Environmental Noise Assessment

115 Bridgeport Road East, Waterloo

115 Bridgeport Inc.

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1.0 Introduction

SLR Consulting (SLR) was retained by 115 Bridgeport Inc. to conduct an environmental noise assessment for the proposed development at 115 Bridgeport Road East in Waterloo, Ontario ("the Project site"). This report is in support of the Official Plan Amendment (OPA) and Zoning Bylaw Amendment (ZBA) applications for the development. A copy of the Declaration Statements is included in **Appendix A**.

1.1 Focus of Report

In keeping with Regional Municipality of Waterloo (RMOW) and City of Waterloo requirements and Terms of Reference, this report examines the potential for:

- Noise impacts of the environment on the proposed development;
- Noise impacts of the proposed development on the environment; and
- Noise impacts of the proposed development on itself.

This assessment is based on the architectural drawings by ABA Architects Inc. with issue date November 27, 2023 ("ZBA/OPA"), and supplementary elevation drawings provided by the Client to SLR on December 13, 2023. Drawings are provided for reference in **Appendix B**.

Mechanical systems associated with the development (e.g., cooling and ventilation equipment) have not been sufficiently designed at this stage and can be assessed at a future date, if required. A general discussion has been included in this report to address the impacts of the proposed development on the environment and on itself.

1.2 Nature of the Subject Lands

The Project site is located at 115 Bridgeport Road East, Waterloo, southeast of the intersection of Bridgeport Road East and Weber Street North. The overall Project site also encompasses municipal addresses 109 and 133 Bridgeport Road East, and 30-32 Weber Street North, Waterloo. The site is currently primarily vacant, with the western side of the site occupied by two low-rise commercial/retail buildings fronting towards Weber Street North.

The proposed development includes a 6-storey podium structure, three towers (Buildings A, B and C), and an 8-storey parking structure at the southeast corner of the Project site.

Residential units in the podium structure are planned from level 1 to level 6, along with parking on levels 1 to 4 inclusive. The podium will have a 5th floor common outdoor amenity terrace, surrounded by 5th and 6th floor residential units on the south, west and north sides. Building A will be 35 storeys in height total and located along the western side of the podium. Building B will be 24 storeys in height and located at the northeast portion of the podium, and Building C will be 19 storeys in height, located at the southeast portion of the podium. Access to the site will be via Bridgeport Road East to the north, or from Royal Street to the south.

A copy of the site plan and floor plans are included for reference in **Appendix B**.

1.3 Nature of the Surroundings

The Project site is bounded by the following:

- Bridgeport Road East, with an automotive repair shop, Shoppers Drug Mart, other small commercial/retail uses and residential apartment buildings beyond, to the north;

- Weber Street North, with commercial/retail land uses beyond, to the west;
- Royal Street, with low-density residential dwellings and Erb Street East beyond, to the south; and
- Low-rise residential detached dwellings to the east.

The topography of the Project site is relatively flat. A context plan is shown in **Figure 1**.

Part 1: Impacts of the Environment on the Development

In assessing potential impacts of the environment on the proposed development, the focus of this report is to assess:

- Roadway noise impacts on the development;
- Stationary noise impacts from the surrounding commercial/retail land uses; and
- Stationary noise impacts from the proposed development mechanical equipment onto the development itself, and onto surrounding noise-sensitive receptors.

The closest railway line is located more than 500 m from the proposed development to the southwest and is outside of the minimum separation distances for inclusion. Therefore, noise impacts from rail traffic have not been considered in this study.

2.0 Transportation Noise Impacts

2.1 Transportation Noise Sources

Transportation sources with the potential to produce noise at the proposed development are roadway noise from Bridgeport Road East, Weber Street North, Erb Street East and Lincoln Road.

Roadway noise from these sources has been predicted, and this information has been used to determine façade, ventilation, and warning clause requirements for the proposed development.

2.2 Surface Transportation Noise Criteria

2.2.1 Ministry of Environment Publication NPC-300

Noise-Sensitive Development

Ministry of the Environment, Conservation and Parks (MECP) Publication NPC-300 provides sound level criteria for noise-sensitive developments. The applicable portions of NPC-300 are Part C – Land Use Planning and the associated definitions outlined in Part A – Background. **Tables 1** to **4** summarize the applicable surface transportation (road and rail) criteria.

Location-Specific Criteria

Table 1 summarizes criteria in terms of energy equivalent sound exposure levels (L_{eq}) for specific noise-sensitive locations. Both outdoor and indoor locations are identified, with the focus of outdoor areas being amenity spaces. Indoor criteria vary with sensitivity of the space. As a result, Sleeping Quarters have more stringent criteria than Living/Dining Room spaces.

Table 1: NPC-300 Sound Level Criteria for Road and Rail Noise

Type of Space	Time Period	Energy Equivalent Sound Exposure Level L_{eq} [5] (dBA)		Assessment Location
		Road	Rail [1]	
Outdoor Amenity Area	Daytime (0700-2300h)	55	55	Outdoors [2]
Living/Dining Room [3]	Daytime (0700-2300h)	45	40	Indoors [4]
	Night-time (2300-0700h)	45	40	Indoors [4]
Sleeping Quarters	Daytime (0700-2300h)	45	40	Indoors [4]
	Night-time (2300-0700h)	40	35	Indoors [4]

Notes: [1] Whistle noise is excluded for OLA noise assessments and included for Living/Dining Room and Sleeping Quarter assessments, where applicable.

[2] Road and Rail noise impacts are to be combined for assessment of OLA impacts.

[3] Residence area Dens, Hospitals, Nursing Homes, Schools, Daycares are also included. During the nighttime period, Schools and Daycares are excluded.

[4] An assessment of indoor noise levels is required only if the criteria in **Table 4** are exceeded.

[5] L_{eq} – the energy equivalent sound level, integrated over the time period shown.

Outdoor Living Areas

Table 2 summarizes the noise mitigation requirements for outdoor amenity areas ("Outdoor Living Areas" or "OLAs").

For the assessment of OLA sound levels, total surface transportation noise is determined by combining road and rail traffic sound levels. Whistle noise from trains is not included in the determination of outdoor sound levels.

Table 2: NPC-300 OLA Sound Level Criteria for Road and Rail Noise

Time Period	OLA Energy Equivalent Sound Exposure Level L_{eq} (dBA)	Mitigation/Warning Clause Requirements
Daytime (0700-2300h)	≤ 55	• None
	56 to 60 inc.	• Noise barrier OR Type A warning clause
	> 60	• Noise barrier to reduce noise to 55 dBA OR • Noise barrier to reduce noise to 60 dBA and Type B warning clause

Ventilation and Warning Clauses

Table 3 summarizes requirements for ventilation where windows would potentially have to remain closed as a means of noise control. Despite implementation of ventilation measures where required, if sound levels exceed the guideline limits in **Table 1**, warning clauses advising future occupants of the potential excesses are also recommended. Warning clauses also apply to OLAs.

Table 3: NPC-300 Ventilation and Warning Clause Recommendations

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level – L_{eq} (dBA)		Ventilation and Warning Clause Requirements [2]
		Road	Rail [1]	
Outdoor Living Area	Daytime (0700-2300h)	56 to 60 incl.		Type A Warning Clause
Plane of Window	Daytime (0700-2300h)	≤ 55		None
		56 to 65 incl.		Forced Air Heating with provision to add air conditioning + Type C warning clause
		> 65		Central Air Conditioning + Type D warning clause
	Night-time (2300-0700h)	51 to 60 incl.		Forced Air Heating with provision to add air conditioning + Type C Warning Clause
		> 60		Central Air Conditioning + Type D Warning Clause

Notes: [1] Whistle noise is excluded from assessment.
[2] Road and Rail noise is combined for determining Ventilation and Warning Clause requirements

Building Component Requirements

Table 4 provides sound level thresholds which, if exceeded, trigger a requirement for the building shell components (i.e., exterior walls, windows) to be designed accordingly to meet the applicable indoor sound criteria.

Table 4: NPC-300 Building Component Assessment Requirements

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level – L_{eq} (dBA)		Component Requirements
		Road	Rail [1]	
Plane of Window	Daytime (0700-2300h)	> 65	> 60	Designed/ Selected to Meet Indoor Requirements [2]
	Night-time (2300-0700h)	> 60	> 55	

Notes: [1] Whistle noise is included in assessment
[2] Building component requirements are assessed separately for Road and Rail, and then combined for a resultant sound isolation parameter.

2.2.2 RMOW Noise Policy Implementation Guideline

The RMOW has published Noise Policy Implementation Guidelines (last updated October 22, 2019) for assessment of surface transportation (road and rail) sound levels. The applicable portions for new developments are outlined in Part A – New Development Impacted by Noise from Roads and Railways.

The RMOW Noise Policy Implementation Guidelines and associated sound level limits, ventilation requirements and building component requirements generally follow those in MECP Publication NPC-300. The exception is that night-time indoor sound level limits are not prescribed for living/dining room spaces. Therefore, for these indoor spaces, guideline limits from MECP Publication NPC-300 have been conservatively applied.

2.2.3 City of Waterloo – Terms of Reference

The City of Waterloo has published a document entitled Terms of Reference: Noise Study, last updated June 30, 2023. The Terms of Reference indicate that road traffic shall be evaluated under the RMOW Noise Policy Implementation Guideline discussed above.

2.3 Traffic Data and Future Projections

2.3.1 Roadway Traffic Data

Future average annual daily traffic (AADT) volumes and vehicle percentages for Bridgeport Road East, Weber Street North, Erb Street East, and Lincoln Road were provided by the Regional Municipality of Waterloo's Transportation department. Commercial vehicle percentages and the day/night split were also provided. Lincoln Road is under the jurisdiction of the City of Waterloo, who verified the forecasts provided by the RMOW for this roadway.

Copies of all traffic data, correspondence and related calculations are provided for reference in **Appendix C**. **Table 5** summarizes the road traffic volumes and associated details used in the analysis.

Table 5: Summary of Road Traffic Data Used in Transportation Analysis

Roadway	2032 Traffic Volumes (AADT)	% Day/Night Volume Split		Commercial Vehicle Breakdown		Vehicle Speed (km/hr)
		Daytime	Night-time	% Medium Trucks	% Heavy Trucks	
Bridgeport Road East [1]	17,700	90	10	1.0	1.0	50
Weber Street North (north of Bridgeport Road East)	24,700	90	10	1.0	1.0	60
Weber Street North (south of Bridgeport Road East)	24,200	90	10	1.0	1.0	60
Erb Street East	15,500	90	10	1.0	1.0	50
Lincoln Road [2]	4,700	90	10	1.0	1.0	50

Notes: [1] Data for Bridgeport Road East was provided separately for the road segments east and west of Weber Street North. Because the forecasted AADT volumes, posted speed limits and commercial vehicle rates were the same, it was treated as a single roadway link.

[2] Lincoln Road is under the jurisdiction of the City of Waterloo who has verified the information provided by the RMOW.

2.4 Predicted Sound Levels

Future road traffic sound levels at the proposed development were predicted using Cadna/A, a commercially available noise propagation modelling software. Roadways were modelled as line sources of sound, with sound emission rates calculated using the ORNAMENT algorithms, the

road traffic noise model of the MECP. These predictions were validated and are equivalent to those made using the MECP's ORNAMENT or STAMSON v5.04 road traffic noise models. A STAMSON validation file is included for reference in **Appendix D**.

Sound levels were predicted along the facades of the proposed development using the "building evaluation" feature of Cadna/A. This feature allows for noise levels to be predicted across the entire façade of a structure. OLA sound levels were predicted at a height of 1.5 m above the building rooftop, at the centre of the amenity space.

2.4.1 Façade Sound Levels

Predicted worst-case façade sound levels are presented in **Table 6**. The transportation façade sound levels of the development, showing the ranges of predicted daytime and night-time sound levels are shown in **Figure 2** and **Figure 3** for daytime and night-time periods, respectively.

Table 6: Summary of Predicted Worst-Case Transportation Façade Sound Levels

Building	Façade[1]	Predicted Road Traffic Sound Levels[2]	
		L_{eq} Daytime (dBA)	L_{eq} Night-time (dBA)
Podium 6-storey	North	65	58
	East	59	53
	South	64	58
	West	66	59
Building A 35-storey Tower	North	63	56
	East	57	51
	South	61	54
	West	64	57
Building B 24-storey Tower	North	62	56
	East	58	52
	South	54	48
	West	60	53
Building C 19-storey Tower	North	54	47
	East	55	48
	South	59	52
	West	58	52

Notes: [1] Building façade roadway sound levels are shown in **Figure 2** (daytime) and **Figure 3** (night-time)
[2] Sound levels presented above are the highest for the identified building facade.

The façade road traffic sound levels are predicted to exceed 65 dBA during the daytime (i.e., the threshold described in **Table 4**) on the west façade of the podium structure. Therefore, an assessment of building components is required. Refer to **Section 2.5.1**.

2.4.2 Outdoor Living Area Sound Levels

The proposed development will have a common 5th floor Outdoor Living Areas (OLA) between the three towers, Buildings A, B and C.

The predicted sound level from road traffic at the proposed development OLA is shown in **Figure 4** and summarized in **Table 7**.

Table 7: Summary of Predicted Transportation Outdoor Living Area Sound Levels

OLA Assessment Location	Assessment Location Description	Predicted Sound Level, L_{eq} Daytime (dBA)
OLA 1	5th Floor Common Outdoor Amenity Terrace	43

The predicted sound level is below 55 dBA at OLA 1; therefore, no mitigation is required.

As the development includes a common amenity space for all occupants, the private terraces/ balconies are not considered to be the only outdoor amenity spaces available. Therefore, an assessment of private terraces and balconies was excluded based on the definitions outlined in MECP Publication NPC-300.

2.5 Noise Control Measures

2.5.1 Façade Assessment

2.5.1.1 Building Components

An assessment of indoor noise levels is required because façade sound levels due to road traffic exceed 65 dBA during the daytime period on the west façade of the podium structure.

Indoor sound levels and required facade Sound Transmission Classes (STCs) were estimated using the procedures outlined in National Research Council Building Practice Note 56 (BPN-56). Detailed floor plans and elevation drawings were not available at the time of the assessment. The preliminary façade requirements analysis is therefore based on the following assumptions.

- Non-glazing portions of the exterior walls are assumed to have a rating of STC 45 (i.e., representing a spandrel panel construction);
- For living/dining rooms, 70% of the exterior facade is vision glass/patio doors and rooms have intermediate absorption; and
- For bedrooms, 70% of the exterior wall is vision glass and rooms have intermediate absorption.

The building façade requirements based on the road traffic façade sound levels and assumptions listed above are outlined in **Table 8** for residential units with one exposed façade, and for applicable corner units with two exposed facades.

Table 8: Summary of Façade Glazing Requirements for Proposed Development

Building	Applicable Façade(s)/ Location(s)	Non-Glazing Components[1]	Glazing STC Requirements[1]	
			Living/Dining Room	Bedroom
Podium 6-storey	West	45	OBC	OBC
	Northwest Corner	45	OBC	OBC
	Southwest Corner	45	OBC	OBC

Notes: [1] OBC = meeting the minimum non-acoustical requirements of the Ontario Building Code, with a rating of STC 29 for windows and STC 45 for exterior walls.

It is predicted that, with a non-glazing component meeting STC 45, windows meeting the minimum non-acoustical requirements of the OBC will be sufficient to meet the indoor noise guidelines of the MECP.

The building façade requirements should be reviewed by an acoustical consultant when detailed suite layouts and elevations are available.

2.5.1.2 Ventilation and Warning Clause Requirements

The requirements for warning clauses are summarized in **Table 3**. Where required, the warning clauses should be included in agreements registered on Title for the residential units, in all agreements of purchase and sale or lease, and all rental agreements.

Based on the predicted façade sound levels, forced air heating with provisions for future installation of central air conditioning, and an MECP Type C warning clause, is required for all units with façade sound levels from road and rail traffic that are between 56 and 65 dBA during the daytime, or between 51 and 60 dBA during night-time hours. This applies to the following units:

- 6-Storey Podium – Outer units along the north, east and south facades;
- Building A – Units on all facades;
- Building B – Units along the west, north and east facades; and
- Building C – Units along the west and south facades.

Furthermore, central air conditioning and an MECP Type D warning clause is required for units with façade sound levels from road and rail traffic exceeding 65 dBA during the daytime or 60 dBA during the night-time. This applies to the following units:

- 6-Storey Podium – Outer units along the west façade.

All required warning clauses are summarized in **Appendix E**.

2.5.2 Outdoor Living Area Assessment

As the predicted OLA sound level is below 55 dBA, warning clauses and physical mitigation measures are not required.

3.0 Stationary Source Noise Impacts

Site visits to the Project site and surrounding area were completed by SLR personnel on January 4, 2022 between approximately 2:00 PM and 4:00 PM, and on January 13, 2022 between approximately 6:00 PM and 6:30 PM. The Project site was found to be primarily surrounded by commercial/retail and residential land uses. Refer to the context plan shown in **Figure 1**.

As the surrounding area contains nearby commercial/retail lands, the inclusion of stationary noise sources was determined based on the MECP Guideline D-6 Potential Influence Areas. Commercial/retail lands are considered to be Class 1 Industries based on these guidelines, in which a 70 m influence area was applied for the inclusion of stationary noise sources to assess. The 70 m influence area from the proposed development property line is shown in yellow in **Figure 5**.

The closest Class 2 facilities are outside of the 300 m area of influence defined in MECP Guideline D-6.

The closest industrial facility to the proposed development is located more than 700 m away and is separated by many intervening residential dwellings. As NPC-300 limits are expected to be met at the much closer existing intervening homes, adverse impacts are not expected at the proposed development. Therefore, a detailed assessment of other industries was not completed.

3.1 Stationary Source Modelling

Based on previous studies of similar facilities, aerial imagery, and information obtained from the two site visits conducted by SLR staff, the significant sources of noise with the potential to impact the proposed development have been identified. Modelled noise sources include the following.

- Shopper’s Drug Mart – 50 Weber Street North:
  - Five (5) rooftop HVAC units;
  - Four (4) rooftop cooling units; and
  - One (1) idling refrigerated delivery truck. Note: the City of Waterloo Noise By-Law No. 2010-073 prohibits loading/unloading activities between 7:00am and 7:00pm; therefore, idling has only been considered during daytime hours.
- PTH Auto Inc. & Bridgeport Road Service Centre – 120 Bridgeport Road East:
  - Six (6) open bay doors with noise breakout due to use of tools (i.e., impact wrenches, compressed air).
- S.G. Cunningham Limited – 35 Weber Street North:
  - Two (2) rooftop HVAC units
- Signs by McDougall – 31 Weber Street North:
  - One (1) rooftop exhaust stack
- Meineke Car Care Center – 29 Weber Street North:
  - Three (3) open bay doors with noise breakout due to use of tools (i.e., impact wrenches, compressed air).

- Hakim Optical Waterloo – 21 Weber Street North:
    - Two (2) rooftop HVAC units

Noise impacts from stationary sources were modelled using Cadna/A, a software implementation of the internationally recognized ISO-9613-2 environmental noise propagation algorithms. Cadna/A / ISO-9613 is the preferred noise model of the MECP. The ISO 9613 equations account for:

- Source to receiver geometry;
- Distance attenuation;
- Atmospheric absorption;
- Reflections off of the ground and ground absorption;
- Reflections off of vertical walls; and
- Screening effects of buildings, terrain, and purpose-built noise barriers (noise walls, berms, etc.).

The following additional parameters were used in the modelling, which are consistent with providing a conservative (predictable worst-case assessment of noise levels):

- Temperature: 10°C;
- Relative Humidity: 70%;
- Ground Absorption G: G = 0.0 (reflective) as the default global parameter;
- Reflection: Two (2) orders of reflection were used (accounts for noise reflecting from walls);
- Wall Absorption Coefficients: Set to 0.37 (37 % of energy is absorbed, 63% is reflected); and
- Terrain: Relatively flat near the Project site.

Sound level data from site visit measurements and generic SLR historical sound level data was applied in the stationary noise modelling. A summary of the sound levels used in the analysis and equipment operating conditions is included in **Appendix F**. All stationary sources modelled are shown in **Figure 5**.

3.2 Stationary Source Noise Criteria

MECP noise guidelines for stationary source noise impacting residential developments are given in MECP publication NPC-300. The applicable portions of NPC-300 are Part C – Land Use Planning and the associated definitions outlined in Part A – Background.

The acoustic environment surrounding the proposed development is generally dominated by roadway noise from Bridgeport Road East, Weber Road North, and Erb Street East during all periods of the day. Therefore, the proposed development is considered to be located in a Class 1 area.

The sound level limits for steady sound sources are expressed as a 1-hr equivalent sound level (L_{eq}(1 hr) values, in dBA) and is the higher of the NPC-300 exclusionary limits and the existing background sound level. The NPC-300 stationary source noise requirements in a Class 1 Area are summarized in **Table 9** for steady sound sources.

Table 9: NPC-300 Class 1 Continuous, Steady Source Sound Level Limits

Point of Reception Category	Time Period	Minimum Exclusionary Sound Level Limit L_{eq}(1-hr), dBA[1]
Outdoors	Daytime (0700-1900h)	50
	Evening (1900-2300h)	50
	Night-time (2300-0700h)	N/A[3]
Plane of Window [2]	Daytime (0700-1900h)	50
	Evening (1900-2300h)	50
	Night-time (2300-0700h)	45

Notes: [1] Or minimum hourly L_{eq} of background noise; whichever is higher.
[2] Applicable for windows opening into "noise-sensitive spaces" as defined in NPC-300.
[3] Sound level limits during night-time hours are not applicable at outdoor points of reception.

Since the ambient sound levels were anticipated to exceed the NPC-300 exclusionary limits for most facades and time periods, sound exposures from roadway noise were assessed and the corresponding applicable guideline limits were determined.

Table 10 summarizes the current road traffic volumes and details applied in the ambient noise modelling.

Table 10: Summary of Road Traffic Data Used to Determine Minimum 1-hr Ambient Sound Levels

Roadway Link	Current Traffic Volumes (AADT)[1]	Minimum Day/Evening/Night Hour Volume % of AADT			Commercial Vehicle Breakdown		Vehicle Speed (km/hr)
		Daytime	Evening	Night-time	% Medium Trucks	% Heavy Trucks	
Bridgeport Road East [1]	16,000	4.3	3.1	0.4	1.0	1.0	50
Weber Street North (north of Bridgeport Road East)	23,500	4.3	3.1	0.4	1.0	1.0	60
Weber Street North (south of Bridgeport Road East)	23,000	4.3	3.1	0.4	1.0	1.0	60
Erb Street East	14,000	4.3	3.1	0.4	1.0	1.0	50
Lincoln Road [2]	4,200	4.3	3.1	0.4	1.0	1.0	50

Notes: [1] Provided by RMOW for 2022. Data for Bridgeport Road East was provided separately for the road segments east and west of Weber Street North. Because the forecasted AADT volumes, posted speed limits and commercial vehicle rates were the same, it was treated as a single roadway link.

As with the Transportation Noise Impacts assessment (**Section 2.0**), ambient roadway noise was modelled as line sources of sound using the Cadna/A computer model. The minimum hourly L_{eq} for the ambient sound levels were found to exceed the NPC-300 default guideline limits during most periods of the day at assessment locations on the facades of the proposed development.

Surrounding facility noise impacts were assessed against the higher of the modelled ambient noise levels and the exclusionary limits calculated using road traffic data summarized in **Table 10**. Ambient sound levels were generally higher than the minimum exclusionary limits, with the exception of façades noted in **Table 11**.

As with the transportation noise assessment, ambient roadway noise was modelled as line sources of sound using the Cadna/A computer model. The minimum hourly L_{eq} for the ambient sound levels were found to exceed the NPC-300 minimum exclusionary guideline limits during most periods of the day at most assessment locations on the facades of the proposed development.

3.3 Predicted Stationary Source Sound Levels

Outdoor sound levels were assessed at a height of 1.5 m above the rooftop at all usable locations within the 5th floor amenity space.

3.3.1 Façade Sound Levels

The “building evaluation” feature of Cadna/A was used to assess noise impacts on the residential portions of the proposed development podium and towers. This feature allows for noise levels to be predicted across the entire façade of a structure.

A summary of the predicted noise impacts on each façade are shown in **Table 11**, and **Figures 6**, **7** and **8** for daytime, evening and night-time periods, respectively. The differences between the existing ambient sound levels and the surrounding stationary noise impacts are shown in **Figures 9**, **10**, and **11** for daytime, evening and night-time periods, respectively.

Table 11: Summary of Predicted Stationary Source and Ambient Façade Sound Levels

Building	Façade	Predicted Stationary Source Sound Levels – L_{eq}(1-hr) (dBA)			Ambient Sound Levels L_{eq}(1-hr) (dBA)		
		L_{eq} Day (dBA)	L_{eq} Evening (dBA)	L_{eq} Night (dBA)	L_{eq} Day (dBA)	L_{eq} Evening (dBA)	L_{eq} Night (dBA)
Podium 6-storey	North	57	48	45	≤ 63	≤ 62	≤ 53
	East	47	40	37	≤ 58	≤ 56	≤ 47
	South	57	42	36	≤ 63	≤ 61	≤ 52
	West	57	43	38	≤ 64	≤ 63	≤ 54
Building A 35-storey Tower	North	51	47	44	≤ 61	≤ 60	≤ 51
	East	50	43	40	≤ 56	≤ 54	≤ 46
	South	55	40	34	≤ 59	≤ 58	≤ 49
	West	56	42	38	≤ 63	≤ 61	≤ 52
Building B 24-storey Tower	North	55	46	43	≤ 60	≤ 59	≤ 50
	East	44	30	26	≤ 57	≤ 55	≤ 46
	South	41	39	36	≤ 53	≤ 51	45[3]
	West	50	46	43	≤ 58	≤ 57	≤ 48

Building	Façade	Predicted Stationary Source Sound Levels – L_{eq}(1-hr) (dBA)			Ambient Sound Levels L_{eq}(1-hr) (dBA)		
		L_{eq} Day (dBA)	L_{eq} Evening (dBA)	L_{eq} Night (dBA)	L_{eq} Day (dBA)	L_{eq} Evening (dBA)	L_{eq} Night (dBA)
Building C 19-storey Tower	North	46	42	39	≤ 52	≤ 51	45[3]
	East	30	19	15	≤ 53	≤ 52	45[3]
	South	51	38	32	≤ 57	≤ 56	≤ 47
	West	53	44	40	≤ 57	≤ 55	≤ 46

Notes: [1] Façade locations are identified on **Figure 6**, **Figure 7** and **Figure 8**.

[2] Sound levels shown represent the calculated worst-case impact along the identified facade.

[3] The minimum exclusionary limit is higher than or equal to the predicted ambient sound level and was therefore use as the assessment criterion for that façade.

As shown in **Figures 9**, **10**, and **11**, the stationary source noise sound levels were found to be at or below established sound level limits for all facades, during daytime, evening and night-time periods. Therefore, the applicable guideline limits are met on all facades of the proposed development without the need for mitigation.

3.3.2 Outdoor Sound Levels

The predicted worst-case sound levels from the stationary sources are shown in **Figure 12** for both daytime and evening periods. Predicted outdoor point of reception sound levels meet the default Class 1 criterion of 50 dBA during daytime and evening hours, respectively. Therefore, noise mitigation is not required.

A sample calculation for stationary source modelling is provided for reference in **Appendix F**.

Part 2: Impacts of the Development on Itself

4.0 Stationary Source Noise from the Development on Itself

At the time of this assessment, mechanical systems for the proposed development have not been sufficiently designed to complete a detailed assessment of stationary source noise from the development on itself.

For common mechanical systems that will be implemented as part of the proposed development, sound levels from all noise-generating equipment should comply with the guideline limits in MECP Publication NPC-300. The potential noise from mechanical equipment in the proposed development (such as from make-up air units, cooling towers, parking garage exhaust fans, emergency generators, etc.) should be assessed as part of the final building design. The applicable criteria can be met at all on-site receptors through appropriate selection of mechanical equipment, by locating equipment with sufficient setback from noise sensitive locations, and by incorporating control measures (e.g., silencers) into the design. This can be confirmed either later in the site plan approval process, or at the building permit approval stages.

If individual air conditioning systems are to be implemented for individual residential units within the proposed development, the sound levels from each unit should meet the requirements of MECP Publication NPC-216.

It is recommended that the mechanical systems be reviewed by an acoustical consultant prior to final equipment selection.

Part 3: Impacts of the Development on the Surrounding Area

5.0 Stationary Source Noise from the Development on the Surroundings

With respect to the acoustic environment of the area (i.e., Class 1), it is expected that the proposed development will have a negligible effect on neighbouring noise-sensitive properties.

Traffic related to the proposed development will be small relative to the existing traffic volumes within the area and is not of concern with respect to potential transportation noise.

Other sources associated within the proposed development with the potential to generate noise are mechanical equipment (e.g., air conditioning units, make up air units, cooling units, and parking garage exhaust fans). Sound levels due to operation of these sources should meet MECP Publication NPC-300 noise guidelines at all off-site noise sensitive receptors.

Off-site sound levels are not expected to be of concern are not anticipated because systems will be designed to ensure that the applicable noise guidelines are met at on-site receptors.

Regardless, off-site sound levels from mechanical equipment should be assessed as part of the final building designs. The applicable criteria can be met at all surrounding receptors though the use of routine mitigation measures, including the appropriate selection of mechanical equipment, by locating equipment with sufficient setback from noise sensitive locations, and by incorporating control measures (e.g., silencers, barriers) into the designs.

If individual air conditioning systems are to be implemented for individual residential units within the proposed development, the sound levels from each unit should meet the requirements of MECP Publication NPC-216.

It is recommended that the mechanical systems be reviewed by an acoustical consultant prior to final selection of equipment.

6.0 Conclusions and Recommendations

The potential for noise impacts on and from the proposed development have been assessed. Impacts of the environment on the development, the development on itself, and the development on the surrounding area have been considered. Based on the results of this assessment, the following conclusions have been reached:

Transportation Noise

- An assessment of transportation noise impacts from surrounding roadways has been completed.
- Based on predicted transportation façade sound levels, upgraded glazing is not required for the development.
- Noise impacts at the common outdoor amenity area are predicted to be within acceptable levels without the need for mitigation measures.
- As required by MECP Publication NPC-300, the provision for AC and Type C Warning Clauses should be included in agreements registered on Title for the residential units and included in agreements of purchase and sale, outlined in Section 2.6. Warning Clauses are summarized in Appendix E.

Stationary Source Noise

- Stationary source noise impacts onto the proposed development from the surrounding commercial facilities were assessed, as outlined in Section 3.0.
- Noise impacts from the surrounding stationary sources are predicted to meet applicable guideline limits at all building façade and at outdoor living area locations without the need for noise control measures.

Overall Assessment

- Noise from the environment on the proposed development can be adequately controlled with the inclusion of ventilation and warning clause recommendations as detailed in **Part 1** of this report.
- Noise from the proposed development on itself is not expected to be of concern and can be adequately controlled by following the design guidance outlined in **Part 2** of this report.
- Noise from the proposed development on the surroundings is expected to meet the applicable guideline limits, and can be adequately controlled by following the design guidance outlined in **Part 3** of this report.
- As the mechanical systems for the proposed development have not been designed in detail, the acoustical design should be reviewed by an acoustical consultant during site plan approval process, or as part of the final building design.

Regards,

SLR Consulting (Canada) Ltd.





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kmallinen@slrconsulting.com

R. L. Scott Penton, P.Eng.
Principal Acoustics Engineer
spenton@slrconsulting.com

7.0 References

International Organization for Standardization, ISO 9613-2: Acoustics – Attenuation of Sound During Propagation Outdoors Part 2: General Method of Calculation, Geneva, Switzerland, 1996.

City of Waterloo, Terms of Reference: Noise Study, dated June 30, 2023.

Ontario Ministry of the Environment, Conservation and Parks, 1989, Ontario Road Noise Analysis Method for Environment and Transportation (ORNAMENT).

Ontario Ministry of the Environment, Conservation and Parks, Publication NPC-300: Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, 2013.

Ontario Ministry of the Environment, Conservation and Park, STAMSON v5.04: Road, Rail and Rapid Transit Noise Prediction, 1996.

Ontario Ministry of the Environment and Energy, Publication NPC-216: Residential Air Conditioning Devices, 1993.

Regional Municipality of Waterloo, Noise Policy Implementation Guideline, updated October 2019

Figures

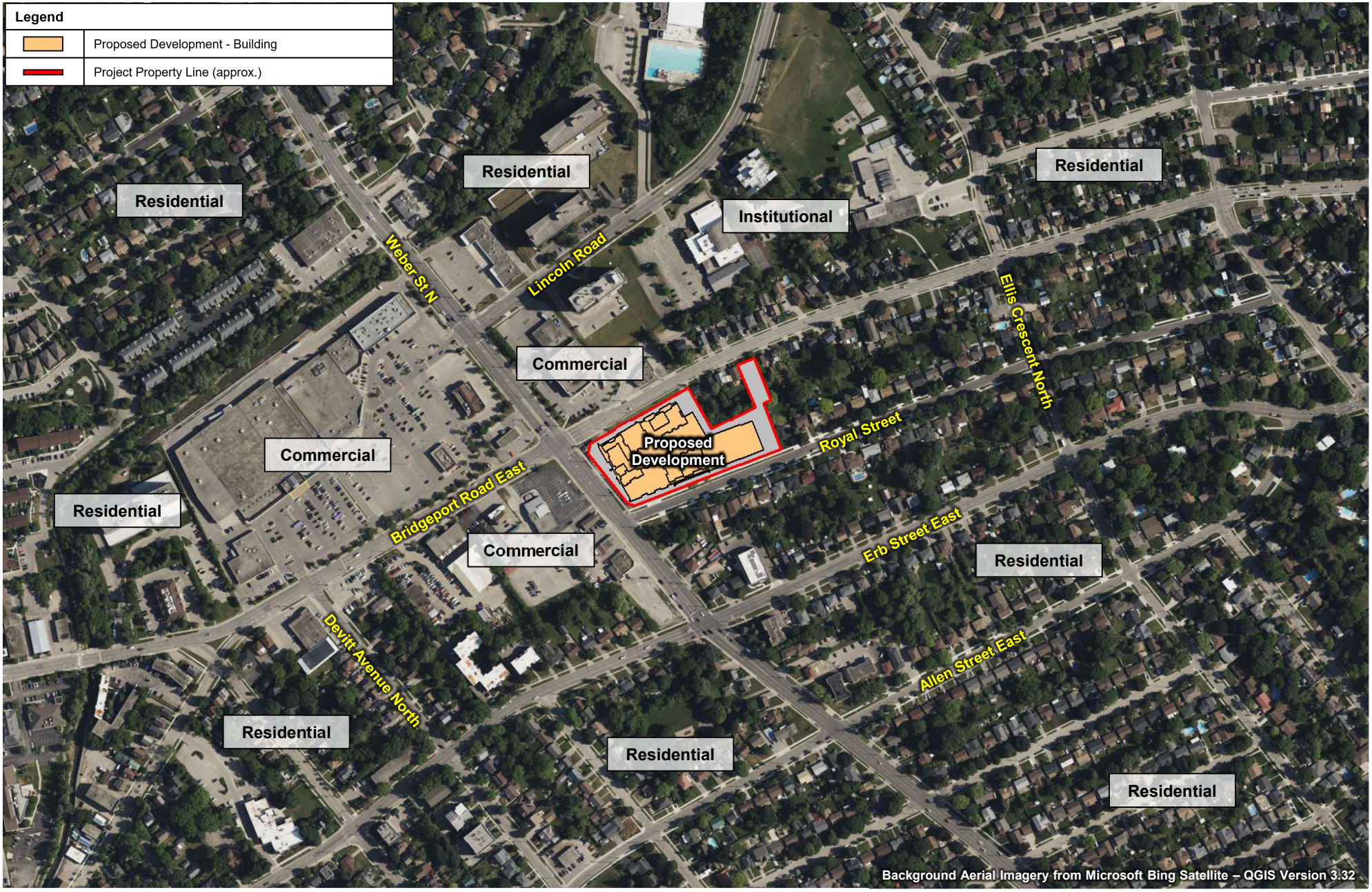
Environmental Noise Assessment

115 Bridgeport Road East, Waterloo

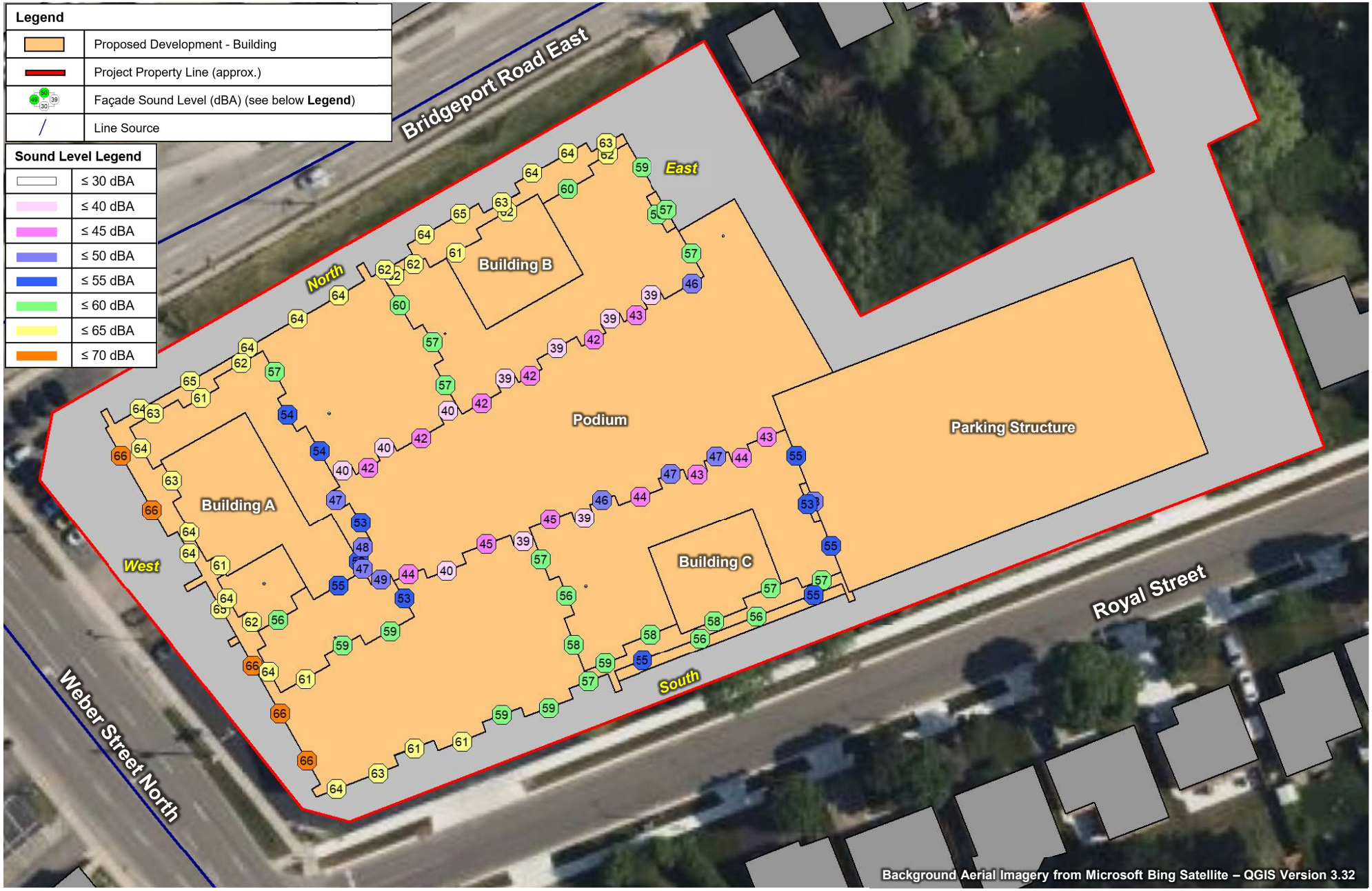
115 Bridgeport Inc.

SLR Project No.: 241.V30409.00002

January 5, 2024



115 BRIDGEPORT INC.	True North	Scale: 1:5,000	METRES	SLR
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **1**	
CONTEXT PLAN		Project No. 241.V30409.00002		



115 BRIDGEPORT INC.

115 BRIDGEPORT ROAD EAST, WATERLOO

PREDICTED FAÇADE SOUND LEVELS – ROAD TRAFFIC – DAYTIME

True North

Scale: 1:750

METRES

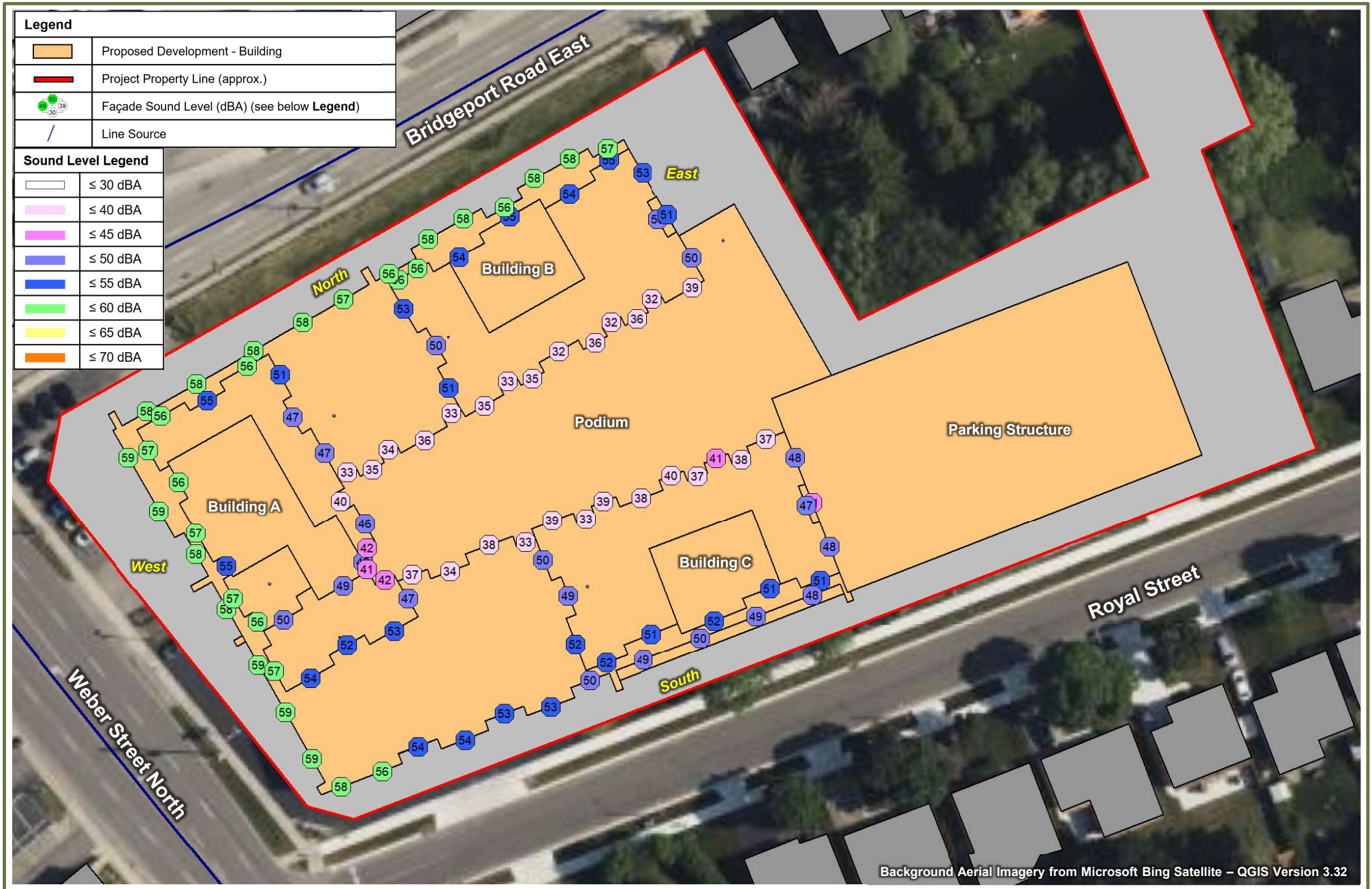
Date: Jan. 5, 2024

Rev 1.0

Project No. 241.V30409.00002

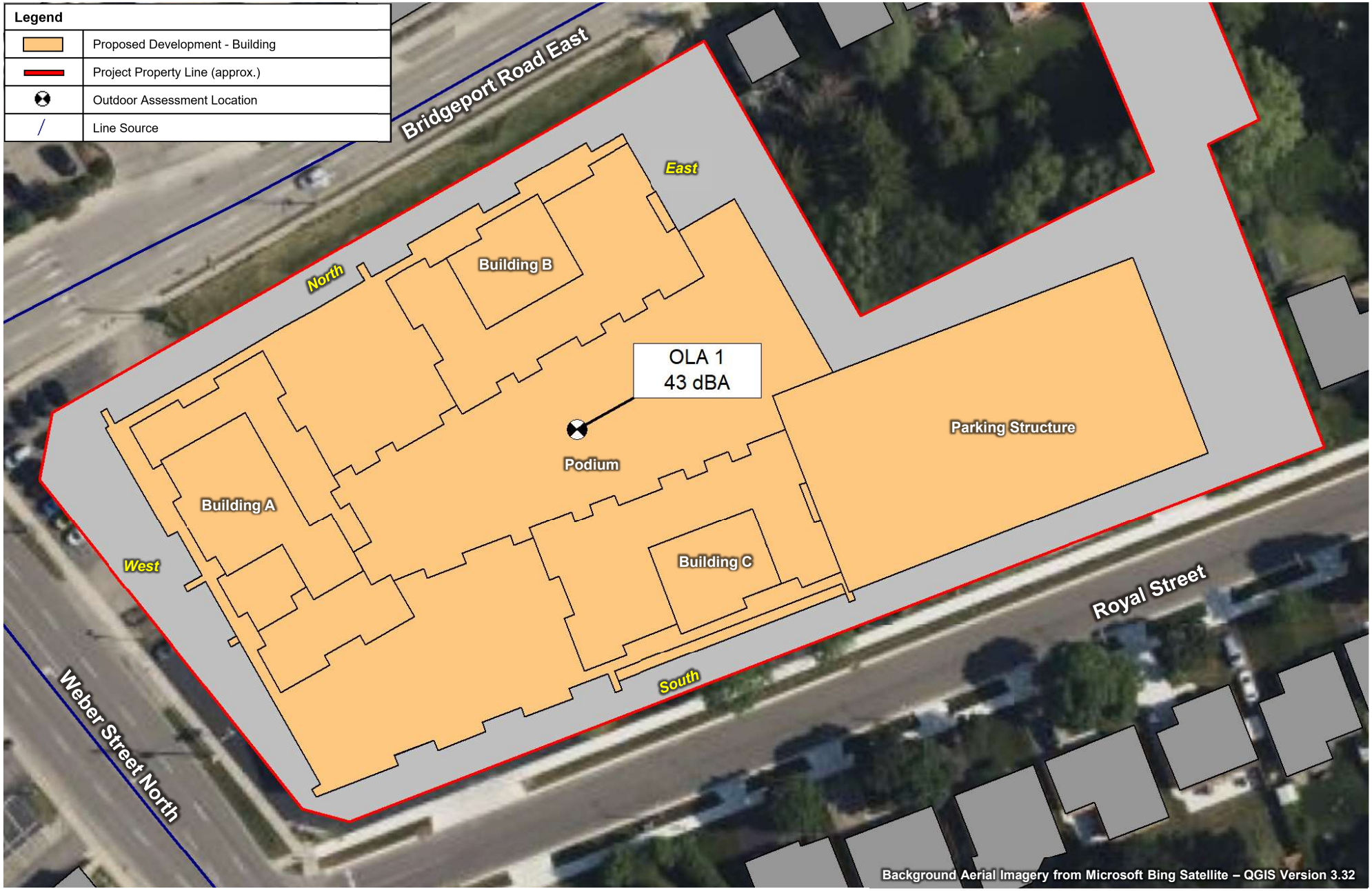
Figure No. **2**

SLR

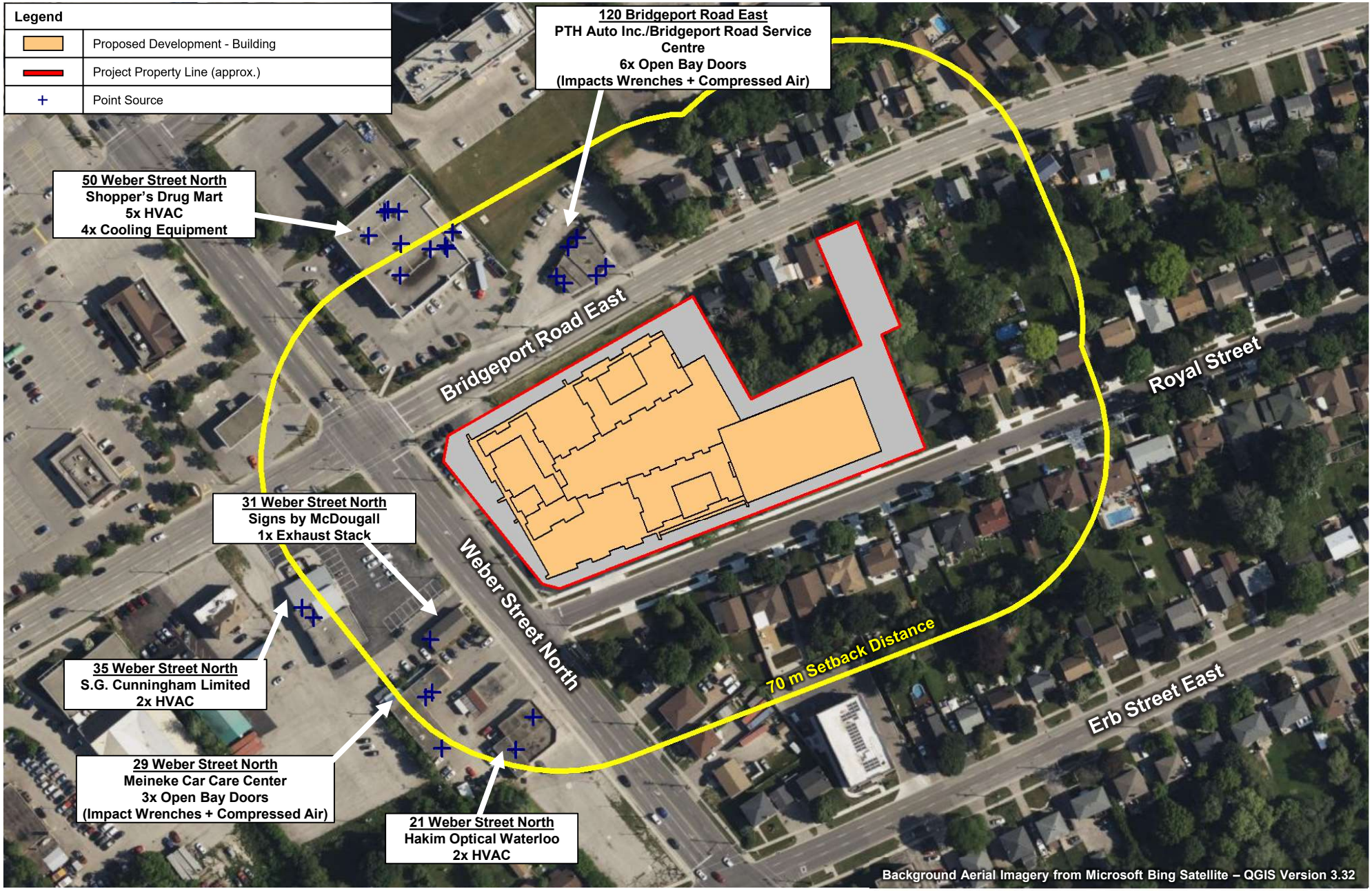


115 BRIDGEPORT INC.	True North	Scale: 1:750	METRES
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **3**
PREDICTED FAÇADE SOUND LEVELS – ROAD TRAFFIC – NIGHT-TIME		Project No. 241.V30409.00002	

SLR



115 BRIDGEPORT INC.	True North	Scale: 1:750	METRES	SLR
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **4**	
PREDICTED OUTDOOR LIVING AREA SOUND LEVELS – ROAD TRAFFIC – DAYTIME		Project No. 241.V30409.00002		



115 BRIDGEPORT INC.

115 BRIDGEPORT ROAD EAST, WATERLOO

SURROUNDING STATIONARY SOURCE LOCATIONS

True North

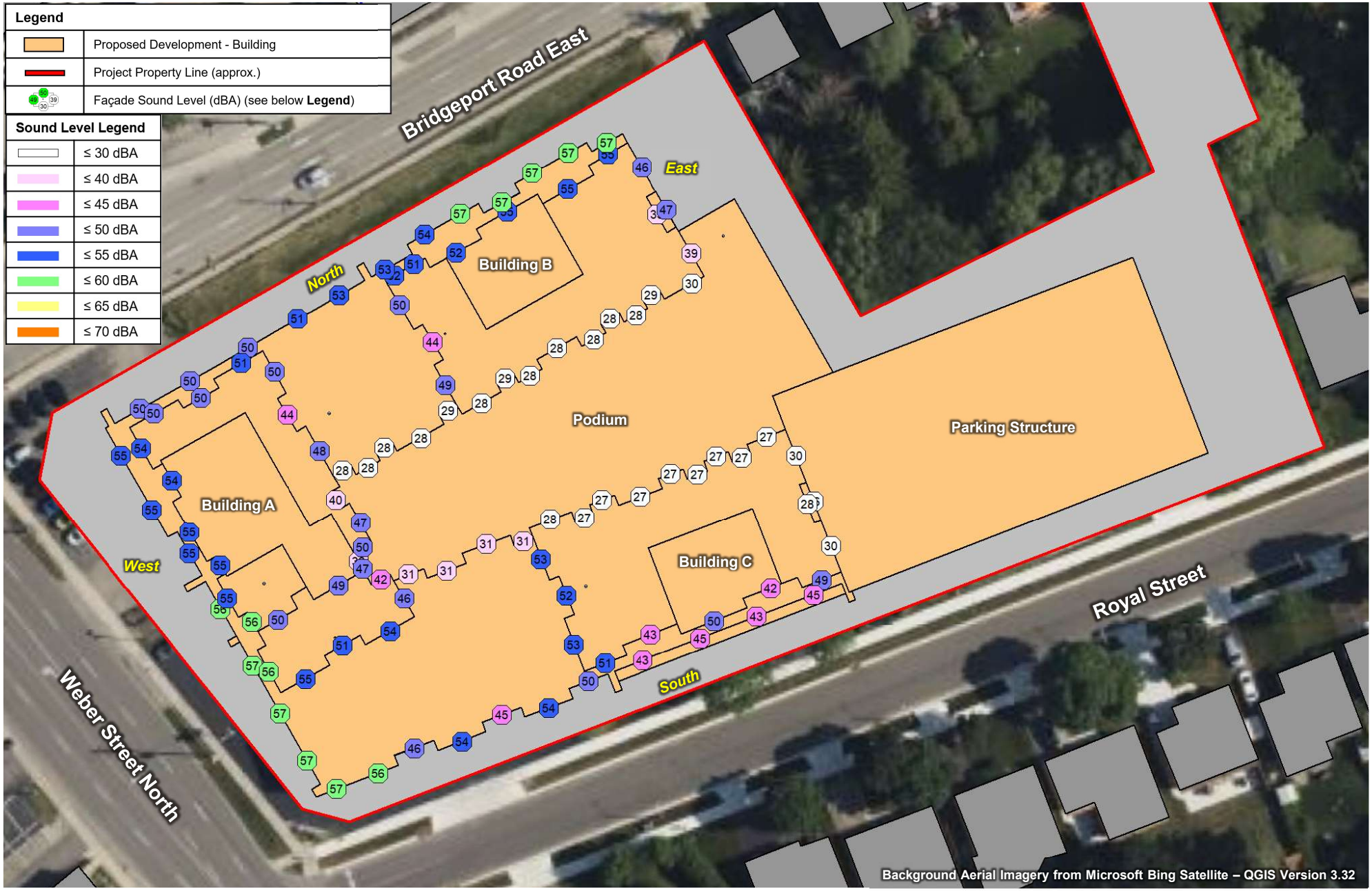
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Date: Jan. 5, 2024 Rev 1.0

Project No. 241.V30409.00002

Figure No. **5**

SLR



115 BRIDGEPORT INC.

115 BRIDGEPORT ROAD EAST, WATERLOO

PREDICTED FAÇADE SOUND LEVELS – STATIONARY SOURCES – DAYTIME

True North

Scale: 1:750

METRES

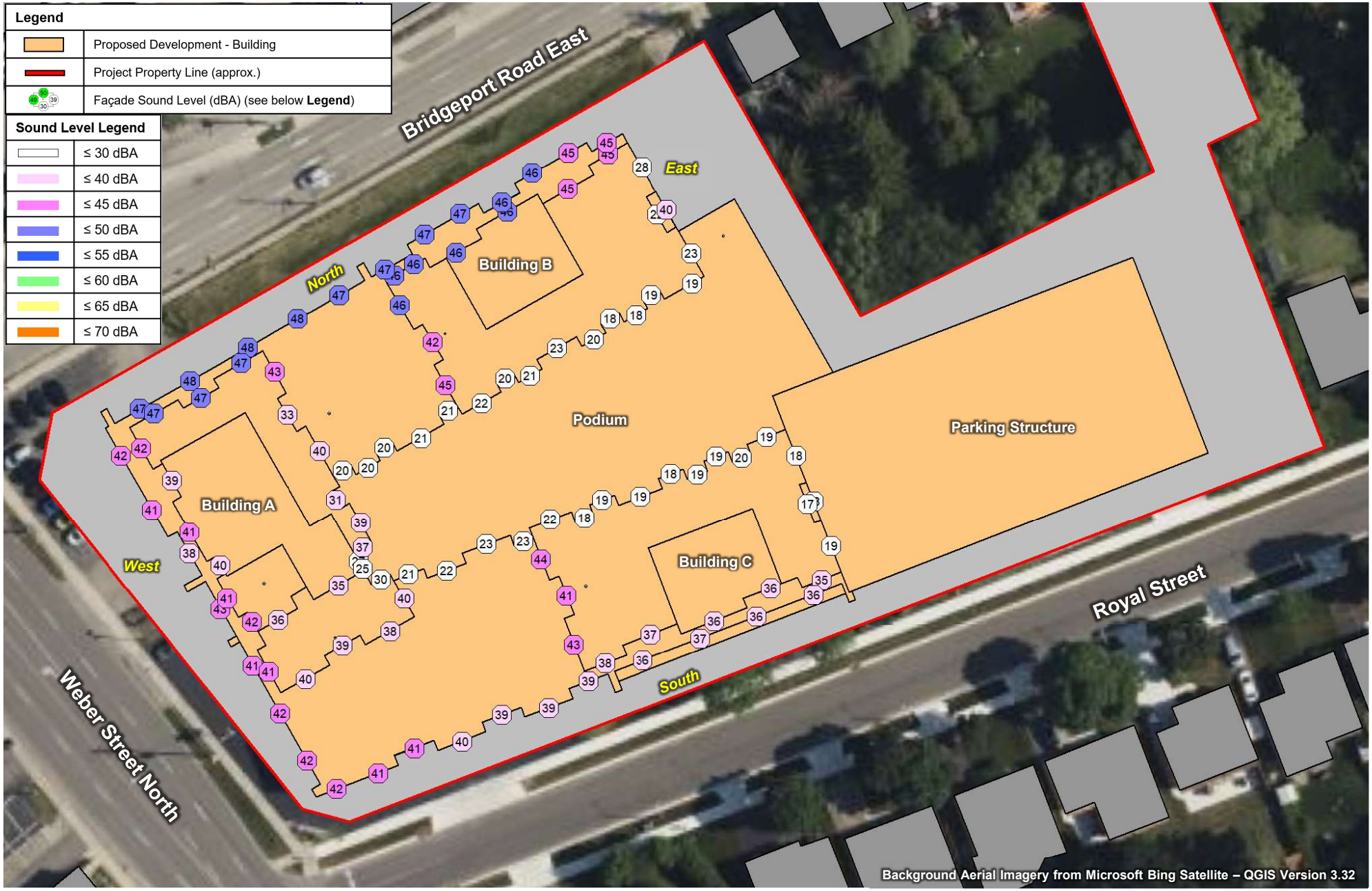
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Rev 1.0

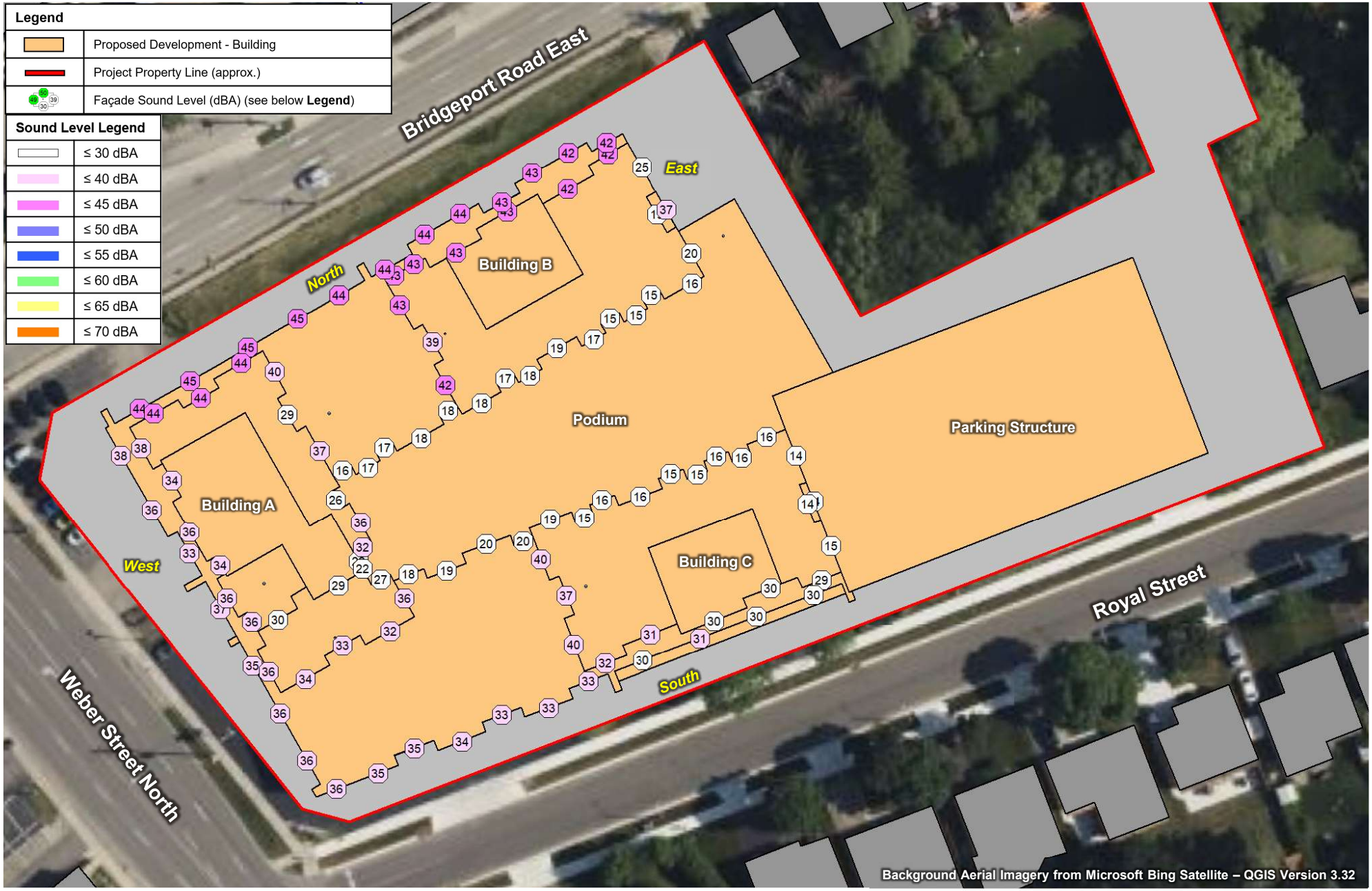
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Project No. 241.V30409.00002

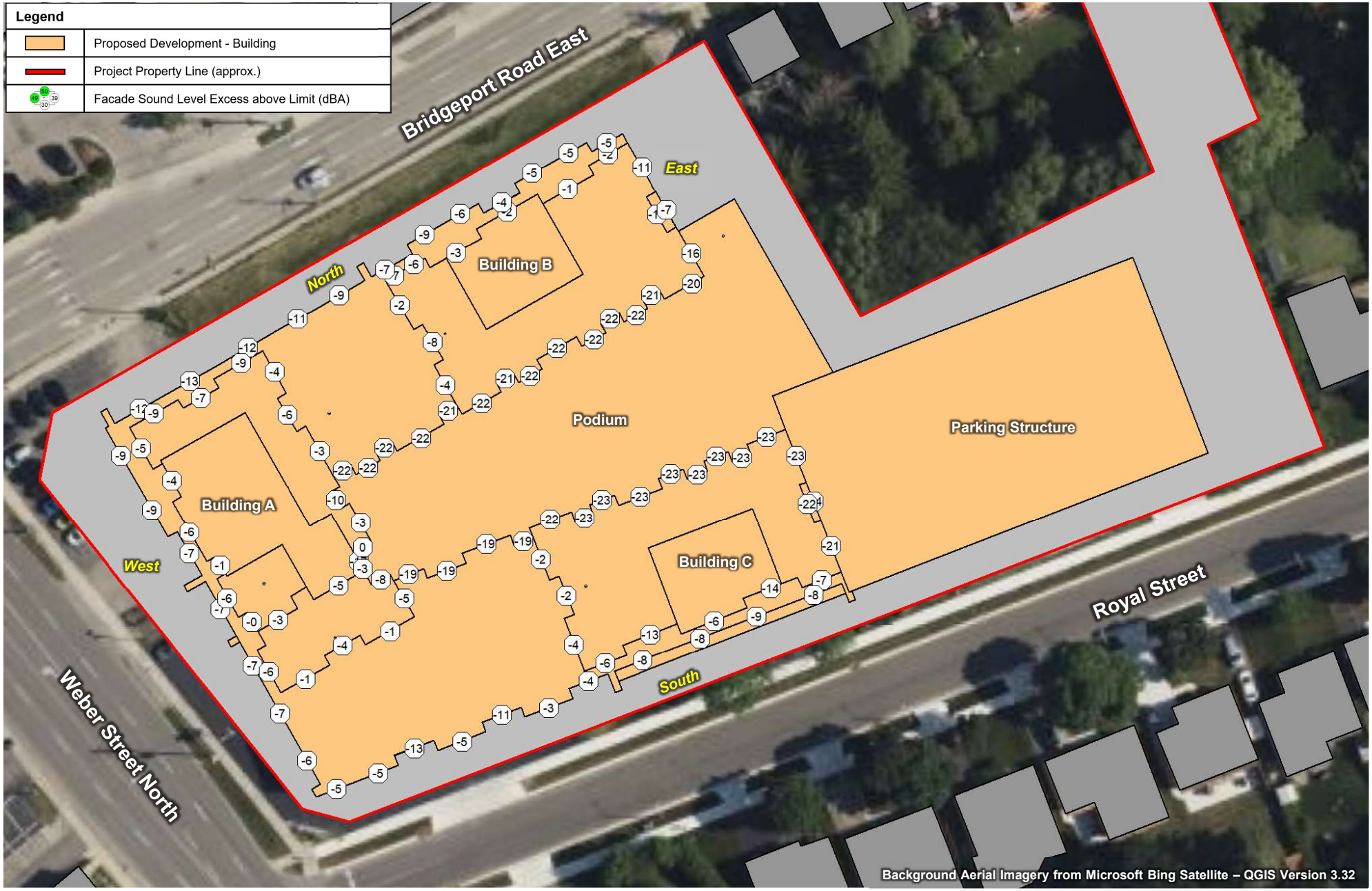
SLR



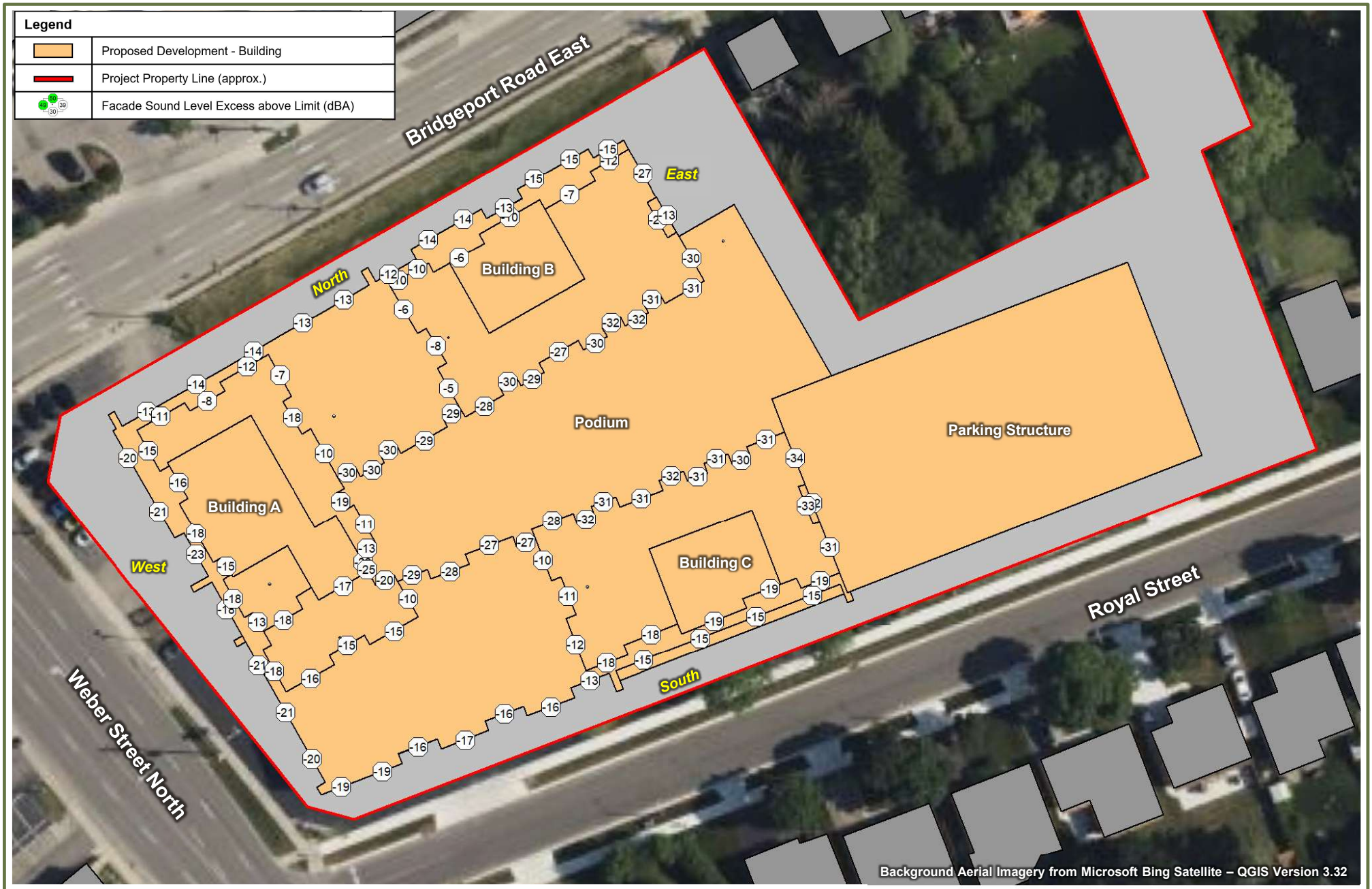
115 BRIDGEPORT INC.	True North	Scale: 1:750	METRES	SLR
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **7**	
PREDICTED FAÇADE SOUND LEVELS – STATIONARY SOURCES – EVENING		Project No. 241.V30409.00002		



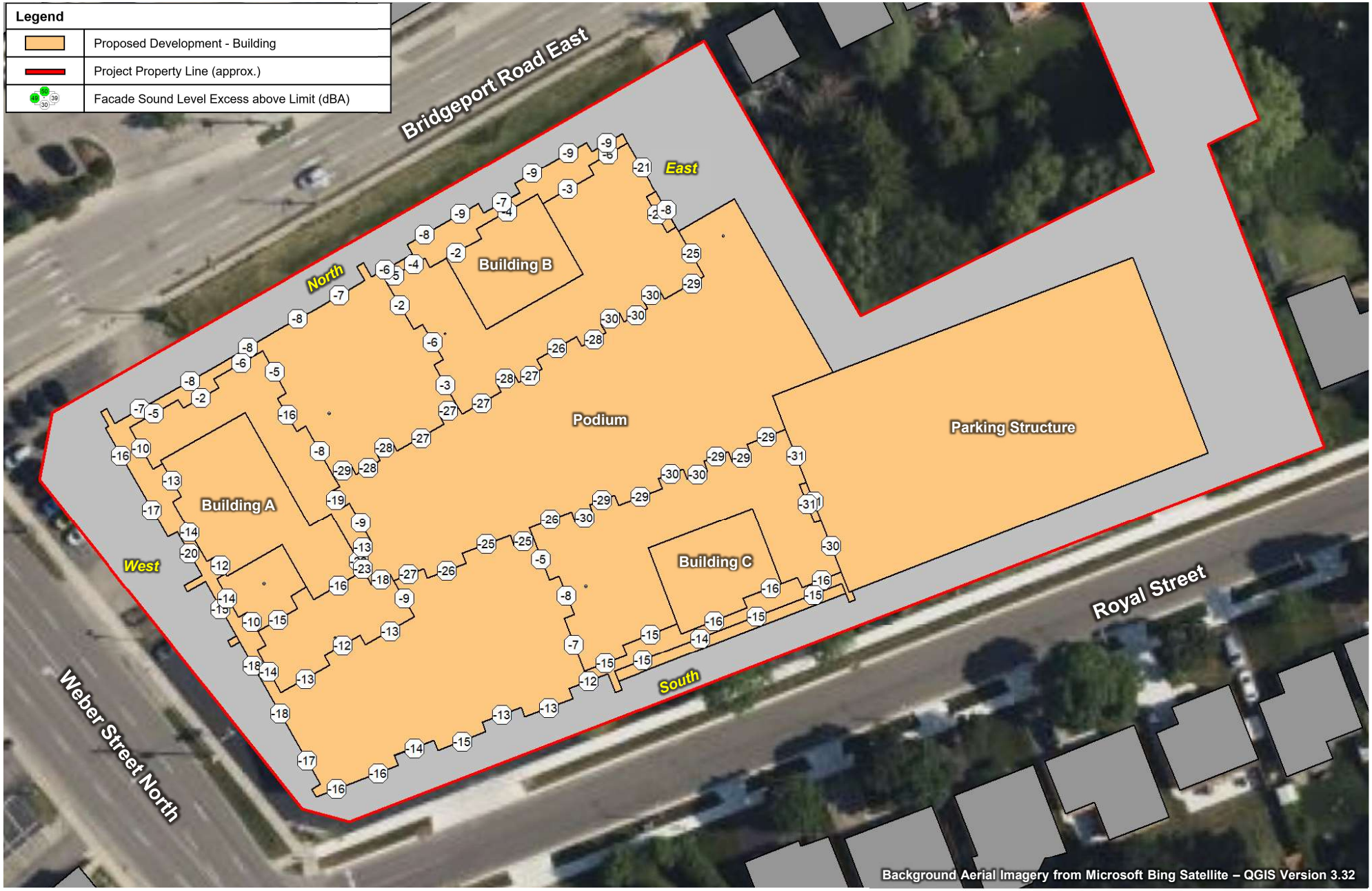
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115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **8**	
PREDICTED FAÇADE SOUND LEVELS – STATIONARY SOURCES – NIGHT-TIME		Project No. 241.V30409.00002		



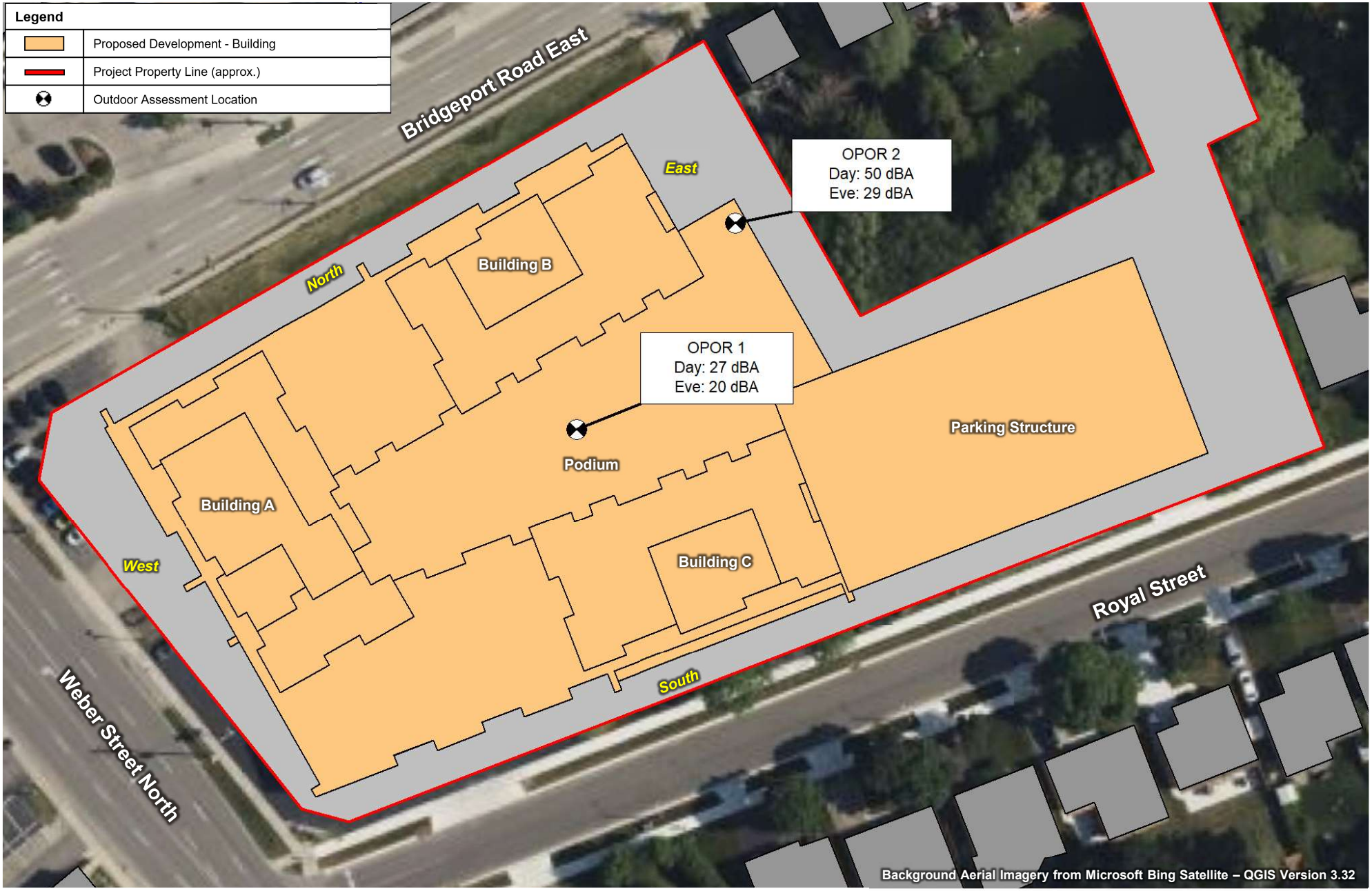
115 BRIDGEPORT INC.	True North	Scale: 1:500	METRES	SLR
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **9**	
PREDICTED FAÇADE SOUND LEVELS EXCESSES – STATIONARY SOURCES – DAYTIME		Project No. 241.V30409.00002		



115 BRIDGEPORT INC.	True North	Scale: 1:500	METRES	SLR
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **10**	
PREDICTED FAÇADE SOUND LEVELS EXCESSES – STATIONARY SOURCES – EVENING		Project No. 241.V30409.00002		



115 BRIDGEPORT INC.	True North	Scale: 1:500	METRES	SLR
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **11**	
PREDICTED FAÇADE SOUND LEVELS EXCESSES – STATIONARY SOURCES – NIGHT-TIME		Project No. 241.V30409.00002		



115 BRIDGEPORT INC.	True North	Scale: 1:500	METRES	SLR
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **12**	
PREDICTED OUTDOOR SOUND LEVELS – STATIONARY SOURCES – DAYTIME/EVENING		Project No. 241.V30409.00002		

Appendix A Declaration Statements

Environmental Noise Assessment

115 Bridgeport Road East, Waterloo

115 Bridgeport Inc.

SLR Project No.: 241.V30409.00002

January 5, 2024

CANADA	)	In the Matter of the
	)	Environmental Protection
PROVINCE OF ONTARIO	)	Act and the Planning Act
	)	
	)	And in the Matter of 115 Bridgeport
	)	Road East in the City of Waterloo
	)	in the Regional Municipality
	)	of Waterloo

I, R. L. Scott Penton, P.Eng., of the City of St. John's, in the Region of Avalon, in the Province of Newfoundland and Labrador, SOLEMNLY DECLARE THAT:

1. I am a Professional Engineer employed by SLR Consulting (Canada) Ltd., which holds a Certificate of Authorization from the Association of Professional Engineers of Ontario and have personal knowledge of the matters set out below.
2. I was retained or employed as the principal consultant to undertake the assessment of noise impacts and recommendation of noise mitigation measures for the property described as 115 Bridgeport Road East in Waterloo, Ontario.
3. I have the expertise required to perform these services. Any assessment activities or recommendations requiring the application of engineering principles have been undertaken or supervised by an engineer qualified to perform such services.
4. The information used in the study entitled:

   "Environmental Noise Assessment, 115 Bridgeport Road East, Waterloo", SLR Project No: 241.V30409.00002"

   and dated January 5, 2024 is based on the best information available as of the date of the study.
5. The noise level calculations, the interpretation of noise attenuation requirements, and the recommended measures are in accordance with Ministry of Environment guidelines, Region Municipality of Waterloo policies, and any applicable policy or guidelines of the Area Municipality, and any other applicable policy or guideline.
6. The physical noise attenuation measures proposed in this study are feasible to implement and will provide the level of attenuation indicated in the study.
7. I acknowledge that this study may be subject to a peer review conducted at my cost.
8. I acknowledge that public authorities and future owners, occupants and others may rely on this statement.

AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

DECLARED before me at the City of Guelph, in the County of Wellington, this 5th day of January, 2024.

WANDA-LEE HARRIS NOTARY PUBLIC ONTARIO

1/5/24

Wanda-Lee Harris, Notary Public, County of Wellington, limited to the attestation of instruments and the taking of affidavits, for SLR Consulting (Canada) Ltd. and Novus Environmental. Expires January 14, 2026

CANADA	)	In the Matter of the
	)	Environmental Protection
PROVINCE OF ONTARIO	)	Act and the Planning Act
	)	
	)	And in the Matter of 115 Bridgeport
	)	Road East in the City of Waterloo
	)	in the Regional Municipality
	)	of Waterloo

I, Gordon Schembri, of the City of Kitchener, in the

County of Waterloo, SOLEMNLY DECLARE THAT:

1. I am the owner of the property, or the owner's agent, and that I understand and agree with the noise attenuation measures proposed in the study:

   "Environmental Noise Assessment, 115 Bridgeport Road East, Waterloo", SLR Project No: 241.V30409.00002"

   and dated January 5, 2024

2. The application has been designed to avoid the use of berms or walls as noise attenuation features where feasible. Where berms or walls are recommended, the Noise Study provides economic, planning and engineering justification.

3. If the application is changed in a way that may affect the noise level calculations, I will have a revised noise study submitted to the Region.

AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

DECLARED before me at the City	)	
	)	
of _____, in the	)	
	)	
County of _____,	)	_____
	)	
this _____ day of _____, 20__.	)	

Appendix B Development Drawings

Environmental Noise Assessment

115 Bridgeport Road East, Waterloo

115 Bridgeport Inc.

SLR Project No.: 241.V30409.00002

January 5, 2024

BRIDGEPORT & WEBER

115 & 133 BRIDGEPORT RD. E., WATERLOO

ZBA/OPA

ISSUED ON 2023.11.27

1.01 INSPIRATION
1.02 INSPIRATION
1.03L INSPIRATION- LANDSCAPE
1.03 CONTEXT PLAN

SPA.01 SITE PLAN
SPA.05 LANDSCAPE OPEN SPACE DIAGRAM
1.5 SITE STATISTICS

2.1 FLOOR PLANS
2.2 FLOOR PLANS
2.3 FLOOR PLANS
2.4 FLOOR PLANS
2.5 FLOOR PLANS
2.6 FLOOR PLANS
2.7 FLOOR PLANS
2.8 FLOOR PLANS
2.9 FLOOR PLANS
2.10 FLOOR PLANS
2.11 FLOOR PLANS
2.12 FLOOR PLANS
2.13 FLOOR PLANS
2.14 FLOOR PLANS

3.1 ELEVATIONS
3.2 ELEVATIONS
3.3 ELEVATIONS
3.4 ELEVATIONS

5.1 PERSPECTIVE
5.2 PERSPECTIVE
5.5 RENDERED PERSPECTIVE
5.6 RENDERED PERSPECTIVE
5.7 RENDERED PERSPECTIVE

SPA 8.1 SPA SHADOW ANALYSIS

aba
architects inc.

SITE PLAN LEGEND

- EXISTING HYDRO POLE
- EXISTING HYDRO POLE
- EXISTING SIGN
- EXISTING BELL BOX
- CATCHBASIN
- MANHOLE
- EXISTING STANDARD IRON BAR
- ENTRANCE ARROW
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- BARRIER FREE PARKING SPACE
- FLUSH CURBING (FC)
- CONCRETE CURB
- PROPERTY LINE
- PROPOSED FENCE
- LANDSCAPED AREA
- CONCRETE AREA

- STOP SIGN
  R-A-1 (60x60) cm
  SUPPORT: STEEL
- ACCESSIBLE PARKING SIGN
  RB-93 (30x45) cm
  SUPPORT: STEEL
- FIRE ROUTE SIGN
  S-E (30x45) cm
  SUPPORT: STEEL
- VISITOR PARKING SIGN
  (30x45) cm
  SUPPORT: STEEL
- DO NOT ENTER SIGN
  RD-19 (60x60) cm
  SUPPORT: STEEL

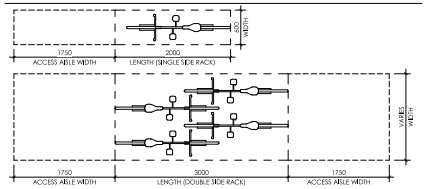
- NO LEFT TURN SYMBOL
  RE-12 (60x60) cm
  SUPPORT: STEEL
- NO PARKING SIGN
  RE-51 (30x30) cm
  SUPPORT: STEEL OR WALL
- PEDISTAL BIKE RING (##)
- BIKE RING (##)
- VERTICAL BIKE RACK (##)

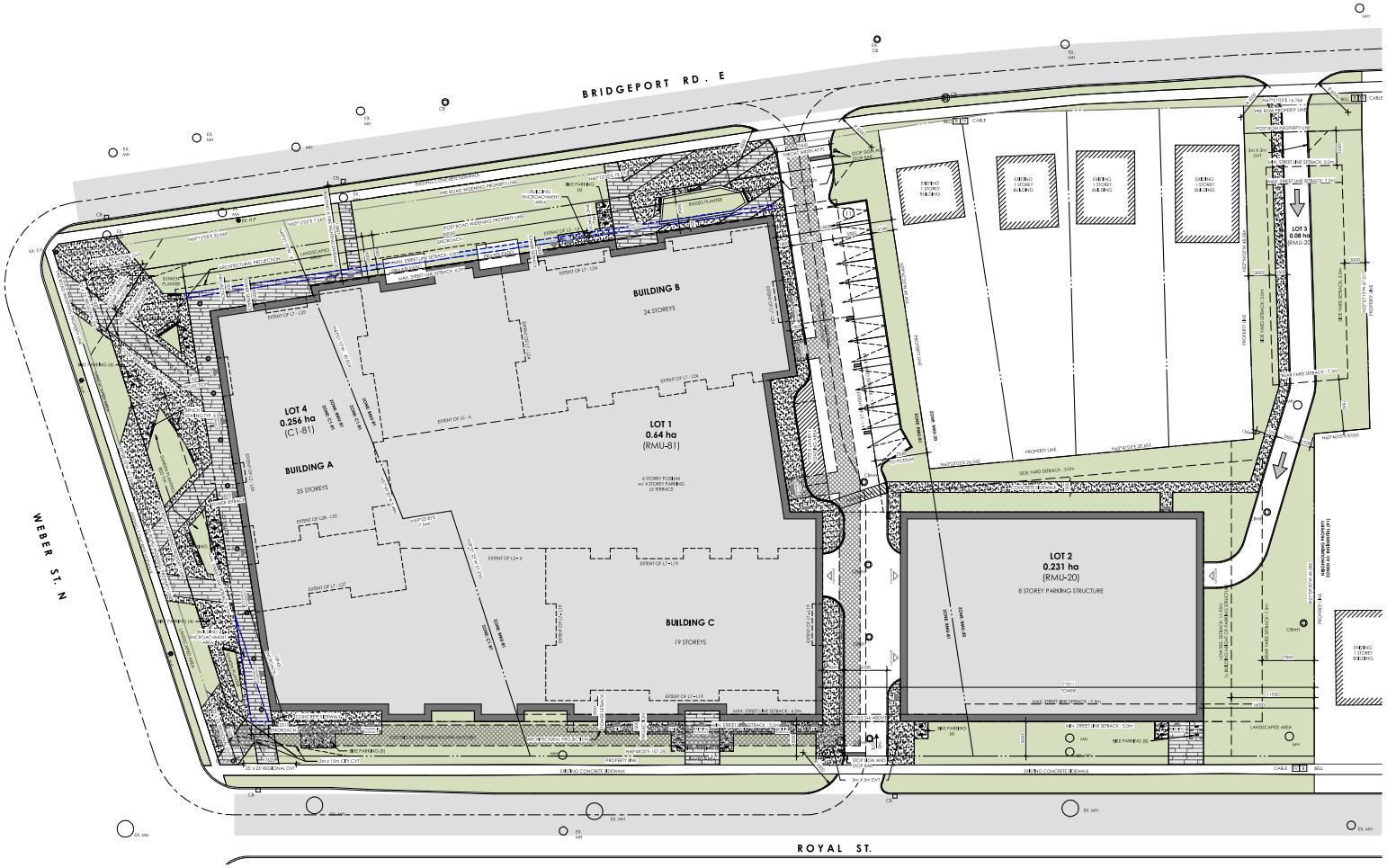
- TRANSFORMER c/w CONCRETE PAD AND GROUNDING RODS
- PARKING COUNT BUBBLE
- PROPOSED LIGHT FIXTURES (REFER TO SITE ELECTRICAL PLAN)
- PROPOSED CURB RAMP c/w TACTILE WARNING STRIP (TWSI)
- TACTILE WARNING STRIP (TWSI)

SITE PLAN NOTES

1. LEGAL DESCRIPTION:
2. SITE INFORMATION TAKEN FROM ACI SURVEY
3. FOR SITE GRADING, SERVICES & STORM WATER MANAGEMENT REFER TO DRAWINGS PREPARED BY CROZIER CONSULTING ENGINEERS
4. FOR LANDSCAPE WORK REFER TO DRAWINGS PREPARED BY MHBC CONSULTANTS
5. FOR SITE LIGHTING REFER TO DRAWINGS PREPARED BY MIGHTON ENGINEERING
6. ALL ROADS & ISLANDS SHALL HAVE 150mm CURBS UNLESS NOTED OTHERWISE.
7. CURB RADIUS = 1.20m UNLESS OTHERWISE DIMENSIONED.
8. STANDARD PARKING STALLS TO BE 2.8m x 5.5m, BARRIER FREE PARKING STALLS TO MEET CITY OF WATERLOO REQUIREMENTS FOR TYPE 'A' (3.4m x 5.5m) AND TYPE 'B', (2.4m x 5.5m) INCLUDING ALL APPLICABLE ACCESS AISLES (1.5m WIDE).
9. ALL OUTDOOR LIGHTING MUST BE FULL CUT-OFF AND HAVE NO GLARE.
10. TREE PROTECTION FENCING SHOULD BE ERECTED AROUND ALL EXISTING LANDSCAPED AREAS AND SHOULD REMAIN ON SITE FOR THE DURATION OF THE CONSTRUCTION.
11. ALL ROOFTOP EQUIPMENT TO BE SCREENED AND/OR LOCATED SO THAT IT CANNOT BE VIEWED FROM THE STREET.
12. SIGNAGE (BUILDING, PYLON & OTHERWISE) NOT APPROVED VIA THE SITE PLAN APPROVAL PROCESS.
13. THERE WILL BE NO OUTDOOR STORAGE OF ANY ITEMS ON SITE.
14. ALL GARBAGE TO BE STORED INTERNALLY AND ROLLED OUT FOR PICKUP.
15. LIGHT FIXTURES & BOLLARDS ARE NOT TO OBSTRUCT PEDESTRIAN MOVEMENT.
16. ALL SNOW TO BE REMOVED FROM SITE.
17. LIGHTING IN PARKING GARAGE TO BE RECESSED AND MUST NOT SPILL OUT, SHOULD NOT "GLARE" OVER TO STREET OR PROPERTIES NOR SHOULD THE LIGHTING BE VISIBLE FROM THE STREET.

BICYCLE PARKING REQUIREMENTS





THIS DRAWING IS AN INSTRUMENT OF SERVICE & IS THE PROPERTY OF ABA ARCHITECTS INC. & CANNOT BE MODIFIED AND/OR REPRODUCED WITHOUT THE PERMISSION OF ABA ARCHITECTS INC.

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT, BEFORE PROCEEDING WITH THE WORK.

DRAWINGS ARE NOT TO BE SCALED.

No.	REVISIONS	DATE

CHRONOLOGY	DATE
ISSUED FOR SITE PLAN APPLICATION	2023.03.08

aba architects inc.

CLIENT
115 BRIDGEPORT INC.

PROJECT NAME
BRIDGEPORT & WEBER
115 & 133 BRIDGEPORT RD. E., WATERLOO

DRAWING TITLE
SITE PLAN

SCALE	DRAWING NUMBER
1:300	SPA.01
SHEET SIZE: 24X36	
PROJECT NUMBER: 2019-104	

2023-03-27 9:18:31 AM C:\Users\Nicholas\Documents\2023.09.14.2019-104 Bridgeport and Weber_Architect_Drawing_nicholas.g_nwithersbaba@architect.ca.rvt

SITE PLAN LEGEND

- EXISTING HYDRO POLE
- EXISTING HYDRO POLE
- EXISTING SIGN
- EXISTING BELL BOX
- CATCHBASIN
- MANHOLE
- EXISTING STANDARD IRON BAR
- ENTRANCE ARROW
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- BARRIER FREE PARKING SPACE
- FLUSH CURBING (FC)
- CONCRETE CURB
- PROPERTY LINE
- PROPOSED FENCE
- LANDSCAPED AREA
- CONCRETE AREA

STOP SIGN
RA-1 (60x60) cm
SUPPORT: STEEL

ACCESSIBLE PARKING SIGN
RB-93 (30x45) cm
SUPPORT: STEEL

FIRE ROUTE SIGN
SA (30x45) cm
SUPPORT: STEEL

VISITOR PARKING SIGN
(30x45) cm
SUPPORT: STEEL

DO NOT ENTER SIGN
RI-19 (60x60) cm
SUPPORT: STEEL

NO LEFT TURN SYMBOL
RE-12 (60x60) cm
SUPPORT: STEEL

NO PARKING SIGN
RE-51 (30x30) cm
SUPPORT: STEEL OR WALL

PEDISTAL BIKE RING (##)

BIKE RING (##)

VERTICAL BIKE RACK (##)

TRANSFORMER c/w CONCRETE PAD AND GROUNDING RODS

PARKING COUNT BUBBLE

PROPOSED LIGHT FIXTURES (REFER TO SITE ELECTRICAL PLAN)

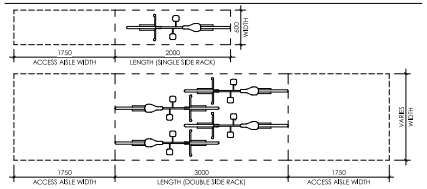
PROPOSED CURB RAMP c/w TACTILE WARNING STRIP (TWSI)

TACTILE WARNING STRIP (TWSI)

SITE PLAN NOTES

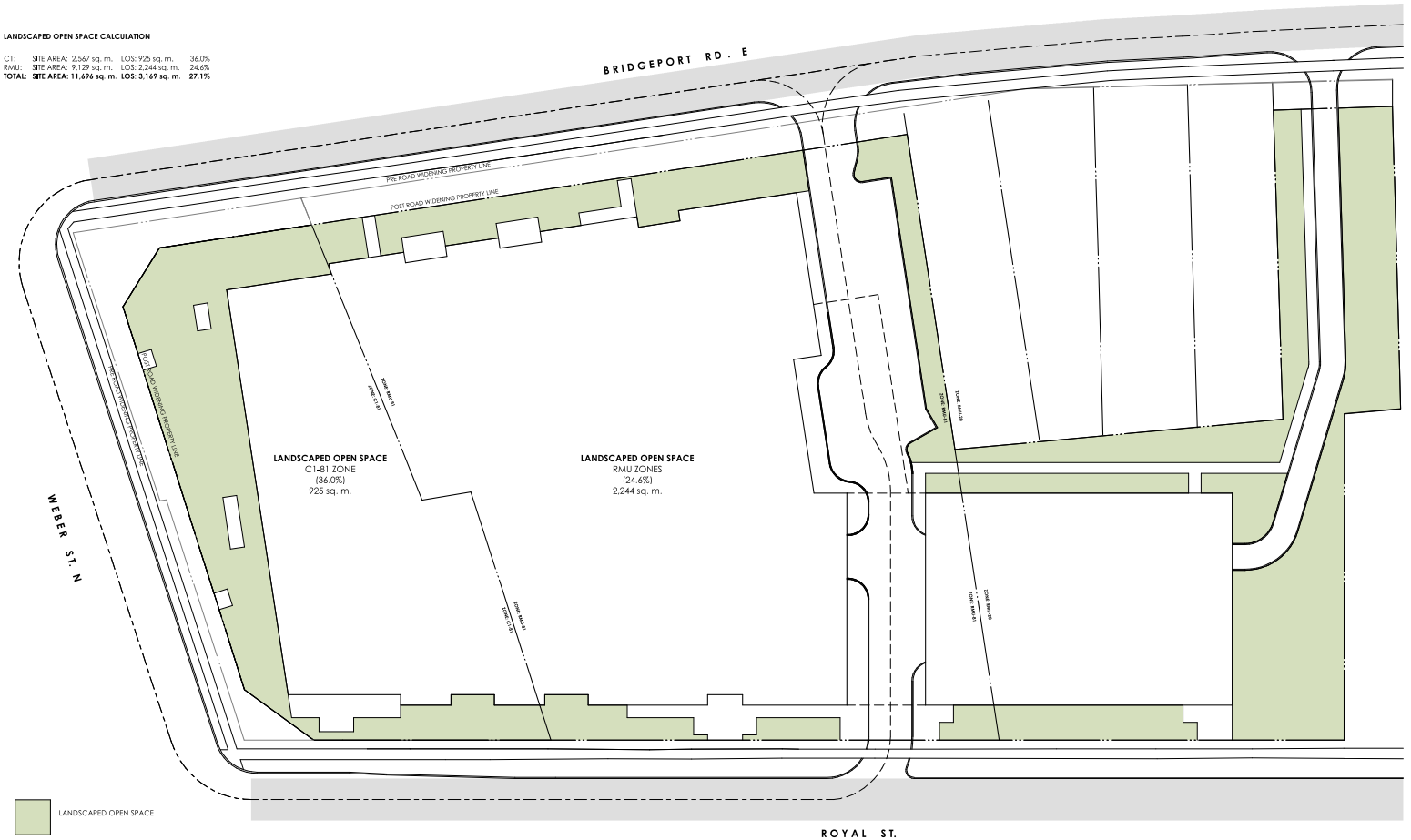
1. LEGAL DESCRIPTION:
2. SITE INFORMATION TAKEN FROM ACI SURVEY
3. FOR SITE GRADING, SERVICES & STORM WATER MANAGEMENT REFER TO DRAWINGS PREPARED BY CROZIER CONSULTING ENGINEERS
4. FOR LANDSCAPE WORK REFER TO DRAWINGS PREPARED BY MHBC CONSULTANTS
5. FOR SITE LIGHTING REFER TO DRAWINGS PREPARED BY MEIGHTON ENGINEERING
6. ALL ROADS & ISLANDS SHALL HAVE 150mm CURBS UNLESS NOTED OTHERWISE.
7. CURB RADIUS = 1.20m UNLESS OTHERWISE DIMENSIONED.
8. STANDARD PARKING STALLS TO BE 2.8m x 5.5m, BARRIER FREE PARKING STALLS TO MEET CITY OF WATERLOO REQUIREMENTS FOR TYPE 'A' (3.4m x 5.5m) AND TYPE 'B', (2.4m x 5.5m) INCLUDING ALL APPLICABLE ACCESS AISLES (1.5m WIDE).
9. ALL OUTDOOR LIGHTING MUST BE FULL CUT-OFF AND HAVE NO GLARE.
10. TREE PROTECTION FENCING SHOULD BE ERECTED AROUND ALL EXISTING LANDSCAPED AREAS AND SHOULD REMAIN ON SITE FOR THE DURATION OF THE CONSTRUCTION.
11. ALL ROOFTOP EQUIPMENT TO BE SCREENED AND/OR LOCATED SO THAT IT CANNOT BE VIEWED FROM THE STREET.
12. SIGNAGE (BUILDING, PYLON & OTHERWISE) NOT APPROVED VIA THE SITE PLAN APPROVAL PROCESS.
13. THERE WILL BE NO OUTDOOR STORAGE OF ANY ITEMS ON SITE.
14. ALL GARBAGE TO BE STORED INTERNALLY AND ROLLED OUT FOR PICKUP.
15. LIGHT FIXTURES & BOLLARDS ARE NOT TO OBSTRUCT PEDESTRIAN MOVEMENT.
16. ALL SNOW TO BE REMOVED FROM SITE.
17. LIGHTING IN PARKING GARAGE TO BE RECESSED AND MUST NOT SPILL OUT, SHOULD NOT "GLARE" OVER TO STREET OR PROPERTIES NOR SHOULD THE LIGHTING BE VISIBLE FROM THE STREET.

BICYCLE PARKING REQUIREMENTS



LANDSCAPED OPEN SPACE CALCULATION

C1: SITE AREA: 2,567 sq. m. LOS: 925 sq. m. 36.0%
RMU: SITE AREA: 9,129 sq. m. LOS: 2,244 sq. m. 24.6%
TOTAL: SITE AREA: 11,696 sq. m. LOS: 3,169 sq. m. 27.1%



NORTH PROJECT

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DRAWINGS ARE NOT TO BE SCALED.

ONTARIO ASSOCIATION OF ARCHITECTS
ANDREW BOWMAN ABA
LICENCE 4371

No.	REVISIONS	DATE

CHRONOLOGY	DATE
ISSUED FOR SITE PLAN APPLICATION	2023.03.08

aba architects inc.

CLIENT
115 BRIDGEPORT INC.

PROJECT NAME
BRIDGEPORT & WEBER
115 & 133 BRIDGEPORT RD. E., WATERLOO

DRAWING TITLE
LANDSCAPED OPEN SPACE DIAGRAM

SCALE 1:300
SHEET SIZE 24X36
PROJECT NUMBER 2019-104
DRAWING NUMBER SPA.05

2023-11-27 9:19:06 AM C:\Users\Nicholas\Documents\2023.09.14 2019-104 Bridgeport and Weber_Zoning_nicholas.g_nwithers@abaarchitect.co.rvt

SITE DATA - 115 & 133 Bridgeport Rd. E			Zone: (2018-050): Residential Mixed-Use (RMU-20 & 81); Mixed Use Community Commercial (C1-81)					
DENSITY (POST-ROAD WIDENINGS)			**Minimum bph**		**Maximum bph**	*Max Beds*		**Provided bph**
Beds / hectare (Lot 1: RMU-81)			150		750	*455*		
Beds / hectare (Lot 2: RMU-20)			-		450	*104*		
Beds / hectare (Lot 3: RMU-20)			-		450	*33*		
Beds / hectare (Lot 4: C1-81)			150		750	*192*		
Total Beds / hectare (Lot 1 - 4)					**671**	*784*		**867**
Total Beds (Lot 1 - 4)								**1,014**
BUILDING AREAS								
Above Grade	*Areas (sq.m)*	*# of Floors*	**Metric**			**Imperial**		
Podium (Lot 1+2)								
Ground Floor	6788.5	1	6,788.5	sq m		73,073.2	sq ft	
Podium Level 2-4	7227.6	3	21,682.8	sq m		233,399.4	sq ft	
Podium Level 5	5725.0	1	5,725.0	sq m		61,625.4	sq ft	
Podium Level 6	5720.0	1	5,720.0	sq m		61,571.6	sq ft	
Total Gross Floor Area	25461.1	6	**39,916.3**	**sq m**		**429,669.5**	**sq ft**	
Building A Tower								
Podium Levels 1-6		*6*						
Tower Level 7-32	908.2	26	23,613.2	sq m		254,178.7	sq ft	
Total Gross Floor Area		32	**23,613.2**	**sq m**		**254,178.7**	**sq ft**	
Building B Tower								
Podium Levels 1-6		*6*						
Tower Level 7-20	813.0	14	11,382.0	sq m		122,518.8	sq ft	
Total Gross Floor Area		20	**11,382.0**	**sq m**		**122,518.8**	**sq ft**	
Building C Tower								
Podium Levels 1-6		*6*						
Tower Level 7 -16	813.0	10	8,130.0	sq m		87,513.5	sq ft	
Total Gross Floor Area		16	**8,130.0**	**sq m**		**87,513.5**	**sq ft**	
Total Gross Floor Area			**83,041.5**	**sq m**		**893,880.5**	**sq ft**	
COMMERCIAL								
Gross Floor Areas			**Metric**			**Imperial**		
Ground Floor Commercial (Lot 4)			643.5	sq m		6,926.8	sq ft	
Total Commercial Gross Floor Area			**643.5**	**sq m**		**6,926.8**	**sq ft**	
RESIDENTIAL								
TOWER REQUIREMENTS						**Provided**		
Horizontal Tower Dimension (Max. 40.0m)						40.0	m	
Tower Footprint (max. 1,000 sq.m)						908.2	sq.m, Tower A	
UNITS								
Podium	*# of Floors*	1 Bed	2 Bed	3 Bed		**Units/Flr**		*Beds/Flr*
Podium Level 1	1	2	1	0		3		4
Podium Level 2	1	12	6	0		18		24
Podium Level 3-4	2	17	7	1		25		34
Podium Level 5	1	27	12	2		41		57
Podium Level 6	1	27	12	2		41		57
Total	6	**102**	**45**	**6**		**153**		210
Unit Mix		*67%*	*29%*	*3%*		*96%*		
Building A Tower *(Fronting Weber St. N)*	*# of Floors*	1 Bed	2 Bed	3 Bed		**Units/Flr**		*Beds/Flr*
Podium Level 1-6	*6*	-	-			-		-
Tower Level 7-27	21	5	5	0		10		15
Tower Level 28-35	8	5	3	0		8		11
Total	35	**145**	**129**	**0**		**274**		403
Unit Mix		*53%*	*47%*	*0%*		*100%*		
Building B Tower *(Fronting Bridgeport Rd. E)*	*# of Floors*	1 Bed	2 Bed	3 Bed		**Units/Flr**		*Beds/Flr*
Podium Level 1-6	*6*	-	-			-		-
Tower Level 7 -24	18	5	4	0		9		13
Total	24	**90**	**72**	**0**		**162**		234
Unit Mix		*56%*	*44%*	*0%*		*100%*		
Building C Tower *(Fronting Royal St.)*	*# of Floors*	1 Bed	2 Bed	3 Bed		**Units/Flr**		*Beds/Flr*
Podium Level 1-6	*6*	-	-			-		-
Tower Level 7-8	2	6	3	0		9		12
Tower Level 9-19	11	5	4	0		9		13
Total	19	**67**	**50**	**0**		**117**		167
Unit Mix		*57%*	*43%*	*0%*		*100%*		
Total Units		**404**	**296**	**6**		**706**		**1,014**
		57%	*42%*	*1%*				*100%*
AMENITY			**Metric**			**Imperial**		
REQUIRED								
Amenity Required (3sqm / first bedroom + 2sqm / add. Bedroom in each dwelling unit)			2,734.0	sq m		29,429.5	sq ft	
Includes 30% Common Amenity Area			*820.2*	*sq m*		*8,828.8*	*sq ft*	
PROVIDED								
Indoor Ground Floor Amenity Area			435.8	sq m		4,691.4	sq ft	
Indoor Amenity Area Level 2			518.0	sq m		5,575.6	sq ft	
Indoor Amenity Area Level 5			215.9	sq m		2,324.3	sq ft	
Landscaped Rooftop amenity at Level 5			1,459.7	sq m		15,712.5	sq ft	
Indoor Amenity Area Level 6			215.9	sq m		2,324.3	sq ft	
Balcony Areas			3,896.0	sq m		41,937.7	sq ft	
Total			**6,741.4**	**sq m**		**72,565.8**	**sq ft**	

Parking Data				**Spaces**
VEHICLES				
REQUIRED				
Residential Parking Required (0.8 Space / DU)				565
Residential Visitor Parking Required (0.1 Space / DU)				71
Non-Residential Parking Required (2.4 Space / 100 sq.m)				15
Total Parking Required				**651**
Loading (as per 6.9.5.3)				*1*
Barrier Free Parking Required (applies for 601-650 spaces req'd)				*15*
Type A Required				*7*
Type B Required				*8*
PROVIDED	**Type A**	**Type B**	**Standard**	**Total:**
Surface Parking			11	11
Podium Level 1	1	1	74	76
Podium Level 2	1	1	109	111
Podium Level 3	1	3	122	126
Podium Level 4	2	3	121	126
Podium Level 5	2		42	44
Podium Level 6			44	44
Podium Level 7			44	44
Podium Level 8			37	37
Total Parking Provided	**7**	**8**	**604**	**619**
Residential 'Designed Electric Vehicle Parking Spaces' (100% of Structured Parking)				619
Non-residential Electric Vehicle Surface Parking Spaces(for 0-19 Spaces Provided)				0
Loading (as per 6.9.5.3)				1
BICYCLES				
REQUIRED (Schedule A1: Parking Area E)				
Residential Type A Bicycle Parking Required (0.3 sp. / DU)				212
Residential Type B Bicycle Parking Required (0.3 sp. / DU)				212
Non-Residential Parking Required (25% of non res. parking req'd)				4
Total Bicycle Parking Required				**428**
PROVIDED		**Type A**	**Type B**	**Total**
Surface		-	56	56
Podium Level 1		311	-	311
Podium Level 2		155	-	155
Total Bicycle Parking Provided		**466**	**56**	**522**

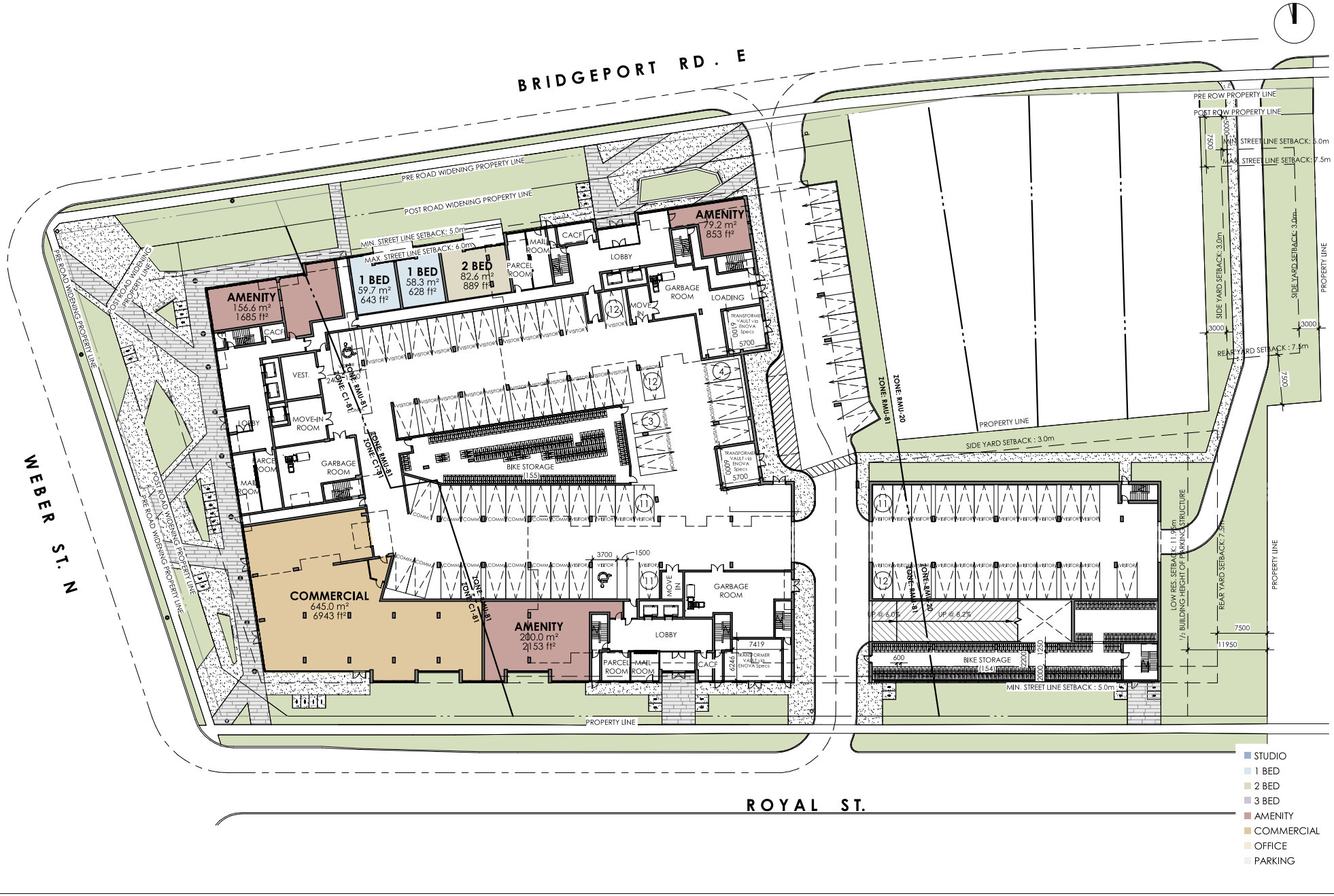
PROJECT NO. 2019-104

BRIDGEPORT & WEBER

SITE STATISTICS

N.T.S

2023.11.27



PROJECT NO. 2019-104

BRIDGEPORT & WEBER

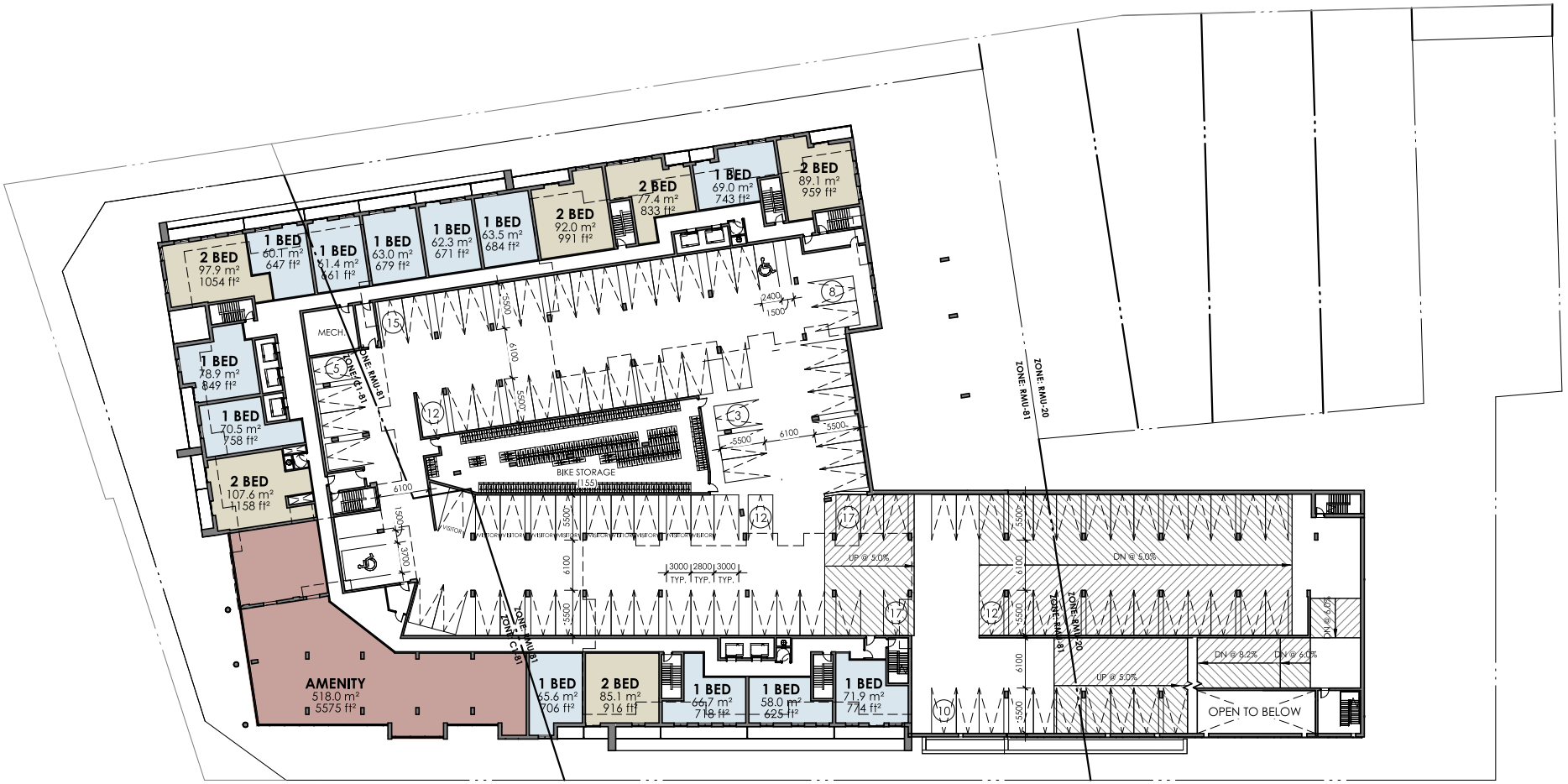
FLOOR PLAN

LEVEL 1

1:500

2023.11.27

2.1



STUDIO
1 BED
2 BED
3 BED
AMENITY
COMMERCIAL
OFFICE
PARKING

0m 5 10 25 50

PROJECT NO. 2019-104
BRIDGEPORT & WEBER

FLOOR PLANS
LEVEL 2
1:500
2023.11.27

2.2



PROJECT NO. 2019-104

BRIDGEPORT & WEBER

FLOOR PLANS

LEVEL 3

1:500

2023.11.27

0m 5 10 25 50

2.3



STUDIO
1 BED
2 BED
3 BED
AMENITY
COMMERCIAL
OFFICE
PARKING

0m 5 10 25 50

BRIDGEPORT & WEBER
PROJECT NO. 2019-104

FLOOR PLANS
LEVEL 4
1:500
2023.11.27

2.4



STUDIO
1 BED
2 BED
3 BED
AMENITY
COMMERCIAL
OFFICE
PARKING

PROJECT NO. 2019-104
BRIDGEPORT & WEBER

FLOOR PLANS
LEVEL 5
1:500
2023.11.27

0m 5 10 25 50

2.5



STUDIO
1 BED
2 BED
3 BED
AMENITY
COMMERCIAL
OFFICE
PARKING

0m 5 10 25 50

PROJECT NO. 2019-104
BRIDGEPORT & WEBER

FLOOR PLANS
LEVEL 6
1:500
2023.11.27

2.6



STUDIO
1 BED
2 BED
3 BED
AMENITY
COMMERCIAL
OFFICE
PARKING

0m 5 10 25 50

BRIDGEPORT & WEBER
PROJECT NO. 2019-104

FLOOR PLANS
LEVEL 7
1:500
2023.11.27

2.7



STUDIO
1 BED
2 BED
3 BED
AMENITY
COMMERCIAL
OFFICE
PARKING

0m 5 10 25 50

PROJECT NO. 2019-104
BRIDGEPORT & WEBER

FLOOR PLAN
LEVEL 8
1:500
2023.11.27

2.8



2.9

FLOOR PLAN
LEVELS 9-19

1:500
2023.11.27

PROJECT NO. 2019-104
BRIDGEPORT & WEBER



2.10

FLOOR PLANS

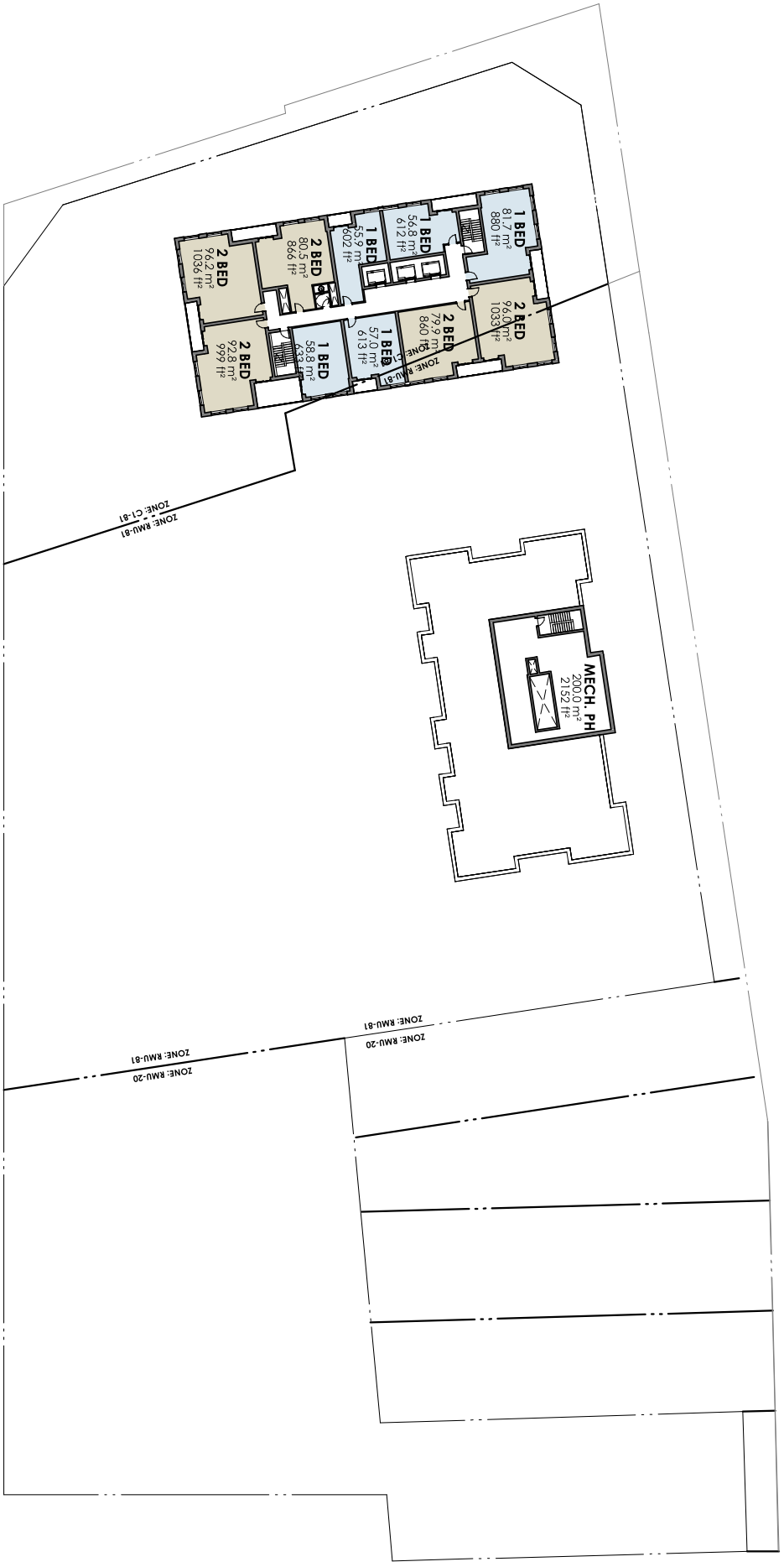
LEVELS 20-24

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PROJECT NO. 2019-104

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2.11

FLOOR PLANS

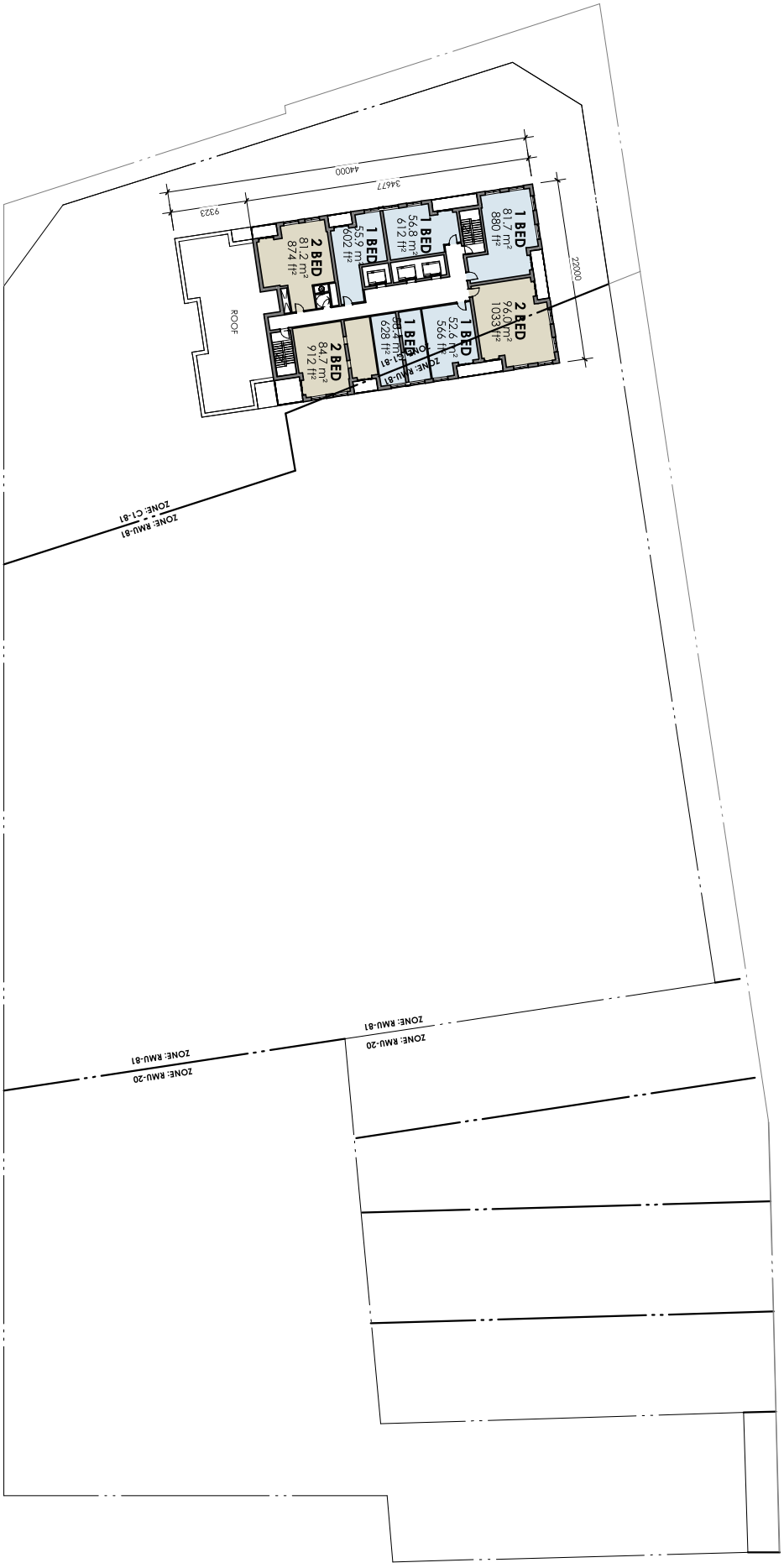
LEVELS 25-27

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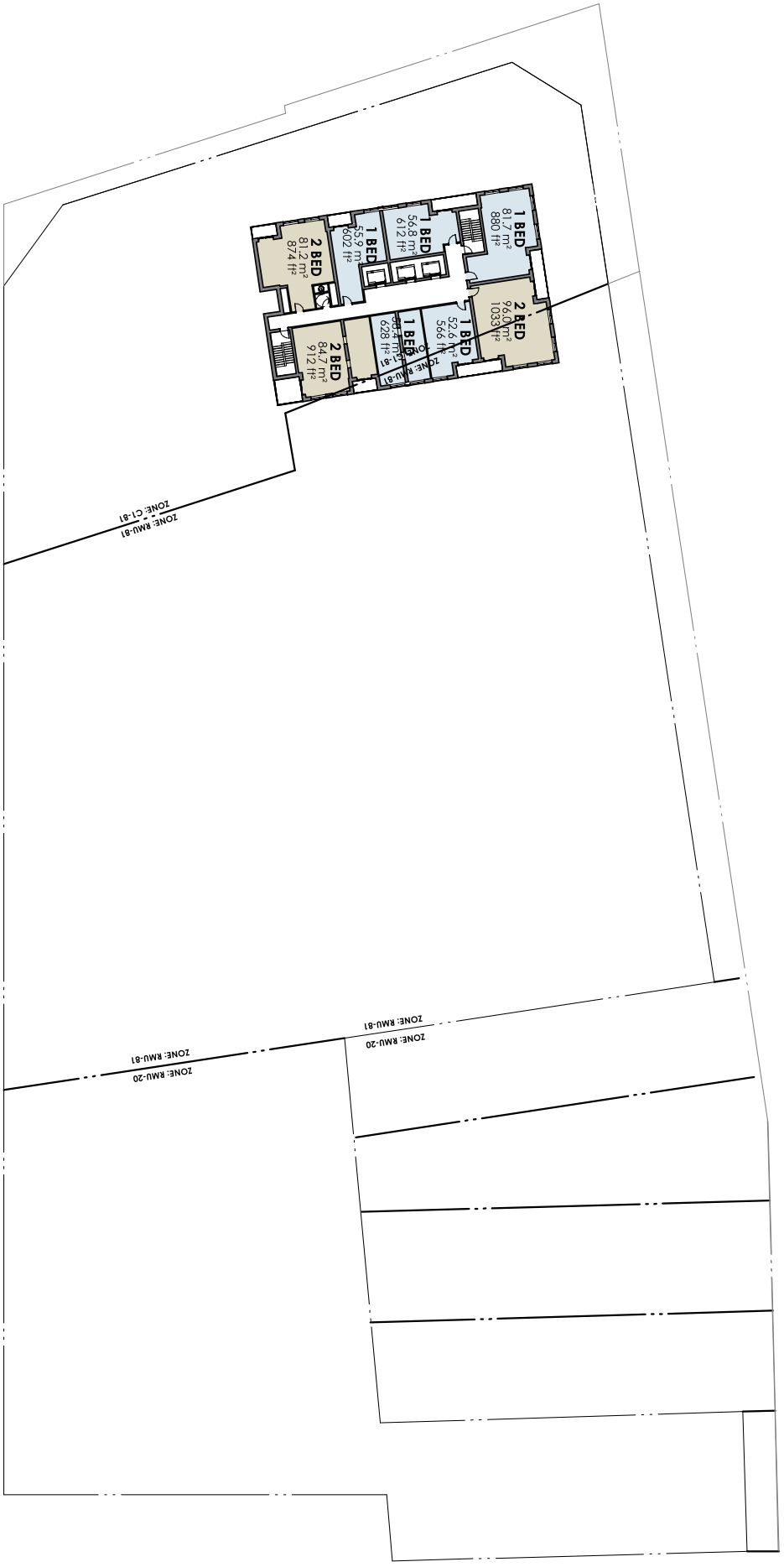


2.12

FLOOR PLANS
LEVEL 28

1:500
2023.11.27

PROJECT NO. 2019-104
BRIDGEPORT & WEBER

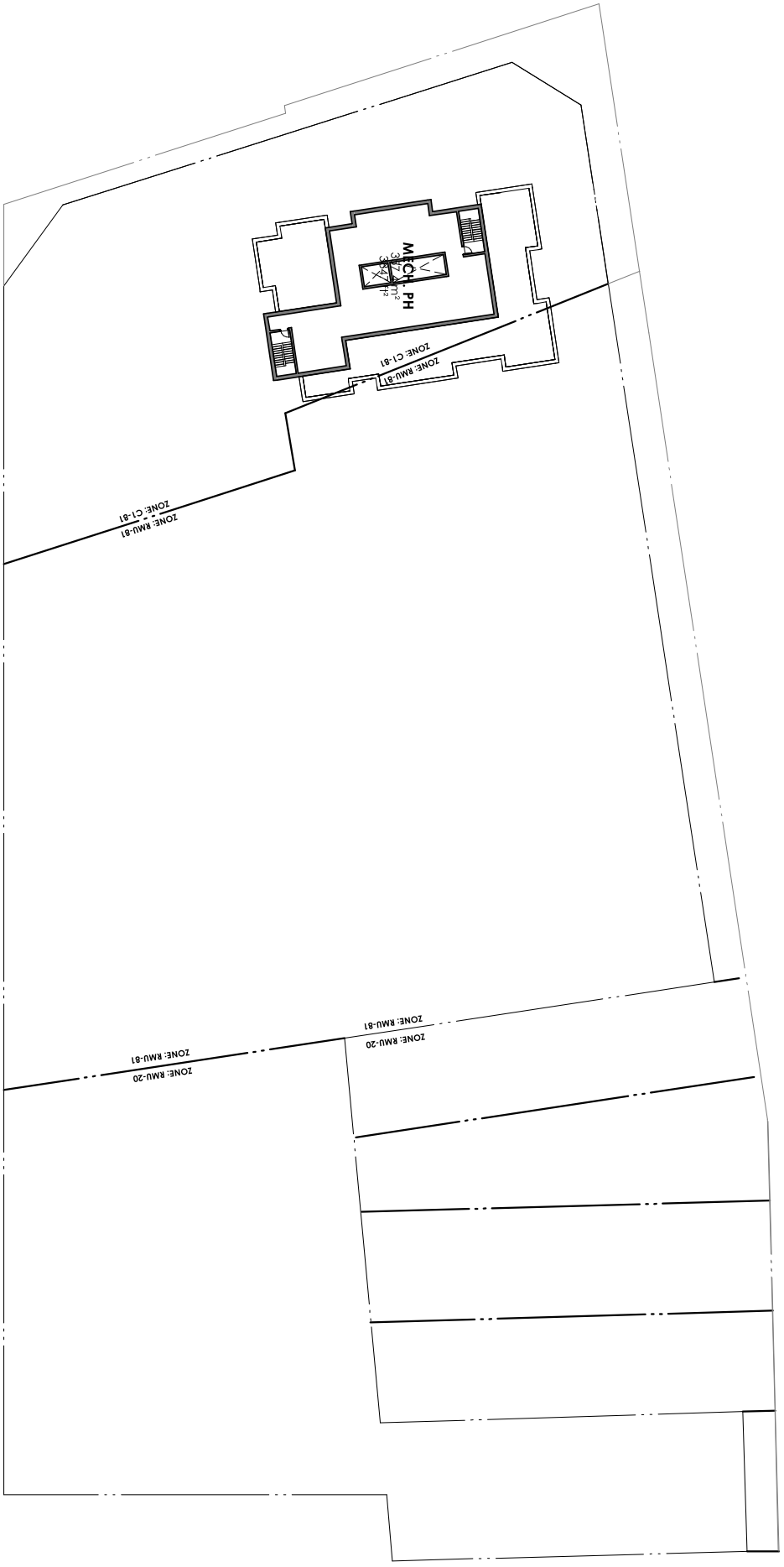


2.13

FLOOR PLANS
LEVELS 29-35

1:500
2023.11.27

PROJECT NO. 2019-104
BRIDGEPORT & WEBER



2.14

FLOOR PLANS

TOWER A MECHANICAL PENTHOUSE

1:500

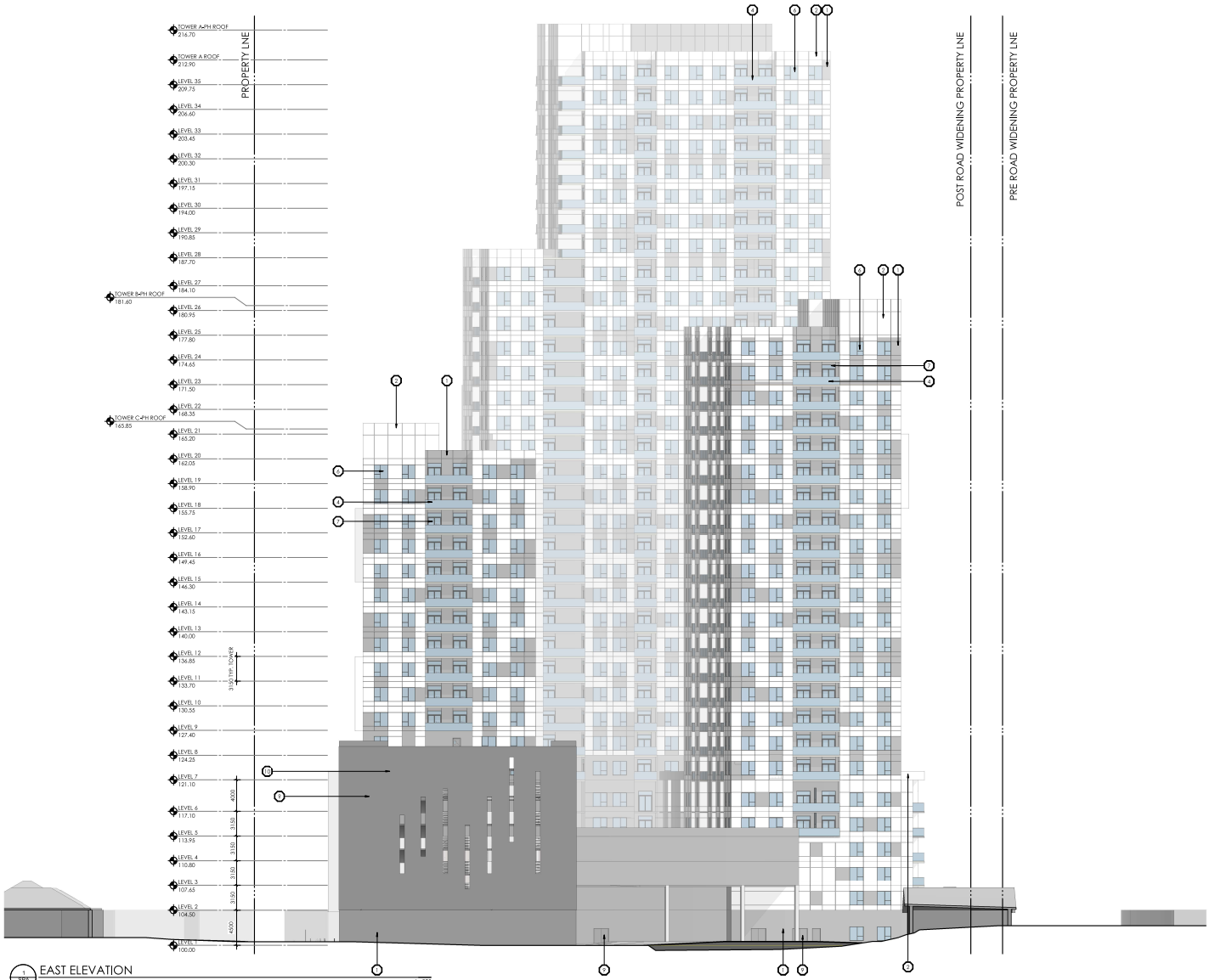
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PROJECT NO. 2019-104

BRIDGEPORT & WEBER

MATERIAL LEGEND

1. MATERIAL: PRECAST CONCRETE COLOUR: DARK GREY
2. MATERIAL: PRECAST CONCRETE COLOUR: WARM WHITE
3. THERMALLY BROKEN ALUMINUM FRAME CURTAIN WALL GLAZING FRAME: BLACK
4. GLAZED BALCONY FRAME FINISH: BLACK
5. PRIVACY SCREEN
6. THERMALLY BROKEN ALUMINUM FRAME WINDOW FRAME FINISH: BLACK
7. THERMALLY BROKEN ALUMINUM FRAME BALCONY SLIDER FRAME FINISH: BLACK
8. MATERIAL: CURTAIN WALL DOOR FRAME FINISH: BLACK
9. PAINTED INSULATED HOLLOW METAL DOOR COLOUR: BLACK
10. PERFORATED METAL PANEL COLOUR: GREY
11. PRE-FINISHED METAL OVERHEAD GARAGE DOOR COLOUR: GREY
12. THERMALLY BROKEN ALUMINUM CURTAIN WALL SPANDREL PANEL COLOUR: DARK GREY



1 / SPA 3.1 EAST ELEVATION

1 : 250

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ONTARIO ASSOCIATION OF ARCHITECTS
ANDREW MATTHEW SHELLEY
LICENCE 4371

No.	REVISIONS	DATE

CHRONOLOGY	DATE

aba architects inc.

CLIENT
115 BRIDGEPORT INC.

PROJECT NAME
BRIDGEPORT & WEBER
115 & 133 BRIDGEPORT RD. E. WATERLOO

DRAWING TITLE
SPA ELEVATION

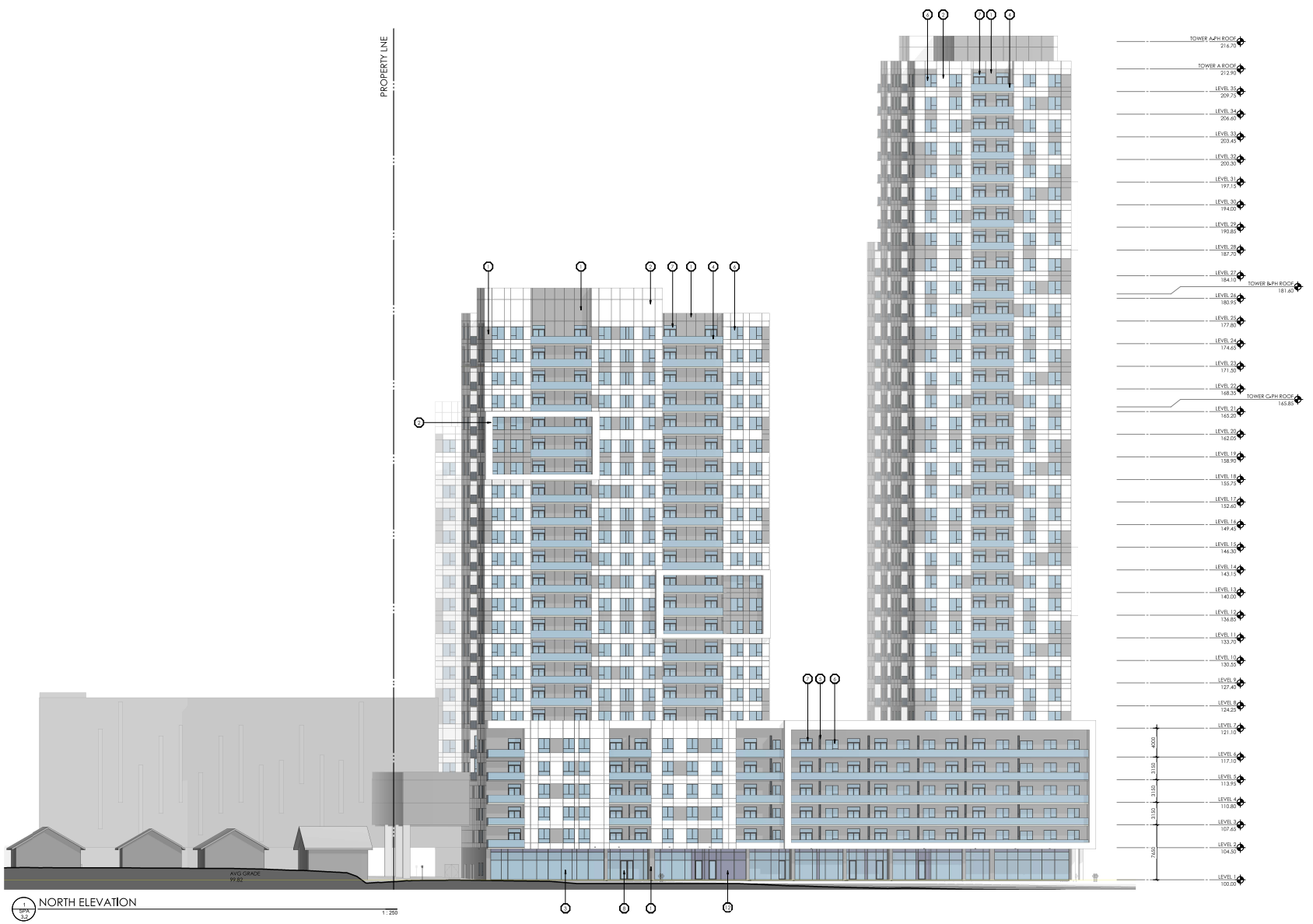
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PROJECT NUMBER: 2019-104

DRAWING NUMBER
SPA 3.1

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MATERIAL LEGEND

1. MATERIAL: PRECAST CONCRETE COLOUR: DARK GREY
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11. PRE-FINISHED METAL OVERHEAD GARAGE DOOR COLOUR: GREY
12. THERMALLY BROKEN ALUMINUM CURTAIN WALL SPANDREL PANEL COLOUR: DARK GREY



1 / SPA 3.2 NORTH ELEVATION

1 : 250

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ANDREW MATTHEW SHELLEY
LICENCE 4371

No.	REVISIONS	DATE

CHRONOLOGY	DATE

aba architects inc.

CLIENT
115 BRIDGEPORT INC.

PROJECT NAME
BRIDGEPORT & WEBER
115 & 133 BRIDGEPORT RD. E., WATERLOO

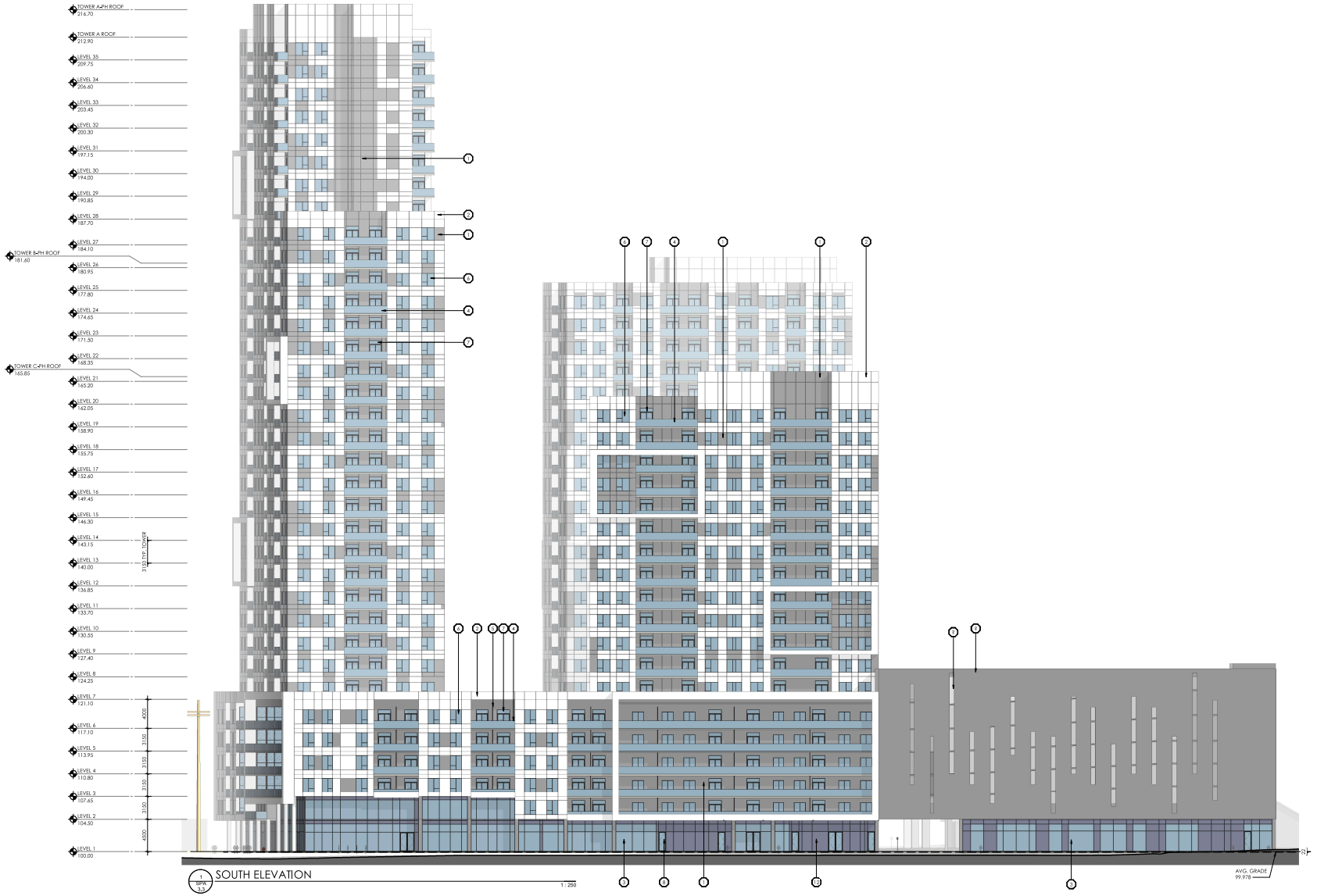
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SHEET SIZE: 24X36
PROJECT NUMBER: 2019-104
DRAWING NUMBER: SPA 3.2

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MATERIAL LEGEND

1. MATERIAL: PRECAST CONCRETE — COLOUR: DARK GREY
2. MATERIAL: PRECAST CONCRETE — COLOUR: WARM WHITE
3. THERMALLY BROKEN ALUMINUM FRAME CURTAIN WALL GLAZING — FRAME: BLACK
4. GLAZED BALCONY FRAME — FINISH: BLACK
5. PRIVACY SCREEN
6. THERMALLY BROKEN ALUMINUM FRAME WINDOW — FRAME FINISH: BLACK
7. THERMALLY BROKEN ALUMINUM FRAME BALCONY SLIDER — FRAME FINISH: BLACK
8. MATERIAL: CURTAIN WALL DOOR — FRAME FINISH: BLACK
9. PAINTED INSULATED HOLLOW METAL DOOR — COLOUR: BLACK
10. PERFORATED METAL PANEL — COLOUR: GREY
11. PRE-FINISHED METAL OVERHEAD GARAGE DOOR — COLOUR: GREY
12. THERMALLY BROKEN ALUMINUM CURTAIN WALL SPANDREL PANEL — COLOUR: DARK GREY



1 SPA 3.3 SOUTH ELEVATION 1 : 250

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No.	REVISIONS	DATE

CHRONOLOGY	DATE

aba architects inc.

CLIENT: 115 BRIDGEPORT INC.

PROJECT NAME: BRIDGEPORT & WEBER
115 & 133 BRIDGEPORT RD. E., WATERLOO

DRAWING TITLE: SPA ELEVATION

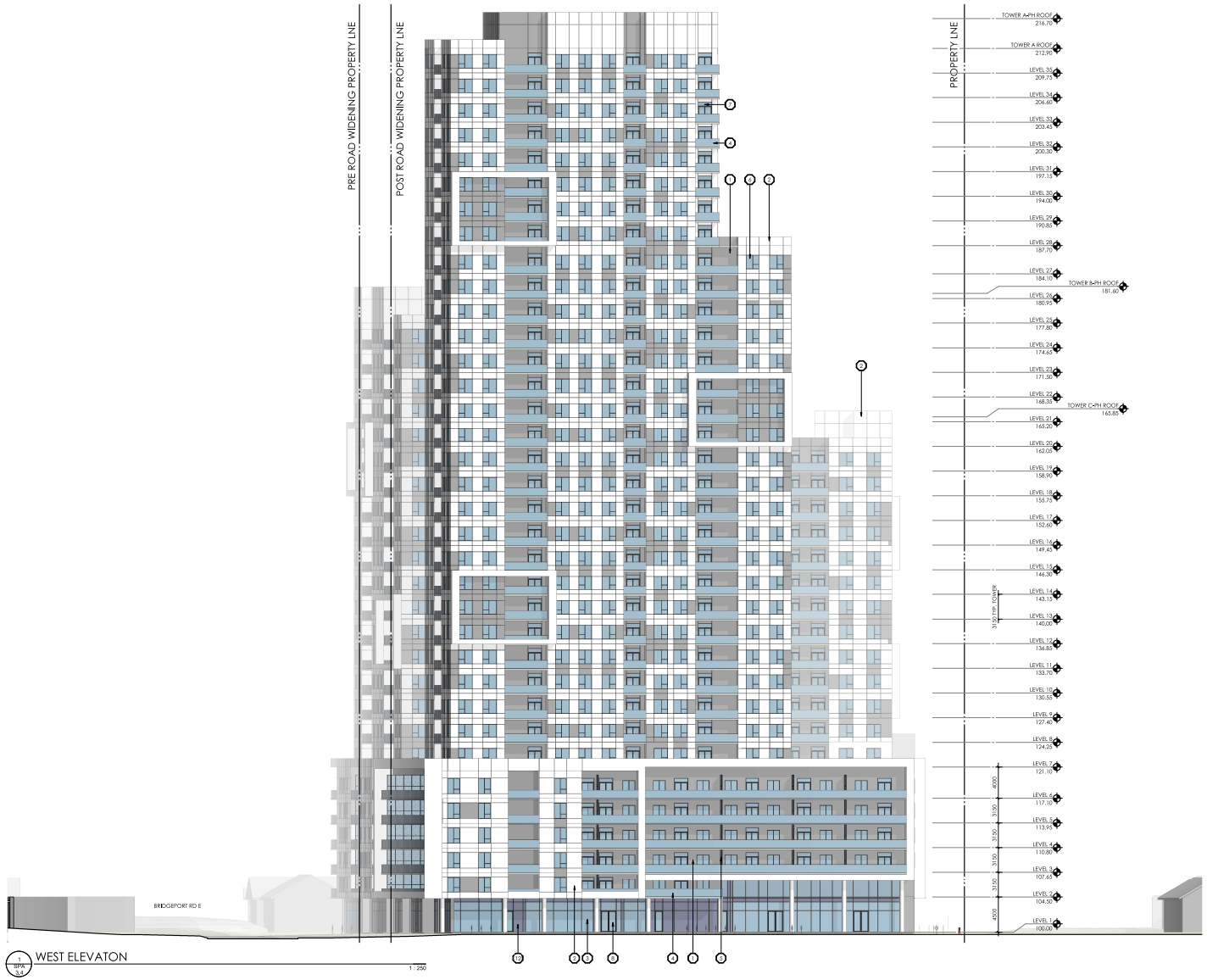
SCALE: As Indicated
SHEET SIZE: 24X36
PROJECT NUMBER: 2019-104

DRAWING NUMBER: SPA 3.3

2020-12-13 1:45:09 PM C:\Users\Nicholas\Documents\2020.09.14 2019-104 Bridgeport and Weber_Architect_Drawing_nicholas.g_nwithers@abaarchitect.co.nt

MATERIAL LEGEND

1. MATERIAL: PRECAST CONCRETE
COLOUR: DARK GREY
2. MATERIAL: PRECAST CONCRETE
COLOUR: WARM WHITE
3. THERMALLY BROKEN ALUMINUM FRAME CURTAIN WALL GLAZING
FRAME: BLACK
4. GLAZED BALCONY FRAME
FINISH: BLACK
5. PRIVACY SCREEN
6. THERMALLY BROKEN ALUMINUM FRAME WINDOW
FRAME FINISH: BLACK
7. THERMALLY BROKEN ALUMINUM FRAME BALCONY SLIDER
FRAME FINISH: BLACK
8. MATERIAL: CURTAIN WALL DOOR
FRAME FINISH: BLACK
9. PAINTED INSULATED HOLLOW METAL DOOR
COLOUR: BLACK
10. PERFORATED METAL PANEL
COLOUR: GREY
11. PRE-FINISHED METAL OVERHEAD GARAGE DOOR
COLOUR: GREY
12. THERMALLY BROKEN ALUMINUM CURTAIN WALL SPANDREL PANEL
COLOUR: DARK GREY



1 SPA 3.4 WEST ELEVATON
1 : 250

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ONTARIO ASSOCIATION OF ARCHITECTS
ANDREW MATTHEW SPELLEY
LICENCE 4371

No.	REVISIONS	DATE

CHRONOLOGY	DATE

aba architects inc.

CLIENT
115 BRIDGEPORT INC.

PROJECT NAME
BRIDGEPORT & WEBER
115 & 133 BRIDGEPORT RD. E., WATERLOO

DRAWING TITLE
SPA ELEVATION

SCALE
As Indicated

SHEET SIZE
24X36

PROJECT NUMBER
2019-104

DRAWING NUMBER
SPA 3.4

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Appendix C Traffic Data and Calculations

Environmental Noise Assessment

115 Bridgeport Road East, Waterloo

115 Bridgeport Inc.

SLR Project No.: 241.V30409.00002

January 5, 2024

Region of Waterloo AADT Forecast for Noise Studies

1. Development/Location: 85 Bridgeport Rd E, Waterloo

	Bridgeport Rd E (east of Weber St N)	Bridgeport Rd E (west of Weber St N)	Weber St N (north of Bridgeport Rd E)	Weber St N (south of Bridgeport Rd E)	Erb St E (east of Weber St N/S)	Lincoln Rd
2. Current AADT (2022)	16,000	16,000	23,500	23,000	14,000	4,200

	Bridgeport Rd E (east of Weber St N)	Bridgeport Rd E (west of Weber St N)	Weber St N (north of Bridgeport Rd E)	Weber St N (south of Bridgeport Rd E)	Erb St E (east of Weber St N/S)	Lincoln Rd
3. Forecast AADT (2032)	17,700	17,700	24,700	24,200	15,500	4,700

4. Commercial Vehicle Rates	Bridgeport Rd E (east of Weber St N)	Bridgeport Rd E (west of Weber St N)	Weber St N (north of Bridgeport Rd E)	Weber St N (south of Bridgeport Rd E)	Erb St E (east of Weber St N/S)	Lincoln Rd
% Medium Trucks	1%	1%	1%	1%	1%	1%
% Heavy Trucks	1%	1%	1%	1%	1%	1%

	Bridgeport Rd E (east of Weber St N)	Bridgeport Rd E (west of Weber St N)	Weber St N (north of Bridgeport Rd E)	Weber St N (south of Bridgeport Rd E)	Erb St E (east of Weber St N/S)	Lincoln Rd
5. Posted Speed Limit	50 km/h	50 km/h	60 km/h	60 km/h	50 km/h	50 km/h

6. Day/Night Splits: Regional Standard 90/10 Day/Night Split

7. Expiry: Dec 31 2022

8. Notes

This forecast is intended for the purpose of carrying out a noise study for 115 Bridgeport Rd E, Waterloo, only. The above AADTs represent the traffic volumes on Bridgeport Rd E, Weber St N, Erb St E, and Lincoln Rd.

As Lincoln Rd is under the jurisdiction of City of Waterloo, City of Waterloo data was included in the forecasting for this road segment, and City of Waterloo should be contacted to verify the forecast for this road segment.

This forecast remains valid until the expiry date above. The Region of Waterloo should be contacted for an updated forecast if there are plans to use this forecast beyond the above validity period.

Transportation Noise (Day/Night):

O R N A M E N T - Sound Power Emissions & Source Heights

Ontario Road Noise Analysis Method for Environment and Transportation

Road Segment ID	Roadway Name	Link Description	Speed (kph)	Period (h)	Total Traffic Volumes	Auto %	Med %	Hvy %	Auto	Med	Heavy	Road Gradient (%)	PWL (dBA)	Source Height, s (m)	Reference Leq (dBA)
Bridgeport_avg	Bridgeport Road East	Daytime Impacts	50	16	15930	98.0%	1.0%	1.0%	15611	159	159	0	**79.6**	**1.0**	**64.5**
Bridgeport_avg	Bridgeport Road East	Nighttime Impacts	50	8	1770	98.0%	1.0%	1.0%	1735	18	18	0	**73.1**	**1.0**	**58.0**
Weber_N_avg	Weber Street North of Bridgeport	Daytime Impacts	60	16	22230	98.0%	1.0%	1.0%	21785	222	222	0	**82.9**	**1.0**	**67.8**
Weber_N_avg	Weber Street North of Bridgeport	Nighttime Impacts	60	8	2470	98.0%	1.0%	1.0%	2421	25	25	0	**76.3**	**1.0**	**61.3**
Weber_S_avg	Weber Street South of Bridgeport	Daytime Impacts	60	16	21780	98.0%	1.0%	1.0%	21344	218	218	0	**82.8**	**1.0**	**67.7**
Weber_S_avg	Weber Street South of Bridgeport	Nighttime Impacts	60	8	2420	98.0%	1.0%	1.0%	2372	24	24	0	**76.3**	**1.0**	**61.2**
Erb_avg	Erb Street East	Daytime Impacts	50	16	13950	98.0%	1.0%	1.0%	13671	140	140	0	**79.0**	**1.0**	**63.9**
Erb_avg	Erb Street East	Nighttime Impacts	50	8	1550	98.0%	1.0%	1.0%	1519	16	16	0	**72.5**	**1.0**	**57.4**
Lincoln_avg	Lincoln Road	Daytime Impacts	50	16	4230	98.0%	1.0%	1.0%	4145	42	42	0	**73.8**	**1.0**	**58.8**
Lincoln_avg	Lincoln Road	Nighttime Impacts	50	8	470	98.0%	1.0%	1.0%	461	5	5	0	**67.3**	**1.0**	**52.2**

Ambient Traffic Noise (Day/Evening/Night):

O R N A M E N T - Sound Power Emissions & Source Heights

Ontario Road Noise Analysis Method for Environment and Transportation

Road Segment ID	Roadway Name	Link Description	Speed (kph)	Period (h)	Total Traffic Volumes	Auto %	Med %	Hvy %	Auto	Med	Heavy	Road Gradient (%)	PWL (dBA)	Source Height, s (m)	Reference Leq (dBA)
Bridgeport_min_D	Bridgeport Road East	Daytime Ambient	50	1	688	98.0%	1.0%	1.0%	674	7	7	0	**78.0**	**1.0**	**62.9**
Bridgeport_min_E	Bridgeport Road East	Evening Ambient	50	1	496	98.0%	1.0%	1.0%	486	5	5	0	**76.6**	**1.0**	**61.5**
Bridgeport_min_N	Bridgeport Road East	Nighttime Ambient	50	1	64	98.0%	1.0%	1.0%	63	1	1	0	**67.7**	**1.0**	**52.6**
Weber_N_min_D	Weber Street North of Bridgeport	Daytime Ambient	60	1	1011	98.0%	1.0%	1.0%	990	10	10	0	**81.5**	**1.0**	**66.4**
Weber_N_min_E	Weber Street North of Bridgeport	Evening Ambient	60	1	729	98.0%	1.0%	1.0%	714	7	7	0	**80.1**	**1.0**	**65.0**
Weber_N_min_N	Weber Street North of Bridgeport	Nighttime Ambient	60	1	94	98.0%	1.0%	1.0%	92	1	1	0	**71.2**	**1.0**	**56.1**
Weber_S_min_D	Weber Street Southof Bridgeport	Daytime Ambient	60	1	989	98.0%	1.0%	1.0%	969	10	10	0	**81.4**	**1.0**	**66.3**
Weber_S_min_E	Weber Street Southof Bridgeport	Evening Ambient	60	1	713	98.0%	1.0%	1.0%	699	7	7	0	**80.0**	**1.0**	**64.9**
Weber_S_min_N	Weber Street Southof Bridgeport	Nighttime Ambient	60	1	92	98.0%	1.0%	1.0%	90	1	1	0	**71.1**	**1.0**	**56.0**
Erb_min_D	Erb Street East	Daytime Ambient	50	1	602	98.0%	1.0%	1.0%	590	6	6	0	**77.4**	**1.0**	**62.3**
Erb_min_E	Erb Street East	Evening Ambient	50	1	434	98.0%	1.0%	1.0%	425	4	4	0	**76.0**	**1.0**	**60.9**
Erb_min_N	Erb Street East	Nighttime Ambient	50	1	56	98.0%	1.0%	1.0%	55	1	1	0	**67.1**	**1.0**	**52.0**
Lincoln_min_D	Lincoln Road	Daytime Ambient	50	1	181	98.0%	1.0%	1.0%	177	2	2	0	**72.2**	**1.0**	**57.1**
Lincoln_min_E	Lincoln Road	Evening Ambient	50	1	130	98.0%	1.0%	1.0%	128	1	1	0	**70.8**	**1.0**	**55.7**
Lincoln_min_N	Lincoln Road	Nighttime Ambient	50	1	17	98.0%	1.0%	1.0%	16	0	0	0	**61.9**	**1.0**	**46.8**

Appendix D STAMSON Output File

Environmental Noise Assessment

115 Bridgeport Road East, Waterloo

115 Bridgeport Inc.

SLR Project No.: 241.V30409.00002

January 5, 2024

STAMSON 5.0 NORMAL REPORT Date: 19-12-2023 19:32:34
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: st5.te Time Period: 16 hours
Description: STAMSON Validation - Sample Calculation

Road data, segment # 1: Bridgeport

Car traffic volume : 15611 veh/TimePeriod
Medium truck volume : 159 veh/TimePeriod
Heavy truck volume : 159 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Bridgeport

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 19.50 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: Weber N

Car traffic volume : 21785 veh/TimePeriod
Medium truck volume : 222 veh/TimePeriod
Heavy truck volume : 222 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: Weber N

Angle1 Angle2 : 37.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 49.80 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 3: Weber S

Car traffic volume : 21344 veh/TimePeriod
Medium truck volume : 218 veh/TimePeriod
Heavy truck volume : 218 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 3: Weber S

Angle1 Angle2 : 15.00 deg 37.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 49.80 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 4: Lincoln

Car traffic volume : 4145 veh/TimePeriod
Medium truck volume : 42 veh/TimePeriod
Heavy truck volume : 42 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 4: Lincoln

Angle1 Angle2 : -20.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 163.20 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Bridgeport

Source height = 1.00 m

ROAD (0.00 + 63.38 + 0.00) = 63.38 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	64.52	0.00	-1.14	0.00	0.00	0.00	0.00	63.38

Segment Leq : 63.38 dBA

Results segment # 2: Weber N

Source height = 1.00 m

ROAD (0.00 + 57.29 + 0.00) = 57.29 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
37	90	0.00	67.81	0.00	-5.21	-5.31	0.00	0.00	0.00	57.29

Segment Leq : 57.29 dBA

Results segment # 3: Weber S

Source height = 1.00 m

ROAD (0.00 + 53.38 + 0.00) = 53.38 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
15	37	0.00	67.72	0.00	-5.21	-9.13	0.00	0.00	0.00	53.38

Segment Leq : 53.38 dBA

Results segment # 4: Lincoln

Source height = 1.00 m

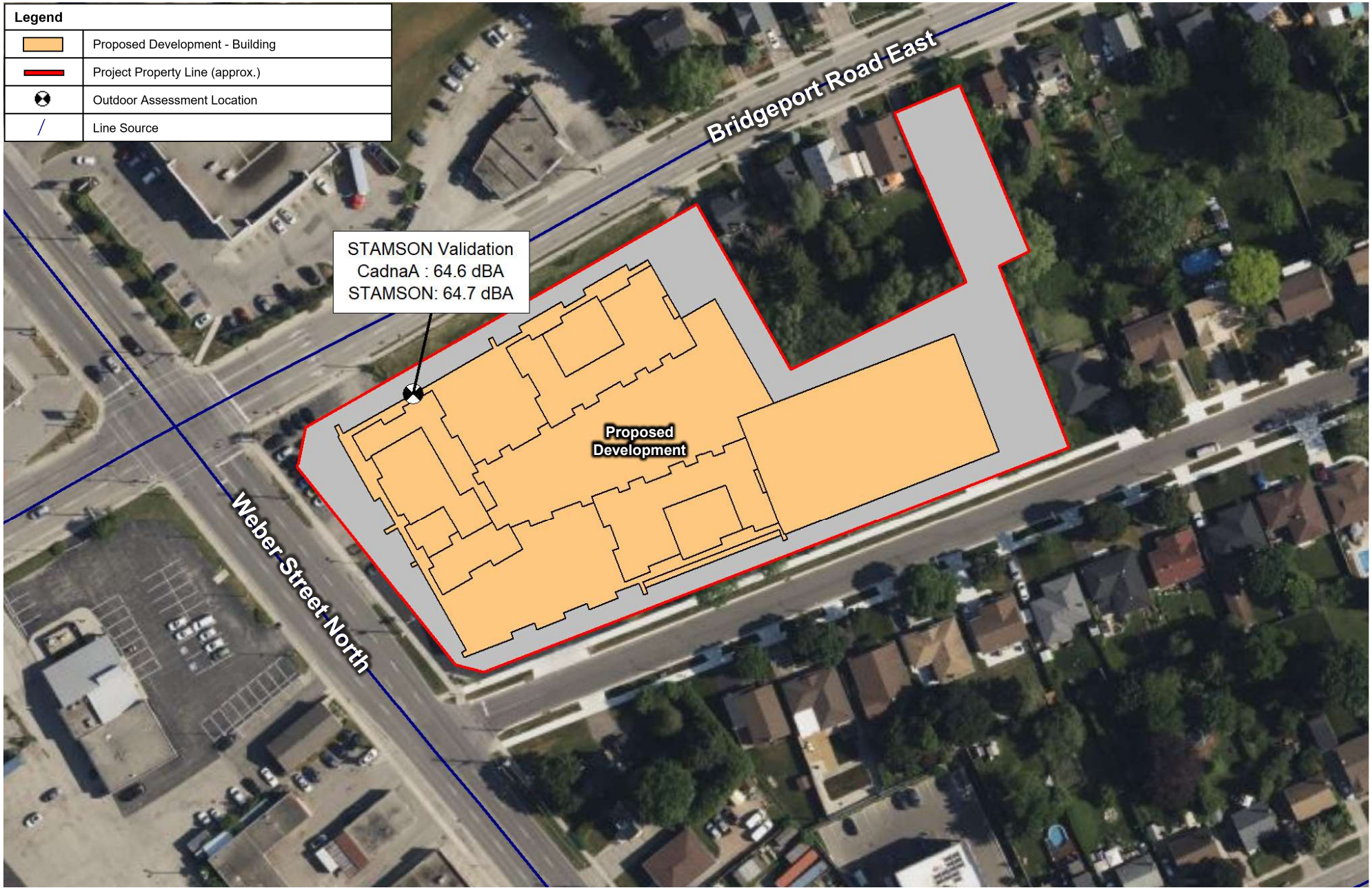
ROAD (0.00 + 46.24 + 0.00) = 46.24 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-20	90	0.00	58.75	0.00	-10.37	-2.14	0.00	0.00	0.00	46.24

Segment Leq : 46.24 dBA

Total Leq All Segments: 64.73 dBA

TOTAL Leq FROM ALL SOURCES: 64.73



115 BRIDGEPORT INC.	True North	Scale: 1:1,250	METRES	SLR
115 BRIDGEPORT ROAD EAST, WATERLOO		Date: Jan. 5, 2024 Rev 1.0	Figure No. **D1**	
COMPARISON OF CADNA/A AND STAMSON – ROAD TRAFFIC NOISE		Project No. 241.V30409.00002		

Appendix E Ventilation, Warning Clause and Mitigation Summary

Environmental Noise Assessment

115 Bridgeport Road East, Waterloo

115 Bridgeport Inc.

SLR Project No.: 241.V30409.00002

January 5, 2024

Appendix E Ventilation, Warning Clause and Mitigation Summary

The following warning clauses are recommended for inclusion in agreements registered on Title for the residential units and included in all agreements of purchase and sale or lease, and all rental agreements.

A summary of the warning clause, ventilation and mitigation requirements is included in **Table E.1**.

> **MECP Type C:** "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 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."
>
> **MECP Type D:** "This dwelling unit has been supplied with a central air conditioning system 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 Municipality and the Ministry of the Environment."

Table E.1: Summary of Ventilation, Warning Clause and Mitigation Recommendations

Proposed Development Location/Building	Applicable Façade(s)	Barrier Required?	Ventilation Requirement	Warning Clause Requirement
Podium (6-Storey) – Outer Units Only	N, E, S	-	Provision for AC	Type C
	W	-	Central AC	Type D
Building A (Tower)	N, E, S, W	-	Provision for AC	Type C
Building B (Tower)	N, E, W	-	Provision for AC	Type C
Building C (Tower)	W, S	-	Provision for AC	Type C
Parking Structure	-	-	-	-
5th Floor Outdoor Amenity Terrace	-	None	-	-

Appendix F Stationary Source Modelling Information

Environmental Noise Assessment

115 Bridgeport Road East, Waterloo

115 Bridgeport Inc.

SLR Project No.: 241.V30409.00002

January 5, 2024

STATIONARY SOURCE MODELLING DATA

Source Description	Maximum Sound Power Level (1/1 Octave Bands)									Modelled Sound Power Level (dBA)	Source Notes
	31.5	63	125	250	500	1000	2000	4000	8000		
PTH Auto Inc. & Bridgeport Road Service Centre - 120 Bridgeport Road East											
Open Bay Door x 6 - Impact Wrench	82.6	77.9	82.4	75.8	79.3	78.4	85.6	85.1	84.9	91.0	Based on historical SLR data - Operates 1 minute per hour during daytime - +10 dB penalty for quasi-steady-state impulsive sound quality
Open Bay Door x 2 - Compressed Air	101.1	100.5	95.8	89.3	86	86.3	83.5	84.8	80.8	92.1	Based on historical SLR data - Operates 10 minutes per hour during daytime - +5 dB penalty for tonal sound quality
Shopper's Drug Mart - 50 Weber Street North											
Rooftop HVAC x 5 - 10-ton Units	80.0	83.0	84.0	84.0	83.0	81.0	77.0	730.0	67.0	85.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening - Operates 30 minutes per hour during night-time
Rooftop Units x 4 - Cooling	76.9	91.0	86.3	77.5	74.0	75.6	73.4	64.4	60.9	80.1	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening - Operates 30 minutes per hour during night-time
Idling Delivery Truck - with Reefer Unit	103.8	107.4	98.1	99.7	97.3	90.8	86.5	84.0	77.9	98.0	Based on historical SLR data - Operates 30 minutes per hour during daytime hours only (note: loading/unloading prohibited during evening-night-time hours based on City of Waterloo Noise By-Law 2010-073)
S.G. Cunningham Limited - 35 Weber Street North											
Rooftop HVAC - 5-ton Unit	77.0	80.0	81.0	81.0	80.0	78.0	74.0	70.0	64.0	82.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening - Operates 15 minutes per hour during night-time (unoccupied space during night-time hours)
Rooftop HVAC - 1-ton Unit	73.3	76.3	77.3	77.3	76.3	74.3	70.3	66.3	60.3	78.8	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening - Operates 15 minutes per hour during night-time (unoccupied space during night-time hours)
Signs by McDougall - 31 Weber Street North											
Rooftop Exhaust Stack	93.7	92.5	90	86.4	93.1	92.1	77.6	67	55.3	94.4	Based on SLR measurement obtained January 4, 2022 - +5 dB for tonal sound quality - Operates for 60 minutes per hour during daytime
Meineke Car Care Center - 29 Weber Street North											
Open Bay Door x 3 - Impact Wrench	82.6	77.9	82.4	75.8	79.3	78.4	85.6	85.1	84.9	91.0	Based on historical SLR data - Operates 1 minute per hour during daytime - +10 dB penalty for quasi-steady-state impulsive sound quality
Open Bay Door x 1 - Compressed Air	101.1	100.5	95.8	89.3	86	86.3	83.5	84.8	80.8	92.1	Based on historical SLR data - Operates 10 minutes per hour during daytime - +5 dB penalty for tonal sound quality
Hakim Optical Waterloo - 21 Weber Street North											
Rooftop HVAC x 2 - 5-ton Units	77.0	80.0	81.0	81.0	80.0	78.0	74.0	70.0	64.0	82.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening - Operates 15 minutes per hour during night-time (unoccupied space during night-time hours)

Receiver
Name: OPOR 1
ID: _OPOR
X: 539525.44 m
Y: 4813138.92 m
Z: 15.45 m

Point Source, ISO 9613, Name: "31 Weber - Signs by McDougall - Exhaust Stack", ID: "SS3"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
2	539443.29	4813062.98	4.50	0	D	A	99.4	0.0	0.0	0.0	0.0	52.0	0.4	-3.0	0.0	0.0	27.7	0.0	0.0	22.4
2	539443.29	4813062.98	4.50	0	N	A	99.4	0.0	-188.0	0.0	0.0	52.0	0.4	-3.0	0.0	0.0	27.7	0.0	0.0	-165.6
2	539443.29	4813062.98	4.50	0	E	A	99.4	0.0	-188.0	0.0	0.0	52.0	0.4	-3.0	0.0	0.0	27.7	0.0	0.0	-165.6
3	539443.29	4813062.98	4.50	2	D	A	99.4	0.0	0.0	0.0	0.0	56.1	0.6	-3.0	0.0	0.0	28.0	0.0	6.3	11.5
3	539443.29	4813062.98	4.50	2	N	A	99.4	0.0	-188.0	0.0	0.0	56.1	0.6	-3.0	0.0	0.0	28.0	0.0	6.3	-176.5
3	539443.29	4813062.98	4.50	2	E	A	99.4	0.0	-188.0	0.0	0.0	56.1	0.6	-3.0	0.0	0.0	28.0	0.0	6.3	-176.5

Point Source, ISO 9613, Name: "50 Weber - Shoppers - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
7	539443.25	4813212.64	7.50	0	D	A	85.5	0.0	0.0	0.0	0.0	51.9	0.6	-3.0	0.0	0.0	27.1	0.0	0.0	8.9
7	539443.25	4813212.64	7.50	0	N	A	85.5	0.0	-3.0	0.0	0.0	51.9	0.6	-3.0	0.0	0.0	27.1	0.0	0.0	5.9
7	539443.25	4813212.64	7.50	0	E	A	85.5	0.0	0.0	0.0	0.0	51.9	0.6	-3.0	0.0	0.0	27.1	0.0	0.0	8.9
10	539443.25	4813212.64	7.50	2	D	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	23.2	0.0	16.1	-6.1
10	539443.25	4813212.64	7.50	2	N	A	85.5	0.0	-3.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	23.2	0.0	16.1	-9.1
10	539443.25	4813212.64	7.50	2	E	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	23.2	0.0	16.1	-6.1
12	539443.25	4813212.64	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	28.0	0.0	9.1	-2.8
12	539443.25	4813212.64	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	28.0	0.0	9.1	-5.8
12	539443.25	4813212.64	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	28.0	0.0	9.1	-2.8
13	539443.25	4813212.64	7.50	2	D	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	23.2	0.0	16.1	-6.1
13	539443.25	4813212.64	7.50	2	N	A	85.5	0.0	-3.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	23.2	0.0	16.1	-9.1
13	539443.25	4813212.64	7.50	2	E	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	23.2	0.0	16.1	-6.1

Point Source, ISO 9613, Name: "50 Weber - Shoppers - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
16	539431.62	4813202.81	7.50	0	D	A	85.5	0.0	0.0	0.0	0.0	52.1	0.7	-3.0	0.0	0.0	27.2	0.0	0.0	8.6
16	539431.62	4813202.81	7.50	0	N	A	85.5	0.0	-3.0	0.0	0.0	52.1	0.7	-3.0	0.0	0.0	27.2	0.0	0.0	5.6
16	539431.62	4813202.81	7.50	0	E	A	85.5	0.0	0.0	0.0	0.0	52.1	0.7	-3.0	0.0	0.0	27.2	0.0	0.0	8.6
18	539431.62	4813202.81	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	8.0
18	539431.62	4813202.81	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	5.0
18	539431.62	4813202.81	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	8.0
19	539431.62	4813202.81	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	8.0
19	539431.62	4813202.81	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	5.0
19	539431.62	4813202.81	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	8.0
20	539431.62	4813202.81	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	8.0
20	539431.62	4813202.81	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	5.0
20	539431.62	4813202.81	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	23.7	0.0	2.6	8.0
21	539431.62	4813202.81	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	54.9	0.9	-3.0	0.0	0.0	28.0	0.0	39.2	-34.4
21	539431.62	4813202.81	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	54.9	0.9	-3.0	0.0	0.0	28.0	0.0	39.2	-37.4
21	539431.62	4813202.81	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	54.9	0.9	-3.0	0.0	0.0	28.0	0.0	39.2	-34.4

Point Source, ISO 9613, Name: "50 Weber - Shoppers - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
23	539431.82	4813214.78	7.50	0	D	A	85.5	0.0	0.0	0.0	0.0	52.6	0.7	-3.0	0.0	0.0	27.1	0.0	0.0	8.1
23	539431.82	4813214.78	7.50	0	N	A	85.5	0.0	-3.0	0.0	0.0	52.6	0.7	-3.0	0.0	0.0	27.1	0.0	0.0	5.1
23	539431.82	4813214.78	7.50	0	E	A	85.5	0.0	0.0	0.0	0.0	52.6	0.7	-3.0	0.0	0.0	27.1	0.0	0.0	8.1
27	539431.82	4813214.78	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	53.9	0.8	-3.0	0.0	0.0	26.9	0.0	2.2	4.7
27	539431.82	4813214.78	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	53.9	0.8	-3.0	0.0	0.0	26.9	0.0	2.2	1.7
27	539431.82	4813214.78	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	53.9	0.8	-3.0	0.0	0.0	26.9	0.0	2.2	4.7

Point Source, ISO 9613, Name: "50 Weber - Shoppers - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
28	539431.15	4813227.29	7.50	0	D	A	85.5	0.0	0.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	27.0	0.0	0.0	7.5
28	539431.15	4813227.29	7.50	0	N	A	85.5	0.0	-3.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	27.0	0.0	0.0	4.5
28	539431.15	4813227.29	7.50	0	E	A	85.5	0.0	0.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	27.0	0.0	0.0	7.5
29	539431.15	4813227.29	7.50	2	D	A	85.5	0.0	0.0	0.0	0.0	55.6	0.9	-3.0	0.0	0.0	22.1	0.0	17.1	-7.1
29	539431.15	4813227.29	7.50	2	N	A	85.5	0.0	-3.0	0.0	0.0	55.6	0.9	-3.0	0.0	0.0	22.1	0.0	17.1	-10.1
29	539431.15	4813227.29	7.50	2	E	A	85.5	0.0	0.0	0.0	0.0	55.6	0.9	-3.0	0.0	0.0	22.1	0.0	17.1	-7.1
31	539431.15	4813227.29	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	28.0	0.0	9.3	-4.2
31	539431.15	4813227.29	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	28.0	0.0	9.3	-7.2
31	539431.15	4813227.29	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	28.0	0.0	9.3	-4.2
32	539431.15	4813227.29	7.50	2	D	A	85.5	0.0	0.0	0.0	0.0	55.6	0.9	-3.0	0.0	0.0	22.1	0.0	17.1	-7.1
32	539431.15	4813227.29	7.50	2	N	A	85.5	0.0	-3.0	0.0	0.0	55.6	0.9	-3.0	0.0	0.0	22.1	0.0	17.1	-10.1
32	539431.15	4813227.29	7.50	2	E	A	85.5	0.0	0.0	0.0	0.0	55.6	0.9	-3.0	0.0	0.0	22.1	0.0	17.1	-7.1

Point Source, ISO 9613, Name: "50 Weber - Shoppers - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
35	539419.37	4813217.86	7.50	0	D	A	85.5	0.0	0.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	27.1	0.0	0.0	7.2
35	539419.37	4813217.86	7.50	0	N	A	85.5	0.0	-3.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	27.1	0.0	0.0	4.2
35	539419.37	4813217.86	7.50	0	E	A	85.5	0.0	0.0	0.0	0.0	53.4	0.7	-3.0	0.0	0.0	27.1	0.0	0.0	7.2
36	539419.37	4813217.86	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	7.6
36	539419.37	4813217.86	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	4.6
36	539419.37	4813217.86	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	7.6
38	539419.37	4813217.86	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	7.6
38	539419.37	4813217.86	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	4.6
38	539419.37	4813217.86	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	7.6
39	539419.37	4813217.86	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	7.6
39	539419.37	4813217.86	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	4.6
39	539419.37	4813217.86	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	54.6	0.8	-3.0	0.0	0.0	22.8	0.0	2.6	7.6
40	539419.37	4813217.86	7.50	1	D	A	85.5	0.0	0.0	0.0	0.0	55.9	0.9	-3.0	0.0	0.0	28.0	0.0	41.3	-37.7
40	539419.37	4813217.86	7.50	1	N	A	85.5	0.0	-3.0	0.0	0.0	55.9	0.9	-3.0	0.0	0.0	28.0	0.0	41.3	-40.7
40	539419.37	4813217.86	7.50	1	E	A	85.5	0.0	0.0	0.0	0.0	55.9	0.9	-3.0	0.0	0.0	28.0	0.0	41.3	-37.7

Point Source, ISO 9613, Name: "50 Weber - Shoppers - Idling Refrigerated Truck", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
46	539451.82	4813219.22	3.50	0	D	A	98.0	0.0	-3.0	0.0	0.0	51.8	0.4	-3.0	0.0	0.0	26.6	0.0	0.0	19.2
46	539451.82	4813219.22	3.50	0	N	A	98.0	0.0	-188.0	0.0	0.0	51.8	0.4	-3.0	0.0	0.0	26.6	0.0	0.0	-165.8
46	539451.82	4813219.22	3.50	0	E	A	98.0	0.0	-188.0	0.0	0.0	51.8	0.4	-3.0	0.0	0.0	26.6	0.0	0.0	-165.8
47	539451.82	4813219.22	3.50	2	D	A	98.0	0.0	-3.0	0.0	0.0	54.7	0.6	-3.0	0.0	0.0	22.4	0.0	27.0	-6.8
47	539451.82	4813219.22	3.50	2	N	A	98.0	0.0	-188.0	0.0	0.0	54.7	0.6	-3.0	0.0	0.0	22.4	0.0	27.0	-191.8
47	539451.82	4813219.22	3.50	2	E	A	98.0	0.0	-188.0	0.0	0.0	54.7	0.6	-3.0	0.0	0.0	22.4	0.0	27.0	-191.8
55	539451.82	4813219.22	3.50	1	D	A	98.0	0.0	-3.0	0.0	0.0	53.5	0.5	-3.0	0.0	0.0	28.0	0.0	12.0	4.0
55	539451.82	4813219.22	3.50	1	N	A	98.0	0.0	-188.0	0.0	0.0	53.5	0.5	-3.0	0.0	0.0	28.0	0.0	12.0	-181.0
55	539451.82	4813219.22	3.50	1	E	A	98.0	0.0	-188.0	0.0	0.0	53.5	0.5	-3.0	0.0	0.0	28.0	0.0	12.0	-181.0
56	539451.82	4813219.22	3.50	2	D	A	98.0	0.0	-3.0	0.0	0.0	54.7	0.6	-3.0	0.0	0.0	22.4	0.0	27.0	-6.8
56	539451.82	4813219.22	3.50	2	N	A	98.0	0.0	-188.0	0.0	0.0	54.7	0.6	-3.0	0.0	0.0	22.4	0.0	27.0	-191.8
56	539451.82	4813219.22	3.50	2	E	A	98.0	0.0	-188.0	0.0	0.0	54.7	0.6	-3.0	0.0	0.0	22.4	0.0	27.0	-191.8

Point Source, ISO 9613, Name: "50 Weber - Shoppers - Cooling", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
57	539449.78	4813212.92	7.50	0	D	A	81.3	0.0	0.0	0.0	0.0	51.5	0.6	-3.0	0.0	0.0	26.4	0.0	0.0	5.8
57	539449.78	4813212.92	7.50	0	N	A	81.3	0.0	-3.0	0.0	0.0	51.5	0.6	-3.0	0.0	0.0	26.4	0.0	0.0	2.8
57	539449.78	4813212.92	7.50	0	E	A	81.3	0.0	0.0	0.0	0.0	51.5	0.6	-3.0	0.0	0.0	26.4	0.0	0.0	5.8
59	539449.78	4813212.92	7.50	2	D	A	81.3	0.0	0.0	0.0	0.0	54.5	0.7	-3.0	0.0	0.0	20.9	0.0	29.4	-21.2
59	539449.78	4813212.92	7.50	2	N	A	81.3	0.0	-3.0	0.0	0.0	54.5	0.7	-3.0	0.0	0.0	20.9	0.0	29.4	-24.2
59	539449.78	4813212.92	7.50	2	E	A	81.3	0.0	0.0	0.0	0.0	54.5	0.7	-3.0	0.0	0.0	20.9	0.0	29.4	-21.2
64	539449.78	4813212.92	7.50	1	D	A	81.3	0.0	0.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	28.0	0.0	10.7	-8.3
64	539449.78	4813212.92	7.50	1	N	A	81.3	0.0	-3.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	28.0	0.0	10.7	-11.3
64	539449.78	4813212.92	7.50	1	E	A	81.3	0.0	0.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	28.0	0.0	10.7	-8.3
66	539449.78	4813212.92	7.50	2	D	A	81.3	0.0	0.0	0.0	0.0	54.5	0.7	-3.0	0.0	0.0	20.9	0.0	29.4	-21.2
66	539449.78	4813212.92	7.50	2	N	A	81.3	0.0	-3.0	0.0	0.0	54.5	0.7	-3.0	0.0	0.0	20.9	0.0	29.4	-24.2
66	539449.78	4813212.92	7.50	2	E	A	81.3	0.0	0.0	0.0	0.0	54.5	0.7	-3.0	0.0	0.0	20.9	0.0	29.4	-21.2

Point Source, ISO 9613, Name: "50 Weber - Shoppers - Cooling", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
67	539448.85	4813214.02	7.50	0	D	A	81.3	0.0	0.0	0.0	0.0	51.6	0.6	-3.0	0.0	0.0	26.4	0.0	0.0	5.7
67	539448.85	4813214.02	7.50	0	N	A	81.3	0.0	-3.0	0.0	0.0	51.6	0.6	-3.0	0.0	0.0	26.4	0.0	0.0	2.7
67	539448.85	4813214.02	7.50	0	E	A	81.3	0.0	0.0	0.0	0.0	51.6	0.6	-3.0	0.0	0.0	26.4	0.0	0.0	5.7
68	539448.85	4813214.02	7.50	2	D	A	81.3	0.0	0.0	0.0	0.0	54.6	0.7	-3.0	0.0	0.0	20.8	0.0	29.5	-21.3
68	539448.85	4813214.02	7.50	2	N	A	81.3	0.0	-3.0	0.0	0.0	54.6	0.7	-3.0	0.0	0.0	20.8	0.0	29.5	-24.3
68	539448.85	4813214.02	7.50	2	E	A	81.3	0.0	0.0	0.0	0.0	54.6	0.7	-3.0	0.0	0.0	20.8	0.0	29.5	-21.3
72	539448.85	4813214.02	7.50	1	D	A	81.3	0.0	0.0	0.0	0.0	53.3	0.7	-3.0	0.0	0.0	28.0	0.0	10.7	-8.4
72	539448.85	4813214.02	7.50	1	N	A	81.3	0.0	-3.0	0.0	0.0	53.3	0.7	-3.0	0.0	0.0	28.0	0.0	10.7	-11.4
72	539448.85	4813214.02	7.50	1	E	A	81.3	0.0	0.0	0.0	0.0	53.3	0.7	-3.0	0.0	0.0	28.0	0.0	10.7	-8.4
74	539448.85	4813214.02	7.50	2	D	A	81.3	0.0	0.0	0.0	0.0	54.6	0.7	-3.0	0.0	0.0	20.8	0.0	29.5	-21.3
74	539448.85	4813214.02	7.50	2	N	A	81.3	0.0	-3.0	0.0	0.0	54.6	0.7	-3.0	0.0	0.0	20.8	0.0	29.5	-24.3
74	539448.85	4813214.02	7.50	2	E	A	81.3	0.0	0.0	0.0	0.0	54.6	0.7	-3.0	0.0	0.0	20.8	0.0	29.5	-21.3

Point Source, ISO 9613, Name: "21 Weber - Hakim - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
75	539482.72	4813033.33	6.00	0	D	A	82.5	0.0	0.0	0.0	0.0	52.2	0.7	-3.0	0.0	0.0	27.5	0.0	0.0	5.3
75	539482.72	4813033.33	6.00	0	N	A	82.5	0.0	-6.0	0.0	0.0	52.2	0.7	-3.0	0.0	0.0	27.5	0.0	0.0	-0.8
75	539482.72	4813033.33	6.00	0	E	A	82.5	0.0	0.0	0.0	0.0	52.2	0.7	-3.0	0.0	0.0	27.5	0.0	0.0	5.3
76	539482.72	4813033.33	6.00	1	D	A	82.5	0.0	0.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	25.1	0.0	4.1	2.5
76	539482.72	4813033.33	6.00	1	N	A	82.5	0.0	-6.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	25.1	0.0	4.1	-3.5
76	539482.72	4813033.33	6.00	1	E	A	82.5	0.0	0.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	25.1	0.0	4.1	2.5
81	539482.72	4813033.33	6.00	1	D	A	82.5	0.0	0.0	0.0	0.0	53.7	0.8	-3.0	0.0	0.0	28.0	0.0	36.9	-33.9
81	539482.72	4813033.33	6.00	1	N	A	82.5	0.0	-6.0	0.0	0.0	53.7	0.8	-3.0	0.0	0.0	28.0	0.0	36.9	-39.9
81	539482.72	4813033.33	6.00	1	E	A	82.5	0.0	0.0	0.0	0.0	53.7	0.8	-3.0	0.0	0.0	28.0	0.0	36.9	-33.9
82	539482.72	4813033.33	6.00	2	D	A	82.5	0.0	0.0	0.0	0.0	54.5	0.8	-3.0	0.0	0.0	23.6	0.0	44.7	-38.1
82	539482.72	4813033.33	6.00	2	N	A	82.5	0.0	-6.0	0.0	0.0	54.5	0.8	-3.0	0.0	0.0	23.6	0.0	44.7	-44.1
82	539482.72	4813033.33	6.00	2	E	A	82.5	0.0	0.0	0.0	0.0	54.5	0.8	-3.0	0.0	0.0	23.6	0.0	44.7	-38.1
83	539482.72	4813033.33	6.00	1	D	A	82.5	0.0	0.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	25.1	0.0	4.1	2.5
83	539482.72	4813033.33	6.00	1	N	A	82.5	0.0	-6.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	25.1	0.0	4.1	-3.5
83	539482.72	4813033.33	6.00	1	E	A	82.5	0.0	0.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	25.1	0.0	4.1	2.5

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Compressed Air", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
84	539510.40	4813205.96	1.50	0	D	A	97.1	0.0	-7.8	0.0	3.0	47.9	0.9	-3.0	0.0	0.0	26.8	0.0	0.0	19.7
84	539510.40	4813205.96	1.50	0	N	A	97.1	0.0	-188.0	0.0	3.0	47.9	0.9	-3.0	0.0	0.0	26.8	0.0	0.0	-160.5
84	539510.40	4813205.96	1.50	0	E	A	97.1	0.0	-188.0	0.0	3.0	47.9	0.9	-3.0	0.0	0.0	26.8	0.0	0.0	-160.5
88	539510.40	4813205.96	1.50	1	D	A	97.1	0.0	-7.8	0.0	-10.2	52.0	1.3	-3.0	0.0	0.0	26.5	0.0	5.4	-3.1
88	539510.40	4813205.96	1.50	1	N	A	97.1	0.0	-188.0	0.0	-10.2	52.0	1.3	-3.0	0.0	0.0	26.5	0.0	5.4	-183.3
88	539510.40	4813205.96	1.50	1	E	A	97.1	0.0	-188.0	0.0	-10.2	52.0	1.3	-3.0	0.0	0.0	26.5	0.0	5.4	-183.3
93	539510.40	4813205.96	1.50	1	D	A	97.1	0.0	-7.8	0.0	3.0	50.2	1.1	-3.0	0.0	0.0	28.0	0.0	2.9	13.1
93	539510.40	4813205.96	1.50	1	N	A	97.1	0.0	-188.0	0.0	3.0	50.2	1.1	-3.0	0.0	0.0	28.0	0.0	2.9	-167.1
93	539510.40	4813205.96	1.50	1	E	A	97.1	0.0	-188.0	0.0	3.0	50.2	1.1	-3.0	0.0	0.0	28.0	0.0	2.9	-167.1
95	539510.40	4813205.96	1.50	2	D	A	97.1	0.0	-7.8	0.0	3.0	51.9	1.3	-3.0	0.0	0.0	28.0	0.0	8.8	5.3
95	539510.40	4813205.96	1.50	2	N	A	97.1	0.0	-188.0	0.0	3.0	51.9	1.3	-3.0	0.0	0.0	28.0	0.0	8.8	-174.9
95	539510.40	4813205.96	1.50	2	E	A	97.1	0.0	-188.0	0.0	3.0	51.9	1.3	-3.0	0.0	0.0	28.0	0.0	8.8	-174.9

Point Source, ISO 9613, Name: "21 Weber - Hakim - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
96	539475.90	4813020.75	6.00	0	D	A	82.5	0.0	0.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	27.5	0.0	0.0	4.2
96	539475.90	4813020.75	6.00	0	N	A	82.5	0.0	-6.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	27.5	0.0	0.0	-1.8
96	539475.90	4813020.75	6.00	0	E	A	82.5	0.0	0.0	0.0	0.0	53.2	0.7	-3.0	0.0	0.0	27.5	0.0	0.0	4.2
98	539475.90	4813020.75	6.00	1	D	A	82.5	0.0	0.0	0.0	0.0	54.0	0.8	-3.0	0.0	0.0	24.3	0.0	4.1	2.3
98	539475.90	4813020.75	6.00	1	N	A	82.5	0.0	-6.0	0.0	0.0	54.0	0.8	-3.0	0.0	0.0	24.3	0.0	4.1	-3.7
98	539475.90	4813020.75	6.00	1	E	A	82.5	0.0	0.0	0.0	0.0	54.0	0.8	-3.0	0.0	0.0	24.3	0.0	4.1	2.3
101	539475.90	4813020.75	6.00	2	D	A	82.5	0.0	0.0	0.0	0.0	55.3	0.9	-3.0	0.0	0.0	23.1	0.0	46.8	-40.6
101	539475.90	4813020.75	6.00	2	N	A	82.5	0.0	-6.0	0.0	0.0	55.3	0.9	-3.0	0.0	0.0	23.1	0.0	46.8	-46.6
101	539475.90	4813020.75	6.00	2	E	A	82.5	0.0	0.0	0.0	0.0	55.3	0.9	-3.0	0.0	0.0	23.1	0.0	46.8	-40.6
102	539475.90	4813020.75	6.00	1	D	A	82.5	0.0	0.0	0.0	0.0	54.0	0.8	-3.0	0.0	0.0	24.3	0.0	4.1	2.3
102	539475.90	4813020.75	6.00	1	N	A	82.5	0.0	-6.0	0.0	0.0	54.0	0.8	-3.0	0.0	0.0	24.3	0.0	4.1	-3.7
102	539475.90	4813020.75	6.00	1	E	A	82.5	0.0	0.0	0.0	0.0	54.0	0.8	-3.0	0.0	0.0	24.3	0.0	4.1	2.3

Point Source, ISO 9613, Name: "50 Weber - Shoppers - Cooling", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
103	539426.87	4813227.88	7.50	0	D	A	81.3	0.0	0.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	26.4	0.0	0.0	3.8
103	539426.87	4813227.88	7.50	0	N	A	81.3	0.0	-3.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	26.4	0.0	0.0	0.7
103	539426.87	4813227.88	7.50	0	E	A	81.3	0.0	0.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	26.4	0.0	0.0	3.8
107	539426.87	4813227.88	7.50	1	D	A	81.3	0.0	0.0	0.0	0.0	54.8	0.8	-3.0	0.0	0.0	28.0	0.0	11.0	-10.2
107	539426.87	4813227.88	7.50	1	N	A	81.3	0.0	-3.0	0.0	0.0	54.8	0.8	-3.0	0.0	0.0	28.0	0.0	11.0	-13.2
107	539426.87	4813227.88	7.50	1	E	A	81.3	0.0	0.0	0.0	0.0	54.8	0.8	-3.0	0.0	0.0	28.0	0.0	11.0	-10.2

Point Source, ISO 9613, Name: "50 Weber - Shoppers - Cooling", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
108	539425.74	4813226.87	7.50	0	D	A	81.3	0.0	0.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	26.4	0.0	0.0	3.7
108	539425.74	4813226.87	7.50	0	N	A	81.3	0.0	-3.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	26.4	0.0	0.0	0.7
108	539425.74	4813226.87	7.50	0	E	A	81.3	0.0	0.0	0.0	0.0	53.5	0.7	-3.0	0.0	0.0	26.4	0.0	0.0	3.7
109	539425.74	4813226.87	7.50	1	D	A	81.3	0.0	0.0	0.0	0.0	54.8	0.8	-3.0	0.0	0.0	28.0	0.0	11.0	-10.2
109	539425.74	4813226.87	7.50	1	N	A	81.3	0.0	-3.0	0.0	0.0	54.8	0.8	-3.0	0.0	0.0	28.0	0.0	11.0	-13.2
109	539425.74	4813226.87	7.50	1	E	A	81.3	0.0	0.0	0.0	0.0	54.8	0.8	-3.0	0.0	0.0	28.0	0.0	11.0	-10.2

Point Source, ISO 9613, Name: "35 Weber - SG Cunningham - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
111	539398.45	4813071.13	6.00	0	D	A	82.5	0.0	0.0	0.0	0.0	54.2	0.8	-3.0	0.0	0.0	27.6	0.0	0.0	3.0
111	539398.45	4813071.13	6.00	0	N	A	82.5	0.0	-6.0	0.0	0.0	54.2	0.8	-3.0	0.0	0.0	27.6	0.0	0.0	-3.0
111	539398.45	4813071.13	6.00	0	E	A	82.5	0.0	0.0	0.0	0.0	54.2	0.8	-3.0	0.0	0.0	27.6	0.0	0.0	3.0

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Compressed Air", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
113	539499.52	4813217.02	1.50	0	D	A	97.1	0.0	-7.8	0.0	-50.0	49.4	1.1	-3.0	0.0	0.0	27.1	0.0	0.0	-35.2
113	539499.52	4813217.02	1.50	0	N	A	97.1	0.0	-188.0	0.0	-50.0	49.4	1.1	-3.0	0.0	0.0	27.1	0.0	0.0	-215.5
113	539499.52	4813217.02	1.50	0	E	A	97.1	0.0	-188.0	0.0	-50.0	49.4	1.1	-3.0	0.0	0.0	27.1	0.0	0.0	-215.5
114	539499.52	4813217.02	1.50	1	D	A	97.1	0.0	-7.8	0.0	-50.0	51.4	1.2	-3.0	0.0	0.0	28.0	0.0	2.9	-41.3
114	539499.52	4813217.02	1.50	1	N	A	97.1	0.0	-188.0	0.0	-50.0	51.4	1.2	-3.0	0.0	0.0	28.0	0.0	2.9	-221.5
114	539499.52	4813217.02	1.50	1	E	A	97.1	0.0	-188.0	0.0	-50.0	51.4	1.2	-3.0	0.0	0.0	28.0	0.0	2.9	-221.5
115	539499.52	4813217.02	1.50	2	D	A	97.1	0.0	-7.8	0.0	3.0	59.1	2.2	-3.0	0.0	0.0	28.0	0.0	5.2	0.8
115	539499.52	4813217.02	1.50	2	N	A	97.1	0.0	-188.0	0.0	3.0	59.1	2.2	-3.0	0.0	0.0	28.0	0.0	5.2	-179.4
115	539499.52	4813217.02	1.50	2	E	A	97.1	0.0	-188.0	0.0	3.0	59.1	2.2	-3.0	0.0	0.0	28.0	0.0	5.2	-179.4
116	539499.52	4813217.02	1.50	2	D	A	97.1	0.0	-7.8	0.0	-50.0	52.9	1.4	-3.0	0.0	0.0	28.0	0.0	9.0	-49.0
116	539499.52	4813217.02	1.50	2	N	A	97.1	0.0	-188.0	0.0	-50.0	52.9	1.4	-3.0	0.0	0.0	28.0	0.0	9.0	-229.2
116	539499.52	4813217.02	1.50	2	E	A	97.1	0.0	-188.0	0.0	-50.0	52.9	1.4	-3.0	0.0	0.0	28.0	0.0	9.0	-229.2
118	539499.52	4813217.02	1.50	1	D	A	97.1	0.0	-7.8	0.0	3.0	58.3	2.1	-3.0	0.0	0.0	28.0	0.0	2.6	4.4
118	539499.52	4813217.02	1.50	1	N	A	97.1	0.0	-188.0	0.0	3.0	58.3	2.1	-3.0	0.0	0.0	28.0	0.0	2.6	-175.9
118	539499.52	4813217.02	1.50	1	E	A	97.1	0.0	-188.0	0.0	3.0	58.3	2.1	-3.0	0.0	0.0	28.0	0.0	2.6	-175.9

Point Source, ISO 9613, Name: "35 Weber - SG Cunningham - HVAC", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
119	539394.03	4813075.04	6.00	0	D	A	78.8	0.0	0.0	0.0	0.0	54.3	0.8	-3.0	0.0	0.0	27.6	0.0	0.0	-0.9
119	539394.03	4813075.04	6.00	0	N	A	78.8	0.0	-6.0	0.0	0.0	54.3	0.8	-3.0	0.0	0.0	27.6	0.0	0.0	-6.9
119	539394.03	4813075.04	6.00	0	E	A	78.8	0.0	0.0	0.0	0.0	54.3	0.8	-3.0	0.0	0.0	27.6	0.0	0.0	-0.9

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Impact Wrench", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
134	539506.90	4813202.36	1.50	0	D	A	101.0	0.0	-17.8	0.0	3.0	47.6	1.9	-3.0	0.0	0.0	27.7	0.0	0.0	12.0
134	539506.90	4813202.36	1.50	0	N	A	101.0	0.0	-188.0	0.0	3.0	47.6	1.9	-3.0	0.0	0.0	27.7	0.0	0.0	-158.2
134	539506.90	4813202.36	1.50	0	E	A	101.0	0.0	-188.0	0.0	3.0	47.6	1.9	-3.0	0.0	0.0	27.7	0.0	0.0	-158.2
137	539506.90	4813202.36	1.50	1	D	A	101.0	0.0	-17.8	0.0	-9.8	51.5	2.6	-3.0	0.0	0.0	26.7	0.0	2.8	-7.2
137	539506.90	4813202.36	1.50	1	N	A	101.0	0.0	-188.0	0.0	-9.8	51.5	2.6	-3.0	0.0	0.0	26.7	0.0	2.8	-177.4
137	539506.90	4813202.36	1.50	1	E	A	101.0	0.0	-188.0	0.0	-9.8	51.5	2.6	-3.0	0.0	0.0	26.7	0.0	2.8	-177.4
143	539506.90	4813202.36	1.50	1	D	A	101.0	0.0	-17.8	0.0	-9.8	51.5	2.6	-3.0	0.0	0.0	26.7	0.0	2.8	-7.2
143	539506.90	4813202.36	1.50	1	N	A	101.0	0.0	-188.0	0.0	-9.8	51.5	2.6	-3.0	0.0	0.0	26.7	0.0	2.8	-177.4
143	539506.90	4813202.36	1.50	1	E	A	101.0	0.0	-188.0	0.0	-9.8	51.5	2.6	-3.0	0.0	0.0	26.7	0.0	2.8	-177.4
146	539506.90	4813202.36	1.50	1	D	A	101.0	0.0	-17.8	0.0	3.0	50.0	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	6.9

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Impact Wrench", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
146	539506.90	4813202.36	1.50	1	N	A	101.0	0.0	-188.0	0.0	3.0	50.0	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	-163.4
146	539506.90	4813202.36	1.50	1	E	A	101.0	0.0	-188.0	0.0	3.0	50.0	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	-163.4
147	539506.90	4813202.36	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	51.7	2.6	-3.0	0.0	0.0	28.0	0.0	4.8	2.0
147	539506.90	4813202.36	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	51.7	2.6	-3.0	0.0	0.0	28.0	0.0	4.8	-168.2
147	539506.90	4813202.36	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	51.7	2.6	-3.0	0.0	0.0	28.0	0.0	4.8	-168.2

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Impact Wrench", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
150	539494.40	4813199.54	1.50	0	D	A	101.0	0.0	-17.8	0.0	-11.1	47.8	1.9	-3.0	0.0	0.0	27.8	0.0	0.0	-2.5
150	539494.40	4813199.54	1.50	0	N	A	101.0	0.0	-188.0	0.0	-11.1	47.8	1.9	-3.0	0.0	0.0	27.8	0.0	0.0	-172.7
150	539494.40	4813199.54	1.50	0	E	A	101.0	0.0	-188.0	0.0	-11.1	47.8	1.9	-3.0	0.0	0.0	27.8	0.0	0.0	-172.7
156	539494.40	4813199.54	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	2.1
156	539494.40	4813199.54	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
156	539494.40	4813199.54	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
158	539494.40	4813199.54	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	2.1
158	539494.40	4813199.54	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
158	539494.40	4813199.54	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
159	539494.40	4813199.54	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	2.1
159	539494.40	4813199.54	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
159	539494.40	4813199.54	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
160	539494.40	4813199.54	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	2.1
160	539494.40	4813199.54	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
160	539494.40	4813199.54	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
163	539494.40	4813199.54	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	2.1
163	539494.40	4813199.54	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
163	539494.40	4813199.54	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
164	539494.40	4813199.54	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	2.1
164	539494.40	4813199.54	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
164	539494.40	4813199.54	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	52.0	2.7	-3.0	0.0	0.0	27.8	0.0	4.5	-168.1
166	539494.40	4813199.54	1.50	1	D	A	101.0	0.0	-17.8	0.0	-10.6	50.2	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	-6.9
166	539494.40	4813199.54	1.50	1	N	A	101.0	0.0	-188.0	0.0	-10.6	50.2	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	-177.2
166	539494.40	4813199.54	1.50	1	E	A	101.0	0.0	-188.0	0.0	-10.6	50.2	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	-177.2
169	539494.40	4813199.54	1.50	2	D	A	101.0	0.0	-17.8	0.0	-9.9	52.1	2.7	-3.0	0.0	0.0	28.0	0.0	4.8	-11.3
169	539494.40	4813199.54	1.50	2	N	A	101.0	0.0	-188.0	0.0	-9.9	52.1	2.7	-3.0	0.0	0.0	28.0	0.0	4.8	-181.5
169	539494.40	4813199.54	1.50	2	E	A	101.0	0.0	-188.0	0.0	-9.9	52.1	2.7	-3.0	0.0	0.0	28.0	0.0	4.8	-181.5

Point Source, ISO 9613, Name: "29 Weber - Meineke - Overhead Bay Door - Compressed Air", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
171	539447.48	4813021.21	1.50	0	D	A	97.1	0.0	-7.8	0.0	-8.9	54.0	1.5	-3.0	0.0	0.0	26.5	0.0	0.0	1.3
171	539447.48	4813021.21	1.50	0	N	A	97.1	0.0	-188.0	0.0	-8.9	54.0	1.5	-3.0	0.0	0.0	26.5	0.0	0.0	-178.9
171	539447.48	4813021.21	1.50	0	E	A	97.1	0.0	-188.0	0.0	-8.9	54.0	1.5	-3.0	0.0	0.0	26.5	0.0	0.0	-178.9
180	539447.48	4813021.21	1.50	1	D	A	97.1	0.0	-7.8	0.0	-7.6	56.1	1.8	-3.0	0.0	0.0	28.0	0.0	33.6	-34.8
180	539447.48	4813021.21	1.50	1	N	A	97.1	0.0	-188.0	0.0	-7.6	56.1	1.8	-3.0	0.0	0.0	28.0	0.0	33.6	-215.0
180	539447.48	4813021.21	1.50	1	E	A	97.1	0.0	-188.0	0.0	-7.6	56.1	1.8	-3.0	0.0	0.0	28.0	0.0	33.6	-215.0

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Impact Wrench", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
188	539510.40	4813205.96	1.50	0	D	A	101.0	0.0	-17.8	0.0	3.0	47.9	1.9	-3.0	0.0	0.0	27.7	0.0	0.0	11.6
188	539510.40	4813205.96	1.50	0	N	A	101.0	0.0	-188.0	0.0	3.0	47.9	1.9	-3.0	0.0	0.0	27.7	0.0	0.0	-158.6
188	539510.40	4813205.96	1.50	0	E	A	101.0	0.0	-188.0	0.0	3.0	47.9	1.9	-3.0	0.0	0.0	27.7	0.0	0.0	-158.6
189	539510.40	4813205.96	1.50	1	D	A	101.0	0.0	-17.8	0.0	-10.2	52.0	2.7	-3.0	0.0	0.0	27.9	0.0	2.5	-9.1
189	539510.40	4813205.96	1.50	1	N	A	101.0	0.0	-188.0	0.0	-10.2	52.0	2.7	-3.0	0.0	0.0	27.9	0.0	2.5	-179.3
189	539510.40	4813205.96	1.50	1	E	A	101.0	0.0	-188.0	0.0	-10.2	52.0	2.7	-3.0	0.0	0.0	27.9	0.0	2.5	-179.3
191	539510.40	4813205.96	1.50	1	D	A	101.0	0.0	-17.8	0.0	3.0	50.2	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	6.6
191	539510.40	4813205.96	1.50	1	N	A	101.0	0.0	-188.0	0.0	3.0	50.2	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	-163.6
191	539510.40	4813205.96	1.50	1	E	A	101.0	0.0	-188.0	0.0	3.0	50.2	2.3	-3.0	0.0	0.0	28.0	0.0	2.1	-163.6
193	539510.40	4813205.96	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	51.9	2.7	-3.0	0.0	0.0	28.0	0.0	4.8	1.8
193	539510.40	4813205.96	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	51.9	2.7	-3.0	0.0	0.0	28.0	0.0	4.8	-168.4
193	539510.40	4813205.96	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	51.9	2.7	-3.0	0.0	0.0	28.0	0.0	4.8	-168.4

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Impact Wrench", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
199	539491.65	4813202.27	1.50	0	D	A	101.0	0.0	-17.8	0.0	-11.4	48.3	2.0	-3.0	0.0	0.0	27.8	0.0	0.0	-3.3
199	539491.65	4813202.27	1.50	0	N	A	101.0	0.0	-188.0	0.0	-11.4	48.3	2.0	-3.0	0.0	0.0	27.8	0.0	0.0	-173.5
199	539491.65	4813202.27	1.50	0	E	A	101.0	0.0	-188.0	0.0	-11.4	48.3	2.0	-3.0	0.0	0.0	27.8	0.0	0.0	-173.5
203	539491.65	4813202.27	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	52.4	2.8	-3.0	0.0	0.0	27.9	0.0	4.9	1.2
203	539491.65	4813202.27	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	52.4	2.8	-3.0	0.0	0.0	27.9	0.0	4.9	-169.0
203	539491.65	4813202.27	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	52.4	2.8	-3.0	0.0	0.0	27.9	0.0	4.9	-169.0
205	539491.65	4813202.27	1.50	1	D	A	101.0	0.0	-17.8	0.0	-10.8	50.5	2.4	-3.0	0.0	0.0	28.0	0.0	2.1	-7.6
205	539491.65	4813202.27	1.50	1	N	A	101.0	0.0	-188.0	0.0	-10.8	50.5	2.4	-3.0	0.0	0.0	28.0	0.0	2.1	-177.8
205	539491.65	4813202.27	1.50	1	E	A	101.0	0.0	-188.0	0.0	-10.8	50.5	2.4	-3.0	0.0	0.0	28.0	0.0	2.1	-177.8
208	539491.65	4813202.27	1.50	2	D	A	101.0	0.0	-17.8	0.0	-10.1	52.3	2.8	-3.0	0.0	0.0	28.0	0.0	9.7	-16.7
208	539491.65	4813202.27	1.50	2	N	A	101.0	0.0	-188.0	0.0	-10.1	52.3	2.8	-3.0	0.0	0.0	28.0	0.0	9.7	-186.9
208	539491.65	4813202.27	1.50	2	E	A	101.0	0.0	-188.0	0.0	-10.1	52.3	2.8	-3.0	0.0	0.0	28.0	0.0	9.7	-186.9
212	539491.65	4813202.27	1.50	1	D	A	101.0	0.0	-17.8	0.0	-29.7	58.7	4.4	-3.0	0.0	0.0	28.0	0.0	2.5	-37.1
212	539491.65	4813202.27	1.50	1	N	A	101.0	0.0	-188.0	0.0	-29.7	58.7	4.4	-3.0	0.0	0.0	28.0	0.0	2.5	-207.3
212	539491.65	4813202.27	1.50	1	E	A	101.0	0.0	-188.0	0.0	-29.7	58.7	4.4	-3.0	0.0	0.0	28.0	0.0	2.5	-207.3

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Impact Wrench", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
213	539496.09	4813213.57	1.50	0	D	A	101.0	0.0	-17.8	0.0	-50.0	49.2	2.1	-3.0	0.0	0.0	27.7	0.0	0.0	-42.9
213	539496.09	4813213.57	1.50	0	N	A	101.0	0.0	-188.0	0.0	-50.0	49.2	2.1	-3.0	0.0	0.0	27.7	0.0	0.0	-213.2
213	539496.09	4813213.57	1.50	0	E	A	101.0	0.0	-188.0	0.0	-50.0	49.2	2.1	-3.0	0.0	0.0	27.7	0.0	0.0	-213.2
216	539496.09	4813213.57	1.50	2	D	A	101.0	0.0	-17.8	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-52.2
216	539496.09	4813213.57	1.50	2	N	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
216	539496.09	4813213.57	1.50	2	E	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
217	539496.09	4813213.57	1.50	2	D	A	101.0	0.0	-17.8	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-52.2
217	539496.09	4813213.57	1.50	2	N	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
217	539496.09	4813213.57	1.50	2	E	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
218	539496.09	4813213.57	1.50	2	D	A	101.0	0.0	-17.8	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-52.2
218	539496.09	4813213.57	1.50	2	N	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
218	539496.09	4813213.57	1.50	2	E	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
219	539496.09	4813213.57	1.50	2	D	A	101.0	0.0	-17.8	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-52.2
219	539496.09	4813213.57	1.50	2	N	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
219	539496.09	4813213.57	1.50	2	E	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
220	539496.09	4813213.57	1.50	2	D	A	101.0	0.0	-17.8	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-52.2
220	539496.09	4813213.57	1.50	2	N	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
220	539496.09	4813213.57	1.50	2	E	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
221	539496.09	4813213.57	1.50	2	D	A	101.0	0.0	-17.8	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-52.2
221	539496.09	4813213.57	1.50	2	N	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
221	539496.09	4813213.57	1.50	2	E	A	101.0	0.0	-188.0	0.0	-50.0	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	4.4	-222.4
222	539496.09	4813213.57	1.50	1	D	A	101.0	0.0	-17.8	0.0	-50.0	51.2	2.5	-3.0	0.0	0.0	28.0	0.0	2.1	-47.7
222	539496.09	4813213.57	1.50	1	N	A	101.0	0.0	-188.0	0.0	-50.0	51.2	2.5	-3.0	0.0	0.0	28.0	0.0	2.1	-217.9
222	539496.09	4813213.57	1.50	1	E	A	101.0	0.0	-188.0	0.0	-50.0	51.2	2.5	-3.0	0.0	0.0	28.0	0.0	2.1	-217.9
223	539496.09	4813213.57	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	59.1	4.6	-3.0	0.0	0.0	28.0	0.0	4.1	-6.6
223	539496.09	4813213.57	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	59.1	4.6	-3.0	0.0	0.0	28.0	0.0	4.1	-176.8
223	539496.09	4813213.57	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	59.1	4.6	-3.0	0.0	0.0	28.0	0.0	4.1	-176.8
224	539496.09	4813213.57	1.50	1	D	A	101.0	0.0	-17.8	0.0	3.0	58.3	4.3	-3.0	0.0	0.0	28.0	0.0	2.0	-3.5
224	539496.09	4813213.57	1.50	1	N	A	101.0	0.0	-188.0	0.0	3.0	58.3	4.3	-3.0	0.0	0.0	28.0	0.0	2.0	-173.7
224	539496.09	4813213.57	1.50	1	E	A	101.0	0.0	-188.0	0.0	3.0	58.3	4.3	-3.0	0.0	0.0	28.0	0.0	2.0	-173.7

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Impact Wrench", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
225	539499.52	4813217.03	1.50	0	D	A	101.0	0.0	-17.8	0.0	-50.0	49.4	2.2	-3.0	0.0	0.0	27.7	0.0	0.0	-43.2
225	539499.52	4813217.03	1.50	0	N	A	101.0	0.0	-188.0	0.0	-50.0	49.4	2.2	-3.0	0.0	0.0	27.7	0.0	0.0	-213.4
225	539499.52	4813217.03	1.50	0	E	A	101.0	0.0	-188.0	0.0	-50.0	49.4	2.2	-3.0	0.0	0.0	27.7	0.0	0.0	-213.4
227	539499.52	4813217.03	1.50	1	D	A	101.0	0.0	-17.8	0.0	-50.0	51.4	2.6	-3.0	0.0	0.0	28.0	0.0	2.1	-47.9
227	539499.52	4813217.03	1.50	1	N	A	101.0	0.0	-188.0	0.0	-50.0	51.4	2.6	-3.0	0.0	0.0	28.0	0.0	2.1	-218.1
227	539499.52	4813217.03	1.50	1	E	A	101.0	0.0	-188.0	0.0	-50.0	51.4	2.6	-3.0	0.0	0.0	28.0	0.0	2.1	-218.1
228	539499.52	4813217.03	1.50	2	D	A	101.0	0.0	-17.8	0.0	3.0	59.1	4.6	-3.0	0.0	0.0	28.0	0.0	4.1	-6.6
228	539499.52	4813217.03	1.50	2	N	A	101.0	0.0	-188.0	0.0	3.0	59.1	4.6	-3.0	0.0	0.0	28.0	0.0	4.1	-176.8
228	539499.52	4813217.03	1.50	2	E	A	101.0	0.0	-188.0	0.0	3.0	59.1	4.6	-3.0	0.0	0.0	28.0	0.0	4.1	-176.8
229	539499.52	4813217.03	1.50	2	D	A	101.0	0.0	-17.8	0.0	50.0	52.9	2.9	-3.0	0.0	0.0	28.0	0.0	4.8	-52.5

Point Source, ISO 9613, Name: "120 Bridgeport - PNH Auto - Overhead Bay Door - Impact Wrench", ID: "SS1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
229	539499.52	4813217.03	1.50	2	N	A	101.0	0.0	-188.0	0.0	-50.0	52.9	2.9	-3.0	0.0	0.0	28.0	0.0	4.8	-222.7
229	539499.52	4813217.03	1.50	2	E	A	101.0	0.0	-188.0	0.0	-50.0	52.9	2.9	-3.0	0.0	0.0	28.0	0.0	4.8	-222.7
230	539499.52	4813217.03	1.50	1	D	A	101.0	0.0	-17.8	0.0	3.0	58.3	4.3	-3.0	0.0	0.0	28.0	0.0	2.0	-3.5
230	539499.52	4813217.03	1.50	1	N	A	101.0	0.0	-188.0	0.0	3.0	58.3	4.3	-3.0	0.0	0.0	28.0	0.0	2.0	-173.7
230	539499.52	4813217.03	1.50	1	E	A	101.0	0.0	-188.0	0.0	3.0	58.3	4.3	-3.0	0.0	0.0	28.0	0.0	2.0	-173.7

Point Source, ISO 9613, Name: "29 Weber - Meineke - Overhead Bay Door - Impact Wrench", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
231	539444.05	4813042.75	1.50	0	D	A	101.0	0.0	-17.8	0.0	-7.9	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	0.0	-5.6
231	539444.05	4813042.75	1.50	0	N	A	101.0	0.0	-188.0	0.0	-7.9	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	0.0	-175.8
231	539444.05	4813042.75	1.50	0	E	A	101.0	0.0	-188.0	0.0	-7.9	53.1	2.9	-3.0	0.0	0.0	27.9	0.0	0.0	-175.8

Point Source, ISO 9613, Name: "29 Weber - Meineke - Overhead Bay Door - Impact Wrench", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
233	539441.45	4813040.63	1.50	0	D	A	101.0	0.0	-17.8	0.0	-7.8	53.3	3.0	-3.0	0.0	0.0	27.9	0.0	0.0	-5.8
233	539441.45	4813040.63	1.50	0	N	A	101.0	0.0	-188.0	0.0	-7.8	53.3	3.0	-3.0	0.0	0.0	27.9	0.0	0.0	-176.0
233	539441.45	4813040.63	1.50	0	E	A	101.0	0.0	-188.0	0.0	-7.8	53.3	3.0	-3.0	0.0	0.0	27.9	0.0	0.0	-176.0

Point Source, ISO 9613, Name: "29 Weber - Meineke - Overhead Bay Door - Impact Wrench", ID: "SS2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
235	539447.48	4813021.21	1.50	0	D	A	101.0	0.0	-17.8	0.0	-8.9	54.0	3.1	-3.0	0.0	0.0	27.9	0.0	0.0	-7.8
235	539447.48	4813021.21	1.50	0	N	A	101.0	0.0	-188.0	0.0	-8.9	54.0	3.1	-3.0	0.0	0.0	27.9	0.0	0.0	-178.0
235	539447.48	4813021.21	1.50	0	E	A	101.0	0.0	-188.0	0.0	-8.9	54.0	3.1	-3.0	0.0	0.0	27.9	0.0	0.0	-178.0
237	539447.48	4813021.21	1.50	1	D	A	101.0	0.0	-17.8	0.0	-7.6	56.1	3.7	-3.0	0.0	0.0	28.0	0.0	26.5	-35.7
237	539447.48	4813021.21	1.50	1	N	A	101.0	0.0	-188.0	0.0	-7.6	56.1	3.7	-3.0	0.0	0.0	28.0	0.0	26.5	-205.9
237	539447.48	4813021.21	1.50	1	E	A	101.0	0.0	-188.0	0.0	-7.6	56.1	3.7	-3.0	0.0	0.0	28.0	0.0	26.5	-205.9



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