0 | 0.0 | 23.6 |
| 316 | 652746.69 | 4776367.35 | 3.66 | 0 | D | A | 66.4 | -30.9 | 0.0 | 14.1 | 0.0 | 0.0 | 21.5 |
| 317 | 652753.60 | 4776370.26 | 3.66 | 0 | D | A | 66.4 | -30.9 | 0.0 | 13.4 | 0.0 | 0.0 | 22.1 |
| 318 | 652746.69 | 4776367.35 | 1.52 | 0 | D | A | 64.6 | -30.9 | 0.0 | 17.2 | 0.0 | 0.0 | 16.5 |
| 319 | 652753.60 | 4776370.26 | 1.52 | 0 | D | A | 64.6 | -30.9 | 0.0 | 15.6 | 0.0 | 0.0 | 18.1 |

| Road, TNM, Name: "QEW Northbound", ID: "QEW_N" | | | | | | | | | | | | | |
|--|-----------|------------|------|------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Ref. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 11 | 652627.46 | 4776620.34 | 0.10 | 0 | D | A | 68.7 | -14.7 | 0.0 | -4.6 | 0.0 | 0.0 | 58.7 |
| 12 | 652615.60 | 4776638.05 | 0.10 | 0 | D | A | 68.7 | -13.7 | 0.0 | -4.7 | 0.0 | 0.0 | 59.7 |
| 13 | 652603.74 | 4776655.76 | 0.10 | 0 | D | A | 68.7 | -14.1 | 0.0 | -4.6 | 0.0 | 0.0 | 59.3 |
| 14 | 652591.89 | 4776673.47 | 0.10 | 0 | D | A | 68.7 | -15.6 | 0.0 | -4.5 | 0.0 | 0.0 | 57.7 |
| 15 | 652629.24 | 4776617.67 | 0.10 | 1 | D | A | 68.7 | -25.3 | 0.0 | 9.7 | 0.0 | 2.0 | 31.8 |
| 16 | 652620.95 | 4776630.06 | 0.10 | 1 | D | A | 68.7 | -25.8 | 0.0 | 9.6 | 0.0 | 2.0 | 31.3 |
| 17 | 652612.66 | 4776642.44 | 0.10 | 1 | D | A | 68.7 | -26.4 | 0.0 | 9.7 | 0.0 | 2.0 | 30.7 |
| 18 | 652604.37 | 4776654.82 | 0.10 | 1 | D | A | 68.7 | -26.9 | 0.0 | 9.9 | 0.0 | 2.0 | 30.0 |
| 19 | 652633.69 | 4776624.51 | 0.10 | 0 | D | A | 68.7 | -15.7 | 0.0 | -4.7 | 0.0 | 0.0 | 57.7 |
| 20 | 652621.83 | 4776642.22 | 0.10 | 0 | D | A | 68.7 | -14.9 | 0.0 | -4.7 | 0.0 | 0.0 | 58.5 |
| 21 | 652609.98 | 4776659.93 | 0.10 | 0 | D | A | 68.7 | -15.2 | 0.0 | -4.7 | 0.0 | 0.0 | 58.2 |
| 22 | 652598.12 | 4776677.65 | 0.10 | 0 | D | A | 68.7 | -16.4 | 0.0 | -4.6 | 0.0 | 0.0 | 56.9 |
| 23 | 652638.05 | 4776617.99 | 0.10 | 1 | D | A | 68.7 | -29.7 | 0.0 | 9.2 | 0.0 | 2.0 | 27.8 |
| 24 | 652632.08 | 4776626.91 | 0.10 | 1 | D | A | 68.7 | -25.6 | 0.0 | 9.1 | 0.0 | 2.0 | 32.1 |
| 25 | 652623.28 | 4776640.07 | 0.10 | 1 | D | A | 68.7 | -26.1 | 0.0 | 8.9 | 0.0 | 2.0 | 31.7 |
| 26 | 652614.47 | 4776653.22 | 0.10 | 1 | D | A | 68.7 | -26.6 | 0.0 | 8.9 | 0.0 | 2.0 | 31.2 |
| 49 | 652627.46 | 4776620.34 | 3.66 | 0 | D | A | 66.4 | -14.7 | 0.0 | -0.6 | 0.0 | 0.0 | 52.3 |
| 50 | 652615.60 | 4776638.05 | 3.66 | 0 | D | A | 66.4 | -13.7 | 0.0 | -1.5 | 0.0 | 0.0 | 54.2 |
| 51 | 652603.74 | 4776655.76 | 3.66 | 0 | D | A | 66.4 | -14.1 | 0.0 | -1.1 | 0.0 | 0.0 | 53.5 |
| 52 | 652591.89 | 4776673.47 | 3.66 | 0 | D | A | 66.4 | -15.6 | 0.0 | -0.8 | 0.0 | 0.0 | 51.7 |
| 53 | 652633.69 | 4776624.51 | 3.66 | 0 | D | A | 66.4 | -15.7 | 0.0 | -1.3 | 0.0 | 0.0 | 52.0 |
| 54 | 652621.83 | 4776642.22 | 3.66 | 0 | D | A | 66.4 | -14.9 | 0.0 | -1.1 | 0.0 | 0.0 | 52.6 |
| 55 | 652609.98 | 4776659.93 | 3.66 | 0 | D | A | 66.4 | -15.2 | 0.0 | -1.6 | 0.0 | 0.0 | 52.8 |
| 56 | 652598.12 | 4776677.65 | 3.66 | 0 | D | A | 66.4 | -16.4 | 0.0 | -0.7 | 0.0 | 0.0 | 50.7 |
| 57 | 652638.05 | 4776617.99 | 3.66 | 1 | D | A | 66.4 | -29.7 | 0.0 | 9.1 | 0.0 | 2.0 | 25.6 |
| 58 | 652661.88 | 4776564.32 | 0.10 | 0 | D | A | 68.7 | -17.6 | 0.0 | -3.5 | 0.0 | 0.0 | 54.6 |
| 59 | 652647.59 | 4776587.97 | 0.10 | 0 | D | A | 68.7 | -18.5 | 0.0 | -4.2 | 0.0 | 0.0 | 54.4 |
| 60 | 652638.06 | 4776603.74 | 0.10 | 0 | D | A | 68.7 | -16.9 | 0.0 | -4.5 | 0.0 | 0.0 | 56.3 |
| 61 | 652649.14 | 4776585.40 | 0.10 | 1 | D | A | 68.7 | -22.6 | 0.0 | 10.6 | 0.0 | 2.0 | 33.5 |
| 62 | 652638.65 | 4776602.77 | 0.10 | 1 | D | A | 68.7 | -23.3 | 0.0 | 9.9 | 0.0 | 2.0 | 33.5 |
| 63 | 652633.35 | 4776611.54 | 0.10 | 1 | D | A | 68.7 | -43.7 | 0.0 | 9.7 | 0.0 | 2.0 | 13.3 |
| 64 | 652668.30 | 4776568.20 | 0.10 | 0 | D | A | 68.7 | -18.0 | 0.0 | -4.0 | 0.0 | 0.0 | 54.7 |
| 65 | 652649.24 | 4776599.74 | 0.10 | 0 | D | A | 68.7 | -15.3 | 0.0 | -4.5 | 0.0 | 0.0 | 57.9 |
| 66 | 652649.32 | 4776599.60 | 0.10 | 1 | D | A | 68.7 | -20.8 | 0.0 | 9.7 | 0.0 | 2.0 | 36.3 |
| 94 | 652627.46 | 4776620.34 | 1.52 | 0 | D | A | 64.6 | -14.7 | 0.0 | -0.2 | 0.0 | 0.0 | 50.1 |
| 95 | 652615.60 | 4776638.05 | 1.52 | 0 | D | A | 64.6 | -13.7 | 0.0 | -1.0 | 0.0 | 0.0 | 52.0 |
| 96 | 652603.74 | 4776655.76 | 1.52 | 0 | D | A | 64.6 | -14.1 | 0.0 | -0.7 | 0.0 | 0.0 | 51.2 |
| 97 | 652591.89 | 4776673.47 | 1.52 | 0 | D | A | 64.6 | -15.6 | 0.0 | 0.4 | 0.0 | 0.0 | 48.6 |
| 98 | 652629.24 | 4776617.67 | 1.52 | 1 | D | A | 64.6 | -25.3 | 0.0 | 12.4 | 0.0 | 2.0 | 24.9 |
| 99 | 652620.95 | 4776630.06 | 1.52 | 1 | D | A | 64.6 | -25.8 | 0.0 | 12.1 | 0.0 | 2.0 | 24.6 |
| 100 | 652633.69 | 4776624.51 | 1.52 | 0 | D | A | 64.6 | -15.7 | 0.0 | 0.1 | 0.0 | 0.0 | 48.8 |
| 101 | 652621.83 | 4776642.22 | 1.52 | 0 | D | A | 64.6 | -14.9 | 0.0 | -0.4 | 0.0 | 0.0 | 50.1 |
| 102 | 652609.98 | 4776659.93 | 1.52 | 0 | D | A | 64.6 | -15.2 | 0.0 | -0.2 | 0.0 | 0.0 | 49.6 |
| 103 | 652598.12 | 4776677.65 | 1.52 | 0 | D | A | 64.6 | -16.4 | 0.0 | 0.4 | 0.0 | 0.0 | 47.8 |
| 104 | 652638.05 | 4776617.99 | 1.52 | 1 | D | A | 64.6 | -29.7 | 0.0 | 12.5 | 0.0 | 2.0 | 20.4 |
| 105 | 652632.08 | 4776626.91 | 1.52 | 1 | D | A | 64.6 | -25.6 | 0.0 | 12.3 | 0.0 | 2.0 | 24.7 |
| 106 | 652661.88 | 4776564.32 | 3.66 | 0 | D | A | 66.4 | -17.6 | 0.0 | 0.1 | 0.0 | 0.0 | 48.7 |
| 107 | 652647.59 | 4776587.97 | 3.66 | 0 | D | A | 66.4 | -18.5 | 0.0 | -0.3 | 0.0 | 0.0 | 48.2 |
| 108 | 652638.06 | 4776603.74 | 3.66 | 0 | D | A | 66.4 | -16.9 | 0.0 | -0.5 | 0.0 | 0.0 | 49.9 |
| 109 | 652649.14 | 4776585.40 | 3.66 | 1 | D | A | 66.4 | -22.6 | 0.0 | 9.1 | 0.0 | 2.0 | 32.7 |
| 110 | 652638.65 | 4776602.77 | 3.66 | 1 | D | A | 66.4 | -23.3 | 0.0 | 9.0 | 0.0 | 2.0 | 32.0 |
| 111 | 652668.30 | 4776568.20 | 3.66 | 0 | D | A | 66.4 | -18.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.4 |
| 112 | 652649.24 | 4776599.74 | 3.66 | 0 | D | A | 66.4 | -15.3 | 0.0 | -0.8 | 0.0 | 0.0 | 52.0 |
| 113 | 652649.32 | 4776599.60 | 3.66 | 1 | D | A | 66.4 | -20.8 | 0.0 | 8.8 | 0.0 | 2.0 | 34.8 |
| 120 | 652578.78 | 4776692.16 | 0.10 | 0 | D | A | 68.7 | -16.9 | 0.0 | -4.3 | 0.0 | 0.0 | 56.1 |
| 121 | 652564.23 | 4776712.07 | 0.10 | 0 | D | A | 68.7 | -18.9 | 0.0 | -3.7 | 0.0 | 0.0 | 53.6 |
| 122 | 652584.83 | 4776696.58 | 0.10 | 0 | D | A | 68.7 | -17.5 | 0.0 | -4.4 | 0.0 | 0.0 | 55.7 |
| 123 | 652570.29 | 4776716.49 | 0.10 | 0 | D | A | 68.7 | -19.3 | 0.0 | -4.1 | 0.0 | 0.0 | 53.5 |
| 144 | 652661.88 | 4776564.32 | 1.52 | 0 | D | A | 64.6 | -17.6 | 0.0 | 1.5 | 0.0 | 0.0 | 45.5 |
| 145 | 652647.59 | 4776587.97 | 1.52 | 0 | D | A | 64.6 | -18.5 | 0.0 | 1.1 | 0.0 | 0.0 | 44.9 |
| 146 | 652638.06 | 4776603.74 | 1.52 | 0 | D | A | 64.6 | -16.9 | 0.0 | 0.7 | 0.0 | 0.0 | 47.0 |
| 147 | 652649.14 | 4776585.40 | 1.52 | 1 | D | A | 64.6 | -22.6 | 0.0 | 12.0 | 0.0 | 2.0 | 27.9 |
| 148 | 652638.65 | 4776602.77 | 1.52 | 1 | D | A | 64.6 | -23.3 | 0.0 | 12.5 | 0.0 | 2.0 | 26.8 |

| Road, TNM, Name: "QEW Northbound", ID: "QEW_N" | | | | | | | | | | | | | |
|--|-----------|------------|------|------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Ref. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 149 | 652633.35 | 4776611.54 | 1.52 | 1 | D | A | 64.6 | -43.7 | 0.0 | 12.5 | 0.0 | 2.0 | 6.4 |
| 150 | 652668.30 | 4776568.20 | 1.52 | 0 | D | A | 64.6 | -18.0 | 0.0 | 0.9 | 0.0 | 0.0 | 45.8 |
| 151 | 652649.24 | 4776599.74 | 1.52 | 0 | D | A | 64.6 | -15.3 | 0.0 | 0.6 | 0.0 | 0.0 | 48.7 |
| 152 | 652649.32 | 4776599.60 | 1.52 | 1 | D | A | 64.6 | -20.8 | 0.0 | 12.5 | 0.0 | 2.0 | 29.3 |
| 153 | 652578.78 | 4776692.16 | 3.66 | 0 | D | A | 66.4 | -16.9 | 0.0 | -0.4 | 0.0 | 0.0 | 49.9 |
| 154 | 652564.23 | 4776712.07 | 3.66 | 0 | D | A | 66.4 | -18.9 | 0.0 | -0.0 | 0.0 | 0.0 | 47.5 |
| 155 | 652584.83 | 4776696.58 | 3.66 | 0 | D | A | 66.4 | -17.5 | 0.0 | -0.4 | 0.0 | 0.0 | 49.3 |
| 156 | 652570.29 | 4776716.49 | 3.66 | 0 | D | A | 66.4 | -19.3 | 0.0 | -0.3 | 0.0 | 0.0 | 47.4 |
| 164 | 652689.03 | 4776516.58 | 0.10 | 0 | D | A | 68.7 | -18.0 | 0.0 | -1.7 | 0.0 | 0.0 | 52.5 |
| 165 | 652695.60 | 4776520.20 | 0.10 | 0 | D | A | 68.7 | -18.1 | 0.0 | -2.7 | 0.0 | 0.0 | 53.3 |
| 170 | 652509.08 | 4776785.69 | 0.10 | 0 | D | A | 68.7 | -18.8 | 0.0 | -1.1 | 0.0 | 0.0 | 51.0 |
| 171 | 652515.08 | 4776790.20 | 0.10 | 0 | D | A | 68.7 | -18.9 | 0.0 | -2.1 | 0.0 | 0.0 | 52.0 |
| 172 | 652578.78 | 4776692.16 | 1.52 | 0 | D | A | 64.6 | -16.9 | 0.0 | 1.1 | 0.0 | 0.0 | 46.6 |
| 173 | 652564.23 | 4776712.07 | 1.52 | 0 | D | A | 64.6 | -18.9 | 0.0 | 1.4 | 0.0 | 0.0 | 44.3 |
| 174 | 652584.83 | 4776696.58 | 1.52 | 0 | D | A | 64.6 | -17.5 | 0.0 | 0.7 | 0.0 | 0.0 | 46.4 |
| 175 | 652570.29 | 4776716.49 | 1.52 | 0 | D | A | 64.6 | -19.3 | 0.0 | 0.8 | 0.0 | 0.0 | 44.5 |
| 178 | 652545.92 | 4776736.72 | 0.10 | 0 | D | A | 68.7 | -19.3 | 0.0 | -2.9 | 0.0 | 0.0 | 52.4 |
| 179 | 652551.91 | 4776741.22 | 0.10 | 0 | D | A | 68.7 | -19.5 | 0.0 | -3.5 | 0.0 | 0.0 | 52.7 |
| 180 | 652447.08 | 4776868.20 | 0.10 | 0 | D | A | 68.7 | -21.1 | 0.0 | 1.5 | 0.0 | 0.0 | 46.1 |
| 181 | 652402.10 | 4776928.12 | 0.10 | 0 | D | A | 68.7 | -29.5 | 0.0 | 26.9 | 0.0 | 0.0 | 12.3 |
| 182 | 652466.83 | 4776854.40 | 0.10 | 0 | D | A | 68.7 | -22.7 | 0.0 | -0.3 | 0.0 | 0.0 | 46.4 |
| 183 | 652421.84 | 4776914.32 | 0.10 | 0 | D | A | 68.7 | -24.8 | 0.0 | 1.1 | 0.0 | 0.0 | 42.8 |
| 188 | 652689.03 | 4776516.58 | 3.66 | 0 | D | A | 66.4 | -18.0 | 0.0 | 0.7 | 0.0 | 0.0 | 47.7 |
| 189 | 652695.60 | 4776520.20 | 3.66 | 0 | D | A | 66.4 | -18.1 | 0.0 | 0.8 | 0.0 | 0.0 | 47.5 |
| 192 | 652509.08 | 4776785.69 | 3.66 | 0 | D | A | 66.4 | -18.8 | 0.0 | 1.0 | 0.0 | 0.0 | 46.7 |
| 193 | 652515.08 | 4776790.20 | 3.66 | 0 | D | A | 66.4 | -18.9 | 0.0 | 1.1 | 0.0 | 0.0 | 46.4 |
| 196 | 652689.03 | 4776516.58 | 1.52 | 0 | D | A | 64.6 | -18.0 | 0.0 | 1.6 | 0.0 | 0.0 | 45.0 |
| 197 | 652695.60 | 4776520.20 | 1.52 | 0 | D | A | 64.6 | -18.1 | 0.0 | 0.9 | 0.0 | 0.0 | 45.5 |
| 202 | 652545.92 | 4776736.72 | 3.66 | 0 | D | A | 66.4 | -19.3 | 0.0 | 0.4 | 0.0 | 0.0 | 46.7 |
| 203 | 652551.91 | 4776741.22 | 3.66 | 0 | D | A | 66.4 | -19.5 | 0.0 | 0.2 | 0.0 | 0.0 | 46.7 |
| 204 | 652447.08 | 4776868.20 | 3.66 | 0 | D | A | 66.4 | -21.1 | 0.0 | 1.6 | 0.0 | 0.0 | 43.7 |
| 205 | 652402.10 | 4776928.12 | 3.66 | 0 | D | A | 66.4 | -29.5 | 0.0 | 27.2 | 0.0 | 0.0 | 9.7 |
| 206 | 652466.83 | 4776854.40 | 3.66 | 0 | D | A | 66.4 | -22.7 | 0.0 | 1.6 | 0.0 | 0.0 | 42.1 |
| 207 | 652421.84 | 4776914.32 | 3.66 | 0 | D | A | 66.4 | -24.8 | 0.0 | 2.0 | 0.0 | 0.0 | 39.6 |
| 208 | 652731.97 | 4776434.05 | 0.10 | 0 | D | A | 68.7 | -31.2 | 0.0 | 12.4 | 0.0 | 0.0 | 25.1 |
| 209 | 652718.30 | 4776461.35 | 0.10 | 0 | D | A | 68.7 | -22.5 | 0.0 | 0.7 | 0.0 | 0.0 | 45.6 |
| 210 | 652727.04 | 4776460.66 | 0.10 | 0 | D | A | 68.7 | -22.0 | 0.0 | -0.6 | 0.0 | 0.0 | 47.4 |
| 211 | 652509.08 | 4776785.69 | 1.52 | 0 | D | A | 64.6 | -18.8 | 0.0 | 1.6 | 0.0 | 0.0 | 44.2 |
| 212 | 652515.08 | 4776790.20 | 1.52 | 0 | D | A | 64.6 | -18.9 | 0.0 | 0.8 | 0.0 | 0.0 | 44.9 |
| 222 | 652545.92 | 4776736.72 | 1.52 | 0 | D | A | 64.6 | -19.3 | 0.0 | 1.5 | 0.0 | 0.0 | 43.8 |
| 223 | 652551.91 | 4776741.22 | 1.52 | 0 | D | A | 64.6 | -19.5 | 0.0 | 0.8 | 0.0 | 0.0 | 44.2 |
| 224 | 652447.08 | 4776868.20 | 1.52 | 0 | D | A | 64.6 | -21.1 | 0.0 | 2.5 | 0.0 | 0.0 | 40.9 |
| 225 | 652402.10 | 4776928.12 | 1.52 | 0 | D | A | 64.6 | -29.5 | 0.0 | 27.5 | 0.0 | 0.0 | 7.6 |
| 226 | 652466.83 | 4776854.40 | 1.52 | 0 | D | A | 64.6 | -22.7 | 0.0 | 1.2 | 0.0 | 0.0 | 40.7 |
| 227 | 652421.84 | 4776914.32 | 1.52 | 0 | D | A | 64.6 | -24.8 | 0.0 | 1.8 | 0.0 | 0.0 | 37.9 |
| 234 | 652731.97 | 4776434.05 | 3.66 | 0 | D | A | 66.4 | -31.2 | 0.0 | 12.9 | 0.0 | 0.0 | 22.3 |
| 235 | 652718.30 | 4776461.35 | 3.66 | 0 | D | A | 66.4 | -22.5 | 0.0 | 0.9 | 0.0 | 0.0 | 43.0 |
| 236 | 652727.04 | 4776460.66 | 3.66 | 0 | D | A | 66.4 | -22.0 | 0.0 | 1.3 | 0.0 | 0.0 | 43.1 |
| 252 | 652731.97 | 4776434.05 | 1.52 | 0 | D | A | 64.6 | -31.2 | 0.0 | 13.8 | 0.0 | 0.0 | 19.6 |
| 253 | 652718.30 | 4776461.35 | 1.52 | 0 | D | A | 64.6 | -22.5 | 0.0 | 2.3 | 0.0 | 0.0 | 39.9 |
| 254 | 652727.04 | 4776460.66 | 1.52 | 0 | D | A | 64.6 | -22.0 | 0.0 | 1.5 | 0.0 | 0.0 | 41.1 |
| 257 | 652741.12 | 4776414.75 | 0.10 | 0 | D | A | 68.7 | -26.2 | 0.0 | 12.7 | 0.0 | 0.0 | 29.8 |
| 258 | 652751.53 | 4776410.19 | 0.10 | 0 | D | A | 68.7 | -29.6 | 0.0 | 12.0 | 0.0 | 0.0 | 27.2 |
| 259 | 652744.37 | 4776425.53 | 0.10 | 0 | D | A | 68.7 | -29.0 | 0.0 | 0.5 | 0.0 | 0.0 | 39.2 |
| 260 | 652756.55 | 4776380.39 | 0.10 | 0 | D | A | 68.7 | -26.4 | 0.0 | 13.0 | 0.0 | 0.0 | 29.3 |
| 261 | 652763.42 | 4776383.38 | 0.10 | 0 | D | A | 68.7 | -26.5 | 0.0 | 12.2 | 0.0 | 0.0 | 30.1 |
| 278 | 652741.12 | 4776414.75 | 3.66 | 0 | D | A | 66.4 | -26.2 | 0.0 | 13.1 | 0.0 | 0.0 | 27.1 |
| 279 | 652751.53 | 4776410.19 | 3.66 | 0 | D | A | 66.4 | -29.6 | 0.0 | 12.8 | 0.0 | 0.0 | 24.0 |
| 280 | 652744.37 | 4776425.53 | 3.66 | 0 | D | A | 66.4 | -29.0 | 0.0 | 1.5 | 0.0 | 0.0 | 35.9 |
| 281 | 652756.55 | 4776380.39 | 3.66 | 0 | D | A | 66.4 | -26.4 | 0.0 | 13.2 | 0.0 | 0.0 | 26.8 |
| 282 | 652763.42 | 4776383.38 | 3.66 | 0 | D | A | 66.4 | -26.5 | 0.0 | 13.0 | 0.0 | 0.0 | 26.9 |
| 283 | 652392.89 | 4776940.37 | 0.10 | 0 | D | A | 68.7 | -42.6 | 0.0 | 28.8 | 0.0 | 0.0 | -2.7 |
| 284 | 652379.88 | 4776957.37 | 0.10 | 0 | D | A | 68.7 | -28.9 | 0.0 | 29.4 | 0.0 | 0.0 | 10.5 |

| Road, TNM, Name: "QEW Northbound", ID: "QEW_N" | | | | | | | | | | | | | |
|--|-----------|------------|------|-------|-----|-------|-------|-------|------|------|------|------|-------|
| Nr. | X | Y | Z | Refl. | DEN | Freq. | Lw | Ad | Aair | Agr | Afol | RL | Lr |
| | (m) | (m) | (m) | | | (Hz) | dB(A) | (dB) | (dB) | (dB) | (dB) | (dB) | dB(A) |
| 285 | 652393.58 | 4776951.81 | 0.10 | 0 | D | A | 68.7 | -32.0 | 0.0 | 1.8 | 0.0 | 0.0 | 35.0 |
| 286 | 652380.57 | 4776968.81 | 0.10 | 0 | D | A | 68.7 | -31.4 | 0.0 | 26.1 | 0.0 | 0.0 | 11.2 |
| 296 | 652741.12 | 4776414.75 | 1.52 | 0 | D | A | 64.6 | -26.2 | 0.0 | 14.0 | 0.0 | 0.0 | 24.4 |
| 297 | 652751.53 | 4776410.19 | 1.52 | 0 | D | A | 64.6 | -29.6 | 0.0 | 12.7 | 0.0 | 0.0 | 22.3 |
| 298 | 652744.37 | 4776425.53 | 1.52 | 0 | D | A | 64.6 | -29.0 | 0.0 | 1.9 | 0.0 | 0.0 | 33.7 |
| 299 | 652756.55 | 4776380.39 | 1.52 | 0 | D | A | 64.6 | -26.4 | 0.0 | 14.2 | 0.0 | 0.0 | 24.0 |
| 300 | 652763.42 | 4776383.38 | 1.52 | 0 | D | A | 64.6 | -26.5 | 0.0 | 13.0 | 0.0 | 0.0 | 25.1 |
| 306 | 652392.89 | 4776940.37 | 3.66 | 0 | D | A | 66.4 | -42.6 | 0.0 | 27.2 | 0.0 | 0.0 | -3.4 |
| 307 | 652379.88 | 4776957.37 | 3.66 | 0 | D | A | 66.4 | -28.9 | 0.0 | 30.2 | 0.0 | 0.0 | 7.3 |
| 308 | 652393.58 | 4776951.81 | 3.66 | 0 | D | A | 66.4 | -32.0 | 0.0 | 2.3 | 0.0 | 0.0 | 32.1 |
| 309 | 652380.57 | 4776968.81 | 3.66 | 0 | D | A | 66.4 | -31.4 | 0.0 | 25.3 | 0.0 | 0.0 | 9.7 |
| 312 | 652392.89 | 4776940.37 | 1.52 | 0 | D | A | 64.6 | -42.6 | 0.0 | 27.7 | 0.0 | 0.0 | -5.8 |
| 313 | 652379.88 | 4776957.37 | 1.52 | 0 | D | A | 64.6 | -28.9 | 0.0 | 28.2 | 0.0 | 0.0 | 7.5 |
| 314 | 652393.58 | 4776951.81 | 1.52 | 0 | D | A | 64.6 | -32.0 | 0.0 | 2.2 | 0.0 | 0.0 | 30.4 |
| 315 | 652380.57 | 4776968.81 | 1.52 | 0 | D | A | 64.6 | -31.4 | 0.0 | 25.0 | 0.0 | 0.0 | 8.1 |
| 320 | 652765.45 | 4776360.09 | 0.10 | 0 | D | A | 68.7 | -40.0 | 0.0 | 13.1 | 0.0 | 0.0 | 15.6 |
| 321 | 652772.09 | 4776363.58 | 0.10 | 0 | D | A | 68.7 | -40.1 | 0.0 | 12.3 | 0.0 | 0.0 | 16.4 |
| 322 | 652765.45 | 4776360.09 | 3.66 | 0 | D | A | 66.4 | -40.0 | 0.0 | 13.1 | 0.0 | 0.0 | 13.3 |
| 323 | 652772.09 | 4776363.58 | 3.66 | 0 | D | A | 66.4 | -40.1 | 0.0 | 13.1 | 0.0 | 0.0 | 13.3 |
| 324 | 652765.45 | 4776360.09 | 1.52 | 0 | D | A | 64.6 | -40.0 | 0.0 | 14.2 | 0.0 | 0.0 | 10.4 |
| 325 | 652772.09 | 4776363.58 | 1.52 | 0 | D | A | 64.6 | -40.1 | 0.0 | 13.1 | 0.0 | 0.0 | 11.4 |

APPENDIX E
Warning Clauses
(1 Page)

Warning Clause Type A – From MECP NPC-300

“Purchasers/tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment.”

Warning Clause Type C – From MECP NPC-300

“This dwelling unit has been designed with the provision for adding central air conditioning at the occupant’s discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment.”

Warning Clause from ENCG:

Purchasers/tenants are advised that sound levels due to increasing road/rail/Light Rail/transitway traffic will interfere with outdoor activities as the sound levels exceed the sound level limits of the City and the Ministry of the Environment.

To help address the need for sound attenuation this development includes:

- multi-pane glass;
- double brick veneer;
- high sound transmission class walls.

To ensure that provincial sound level limits are not exceeded it is important to maintain these sound attenuation features.

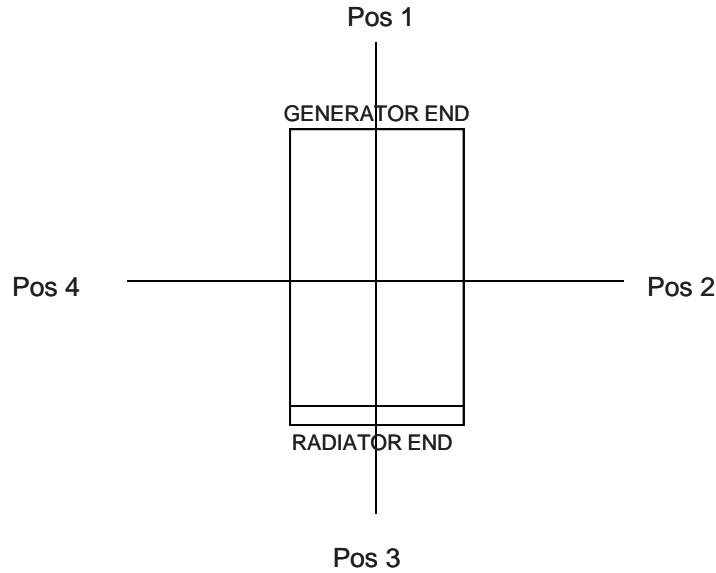
This dwelling unit has been supplied with a central air conditioning system and other measures which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the City and the Ministry of the Environment.

APPENDIX F
Manufacturer Sound Data and Calculations
(Development Stationary Sources)
(5 Pages)

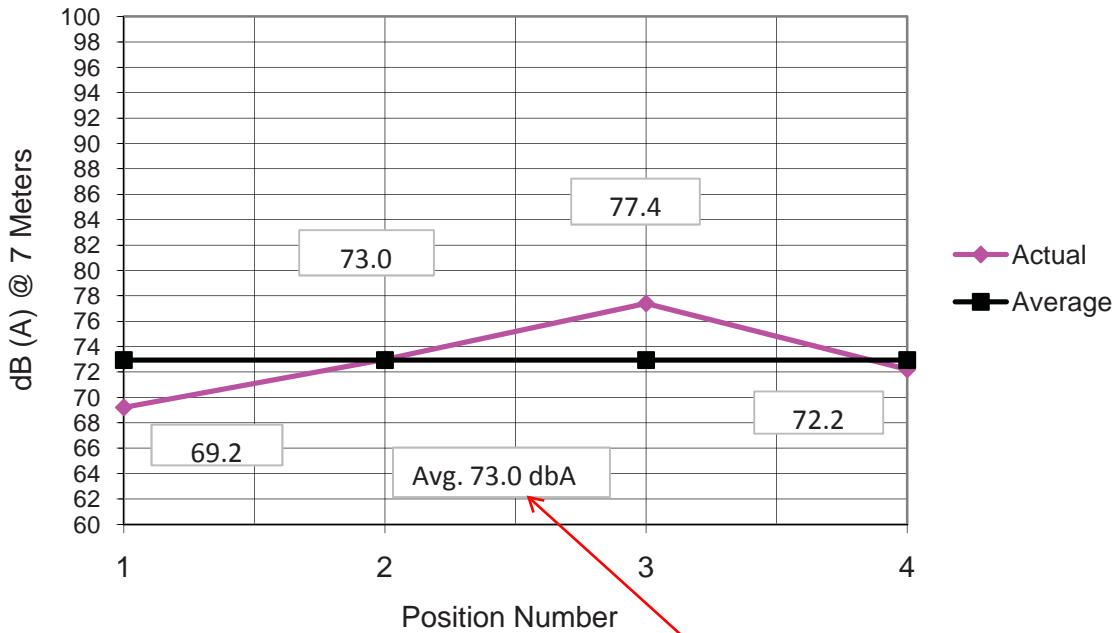
GENERAC POWER SYSTEMS INC.

Estimated Sound Performance

SG175 - 13.3L Hino Level 2A Sound Attenuated Enclosure



Measured Sound Levels - 60 Hz



- Notes:
1. All positions 23 ft (7M) from Center of generator.
 2. Generator operating at full load.
 3. Tests are conducted on a 100 foot diameter asphalt surface.



ENGINEERED AIR

SUPPLY AIR FAN PERFORMANCE

JOB NAME: Barrett Court Condo # 2 JOB NO: (N-3796)

CUSTOMER: Veeda Inc

ENGINEER: Jain & Associates

EngA MODEL: LM15/C/O QTY: 1 TAG: MUA-1

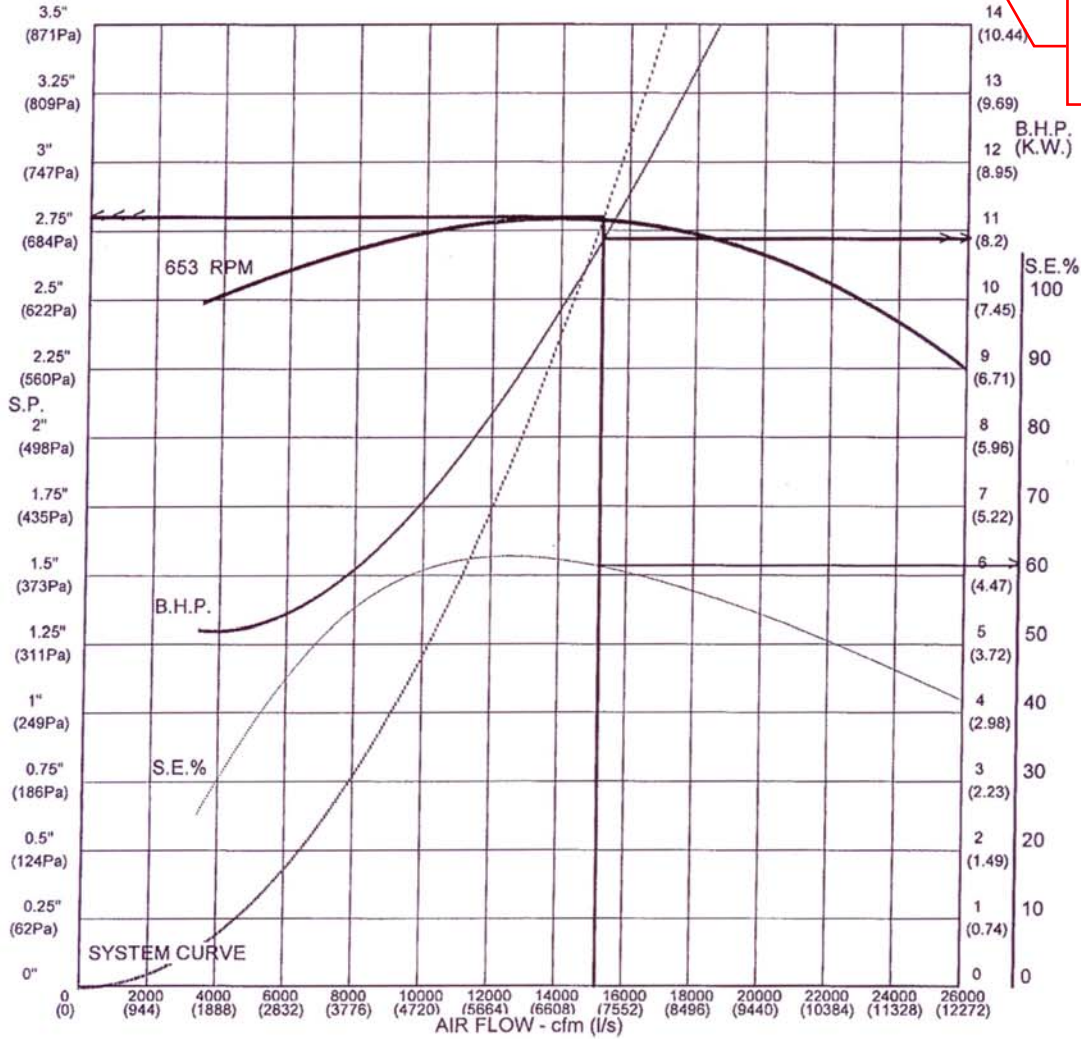
AIRFLOW 15220 CFM E.S.P. 1.5 in.w.c. FAN MANUFACTURER LAU INDUSTRIES

FANSIZE 25/25 FC DIDW QTY. 1

SOUND POWER DATA

TSP 2.8 in.w.c. RPM 653 REQ'D POWER 10.88 BHPHz 63 125 250 500 1000 2000 4000 8000

MOTOR SIZE 15 HP ODP (1750) INLET VANES^{NO} db: 92 89 86 86 81 80 75 69



INT_MAU

Baltimore Aircoil Company, Inc.
Closed Circuit Cooling Tower Selection Program

Version: 7.5.3 NA
 Product data correct as of: March 03, 2017

Project Name:
 Selection Name:
 Project State/Province: Maryland
 Project Country: United States
 Date: May 05, 2017

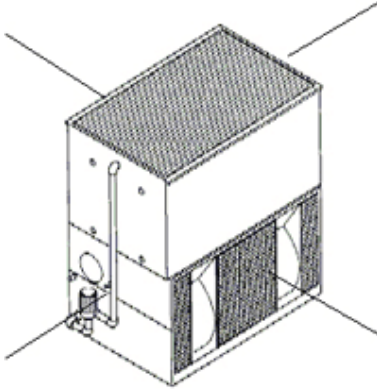
Model Information

Product Line: VF1 Fan Type: Standard Fan
 Model: VF1-096-31Q Fan Motor: (1) 50.00 = 50.00 HP/Unit
 Number of Units: 1 Total Standard Fan Power: Full Speed, 50.00 BHP/Unit
 Coil Type: Standard Coil Total Pump Motor Power: (1) 3.00 = 3.00 HP/Unit
 Coil Finning: None
 Intake Option: None
 Internal Option: None
 Discharge Option: PCD w/ Tapered Discharge Hood
 External Static Pressure: 0.00 in. of H2O

Octave band and A-weighted sound pressure levels (Lp) are expressed in decibels (dB) reference 0.0002 microbar. Sound power levels (Lw) are expressed in decibels (dB) reference one picowatt. Octave band 1 has a center frequency of 63 Hertz.

| Top Lp Sound Pressure (dB) | | |
|-------------------------------|-----------|-----------|
| Octave Band | Distance | |
| | 5 ft. | 50 ft. |
| 1 | 78 | 62 |
| 2 | 78 | 63 |
| 3 | 77 | 61 |
| 4 | 78 | 62 |
| 5 | 77 | 61 |
| 6 | 74 | 58 |
| 7 | 70 | 54 |
| 8 | 68 | 51 |
| A-wgtd | 81 | 65 |

| Back Lp Sound Pressure (dB) | | |
|--------------------------------|-----------|-----------|
| Octave Band | Distance | |
| | 5 ft. | 50 ft. |
| 1 | 73 | 60 |
| 2 | 71 | 60 |
| 3 | 69 | 55 |
| 4 | 66 | 55 |
| 5 | 67 | 53 |
| 6 | 65 | 49 |
| 7 | 59 | 44 |
| 8 | 59 | 39 |
| A-wgtd | 72 | 58 |



| End Lp Sound Pressure (dB) | | |
|-------------------------------|-----------|-----------|
| Octave Band | Distance | |
| | 5 ft. | 50 ft. |
| 1 | 77 | 65 |
| 2 | 71 | 61 |
| 3 | 68 | 56 |
| 4 | 68 | 56 |
| 5 | 68 | 54 |
| 6 | 63 | 50 |
| 7 | 59 | 46 |
| 8 | 55 | 41 |
| A-wgtd | 72 | 59 |

| Connection End Lp Sound Pressure (dB) | | |
|--|-----------|-----------|
| Octave Band | Distance | |
| | 5 ft. | 50 ft. |
| 1 | 77 | 65 |
| 2 | 72 | 61 |
| 3 | 71 | 56 |
| 4 | 69 | 56 |
| 5 | 69 | 54 |
| 6 | 66 | 50 |
| 7 | 62 | 46 |
| 8 | 58 | 41 |
| A-wgtd | 73 | 59 |

| Sound Power (dB) | | |
|------------------|--------------------------|----|
| Octave Band | Center Frequency (Hertz) | Lw |
| 1 | 63 | 96 |
| 2 | 125 | 94 |
| 3 | 250 | 91 |
| 4 | 500 | 91 |
| 5 | 1000 | 90 |
| 6 | 2000 | 87 |
| 7 | 4000 | 83 |
| 8 | 8000 | 79 |

| Air Inlet Lp Sound Pressure (dB) | | |
|-------------------------------------|-----------|-----------|
| Octave Band | Distance | |
| | 5 ft. | 50 ft. |
| 1 | 79 | 66 |
| 2 | 75 | 65 |
| 3 | 76 | 63 |
| 4 | 76 | 62 |
| 5 | 76 | 60 |
| 6 | 74 | 57 |
| 7 | 72 | 54 |
| 8 | 67 | 49 |
| A-wgtd | 81 | 65 |

INT_CT (with Calculations)

Note: The use of frequency inverters (variable frequency drives) can increase sound levels.

Cooling Tower PWL Calculations - INT_CT

| | 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | dBA | Note |
|---|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------------|
| Air Inlet Measured SPL, dB | | 79 | 75 | 76 | 76 | 76 | 74 | 72 | 67 | | Provided by Manufacturer |
| Surface Area, m2 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | Based on AutoCAD Drawing |
| CT_Air - Sound Power Level, dB | | 87 | 83 | 84 | 84 | 84 | 82 | 80 | 75 | 89 | |
| Back Side Measured SPL, dB | | 73 | 71 | 69 | 66 | 67 | 65 | 59 | 59 | | Provided by Manufacturer |
| Surface Area, m2 | | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | | Based on AutoCAD Drawing |
| CT_Back - Sound Power Level, dB | | 85 | 83 | 81 | 78 | 79 | 77 | 71 | 71 | 83 | |
| End Side Measured SPL, dB | | 77 | 71 | 68 | 68 | 68 | 63 | 59 | 55 | | Provided by Manufacturer |
| Surface Area, m2 | | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | | Based on AutoCAD Drawing |
| CT_End - Sound Power Level, dB | | 87 | 81 | 78 | 78 | 78 | 73 | 69 | 65 | 81 | |
| Motor Side Measured SPL, dB | | 77 | 72 | 71 | 69 | 69 | 66 | 62 | 58 | | Provided by Manufacturer |
| Surface Area, m2 | | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | | Based on AutoCAD Drawing |
| CT_Motor - Sound Power Level, dB | | 87 | 82 | 81 | 79 | 79 | 76 | 72 | 68 | 83 | |
| Top Side Measured SPL, dB | | 78 | 78 | 77 | 78 | 77 | 74 | 70 | 68 | | Provided by Manufacturer |
| Surface Area, m2 | | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | | Based on AutoCAD Drawing |
| CT_Top - Sound Power Level, dB | | 86 | 86 | 85 | 86 | 85 | 82 | 78 | 76 | 89 | |

Exhaust Sound Power Level Calculations

1. Garage Exhaust Fans - INT_EF1 and EF2

Fan Type Centrifugal
 Flow Rate, m3/s 8.9
 Static Pressure, in.wc. 0.50

| | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | LwA | Notes |
|-------------------------------|-----------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|---|
| Specific Sound Power Level | 35 | 35 | 34 | 32 | 31 | 26 | 18 | 10 | | Noise Control for Buildings, Table 7-13 |
| Flow and Pressure Corrections | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | | |
| Blade Passage Correction | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | | BP Inc = 3 at 250Hz |
| Efficiency Correction | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | 80% efficiency assumed |
| Fan Outlet PWL | 77 | 77 | 79 | 74 | 73 | 68 | 60 | 52 | 77.1 | |